

Sanofi  
Form 20-F  
March 07, 2013

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 20-F**

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(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2012

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report. . . . .

For the transition period from to

Commission File Number: 001-31368

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**Sanofi**

(Exact name of registrant as specified in its charter)

N/A

(Translation of registrant's name into English)

France

(Jurisdiction of incorporation or organization)

54, Rue La Boétie, 75008 Paris, France

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(Address of principal executive offices)

**Karen Linehan, Senior Vice President Legal Affairs and General Counsel**  
**54, Rue La Boétie, 75008 Paris, France. Fax: 011 + 33 1 53 77 43 03. Tel: 011 + 33 1 53 77 40 00**

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

**Securities registered or to be registered pursuant to Section 12(b) of the Act:**

<b>Title of each class:</b>	<b>Name of each exchange on which registered:</b>
American Depositary Shares, each representing one half of one ordinary share, par value €2 per share	New York Stock Exchange
Ordinary shares, par value €2 per share	New York Stock Exchange (for listing purposes only)
Contingent Value Rights	NASDAQ Global Market

**Securities registered pursuant to Section 12(g) of the Act:** None

**The number of outstanding shares of each of the issuer's classes of capital or common stock as of December 31, 2012 was:**

Ordinary shares: 1,340,918,811

**Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.**

YES  NO

**If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.**

YES  NO

**Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.**

Yes  No

**Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).**

Yes  No

**Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):**

Large accelerated filer  Accelerated filer  Non-accelerated filer

**Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:**

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

**If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.**

Item 17  Item 18

**If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).**

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YES  NO .

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**PRESENTATION OF FINANCIAL AND OTHER INFORMATION**

The consolidated financial statements contained in this annual report on Form 20-F have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and with IFRS as adopted by the European Union, as of December 31, 2012.

Unless the context requires otherwise, the terms "Sanofi," the "Company," the "Group," "we," "our" or "us" refer to Sanofi and its consolidated subsidiaries.

All references herein to "United States" or "U.S." are to the United States of America, references to "dollars" or "\$" are to the currency of the United States, references to "France" are to the Republic of France, and references to "euro" and "€" are to the currency of the European Union member states (including France) participating in the European Monetary Union.

Brand names appearing in this annual report are trademarks of Sanofi and/or its affiliates, with the exception of:

trademarks used or that may be or have been used under license by Sanofi and/or its affiliates, such as Actonel® trademark of Warner Chilcott; Avilomics® a trademark of Avila Therapeutics Inc.; BiTE® a trademark of Micromet Inc., Copaxone® a trademark of Teva Pharmaceuticals Industries; Cortizone-10® a trademark of Johnson & Johnson (except in the United-States where it is a trademark of the Group); Dynamic Electrochemistry® a trademark of AgaMatrix Inc.; Fludara® and Leukine® trademarks of Alcafleu; Flutiform a trademark of Jagotec AG; Gardasil®, RotaTeq® and Zostavax® trademarks of Merck & Co.; Hyalgan® a trademark of Fidia Farmaceutici S.p.A, under license agreement in the United States; Mutagrip® a trademark of Institut Pasteur; Optinate® a trademark of Warner Chilcott on certain geographical areas and of Shionogi Pharma Inc. in the United States; Pancreate belonging to CureDM; Prevelle® a trademark of Mentor Worldwide LLC USA; RetinoStat® a trademark of Oxford Biomedica;

trademarks sold by Sanofi and/or its affiliates to a third party, such as Altace® a trademark of King Pharmaceuticals in the United States; Benzaclin® a trademark of Valeant in the United States and Canada; Carac® a trademark of Valeant in the United States; Liberty®, Liberty® Herbicide, LibertyLink® Rice 601, LibertyLink® Rice 604 and StarLink® trademarks of Bayer; Maalox® a trademark of Novartis in the United States, Canada and Puerto Rico; and Sculptra® a trademark of Valeant; and,

other third party trademarks such as Acrel® a trademark of Warner Chilcott; Aspirine®, Cipro®, Advantage® and Advantix® trademarks of Bayer; DDAVP® a trademark of Ferring (except in the United States where it is a trademark of the Group); Enbrel® a trademark of Immunex in the United-States and of Wyeth on other geographical areas; Gel One® a trademark of Seikagaku Kogyo Kabushiki Kaisha, DBA Seikagaku Corporation; Humaneered® a trademark of KaloBios Pharmaceuticals; IC31® a trademark of Intercell AG; iPhone® and iPod Touch® trademarks of Apple Inc.; JAKAFI® a trademark of Incyte Corporation; JAKAVI® a trademark of Novartis; Lactacyd® a trademark of Omega Pharma NV in the EU; LentiVector®, Stargen and UshStat® trademarks of Oxford BioMedica; Libertas a trademark of International Contraceptive & SRH Marketing Limited in the EU; PetArmor® a trademark of Velcera, Inc.; Rebif® a trademark of Ares Trading SA; Rotarix® a trademark of GSK; Trajenta® a trademark of Boehringer Ingelheim; Unisom® a trademark of Johnson & Johnson on certain geographical areas (except the United States where it is a trademark of Signal Investment); and Xyzal® a trademark of GSK in certain countries and of UCB Farchim SA in some others.

Not all trademarks related to investigational agents have been authorized as of the date of this annual report by the relevant health authorities; for instance Lyxumia® trade name has not been approved by the FDA.

The data relating to market shares and ranking information for pharmaceutical products, in particular as presented in "Item 4. Information on the Company B. Business Overview Markets Marketing and distribution," are based on sales data from IMS Health MIDAS (IMS), retail and hospital, for calendar year 2012, in constant euros (unless otherwise indicated).



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While we believe that the IMS sales data we present below are generally useful comparative indicators for our industry, they may not precisely match the sales figures published by the companies that sell the products (including our company and other pharmaceutical companies). In particular, the rules used by IMS to attribute the sales of a product covered by an alliance or license agreement do not always exactly match the rules of the agreement.

In order to allow a reconciliation with our basis of consolidation as defined in "Item 5. Operating and Financial Review and Prospects Presentation of Net Sales," IMS data shown in the present document have been adjusted and include:

- (i) sales as published by IMS excluding Sanofi sales generated by the vaccines business, equating to the scope of our pharmaceutical operations;
- (ii) IMS sales of products sold under alliance or license agreements which we recognize in our consolidated net sales but which are not attributed to us in the reports published by IMS; and
- (iii) adjustments related to the exclusion of IMS sales for products which we do not recognize in our consolidated net sales but which are attributed to us by IMS.

Data relative to market shares and ranking information presented herein for our vaccines business are based on internal estimates unless stated otherwise.

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Product indications described in this annual report are composite summaries of the major indications approved in the product's principal markets. Not all indications are necessarily available in each of the markets in which the products are approved. The summaries presented herein for the purpose of financial reporting do not substitute for careful consideration of the full labeling approved in each market.

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**CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS**

This annual report contains forward-looking statements. We may also make written or oral forward-looking statements in our periodic reports to the Securities and Exchange Commission on Form 6-K, in our annual report to shareholders, in our offering circulars and prospectuses, in press releases and other written materials and in oral statements made by our officers, directors or employees to third parties. Examples of such forward-looking statements include:

projections of operating revenues, net income, business net income, earnings per share, business earnings per share, capital expenditures, cost savings, restructuring costs, positive or negative synergies, dividends, capital structure or other financial items or ratios;

statements of our profit forecasts, trends, plans, objectives or goals, including those relating to products, clinical trials, regulatory approvals and competition; and

statements about our future events and economic performance or that of France, the United States or any other countries in which we operate.

This information is based on data, assumptions and estimates considered as reasonable by the Company as at the date of this annual report and undue reliance should not be placed on such statements.

Words such as "believe," "anticipate," "plan," "expect," "intend," "target," "estimate," "project," "predict," "forecast," "guideline," "should" and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements.

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Forward-looking statements involve inherent, known and unknown, risks and uncertainties associated with the regulatory, economic, financial and competitive environment, and other factors that could cause future results and objectives to differ materially from those expressed or implied in the forward-looking statements.

Risk factors which could affect the future results and cause actual results to differ materially from those contained in any forward-looking statements are discussed under "Item 3. Key Information – D. Risk Factors". Additional risks, not currently known or considered immaterial by the Group, may have the same unfavorable effect and investors may lose all or part of their investment.

Forward-looking statements speak only as of the date they are made. Other than required by law, we do not undertake any obligation to update them in light of new information or future developments.

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**PART I**

**Item 1. Identity of Directors, Senior Management and Advisers**

N/A

**Item 2. Offer Statistics and Expected Timetable**

N/A

**Item 3. Key Information**

*A. Selected Financial Data*

**SUMMARY OF SELECTED FINANCIAL DATA**

The tables below set forth selected consolidated financial data for Sanofi. These financial data are derived from the Sanofi consolidated financial statements. The Sanofi consolidated financial statements for the years ended December 31, 2012, 2011 and 2010 are included in Item 18 of this annual report.

The consolidated financial statements of Sanofi for the years ended December 31, 2012, 2011 and 2010 have been prepared in compliance with IFRS issued by the International Accounting Standards Board (IASB) and with IFRS adopted by the European Union as of December 31, 2012. The term "IFRS" refers collectively to international accounting and financial reporting standards (IAS and IFRS) and to interpretations of the interpretations committees (SIC and IFRIC) mandatorily applicable as of December 31, 2012.

Sanofi reports its financial results in euros.

Table of Contents**SELECTED CONDENSED FINANCIAL INFORMATION**

As of and for the year ended December 31,

<i>(€ million, except per share data)</i>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>IFRS Income statement data <sup>(a)</sup></b>					
Net sales	34,947	33,389	32,367	29,785	27,568
Gross profit	24,839	24,156	24,638	23,125	21,480
Operating income	6,337	5,731	6,535	6,435	4,394
Net income attributable to equity holders of Sanofi	4,967	5,693	5,467	5,265	3,851
<b>Basic earnings per share (€)<sup>(a)/(b)</sup> :</b>					
Net income attributable to equity holders of Sanofi	3.76	4.31	4.19	4.03	2.94
<b>Diluted earnings per share (€)<sup>(a)/(c)</sup> :</b>					
Net income attributable to equity holders of Sanofi	3.74	4.29	4.18	4.03	2.94
<b>IFRS Balance sheet data</b>					
Goodwill and other intangible assets	58,265	62,221 <sup>(g)</sup>	44,411	43,480	43,423
Total assets	100,407	100,668 <sup>(g)</sup>	85,264	80,251	71,987
Outstanding share capital	2,646	2,647	2,610	2,618	2,611
Equity attributable to equity holders of Sanofi	57,338	56,203 <sup>(g)</sup>	53,097	48,322	44,866
Long term debt	10,719	12,499	6,695	5,961	4,173
Cash dividend paid per share (€) <sup>(d)</sup>	2.77 <sup>(e)</sup>	2.65	2.50	2.40	2.20
Cash dividend paid per share (\$) <sup>(d)(f)</sup>	3.65 <sup>(e)</sup>	3.43	3.34	3.46	3.06

(a) *The results of operations of Merial, for 2010 and 2009, previously reported as held-for-exchange, have been reclassified and included in net income of continuing operations in accordance with IFRS 5.36., following the announcement that Merial and Intervet/Schering-Plough are to be maintained as two separate businesses operating independently.*

(b) *Based on the weighted average number of shares outstanding in each period used to compute basic earnings per share, equal to 1,319.5 million shares in 2012, 1,321.7 million shares in 2011, 1,305.3 million shares in 2010, 1,305.9 million shares in 2009, and 1,309.3 million shares in 2008.*

(c) *Based on the weighted average in each period of the number of shares outstanding plus stock options and restricted shares with a potentially dilutive effect; i.e., 1,329.6 million shares in 2012, 1,326.7 million shares in 2011, 1,308.2 million shares in 2010, 1,307.4 million shares in 2009, and 1,310.9 million shares in 2008.*

(d) *Each American Depositary Share, or ADS, represents one half of one share.*

(e) *Dividends for 2012 will be proposed for approval at the annual general meeting scheduled for May 3, 2013.*

(f) *Based on the relevant year-end exchange rate.*

(g) *In accordance with IFRS 3 (Business Combinations), Sanofi made adjustments during the Genzyme purchase price allocation period to some of the provisional amounts recognized in 2011 (see Note D.1.2. to our consolidated financial statements included at Item 18 of this annual report).*

## SELECTED EXCHANGE RATE INFORMATION

The following table sets forth, for the periods and dates indicated, certain information concerning the exchange rates for the euro from 2008 through March 2013 expressed in U.S. dollars per euro. The information concerning the U.S. dollar exchange rate is based on the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the "Noon Buying Rate"). We provide the exchange rates below solely for your convenience. We do not represent that euros were, could have been, or could be, converted into U.S. dollars at these rates or at any other rate. For information regarding the effect of currency fluctuations on our results of operations, see "Item 5. Operating and Financial Review and Prospects" and "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

	Period- end Rate	Average Rate <sup>(1)</sup>	High	Low
(U.S. dollar per euro)				
2008	1.39	1.47	1.60	1.24
2009	1.43	1.40	1.51	1.25
2010	1.33	1.32	1.45	1.20
2011	1.30	1.40	1.49	1.29
2012	1.32	1.29	1.35	1.21
Last 6 months				
2012				
September	1.29	1.29	1.31	1.26
October	1.30	1.30	1.31	1.29
November	1.30	1.28	1.30	1.27
December	1.32	1.31	1.33	1.29
2013				
January	1.36	1.33	1.36	1.30
February	1.31	1.33	1.37	1.31
March <sup>(2)</sup>	1.30	1.30	1.30	1.30

(1) *The average of the Noon Buying Rates on the last business day of each month during the relevant period for the full year average, and on each business day of the month for the monthly average. The latest available Noon Buying Rate being March 1, 2013, we have used European Central Bank Rates for the period from March 4, 2013 through March 6, 2013.*

(2) *In each case, measured through March 6, 2013.*

On March 6, 2013 the European Central Bank Rate was 1.3035 per euro.

**B. Capitalization and Indebtedness**

N/A

**C. Reasons for Offer and Use of Proceeds**

N/A

**D. Risk Factors**

*Important factors that could cause actual financial, business, research or operating results to differ materially from expectations are disclosed in this annual report, including without limitation the following risk factors. In addition to the risks listed below, we may be subject to other material risks that as of the date of this report are not currently known to us or that we deem immaterial at this time.*

**Risks Relating to Legal Matters**

**We rely on our patents and proprietary rights to provide exclusive rights to market certain of our products, and if such patents and other rights were limited or circumvented, our financial results could be materially and adversely affected.**

Through patent and other proprietary rights such as supplementary protection certificates in Europe for instance, we hold exclusivity rights for a number of our research-based products. However, the protection that we are able to obtain varies from product to product and country to country and may not be sufficient to maintain effective product exclusivity because of local variations in the patents, differences in national law or legal systems, development in law or jurisprudence, or inconsistent judgments. Moreover, some countries are becoming more likely to consider granting a compulsory license to patents protecting an innovator's product; India's decision of March 2012 granting a compulsory license to a generic company to a Bayer patent is illustrative of this risk. We are involved in litigation worldwide to enforce certain of these patent rights against generics and proposed generics (see "Item 8. Financial Information – A. Consolidated Financial Statements and Other Financial Information – Information on Legal or Arbitration Proceedings" for additional information). Moreover, patent rights are limited in time and do not always provide effective protection for our products: competitors may successfully avoid patents through design innovation, we may not hold sufficient evidence of infringement to bring suit, manufacturers of generic products are also increasingly seeking to challenge patents before they expire, and our infringement claim may not result in a decision that our rights are valid, enforceable or infringed.

Even in cases where we ultimately prevail in our infringement claim, legal remedies available for harm caused to us by infringing products may be inadequate to make us whole. A competitor may launch a generic product "at risk" before the initiation or completion of the court proceedings, and the court may decline to grant us a preliminary injunction to halt further "at risk" sales and remove the infringing product from the market. Additionally, while we would be entitled to obtain damages in such a case, the amount that we may ultimately be awarded and able to collect may be insufficient to compensate all harm caused to us.

Further, our successful assertion of a given patent against one competing product is not necessarily predictive of our future success or failure in asserting the same patent against a second competing product because of such factors as possible differences in the formulations. Also a successful result in one country may not predict success in another country because of local variations in the patents and patent laws.

To the extent valid third-party patent rights cover our products, we or our partners may be required to obtain licenses from the holders of these patents in order to manufacture, use or sell these products, and payments under these licenses may reduce our profits from these products. We may not be able to obtain these licenses on favorable terms, or at all. If we fail to obtain a required license or are unable to alter the design of our technology to fall outside the scope of a third-party patent, we may be unable to market some of our products, which may limit our profitability.

**Product liability claims could adversely affect our business, results of operations and financial condition.**

Product liability is a significant business risk for any pharmaceutical company, and the Group's ongoing diversification could increase our product liability exposure (see notably "The diversification of the Group's business exposes us to increased risks." below). Substantial damage awards and/or settlements have been handed down notably in the United States and other common law jurisdictions against pharmaceutical companies based on claims for injuries allegedly caused by the use of their products. Such claims can also be accompanied by consumer fraud claims by customers or third-party payers seeking reimbursement of the cost of the product.

Often the side effect profile of pharmaceutical drugs cannot be fully established based on preapproval clinical studies involving only several hundred to several thousand patients. Routine review and analysis of the continually growing body of post-marketing safety surveillance and clinical trials provide additional information—for example, potential evidence of rare, population-specific or long-term adverse reactions or of drug interactions that were not observed in preapproval clinical studies—and may cause product labeling to evolve, including restrictions of therapeutic indications, new contraindications, warnings or precautions, and occasionally even the suspension or withdrawal of a product marketing authorization. Several pharmaceutical companies have withdrawn products from the market because of newly detected or suspected adverse reactions to their products, and as a result of such withdrawal now face significant product liability claims. We are currently defending a number of product liability claims (See Note D.22.a) to the consolidated financial statements included at Item 18 of this annual report) and there can be no assurance that the Group will be successful in defending against each of these claims or will not face additional claims in the future. Furthermore, we commercialize several devices using new technologies which, in case of malfunction, could cause unexpected damages and lead to our liability (see "We are increasingly dependent on information technologies and networks." below).

Although we continue to insure a portion of our product liability with third-party carriers, product liability coverage is increasingly difficult and costly to obtain, particularly in the United States, and in the future it is possible that self-insurance may become the sole commercially reasonable means available for managing the product liability financial risk of our pharmaceutical and vaccines businesses (see "Item 4. Information on the Company B. Business Overview Insurance and Risk Coverage"). Due to insurance conditions, even when the Group has insurance coverage, recoveries from insurers may not be totally successful. Moreover the insolvency of a carrier could negatively affect our ability to achieve the practical recovery of the coverage for which we have already paid a premium.

Product liability claims, regardless of their merits or the ultimate success of the Group's defense, are costly, divert management attention, may harm our reputation and can impact the demand for our products. Substantial product liability claims, if successful, could adversely affect our business, results of operations and financial condition.

**Claims and investigations relating to competition law, marketing practices, pricing, compliance issues, as well as other legal matters, could adversely affect our business, results of operations and financial condition.**

The marketing of our products is heavily regulated. The Group's business covers an extremely wide range of activities worldwide and involves numerous partners. Despite our efforts any failure to comply directly or indirectly (including as a result of a business partners' breach) with law could lead to substantial liabilities. Governments and regulatory authorities around the world have been strengthening enforcement activities in recent years. Sanofi and certain of its subsidiaries are under investigation by various government entities and are defending a number of lawsuits relating to antitrust and/or pricing and marketing practices, including, for example in the United States, class action lawsuits and whistle blower litigation. The Group also faces significant litigation and government investigations or audits, including allegations of securities law violations, corruption, claims related to employment matters, patent and intellectual property disputes, consumer law claims and tax audits. See "Item 8. Financial Information A. Consolidated Financial Statements and Other Financial Information Information on Legal or Arbitration Proceedings" and Note D.22. to our consolidated financial statements included at Item 18 of this annual report. Responding to such investigations is costly and distracts management's attention from our business.

Unfavorable outcomes in any of these matters, or in similar matters to be faced in the future, could preclude the commercialization of products, harm our reputation, negatively affect the profitability of existing products and subject us to substantial fines (including treble damages), punitive damages, penalties and injunctive or administrative remedies, potentially leading to the imposition of additional regulatory controls or exclusion from government reimbursement programs and could have a material adverse effect on our business, results of operations or financial conditions. These risks may encourage the company to enter into settlement agreement with governmental authorities including with no admission of wrongdoing. Those settlements may involve large cash payments and penalties. Settlement of healthcare fraud cases may require companies to enter into a corporate integrity agreement, which is intended to regulate company behavior for a period of years. For instance in December 2012, Sanofi U.S. entered into a settlement agreement with the U.S. Attorney's Office, District of Massachusetts, the United States Department of Justice and multiple states to resolve all claims arising out of an

investigation into sampling of Sanofi's former viscosupplement product, Hyalgan®. As part of the settlement, Sanofi U.S. paid U.S.\$109 Million to the settling parties and will enter into a Corporate Integrity Agreement with the Office of the Inspector General of the United States Department of Health and Human Services.

**Changes in the laws or regulations that apply to us could affect the Group's business, results of operations and financial condition.**

Governmental authorities are increasingly looking to facilitate generic and biosimilar competition to existing products through new regulatory proposals intended to, or resulting in, changes to the scope of patent or data exclusivity rights and use of accelerated regulatory pathways for generic and biosimilar drug approvals. Such regulatory proposals, if enacted, could make prosecution of patents for new products more difficult and time consuming or could adversely affect the exclusivity period for our products, thereby materially and adversely affecting our financial results.

This new competitive environment and potential regulatory changes may further limit the exclusivity enjoyed by innovative products on the market and directly impact pricing and reimbursement levels, which may adversely affect our business and future results. See "Item 4. Information on the Company B. Business Overview Competition" and "Item 4. Information on the Company B. Business Overview Regulatory framework".

In addition, changes in tax laws or in their application with respect to matters such as tax rates, transfer pricing, dividends, controlled companies or a restriction in certain forms of tax relief, could affect our effective tax rate and our future results.

For information regarding risks related to changes in environmental rules and regulations, see " Environmental liabilities and compliance costs may have a significant adverse effect on our results of operations" below.

**Risks Relating to Our Business**

**Our strategic objectives may not be fully realized.**

Our strategy is focused on four pillars in order to deliver sustainable long-term growth and maximize shareholder returns: grow a global healthcare leader with synergistic platforms, bring innovative products to market, seize value-enhancing growth opportunities, and adapt our structure for future opportunities and challenges. We may not be able to fully realize our strategic objectives and, even if we are able to do so, these strategic objectives may not deliver the expected benefits.

For example, our strategy involves concentrating efforts around identified growth platforms and meeting significant growth objectives over 2012-2015. There is no guarantee that we will meet these objectives or that these platforms will grow in line with anticipated growth rates. A failure to continue to expand our business in targeted growth platforms could affect our business, results of operations or financial condition.

As a further example, we are pursuing a Group-wide cost savings program which we expect, together with the expected synergies from our acquisition of Genzyme, to generate additional incremental cost savings by 2015. This also includes an adaptation plan regarding the activities of the Group in France. There is no assurance that the Group will successfully realize this plan. Moreover, the publicity given to this adaptation plan, may prejudice the Group's image and its reputation (see " The expansion of social media platforms and mobile technologies present new risks and challenges." below). We may fail to realize all the expected cost savings resulting from these initiatives, which could materially and adversely affect our financial results.

**Our research and development efforts may not succeed in adequately renewing our product portfolio.**

To be successful in the highly competitive pharmaceutical industry, we must commit substantial resources each year to research and development in order to develop new products to take the place of products facing expiration of patent and regulatory data exclusivity or competition from new products that are perceived as being superior. In 2012, we spent €4,922 million on research and development, amounting to approximately 14.1% of our net sales.

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We may not be investing in the right technology platforms, therapeutic area, and products classes in order to build a robust pipeline and fulfill unmet medical needs. Fields of discovery and especially biotechnology are highly competitive and characterized by significant and rapid technological changes. Numerous companies are working on the same targets and a product considered as promising at the very beginning may become less attractive if a competitor addressing the same unmet need reaches the market earlier.

Developing a product is a costly, lengthy and uncertain process. The research and development process typically takes from 10 to 15 years from discovery to commercial product launch. This process is conducted in various stages in order to test, along with other features, the effectiveness and safety of a product. There can be no assurance that any of these compounds will be proven safe or effective. See "Item 4. Information on the Company B. Business Overview Pharmaceutical Research & Development" and "Item 4. Information on the Company B. Business Overview Vaccines Research and Development". Accordingly, there is a substantial risk at each stage of development that we will not achieve our goals of safety and/or effectiveness including during the course of a development trial and that we will have to abandon a product in which we have invested substantial amounts and human resources, including in late stage development (Phase III). There can be no assurance that our research and development strategy will deliver the expected result in the targeted timeframe or at all, which could affect our profitability in the future.

Decisions concerning the studies to be carried out can have a significant impact on the marketing strategy for a given product. Multiple in-depth studies can demonstrate that a product has additional benefits, facilitating the product's marketing, but such studies are expensive and time consuming and may delay the product's submission to health authorities for approval. Our ongoing investments in new product launches and research and development for future products could therefore result in increased costs without a proportionate increase in revenues which may negatively affect our operating results.

Obtaining regulatory marketing approval is not a guarantee that the product will achieve commercial success. Following each product marketing approval, the medical need served by the product and the corresponding reimbursement rate are evaluated by other governmental agencies which may in some cases require additional studies, including comparative studies, which may both effectively delay marketing of the new product and add to its development costs.

The success of a product also depends on our ability to educate patients and healthcare providers and provide them with innovative data about the product and its uses. If these education efforts are not effective, then we may not be able to increase the sales of our new products to the market to realize the full value of our investment in its development.

On the same topic, for the research and development of drugs in rare diseases, we produce relatively small amounts of material at early stages. Even if a product candidate receives all necessary approvals for commercialization, we may not be able to successfully scale-up production of the product material at a reasonable cost or at all and we may not receive additional manufacturing approvals in sufficient time to meet product demand, which could lead to a significant loss of sales of that drug and could affect our business, results of operations or financial condition.

### **We may lose market share to competing remedies or generic brands if they are perceived to be equivalent or superior products.**

We are faced with intense competition from generic products and brand-name drugs. Doctors or patients may choose these products over ours if they perceive them to be safer, more reliable, more effective, easier to administer or less expensive, which could cause our revenues to decline and affect our results of operations.

In 2012, our patented pharmaceutical business faced important patent expirations and generic competition. For example Avapro®, Plavix®, and Eloxatin® lost their market exclusivity in the U.S in March, May and August 2012, and Aprovel® lost its market exclusivity in the E.U in August 2012.

The introduction of a generic version of a branded medicine typically results in a significant and rapid reduction in net sales for the branded product because generic manufacturers typically offer their unbranded



versions at sharply lower prices. Approval and market entry of a generic product often reduces the price that we receive for these products and/or the volume of the product that we would be able to sell and could materially and adversely affect our business, results of operations and financial condition. The extent of sales erosion also depends on the number of generic versions of our products that are actually marketed.

Additionally, in many countries such as the United States or France, applicable legislation encourages the use of generic products to reduce spending on prescription drugs. Therefore, the market for our products could also be affected if a competitor's innovative drug in the same market were to become available as generic because a certain number of patients can be expected to switch to a lower-cost alternative therapy.

Additional products of the Group could become subject to generic competition in the future as we expect this generic competition to continue and to implicate drug products even those with relatively modest revenues.

**A substantial share of the revenue and income of the Group continues to depend on the performance of certain flagship products.**

We generate a substantial share of our revenues from the sale of certain key products (see "Item 5. Operating and Financial Review and Prospects Results of Operations Year ended December 31, 2012 compared with year ended December 31, 2011 Net Sales by Product Pharmaceuticals segment"), which represented 42.2% of the Group's consolidated revenues in 2012. Among these products is Lantus®, which was the Group's leading product with revenues of €4,960 million in 2012, representing 14.2% of the Group's consolidated revenues for the year. Lantus® is a flagship product of the Diabetes division, one of the Group's growth platforms.

In general, if the products referred to above were to encounter problems such as loss of patent protection, material product liability litigation, unexpected side effects, regulatory proceedings, publicity affecting doctor or patient confidence, pressure from existing competitive products, changes in labeling, or if a new, more effective treatment were introduced, or if there were a reduction in sales of one or more of our flagship products or in their growth, the impact on our business, results of operations and financial condition could be significant.

**We may fail to successfully identify external business opportunities or realize the anticipated benefits from our strategic investments.**

As a complement to our portfolio of products, we pursue a strategy of selective acquisitions, in-licensing and partnerships in order to develop growth opportunities. The implementation of this strategy depends on our ability to identify business development opportunities and execute them at a reasonable cost and under acceptable conditions of financing. Moreover, entering into in-licensing or partnership agreements generally requires the payment of significant "milestones" well before the relevant products are placed on the market without any assurance that such investments will ultimately become profitable in the long term (see Note D.21.1. to the consolidated financial statements included at Item 18 of this annual report).

Because of the active competition among pharmaceutical groups for such business development activities, there can be no assurance of our success in completing these transactions when such opportunities are identified.

Once identified, the inability to quickly or efficiently integrate newly acquired activities or businesses; a longer integration than expected; the loss of key employees; or higher than anticipated integration costs, could delay our growth objectives and prevent us from achieving expected synergies.

Moreover, we may miscalculate the risks associated with newly acquired activities or businesses at the time they are acquired or not have the means to evaluate them properly, including with regards to the potential of research and development pipelines, manufacturing issues, compliance issues, or the outcome of ongoing legal and other proceedings. It may also take a considerable amount of time and be difficult to implement a risk analysis and risk mitigation plan after the acquisition is completed due to lack of historical data. As a result, risk management and the coverage of such risks, particularly through insurance policies, may prove to be insufficient or ill-adapted.

**The diversification of the Group's business exposes us to increased risks.**

While pursuing our objective to become a global and diversified leader within the health industry, we are exposed to a number of new risks inherent in sectors in which, in the past, we have been either less active or not present at all. As an example:

the contribution of our animal health business to the Group's income may be adversely affected by a number of risks including some which are specific to this business: *i.e.*, the outbreak of an epidemic or pandemic that could kill large numbers of animals, and the effect of reduced veterinary expenditures during an economic crisis (see " The ongoing slowdown of global economic growth and the financial crisis could have negative consequences for our business" below).

the margins of consumer health and generic products are generally lower than those of the traditional branded prescription pharmaceutical business. Moreover, the periodic review of the effectiveness, safety and use of certain over-the-counter drug products by health authorities or lawmakers may result in modifications to the regulations that apply to certain components of such products, which may require them be withdrawn from the market and/or that their formulation be modified.

specialty products (such as those developed by Genzyme) that treat rare, life-threatening diseases that are used by a small number of patients are often expensive to develop compared to the market opportunity. Third-party payers trying to limit health-care expenses may become less willing to support their per-unit cost.

Moreover, losses that may be sustained or caused by these new businesses may differ, with regards to their nature, scope and level, from the types of product liability claims that we have handled in the past (see " Product liability claims could adversely affect our business, results of operations and financial condition" above), and thus our current risk management and insurance coverage may not be adapted to such losses. These risks could affect our business, results of operations or financial condition.

**The globalization of the Group's business exposes us to increased risks.**

Emerging markets have been identified as one of our growth platforms and are among the pillars of our overall strategy. Difficulties in adapting to emerging markets and/or a significant decline in the anticipated growth rate in these regions could impair our ability to take advantage of these growth opportunities and could affect our business, results of operations or financial condition.

There is no guarantee that our efforts to expand sales in emerging markets will continue to succeed. The significant expansion of our activities in emerging markets may further expose us to more volatile economic conditions, political instability, competition from companies that are already well established in these markets, the inability to adequately respond to the unique characteristics of these markets, particularly with respect to their regulatory frameworks, difficulties in recruiting qualified personnel, potential exchange controls, weaker intellectual property protection, higher crime levels (particularly with respect to counterfeit products (see " Counterfeit versions of our products harm our business," below)), and compliance issues including corruption and fraud, as we operate in many parts of the world where these problems exist. Our existing policies and procedures, which are designed to help ensure that we, our employees, agents, intermediaries, and other third parties comply with the U.S. Foreign Corrupt Practices Act (FCPA), the UK Bribery Act, and other anti-bribery laws, may not adequately protect us against liability under these laws for actions we or they may take with respect to our business.

Failure to comply with domestic or international laws could result in various adverse consequences, including possible delay in the approval or refusal to approve a product, recalls, seizures, withdrawal of an approved product from the market, or the imposition of criminal or civil sanctions, including substantial monetary penalties.

**Our products and manufacturing facilities are subject to significant government regulations and approvals, which are often costly and could result in adverse consequences to our business if we fail to comply with the regulations or maintain the approvals.**

The industry in which we operate faces a changing regulatory environment and heightened public scrutiny worldwide, which simultaneously require greater assurances than ever as to the safety and efficacy of medications and health products on the one hand, and effectively provide reduced incentives for innovative pharmaceutical research on the other hand.

Each regulatory authority may also impose its own requirements either at the time of the filing of the dossier or later during its review in order to grant a license to market the product, including requiring local clinical studies, and may delay or refuse to grant approval, even though a product has already been approved in another country. For example in August 2012, Genzyme received a Refuse to File letter from the FDA in response to the supplemental Biologics License Application to the FDA seeking approval of Lemtrada . The FDA did not request additional data or further studies but requested a modified presentation of the data sets to enable agency to better navigate the application. Finally, Genzyme resubmitted at the end of November 2012 the Lemtrada file and the FDA accepted on January 28, 2013 the application for review. In December 2012, the CHMP of the European Medicines Agency (EMA) has adopted a negative opinion for the marketing authorization application for Kynamro , but this product was approved by the FDA in January 2013.

Health authorities are increasingly focusing on product safety and on the risk/benefit profile of pharmaceuticals products. In particular, the FDA and the EMA have imposed increasingly burdensome requirements on pharmaceutical companies, particularly in terms of the volume of data needed to demonstrate a product's efficacy and safety. For the same reasons, the marketed products are subject to continual review, risk evaluations or comparative effectiveness studies even after regulatory approval. These requirements have resulted in increasing the costs associated with maintaining regulatory approvals and achieving reimbursement for our products.

Later discovery of previously undetected problems may result in marketing restrictions or the suspension or withdrawal of the product, as well as an increased risk of litigation for both pharmaceutical and animal health products. These post-regulatory approval reviews and data analyses can lead to the issuance of recommendations by government agencies, health professional and patient organizations or other specialized organizations regarding the use of products, which may result in a reduction in sales volume, such as, for example, a recommendation to limit the patient scope of a drug's indication. For instance in September 2011, the EMA defined a more restrictive indication for Multaq®, one of our cardiovascular products. Such reviews may result in the discovery of significant problems with respect to a competing product that is similar to one sold by the Group, which may in turn cast suspicion on the entire class to which these products belong and ultimately diminish the sales of the relevant product of the Group. When such issues arise, the contemplative nature of evidence-based health care and restrictions on what pharmaceutical manufacturers may say about their products are not always well suited to rapidly defending the Group or the public's legitimate interests in the face of the political and market pressures generated by social media and rapid news cycles, and this may result in commercial harm, overly restrictive regulatory actions and erratic share price performance.

Government authorities and regulators in the U.S. and in E.U. are considering measures to reduce the risk of supply shortages of live-saving medicine in particular if there are no viable therapeutic alternatives. It cannot be ruled out that these ongoing initiatives may generate additional costs for the Group if they result in a requirement to set-up back up supply channels or to increase the level of the inventories to avoid shortages.

In addition, to the extent that new regulations raise the costs of obtaining and maintaining product authorization, or limit the economic value of a new product to its inventor, the growth prospects of our industry and of the Group are diminished. Also about 50% of our current research and development portfolio is constituted by biological products, that may bring in the future new therapeutic responses to current unmet medical needs but which may also lead to more technical constraints and costly investments from an industrial standpoint.

Moreover, we and certain of our third-party suppliers are also required to comply with applicable regulations, known as good manufacturing practices, which govern the manufacture of pharmaceutical products. To monitor our

compliance with those applicable regulations, the FDA, the EMA and comparable agencies in other jurisdictions routinely conduct inspections of our facilities and may identify potential deficiencies which might be expensive and time consuming to address. For example, in July 2012, Sanofi Pasteur received a Warning Letter from the FDA following regular inspections conducted at manufacturing facilities in Canada and France. If we fail to adequately respond to a warning letter identifying a deficiency, or otherwise fail to comply with applicable regulatory requirements, we could be subject to enforcement, remedial and/or punitive actions by the FDA, the EMA or other regulatory authorities. In 2010, Genzyme entered into a consent decree with the FDA relating to its Allston facility and paid U.S.\$175.0 million to the U.S. Federal Government as disgorgement of past profits. The consent decree required Genzyme to implement a plan to bring the Allston facility into compliance with applicable laws and regulations. Genzyme submitted a comprehensive remediation plan to FDA in April 2011 and the plan was accepted by FDA. Remediation of the Allston facility in accordance with that plan is underway and is currently expected to continue for three more years.

**Our indebtedness may limit our business flexibility compared to some of our peers.**

Our consolidated debt increased substantially in connection with our acquisition of Genzyme in 2011. Although we continued to reduce our debt in 2012 (as of December 31, 2012, our debt, net of cash and cash equivalents amounted to €7.7 billion), we still make significant debt service payments to our lenders and this could limit our ability to engage in new transactions which could have been part of our strategy.

**We face increasing pricing and reimbursement pressure on our pharmaceutical products that could negatively affect our revenues and/or margins.**

The commercial success of our existing products and our products candidates depends in part on the conditions under which our products are reimbursed. Our products continue to be subject to increasing price and reimbursement pressure due to, amongst others:

price controls imposed by governments in many countries;

removal of a number of drugs from government reimbursement schemes (for instance products determined to be less cost-effective than alternatives);

increased difficulty in obtaining and maintaining satisfactory drug reimbursement rates; and

the tendency of governments and private health care providers to favor generic pharmaceuticals.

In addition to the pricing pressures they exert, governmental and private third-party payers and purchasers of pharmaceutical products may reduce volumes of sales by restricting access to formularies or otherwise discouraging physician prescriptions of our products. In the United States, the new federal health care reform law is increasing the government's role with respect to price, reimbursement and the coverage levels for healthcare services and products within the large government health care sector. This law also imposed cost containment measures and rebates and fees on pharmaceutical companies. Implementation of health care reform has affected and could still affect our revenues and/or margins (for further details concerning this law and a description of certain regulatory pricing systems that affect our Group see "Item 4. Information on the Company B. Business Overview Pricing & Reimbursement"). Some U.S. states are also considering legislation that would influence the marketing of prices of and access to drugs, and U.S. federal and state officials will likely continue to focus on healthcare reform implementation in the future.

We encounter similar cost containment issues in countries outside the United States. In certain countries, including countries in the EU and Canada, the coverage of prescription drugs, pricing and levels of reimbursement are subject to governmental control. For instance early 2013, in China the National Development and Reform Commission set new national retail ceiling prices for 700 formulations of 400 drugs; among them was Lantus® whose price was cut by 12.9% (effective February 1, 2013).

Due to the ongoing cost containment policies being pursued in many jurisdictions in which we operate, we are unable to predict the availability or amount of reimbursement for our product candidates.

In addition, our operating results may also be affected by parallel imports, particularly within the European Union, whereby distributors engage in arbitrage based on national price differences to buy product on low cost markets for resale on higher cost markets.

**The ongoing slowdown of global economic growth and the financial crisis could have negative consequences for our business<sup>1</sup>.**

Over the past several years, growth of the global pharmaceutical market has become increasingly tied to global economic growth. In this context, a substantial and lasting slowdown of the global economy or major national economies could negatively affect growth in the global pharmaceutical market and, as a result, adversely affect our business. Such a slowdown has reduced the sources of funding for national social security systems, leading to heightened pressure on drug prices, increased substitution of generic drugs, and the exclusion of certain products from formularies.

Further, we believe our net sales may be negatively impacted by the continuing challenging global economic environment, as high unemployment, levels and increases in co-pays, lack of developed third party payer system, may lead some patients to switch to generic products, delay treatments, skip doses or use less effective treatments to reduce their costs. Moreover, current economic conditions in the United States have resulted in an increase in the number of patients in the Medicaid program, under which sales of pharmaceuticals are subject to substantial rebates and, in many U.S. states, to formulary restrictions limiting access to brand-name drugs, including ours.

The growth of our OTC and CHC business may also be negatively affected by the current slowdown in global economic growth as consumer spending is closely tied to the global economy. Also our animal health business could be impacted. For example, tight credit conditions may limit the borrowing power of livestock producers, causing some to switch to lower-priced products.

Although macroeconomic and financial measures have been taken in 2012 by governments and monetary authorities, notably in Europe reducing thus the risk of failure of a State, the slowing economic environment, the default or failure of major players including wholesalers or public sector buyers financed by insolvent States may affect the financial situation of the Group but can also cause the Group to experience disruptions in the distribution of its products as well as the adverse effects described below at "We are subject to the risk of non-payment by our customers". Moreover, to the extent that the economic and financial crisis is directly affecting business, it may also lead to a disruption or delay in the performance of third parties on which we rely for parts of our business, including collaboration partners and suppliers (for more information see "Item 5. Operating and Financial Review and Prospects – Liquidity."). Such disruptions or delays could have a material and adverse effect on our business and results of operations. See " We rely on third parties for the discovery, manufacture and marketing of some of our products" below.

**The manufacture of our products is technically complex, and supply interruptions, product recalls or inventory losses caused by unforeseen events may reduce sales, adversely affect our operating results and financial condition and delay the launch of new products.**

Many of our products are manufactured using technically complex processes requiring specialized facilities, highly specific raw materials and other production constraints. We must also be able to produce sufficient quantities of the products to satisfy demand. Our biologic products (including vaccines) in particular are subject to the risk of manufacturing stoppages or the risk of loss of inventory because of the difficulties inherent to the processing of biological materials and the potential unavailability of adequate amounts of raw materials meeting our standards. We may not have redundant manufacturing capacity for certain products particularly biologic products. For instance all of our bulk Cerezyme® products are produced solely at our Allston, Massachusetts facility. Even though we aim to have backup sources of supply whenever possible, including by manufacturing backup supplies of our principal active ingredients at a second or third facility when practicable, we cannot be certain they will be sufficient if our principal sources become unavailable. Switching sources and manufacturing facilities may require significant time.

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(1) Information in this section is complementary to Note B.8.8. to our consolidated financial statements included at Item 18 of this annual report, with respect to information required by IFRS 7, and is covered by our independent registered public accounting firms' report on the consolidated financial statements.

Additionally, specific conditions must be respected both by the Group and our customers for the storage and distribution of many of our products, *e.g.*, cold storage for certain vaccines and insulin-based products. The complexity of these processes, as well as strict internal and government standards for the manufacture of our products, subject us to risks. The occurrence or suspected occurrence of out-of-specification production or storage can lead to lost inventories, and in some cases product recalls, with consequential reputational damage and the risk of product liability (see "Product liability claims could adversely affect our business, results of operations and financial condition," above). Group products are increasingly reliant on the use of product-specific devices for administration; a technical problem in these devices could jeopardize the approval or the commercialization of the products or require a recall.

Supply shortages are subject to public scrutiny and are subject to even greater public criticism when they occur with respect to life saving medicines with limited therapeutic alternatives. Such shortages can have a negative impact on the image of the Group independent of the level of revenues lost as a result of the shortage of a particular product. The investigation and remediation of any identified manufacturing problems can cause production delays, substantial expense, lost sales and delay the launch of new products, which could adversely affect our operating results and financial condition.

Like many of our competitors, we have faced and may face in the future manufacturing issues. For example, Genzyme experienced in the past significant difficulties in manufacturing Cerezyme® and Fabrazyme® for several years. In summer 2011 a technical incident occurred in the filling line used for Apidra 3mL cartridges at our manufacturing site in Frankfurt which caused temporary shortages for Apidra 3mL cartridges. In April 2012 Sanofi Pasteur temporarily imposed supply limitations for Pentacel® and Daptacel® vaccines in the U.S. due to a manufacturing delay that temporarily reduced the effective capacity to below the level needed to fully satisfy market demand in the U.S. In June 2012 Sanofi Pasteur voluntarily recalled the Bacille Calmette-Guérin (BCG) vaccine produced in its Canadian facility due to manufacturing issues. This withdrawal is expected to last several months while the renovation of the building is completed. There can be no guarantee that we will not face similar issues in the future or that we will successfully manage such issues when they arise.

**We rely on third parties for the discovery, manufacture and marketing of some of our products.**

Our industry is highly collaborative, whether in the discovery and development of new products, in-licensing, the marketing and distribution of approved products, or manufacturing activities. We expect that the reliance on third parties for key aspects of our business will continue to characterize our activities.

Third parties supply us with a substantial portion of our raw materials, active ingredients and medical devices, which exposes us to the risk of a supply interruption in the event that these suppliers experience financial difficulties or are unable to manufacture a sufficient supply of our products meeting Group quality standards. It also increases the risk of quality issues, even with the most scrupulously selected suppliers.

Further, some raw materials essential to the manufacture of our products are not widely available from sources we consider reliable; for example, we have approved only a limited number of suppliers of heparins for use in the manufacture of Lovenox®. Heparin purchase prices can also fluctuate. See "Item 4. Information on the Company B. Business Overview Production and Raw Materials" for a description of these outsourcing arrangements. Any of these factors could adversely affect our business, operating results or financial condition.

If disruptions or quality concerns were to arise in the third-party supply of raw materials, active ingredients or medical devices, this could adversely affect our ability to sell our products in the quantities demanded by the market and could damage our reputation and relationships with our customers. See also "The manufacture of our products is technically complex, and supply interruptions, product recalls or inventory losses caused by unforeseen events may reduce sales, adversely affect our operating results and financial condition and delay the launch of new products" above.

We also conduct a number of significant research and development programs and market some of our products in collaboration with other biotechnology and pharmaceutical companies. For example, we currently have collaborative arrangements with Regeneron for the discovery, development and commercialization of therapies based on monoclonal antibodies, Warner Chilcott for the osteoporosis treatment Actonel®, and with

Merck & Co., Inc. for the distribution of vaccines in Europe (See "Item 4. Information on the Company B. Business Overview Pharmaceutical Products Main pharmaceutical products" and "Item 4. Information on the Company B. Business Overview Vaccine Products" for more information on our alliances). We may also rely on partners to design and manufacture medical devices, notably for the administration of our products. When we research and market our products through collaboration arrangements, we are subject to the risk that certain decisions, such as the establishment of budgets, development and promotion strategies and specific tasks, are under the control of our collaboration partners, and that deadlocks, failures in the development or differing priorities may adversely affect the activities conducted through the collaboration arrangements. Any conflicts that we may have with our partners during the course of these agreements or at the time of their renewal or renegotiation may affect the marketing of certain of our products and may cause a decline in our revenues and affect our results of operations.

**Counterfeit versions of our products harm our business.**

The drug supply has been increasingly challenged by the vulnerability of distribution channels to illegal counterfeiting and the presence of counterfeit products in a growing number of markets and over the Internet. Counterfeit products are frequently unsafe or ineffective, and can be potentially life-threatening. To distributors and users, counterfeit products may be visually indistinguishable from the authentic version. Reports of adverse reactions to counterfeit drugs or increased levels of counterfeiting could materially affect patient confidence in the authentic product, and harm the business of companies such as Sanofi. Additionally, it is possible that adverse events caused by unsafe counterfeit products will mistakenly be attributed to the authentic product. If a Group product was the subject of counterfeits, the Group could incur substantial reputational and financial harm. See "Item 4. Information on the Company B. Business Overview Competition."

**We are subject to the risk of non-payment by our customers<sup>1</sup>.**

We run the risk of delayed payments or even non-payment by our customers, which consist principally of wholesalers, distributors, pharmacies, hospitals, clinics and government agencies. This risk is accentuated by the current worldwide financial crisis. The United States poses particular client credit risk issues, because of the concentrated distribution system in which approximately 58% of our consolidated U.S. pharmaceutical sales are accounted for by just three wholesalers. In addition, the Group's three main customers represent 17.0% of our gross total revenues. We are also exposed to large wholesalers in other markets, particularly in Europe. An inability of one or more of these wholesalers to honor their debts to us could adversely affect our financial condition (see Note D.34. to our consolidated financial statements included at Item 18 of this annual report).

Since 2010, some countries of southern Europe have faced important financial difficulties. Some customers in these countries are public or subsidized health systems. The deteriorating economic and credit conditions in these countries may lead to longer payment terms. Because of this trend we may need to reassess the recoverable amount of our debts in these countries during the coming financial years (for more information see "Item 5. Operating and Financial Review and Prospects Liquidity.>").

**Our pension liabilities are affected by factors such as the performance of plan assets, interest rates, actuarial data and experience and changes in laws and regulations.**

Our future funding obligations for our main defined-benefit pension plans depend on changes in the future performance of assets held in trust for these plans, the interest rates used to determine funding levels (or company liabilities), actuarial data and experience, inflation trends, the level of benefits provided for by the plans, as well as changes in laws and regulations. Adverse changes in those factors could increase our unfunded obligations under such plans, which would require more funds to be contributed and hence negatively affect our cash flow and results (see Note D.19.1 to our consolidated financial statements included at Item 18 of this annual report).

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(1) Information in this section is complementary to Note B.8.8. to our consolidated financial statements included at Item 18 of this annual report, with respect to information required by IFRS 7, and is covered by our independent registered public accounting firms' report on the consolidated financial statements and by Notes D.10. and D.34. to our consolidated financial statements included at Item 18 of this annual report.

**Impairment charges or write downs in our books and changes in accounting standards could have a significant adverse effect on the Group's results of operations and financial results.**

New or revised accounting standards, rules and interpretations issued from time to time by the IASB (International Accounting Standards Board) could result in changes to the recognition of income and expense that may materially and adversely affect the Group's financial results.

In addition, substantial value is allocated to intangible assets and goodwill resulting from business combinations, as disclosed at Note D.4. to our consolidated financial statements included in this annual report at Item 18, which could be substantially impaired upon indications of impairment (primarily relating to pharmacovigilance, patent litigation and the launch of competing products), with adverse effects on our financial condition and the value of our assets.

Also if any of our strategic equity investments decline in value and remain below cost for an extended duration, we may be required to write down our investment.

In addition the global financial crisis and in particular the ongoing sovereign debt crisis affecting certain European countries could also negatively affect the value of our assets (see " The ongoing slowdown of global economic growth and the financial crisis could have negative consequences for our business" above and " Fluctuations in currency exchange rates could adversely affect our results of operations and financial condition" below).

**We are increasingly dependent on information technologies and networks.**

Our business depends on the use of information technologies, which means that certain key areas such as research and development, production and sales are to a large extent dependent on our information technology capabilities. We are commercializing a number of devices using new technologies which, in case of malfunctions could lead to a risk of harm to patients (see " Product liability claims could adversely affect our business, results of operations and financial condition" above) or the unavailability of our products. While we have invested heavily in the protection of data and information technology, there can be no assurance that our efforts or those of our third-party service providers (for instance the accounting of some of our subsidiaries has been externalized) to implement adequate security and quality measures for data processing would be sufficient to protect against data deterioration or loss in the event of a system malfunction, or prevent data from being stolen or corrupted in the event of a security breach, which could have a material adverse effect on our business, operating results and financial condition.

**The expansion of social media platforms and mobile technologies presents new risks and challenges.**

New technologies are increasingly used to communicate about our products or the diseases they are intended to treat. The use of these media requires specific attention, monitoring programs and moderation of comments. For instance, patients may use these channels to comment on the effectiveness of a product and to report an alleged adverse event. Negative posts or comments about the Company, its business, its directors or officers on any social networking web site could seriously damage our reputation. In addition, our associates may use the social media tools and mobile technologies inappropriately which may give rise to liability, or which could lead to the exposure of sensitive information. In either case, such uses of social media and mobile technologies could have a material adverse effect on our business, financial condition and results of operations.

**Natural disasters prevalent in certain regions in which we do business could affect our operations.**

Some of our production sites are located in areas exposed to natural disasters, such as earthquakes (in North Africa, Middle East, Asia, Pacific, Europe, Central and Latin Americas), floods (in Africa, Asia Pacific and Europe) and hurricanes. In the event of a major disaster we could experience severe destruction or interruption of our operations and production capacity. As a result, our operations could suffer serious harm which could have a material adverse effect on our business, financial condition and results of operations.



## **Environmental Risks of Our Industrial Activities**

### **Risks from the handling of hazardous materials could adversely affect our results of operations.**

Manufacturing activities, such as the chemical manufacturing of the active ingredients in our products and the related storage and transportation of raw materials, products and wastes, expose us to various risks, including:

fires and/or explosions;

storage tank leaks and ruptures; and

discharges or releases of toxic or pathogen substances.

These operating risks can cause personal injury, property damage and environmental contamination, and may result in:

the shutdown of affected facilities; and

the imposition of civil or criminal penalties.

The occurrence of any of these events may significantly reduce the productivity and profitability of a particular manufacturing facility and adversely affect our operating results.

Although we maintain property, business interruption and casualty insurance that we believe is in accordance with customary industry practices, we cannot assure you that this insurance will be adequate to cover fully all potential hazards incidental to our business.

### **Environmental liabilities and compliance costs may have a significant adverse effect on our results of operations.**

The environmental laws of various jurisdictions impose actual and potential obligations on our Group to remediate contaminated sites. These obligations may relate to sites:

that we currently own or operate;

that we formerly owned or operated; or

where waste from our operations was disposed.

These environmental remediation obligations could significantly reduce our operating results. Sanofi accrues provisions for remediation when our management believes the need is probable and that it is reasonably possible to estimate the cost. See "Item 4. Information on the Company B. Business Overview Health, Safety and Environment (HSE)" for additional information regarding our environmental policies. In particular, our provisions for these obligations may be insufficient if the assumptions underlying these provisions prove incorrect or if we are held responsible for additional, currently undiscovered contamination. These judgments and estimates may later prove inaccurate, and any shortfalls could have a material adverse effect on our results of operations and financial condition.

Furthermore, we are or may become involved in claims, lawsuits and administrative proceedings relating to environmental matters. Some current and former Sanofi's subsidiaries have been named as "potentially responsible parties" or the equivalent under the U.S. Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (also known as "Superfund"), and similar statutes in France, Germany, Italy, Brazil and elsewhere. As a matter of statutory or contractual obligation, we and/or our subsidiaries may retain responsibility for environmental liabilities at some of the sites of our predecessor companies, or our subsidiaries that we demerged, divested or may divest. We have disputes outstanding regarding certain sites no longer owned by the Group. An adverse outcome in such disputes might have a significant adverse effect on our operating results. See Note D.22.e) to the consolidated financial statements included at Item 18 of this annual report and

"Item 8. Financial Information A. Consolidated Financial Statements and Other Financial Information Information on Legal or Arbitration Proceedings".

Environmental regulations are evolving (*i.e.*, in Europe, REACH, CLP/GHS, SEVESO, IPPC/IED, the Waste Framework Directive, the Emission Trading Scheme Directive, the Water Framework Directive and the Directive on Taxation of Energy Products and Electricity and several other regulations aiming at preventing global warming). Stricter environmental, safety and health laws and enforcement policies could result in substantial costs and liabilities to our Group and could subject our handling, manufacture, use, reuse or disposal of substances or pollutants, site restoration and compliance costs to more rigorous scrutiny than is currently the case. Consequently, compliance with these laws could result in significant capital expenditures as well as other costs and liabilities, thereby adversely affecting our business, results of operations or financial condition. For more detailed information on environmental issues, see "Item 4. Information on the Company B. Business Overview Health, Safety and Environment (HSE)."

#### **Risks Related to Financial Markets<sup>1</sup>**

##### **Fluctuations in currency exchange rates could adversely affect our results of operations and financial condition.**

Because we sell our products in numerous countries, our results of operations and financial condition could be adversely affected by fluctuations in currency exchange rates. We are particularly sensitive to movements in exchange rates between the euro and the U.S. dollar, the British pound, the Japanese yen, and to currencies in emerging countries. In 2012, 31% of our net sales were realized in the United States. While we incur expenses in those currencies, the impact of currency exchange rates on these expenses does not fully offset the impact of currency exchange rates on our revenues. As a result, currency exchange rate movements can have a considerable impact on our earnings. When deemed appropriate and when technically feasible, we enter into transactions to hedge our exposure to foreign exchange risks. These efforts, when undertaken, may fail to offset the effect of adverse currency exchange rate fluctuations on our results of operations or financial condition. In addition, in the specific context of the sovereign debt crisis affecting certain European countries, the threatened or actual withdrawal of the euro as currency in one or more European Monetary Union countries and the associated fluctuations in currency exchange rates could have a material effect on our financial condition and earnings, the magnitude and consequences of which are unpredictable. For more information concerning our exchange rate exposure, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

##### **In the context of the worldwide financial crisis, our liquidity may be constrained.**

As of December 31, 2012, the Group's net debt amounted approximately to €7.7 billion. In addition to debt outstanding, the Group has contracted a number of credit lines and put into place commercial paper and medium term note programs with the aim of providing liquidity. See "Item 11. Quantitative and Qualitative Disclosures about Market Risk." In the event of a market-wide liquidity crisis, the Group might be faced with reduced access to sources of financing, including under programs currently in place, or less favorable conditions.

#### **Risks Relating to an Investment in our Shares or ADSs**

##### **Foreign exchange fluctuations may adversely affect the U.S. dollar value of our ADSs and dividends (if any).**

Holders of ADSs face exchange rate risk. Our ADSs trade in U.S. dollars and our shares trade in euros. The value of the ADSs and our shares could fluctuate as the exchange rates between these currencies fluctuate. If and when we do pay dividends, they would be denominated in euros. Fluctuations in the exchange rate between the euro and the U.S. dollar will affect the U.S. dollar amounts received by owners of ADSs upon conversion by the depository of cash dividends, if any. Moreover, these fluctuations may affect the U.S. dollar price of the ADSs on the New York Stock Exchange (NYSE), whether or not we pay dividends in addition to the amounts, if any, that a holder would receive upon our liquidation or upon the sale of assets, merger, tender offer or similar transactions denominated in euros or any foreign currency other than U.S. dollars.

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(1) Information in this section is complementary to Note B.8.8. to our consolidated financial statements included at Item 18 of this annual report, with respect to information required by IFRS 7, and is covered by our independent registered public accounting firms' report on the consolidated financial statements.

**Persons holding ADSs rather than shares may have difficulty exercising certain rights as a shareholder.**

Holders of ADSs may have more difficulty exercising their rights as a shareholder than if they directly held shares. For example, if we issue new shares and existing shareholders have the right to subscribe for a portion of them, the depositary is allowed, at its own discretion, to sell for their benefit that right to subscribe for new shares instead of making it available to them. Also, holders of ADSs must instruct the depositary how to vote their shares. Because of this extra procedural step involving the depositary, the process for exercising voting rights will take longer for holders of ADSs than for holders of shares. ADSs for which the depositary does not receive timely voting instructions will not be voted at any meeting.

**Recent French tax legislation applicable to the ADSs may affect their attractiveness.**

The implementation of new tax legislation such as the French financial transaction tax of 0.2% (*Taxe sur les Transactions Financières* TTF) enacted in 2012 (see "Item 10. E. Taxation"), which applies by its terms to trading in our shares and ADSs without regard to territoriality could increase the costs linked to the issuance, transfer and cancellation of ADSs. Moreover, uncertainties regarding how such a tax would be assessed and collected from beneficial owners or financial intermediaries outside of France could discourage holding of such instruments.

We cannot foresee the extent to which this tax and uncertainty over its technical and practical aspects may reduce the liquidity and economic value of our ADSs.

**Our largest shareholder owns a significant percentage of the share capital and voting rights of Sanofi.**

As of December 31, 2012, L'Oréal held approximately 8.91% of our issued share capital, accounting for approximately 16.13% of the voting rights (excluding treasury shares) of Sanofi. See "Item 7. Major Shareholders and Related Party Transactions A. Major Shareholders." Affiliates of L'Oréal currently serve on our Board of Directors. To the extent L'Oréal continues to hold a large percentage of our share capital and voting rights, it will remain in a position to exert heightened influence in the appointment of the directors and officers of Sanofi and in other corporate actions that require shareholders' approval.

**Sales of our shares may cause the market price of our shares or ADSs to decline.**

To our knowledge, L'Oréal is not subject to any contractual restrictions on the sale of the shares it holds in our Company. L'Oréal announced that it does not consider its stake in our Company as strategic to it. Sales of large numbers of our shares, or a perception that such sales may occur, could adversely affect the market price for our shares and ADSs.

**Risks Relating to our Contingent Value Rights (CVRs)**

**In addition to the risks relating to our shares, CVR holders are subject to additional risks.**

In connection with our acquisition of Genzyme, we issued CVRs under a CVR agreement entered into by and between us and American Stock Transfer & Trust Company, the trustee (see also Note D.18. to the consolidated financial statements included at Item 18 of this annual report). A copy of the form of the CVR agreement is attached as exhibit 4.1 to our Registration Statement on Form F-4 (Registration No. 333-172638), as amended. Pursuant to the CVR agreement, each holder of a CVR is entitled to receive cash payments upon the achievement of certain milestones, based on U.S. regulatory approval of Lemtrada (alemtuzumab for treatment of multiple sclerosis), and on achievement of certain aggregate net sales thresholds. See "Item 10. Additional Information C. Material Contracts The Contingent Value Rights Agreement."

CVR holders are subject to additional risks, including:

an active public market for the CVRs may not develop or the CVRs may trade at low volumes, both of which could have an adverse effect on the resale price, if any, of the CVRs;

the market price and trading volume of the CVRs may be volatile;

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no payment will be made on the CVRs without the achievement of certain agreed upon milestones. As such, it may be difficult to value the CVRs and accordingly it may be difficult or impossible to resell the CVRs

if the milestones specified in the CVR agreement are not achieved for any reason within the time periods specified therein, and if net sales do not exceed the thresholds set forth in the CVR agreement for any reason within the time periods specified therein, no payment will be made under the CVRs and the CVRs will expire without value;

since the U.S. federal income tax treatment of the CVRs is unclear, any part of any CVR payment could be treated as ordinary income and required to be included in income prior to the receipt of the CVR payment;

any payments in respect of the CVRs rank at parity with our other unsecured unsubordinated indebtedness;

we are not prohibited from acquiring the CVRs, whether in open market transactions, private transactions or otherwise, and on September 4, 2012 Sanofi launched a tender offer to purchase up to 30% of its outstanding CVRs (for more information see "Item 5. Operating and Financial Review and Prospectus – Liquidity.");

we may under certain circumstances purchase and cancel all outstanding CVRs; and

while we have agreed to use diligent efforts, until the CVR agreement is terminated, to achieve each of the Lemtrada related CVR milestones set forth in the CVR agreement, we are not required to take all possible actions to achieve these goals, and the failure to achieve such goals would have an adverse effect on the value, if any, of the CVRs.

### Item 4. Information on the Company

#### Introduction

We are an integrated, global healthcare company focused on patient needs and engaged in the research, development, manufacture and marketing of healthcare products. In 2012, our net sales amounted to €34,947 million. We are the fourth largest pharmaceutical group in the world and the third largest pharmaceutical group in Europe (source: IMS sales 2012). Sanofi is the parent of a consolidated group of companies. A list of the principal subsidiaries included in this consolidation is shown at Note F. to our consolidated financial statements included at Item 18 of this annual report.

The Sanofi Group is organized around three principal activities: Pharmaceuticals, Human Vaccines via Sanofi Pasteur, and Animal Health via Merial Limited (Merial). These activities are operating segments within the meaning of the IFRS 8 accounting standard (see Note D.35. to the consolidated financial statements).

In parallel, the Group operates through seven growth platforms (see "B. Business Overview – Strategy" below): Emerging Markets<sup>1</sup>, Diabetes, Vaccines, Consumer Health Care, Animal Health, New Genzyme<sup>2</sup>, and Other Innovative Products<sup>3</sup>. Unlike the other growth platforms, the Vaccines and Animal Health growth platforms are also operating segments within the meaning of IFRS 8. The Diabetes Solutions, Consumer Health Care, New Genzyme, and Other Innovative Products growth platforms are units whose performance is monitored primarily on the basis of their net sales; the products they sell are part of our Pharmaceuticals segment. The Emerging Markets growth platform is a unit whose performance is monitored primarily on the basis of its net sales; the products it sells are derived from all three of our principal activities: pharmaceuticals, human vaccines and animal health. For an analysis of the net sales of our growth platforms in 2012 and 2011, refer to "Item 5. Results of Operations – Year Ended December 31, 2012 Compared with year Ended December 31, 2011".

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(1) World excluding the United States, Canada, Western Europe (France, Germany, UK, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Sweden, Portugal, the Netherlands, Austria, Switzerland, Ireland, Finland, Norway, Iceland and Denmark), Japan, Australia and New Zealand.

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- (2) "New Genzyme" covers rare diseases and treatment for multiple sclerosis.
- (3) "Other Innovative Products" covers new product launches which do not belong to the other growth platforms listed: Multaq®, Jevtana®, Mozobil® and Zaltrap®.

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In our Pharmaceuticals activity, which generated net sales of €28,871 million in 2012, our major product categories are:

*Diabetes Solutions:* our main products are Lantus®, a long acting analog of human insulin which is the leading brand in the insulin market; Apidra®, a rapid-acting analog of human insulin; Insuman®, a range of human insulin solutions and suspensions; Amaryl®, an oral once-daily sulfonylurea; and BGStar® and iBGStar® blood glucose meters.

*Rare Diseases:* our principal products are enzyme replacement therapies: Cerezyme®, to treat Gaucher disease; Fabrazyme® to treat Fabry disease; and Myozyme®/Lumizyme® to treat Pompe disease.

*Multiple sclerosis (MS):* with Aubagio® a once daily, oral immunomodulator launched in October 2012 in the United States.

Rare Diseases and multiple sclerosis are the therapeutic areas of the "New Genzyme" growth platform.

*Oncology:* with Taxotere®, a taxane derivative representing a cornerstone therapy in several cancer types; Eloxatine®, a platinum agent, which is a key treatment for colorectal cancer; Jevtana®, a taxane derivative, indicated for patients with prostate cancer; Mozobil®, a hematopoietic stem cell mobilizer for patients with hematologic malignancies; and Zaltrap®, a recombinant fusion protein, indicated for patients with metastatic colorectal cancer (mCRC) that is resistant to or has progressed following an oxaliplatin-containing regimen, launched in August 2012 in the United States.

*Other prescription products:* our thrombosis medicines include Plavix®, an anti-platelet agent indicated for a number of atherothrombotic conditions; and Lovenox®, a low molecular weight heparin indicated for prevention and treatment of deep vein thrombosis and for unstable angina and myocardial infarction. Our cardiovascular medicines include Multaq®, an anti-arrhythmic agent; and Aprovel®/CoAprovel®, two hypertension treatments. Our renal business includes Renagel®/Renvela®, oral phosphate binders used in patients with chronic kidney disease on dialysis to treat high phosphorus levels. Our biosurgery business includes Synvisc® and Synvisc-One®, viscosupplements used to treat pain associated with osteoarthritis of certain joints.

Our global pharmaceutical portfolio also includes a wide range of other products in Consumer Health Care (CHC), a category in which we have become the third largest player in terms of global sales, and other prescription drugs including generics.

We are a world leader in the vaccines industry. Our net sales amounted to €3,897 million in 2012, with leading vaccines in five areas: pediatric vaccines, influenza vaccines, adult and adolescent booster vaccines, meningitis vaccines, and travel and endemics vaccines.

Our Animal Health activity is carried out through Merial, one of the world's leading animal healthcare companies, dedicated to the research, development, manufacture and delivery of innovative pharmaceuticals and vaccines used by veterinarians, farmers and pet owners and providing a comprehensive line of products to enhance the health, well-being and performance of a wide range of production and companion animals. The net sales of Merial amounted to €2,179 million in 2012.

Partnerships are essential to our business, and many of our products on the market or in development have been in-licensed from third parties or rely on third party technologies and rights.

In the description below, the following should be kept in mind:

A drug can be referred to either by its international non-proprietary name (INN) or by its brand name, which is normally exclusive to the company that markets it. In most cases, our brand names, which may vary from country to country, are protected by trademark registrations. In general, we have chosen in this annual report to refer to our products by the brand names we use in France, except for Allegra® (sold in France as Telfast®), Tritace® (sold in France as Triatec®), Amaryl® (sold in France as Amarel®), and Ambien® CR (an extended-release formulation of zolpidem tartrate, not sold in France).

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For our pharmaceutical activity, except where otherwise stated, all market share percentages and rankings are based on full-year 2012 sales figures from IMS Health MIDAS (retail and hospital).



For our vaccines activity, market shares and rankings are based on our own estimates. These estimates have been made from public domain information collated from various sources, including statistical data collected by industry associations and information published by competitors.

We present our consolidated net sales for our leading products sold directly and through alliances. As regards the products sold through our alliance with Bristol-Myers Squibb (BMS), we also present the aggregate worldwide sales of Plavix® and Aprovel®, whether consolidated by Sanofi or by BMS. A definition of worldwide sales can be found in "Item 5. Operating and Financial Review and Prospects Results of Operations".

#### **A. History and Development of the Company**

The current Sanofi corporation was incorporated under the laws of France in 1994 as a *société anonyme*, a form of limited liability company, for a term of 99 years. Since May 2011, we have operated under the commercial name "Sanofi" (formerly known as sanofi-aventis). Our registered office is located at 54, rue La Boétie, 75008 Paris, France, and our main telephone number is +33 1 53 77 40 00. Our principal U.S. subsidiary's office is located at 55 Corporate Drive, Bridgewater, NJ 08807; telephone: +1 (908) 981-5000.

We are present in approximately 100 countries on five continents with 111,974 employees at year end 2012. As a global diversified healthcare company our business includes a diversified offering of medicines, consumer healthcare products, generics, animal health and human vaccines.

#### **History of the Company**

The Group has more than a century of experience in the pharmaceutical industry. Sanofi-Synthélabo (formed in 1999 by the merger of Sanofi, founded in 1973 and Synthélabo, founded in 1970) and Aventis (formed in 1999 by the combination of Rhône-Poulenc, formed in 1928 and Hoechst, founded in the second half of the 19<sup>th</sup> century) were combined in 2004 and are the principal legacy companies of our continuously expanding Group.

#### **Important Corporate Developments 2009-2012**

Starting in 2009, Sanofi began a strategy of targeted acquisitions to become a diversified healthcare company, and created or strengthened various platforms including CHC and Generics.

In 2009, we acquired Zentiva, a Prague-based branded generics group and Medley, a leading generics company in Brazil;

On February 9, 2010, Sanofi successfully completed its tender offer for all outstanding shares of common stock of Chattem, Inc., a leading U.S. consumer healthcare company;

On February 24, 2011, Sanofi acquired BMP Sunstone Corporation (a specialty pharmaceutical company with a proprietary portfolio of branded pharmaceutical and healthcare products in China) through a merger between BMP Sunstone and a wholly-owned subsidiary;

In 2011, Merial became Sanofi's dedicated animal health division. Merial was founded in 1997 for animal health activities, and was initially a joint venture in which we and Merck each held 50%. On September 17, 2009, we acquired Merck's entire interest in Merial. See Note D.2. to our consolidated financial statements included at Item 18 of this annual report; and

On April 4, 2011, following a tender offer, Sanofi acquired Genzyme Corporation, a leading biotechnology group headquartered in Cambridge, Massachusetts and specialized in the treatment of rare diseases, renal diseases, endocrinology, oncology and biosurgery. The agreement is described at "Item 10. Additional Information C. Material Contracts".



## ***B. Business Overview***

### **Strategy**

Sanofi is an integrated, global healthcare leader offering solutions across areas of core historical strength and multiple growth platforms. Like other groups active in the pharmaceutical industry, we have been facing competition from generics for several of our major products, in an environment subject to cost containment pressures from both third party payers and healthcare authorities. We responded to these major challenges by implementing a strategy with the objective of repositioning Sanofi for more stable and sustainable revenue and earnings growth. Over the past years, we have transformed the Group by decreasing our reliance on existing "blockbuster" medicines (medicines with over \$1 billion in global sales), optimizing our approach to Research & Development (R&D), increasing our diversification, and investing in seven growth platforms (Emerging Markets, Diabetes Solutions, Vaccines, Consumer Health Care, Animal Health, New Genzyme, and Innovative Products).

We regularly review our strategy and its implementation, and are continuing to execute this strategy along four prongs:

#### **Growing a global healthcare leader with synergistic platforms**

Our ambition is to offer an integrated set of businesses within the healthcare space with opportunities to create synergies across activities both upstream and R&D level and downstream in the market place.

#### **Bringing innovative products to market**

We regularly review our R&D portfolio in order to improve the allocation of our resources. Also, our decision-making processes integrate commercial potential and scope for value creation into our development choices. The result is an ongoing rationalization and optimization of our portfolio allowing us to focus on high-value projects and, when appropriate, reallocate part of our resources from internal infrastructure to partnerships and collaborations. We have redesigned our R&D footprint, including increasing our presence in the Boston, MA area (United States) with its concentration of universities and innovative biotechnology companies. Our R&D is now based on an organizational structure focused on patient needs and encouraging entrepreneurship. This network-based organization, open to external opportunities, enables our R&D portfolio to more effectively capitalize on innovation from a wide range of sources.

In line with this policy, we signed new alliance and licensing agreements in 2012 to give us access to new technologies, and/or to broaden or strengthen our existing fields of research. We have also made progress on our objective of offering more products that add value for patients, with five innovative products (NMEs) submitted to regulatory agencies in 2012 and 18 potential new product launches possible between now and the end of 2015.

#### **Seizing value-enhancing growth opportunities**

Business development remains an integral and disciplined pillar of our overall strategy, targeting acquisitions and alliances that create and/or strengthen platforms for long-term growth and create value for our shareholders. Since January 2009, we have invested a total of approximately €24 billion in external growth. During 2012, we actively pursued this targeted policy, announcing 26 new transactions, including 8 acquisitions and 18 major R&D alliances.

In 2012, we strengthened our Emerging Markets growth platform with the agreement to acquire Genfar S.A. (announced in October 2012), a leading pharmaceuticals manufacturer headquartered in Bogota, Colombia. Also, we acquired the rights to lines of generic products for Sub Saharan Africa and for Vietnam. With these acquisitions, Sanofi intends to become a market leader in both Colombia and Nigeria, and has expanded its portfolio of affordable pharmaceuticals in Latin America, Africa and Southeast Asia.

Our animal health business was also reinforced in 2012 by the acquisition of Newport Laboratories, a privately held company based in Worthington, Minnesota (United States), a leader in autogenous vaccines with a focus on swine and bovine production markets, and with the agreement to acquire the Animal Health Division of Dosch

Pharmaceuticals in India (announced end of December 2012). When completed, this last acquisition will create a market entry for Merial in that country's strategically important and growing Indian animal health sector.

In the years to come, we expect our sound financial position to provide us the potential to create value through external growth opportunities and to strengthen our diversification and growth platforms through new acquisitions and partnerships. We will remain financially disciplined, within the aims of our business development activities, so that we can execute strategically important transactions and partnerships that deliver a return on investment in excess of our cost of capital.

#### **Adapting our structure for future opportunities and challenges**

We have adapted our operating model, previously focused on the best-selling prescription drugs in our traditional markets, to a broader set of products and services that better reflect the diversity of our activities and our geographical reach. In particular, we have tailored our strategy, structure and offering to each region's needs, so as to deliver the most appropriate solution to each patient. The result is a dramatic shift in business mix from our top 15 products to key growth platforms. In 2008, 61% of our sales originated from our top 15 products while in 2012, 67.4% of our sales were generated by our growth platforms. In addition, 31.9% of our 2012 sales were in emerging markets, where we have enhanced our offerings in high growth segments such as Generics and Consumer Health Care by completing 25 transactions and investing a total of approximately €3.9 billion in acquisitions over the last four years.

We have also realigned our industrial capacity to reflect our expectation of changes in volumes and our analyses of growth opportunities. Combined with the streamlining of our R&D structures and tight control over selling, general and administrative expenses, this has helped us successfully navigate a period in which many of our leading products faced the loss of patent exclusivity protection, in a tougher economic environment with new healthcare cost containment measures in many markets.

### **Pharmaceutical Products**

#### **Main Pharmaceutical Products**

Within our Pharmaceuticals business, we focus on the following therapeutic areas: diabetes, rare diseases, multiple sclerosis, oncology. We also have flagship products in such fields as anti-thrombotics, cardiovascular, renal and biosurgery and have developed leading businesses in Consumer Health Care and generics.

The sections that follow provide additional information on the indications and market position of our key products. Our intellectual property rights over our pharmaceutical products are material to our operations and are described at " Patents, Intellectual Property and Other Rights" below. As disclosed in "Item 8. Financial Information A. Consolidated Financial Statements and Other Financial Information Patents" of this annual report. We are involved in significant litigation concerning the patent protection of a number of these products.

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The following table sets forth the net sales of our main pharmaceutical products for the year ended December 31, 2012.

Therapeutic Area / Product Name	2012 Net Sales (€million)	Drug Category / Main Areas of Use
<b>Diabetes Solutions</b>		
Lantus® (insulin glargine)	4,960	Long-acting analog of human insulin Type 1 and 2 diabetes mellitus
Apidra® (insulin glulisine)	230	Rapid-acting analog of human insulin Type 1 and 2 diabetes mellitus
Insuman® (insulin)	135	Human insulin (rapid and intermediate acting) Type 1 and 2 diabetes mellitus
Amaryl® (glimepiride)	421	Sulfonylurea Type 2 diabetes mellitus
<b>Rare Diseases</b>		
Cerezyme® (imiglucerase for injection)	633	Enzyme replacement therapy Gaucher disease
Fabrazyme® (agalsidase beta)	292	Enzyme replacement therapy Fabry disease
Myozyme®/Lumizyme® (alglucosidase alpha)	462	Enzyme replacement therapy Pompe disease
<b>Multiple Sclerosis</b>		
Aubagio® (teriflunomide)	7	Oral immunomodulating agent Multiple Sclerosis
<b>Oncology</b>		
Taxotere® (docetaxel)	563	Cytotoxic agent
		Breast cancer
		Non small cell lung cancer
		Prostate cancer
		Gastric cancer
		Head and neck cancer
Eloxatine® (oxaliplatin)	956	Cytotoxic agent Colorectal cancer
Jevtana® (cabazitaxel)	235	Cytotoxic agent Prostate cancer
Mozobil® (plerixafor)	96	Hematopoietic stem cell mobilizer Hematologic malignancies
Zaltrap® (aflibercept)	25	Recombinant fusion protein Oxaliplatin resistant metastatic colorectal cancer

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**2012**  
**Net Sales**  
**(€million) Drug Category / Main Areas of Use**

**Therapeutic Area / Product Name**

**Other Prescription Drugs**

Lovenox® (enoxaparin sodium)	1,893	Low molecular weight heparin  Treatment and prevention of deep vein thrombosis
Plavix® (clopidogrel bisulfate)	2,066	Treatment of acute coronary syndromes Platelet adenosine disphosphate receptor antagonist  Atherothrombosis
Aprovel® (irbesartan) / CoAprovel® (irbesartan & hydrochlorothiazide) Multaq® (dronedarone)	1,151	Acute coronary syndrome with and without ST segment elevation Angiotensin II receptor antagonist Hypertension
Renagel® (sevelamer hydrochloride) / Renvala® (sevelamer carbonate)	255	Anti-arrhythmic drug Atrial Fibrillation
Synvisc® / Synvisc-One® (hylan G-F 20)	653	Oral phosphate binders High phosphorus levels in patients with chronic kidney disease (CKD) on dialysis
Stilnox® /Ambien®/Myslee® (zolpidem tartrate)	363	Viscosupplements Pain associated with osteoarthritis of the knee
Allegra® (fexofenadine hydrochloride)	497	Hypnotic Sleep disorders
	553 <sup>(1)</sup>	Anti-histamine  Allergic rhinitis
Depakine® (sodium valproate)	410	Urticaria Anti-epileptic Epilepsy
<b>Consumer Health Care</b> Total	3,008	
<b>Generics</b> Total	1,844	

(1) *Excluding Allegra® OTC sales.*

**Diabetes Solutions**

The prevalence of diabetes is expected to increase significantly by 2030, reflecting multiple socio-economic factors including sedentary lifestyles, excess weight and obesity, unhealthy diet and an aging population. Our principal diabetes products are Lantus®, a long-acting analog

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of human insulin; Apidra®, a rapid-acting analog of human insulin; Insuman®, a human insulin; and Amaryl®, a sulfonylurea. In 2011, in some European markets, we launched the BGStar® range of blood glucose meter solutions for patients with diabetes, whether they are treated with insulin or not. In February 2013, the European Commission granted marketing authorisation in Europe for Lyxumia®, a once-daily prandial GLP-1 receptor agonist.

## Lantus®

Lantus® (insulin glargine) is a long-acting analog of human insulin, offering improved pharmacokinetic and pharmacodynamic profile. Lantus® is indicated for once-daily subcutaneous administration in the treatment of adult patients with type 2 diabetes mellitus who require basal insulin for the control of hyperglycemia, and for adult and pediatric patients aged two years (label extension for pediatric use was granted in the EU in 2012) and above with type 1 diabetes mellitus.

Lantus® is the most studied basal insulin with over 10 years of clinical evidence in diabetes treatment and a well-established safety profile.

Lantus® can be administered subcutaneously using syringes or specific pens including:

Lantus® SoloSTAR® is a pre-filled disposable pen available in over 120 countries worldwide. It is the only disposable pen that combines a low injection force, up to 80 units per injection, and ease-of-use;

ClikSTAR® is a reusable insulin pen first approved in 2009 in the European Union and Canada. It is now available in more than 30 countries worldwide; and

AllSTAR is the first state-of-the-art, re-usable insulin pen developed especially for people with diabetes in emerging markets, indicated for use with Sanofi's insulin portfolio. AllSTAR is currently available in India; going forward, Sanofi intends to make AllSTAR accessible to other emerging markets.

In their 2012 updates, the American Diabetes Association (ADA) and European Association for the Study of Diabetes (EASD) have maintained their 2008 treatment recommendations for type 2 diabetes. This consensus statement further established basal insulins such as Lantus®, or a sulfonylurea such as Amaryl®, as two preferred second-line treatment options for people with diabetes who are unable to achieve glycemic control targets with lifestyle intervention and metformin alone. These treatment recommendations reinforce the timely use of basal insulin as a core therapy for type 2 diabetes.

Lantus® is the world number-one selling insulin brand in terms of both sales and units (source: IMS, 2012 sales) and is available in over 120 countries worldwide. The three leading countries for sales of Lantus® in 2012 were the United States, France and Japan.

## International epidemiology program

The epidemiological program sponsored by Sanofi was aimed at evaluating cancer risk in diabetes and generating comprehensive insulin glargine exposure data from large databases. It is the largest observational program designed for this purpose to date. The program results reinforce the robust safety profile of Lantus®, complementing the existing wealth of data already available from more than 80,000 patients enrolled in clinical trials.

The now completed epidemiological program comprised three major studies. These were designed independently of the company by the lead investigators and endorsed by the European Medicines Agency (EMA) and shared with the Food and Drug Administration (FDA). They used state-of-the-art biostatistical methodology with protocols that were discussed with a senior-level Biostatistics Advisory Group:

The Northern European Study analyzed over 1.5 million person-years of insulin exposure using databases from five countries – Denmark, Finland, Sweden, Norway and Scotland. The study reported no increased risk of breast cancer in women, prostate cancer in men and colorectal cancer in men and women in users of insulin glargine versus other insulins, among all users of insulin, and similarly among users of human insulin.

The U.S. Study analyzed over 0.4 million patient-years of insulin exposure from the Kaiser Permanente database (Northern and Southern California regions). Among all insulin users (insulin glargine and NPH insulin), and similarly among those switching to Lantus® and new insulin users, there was no association between use of insulin glargine and risk of breast cancer, prostate cancer, colorectal cancer or all cancers combined.



The International Study of Insulin and Cancer (ISICA) was a case-control study of female patients with diabetes in the UK, Canada and France. The study found no increase in the risk of breast cancer with insulin glargine use in diabetes patients and, furthermore, high doses or longer treatment duration with Lantus® were not associated with an increased risk of breast cancer.

### **ORIGIN**

ORIGIN was a seven-year randomized clinical trial designed to assess the effects of treatment with insulin glargine versus standard care on cardiovascular outcomes. This landmark study involved over 12,500 participants worldwide with pre-diabetes or early type 2 diabetes mellitus and high cardiovascular (CV) risk, with 6,264 participants randomized to receive insulin glargine titrated to achieve fasting normoglycemia. The co-primary endpoints were the composite of CV death, or non-fatal myocardial infarction, or nonfatal stroke; and the composite of CV death, or non-fatal myocardial infarction, or non-fatal stroke, or revascularization procedure, or hospitalization for heart failure.

Results showed that Lantus® had no statistically significant positive or negative impact on CV outcomes versus standard care during the study period. Results also showed that insulin glargine delayed progression from pre-diabetes to type 2 diabetes and there was no association between insulin glargine use and increased risk of any cancer. (New England Journal of Medicine, July 2012)

Sanofi is sponsoring a 2-year extension to ORIGIN, called ORIGINALE (Outcome Reduction with an Initial Glargine Intervention and Legacy Effect).

The results of the ORIGIN trial have been filed with the FDA and the EMA to update the Lantus® dossier at the end of 2012.

### **Apidra®**

Apidra® (insulin glulisine) is a rapid-acting analog of human insulin. Apidra® is indicated for the treatment of adults with type 1 diabetes, or in type 2 diabetes for supplementary glycemic control. Apidra® has a more rapid onset and shorter duration of action than fast-acting human insulin and can be in combination with long-acting insulins such as Lantus® for supplementary glycemic control at mealtime.

In addition, Apidra® is equally effective in adult diabetics ranging from lean to obese and offers patients greater flexibility of administration, either before or just after mealtime.

Apidra® can be administered subcutaneously using syringes or specific pens including the Apidra® SoloSTAR® disposable pen and the KlikSTAR® reusable pen.

Apidra® is available in over 100 countries worldwide.

After a temporary shortage of Apidra® 3mL cartridges (including Apidra® SoloSTAR®) in 2011 which impacted supplies in some markets, production of Apidra® 3mL cartridges returned to full capacity in the first half of 2012.

### **Insuman®**

Insuman® (human insulin) is a range of insulin solutions and suspensions for injection and is indicated for diabetes patients where treatment with insulin is required. Human insulin is produced by recombinant DNA technology in *Escherichia coli* strains.

Insuman® is supplied in vials, cartridges, pre-filled disposable pens (OptiSet® and SoloSTAR®) or reusable pens (ClickSTAR®) containing the active substance human insulin. The Insuman® range is comprised of rapid-acting insulin solutions (Insuman® Rapid and Insuman® Infusat) that contain soluble insulin, an intermediate-acting insulin suspension (Insuman® Basal) that contains isophane insulin, and combinations of fast- and intermediate-acting insulins in various proportions (Insuman® Comb). Insuman® is principally sold in Germany.

**Amaryl®/Amarel®/Solosa®**

Amaryl® (glimepiride) is a latest-generation, orally administered once-daily sulfonylurea (a glucose-lowering agent) indicated as an adjunct to diet and exercise to improve glycemic control in patients with type 2 diabetes. Amaryl® reduces the body's blood sugar level in two ways: by helping the body to produce more insulin both at mealtime and between meals, and by decreasing insulin resistance.

The combination of metformin (which reduces hepatic glucose production and decreases insulin resistance) with a sulfonylurea such as Amaryl® is effective in combating the two causes of type 2 diabetes. It is one of the most prescribed combinations of diabetes drugs worldwide. Amaryl M®, a fixed-dose combination of Amaryl® plus metformin in a single presentation, was launched in 2007.

A number of generics have received marketing authorization and have been launched in Europe, the United States and Japan.

**BGStar® / iBGStar®**

Sanofi and its partner AgaMatrix are co-developing intelligent solutions in diabetes care that demonstrate their commitment to simplifying and innovating the diabetes management experience for people with diabetes and healthcare providers. The blood glucose monitoring solutions are exclusive to Sanofi and are designed to be synergistic with the rest of the diabetes portfolio. BGStar® and iBGStar® are modern and intelligent blood glucose monitoring solutions which are easy to use, accurate, reliable and fit the lifestyle of people with diabetes today:

iBGStar® is the first blood glucose meter that seamlessly connects to the iPhone and iPod touch. It comes with the iBGStar® Diabetes Manager Application (DMA), allowing patients to capture and analyze diabetes-related information on the go, simplifying their daily diabetes management.

BGStar® integrates convenient, accurate and easy-to-use blood glucose management with decision-making support services.

These monitoring devices are an important step towards Sanofi's vision of becoming the global leader in diabetes care by integrating intelligent monitoring technology, therapeutic innovations, personalized services and support solutions.

BGStar® and iBGStar® are available in France, Germany, Spain, Italy, the Netherlands, Switzerland, Belgium, Luxembourg, Canada, Estonia, Australia, the UK and the Philippines. iBGStar® is also available in the United States and Saudi Arabia.

**Lyxumia®**

Lyxumia® (lixisenatide) is a once-daily prandial GLP-1 receptor agonist. In February 2013, the European Commission granted marketing authorization in Europe for Lyxumia® indicated for the treatment of adults with type 2 diabetes mellitus to achieve glycemic control in combination with oral glucose-lowering medicinal products and/or basal insulin when these, together with diet and exercise, do not provide adequate glycemic control. On completion of pricing and reimbursement discussions, Sanofi will initiate a phased launch of Lyxumia® throughout the European Union. Applications for regulatory approval were also submitted in several other countries around the world and are being reviewed. The FDA accepted the file for review in February 2013.

Additional Phase IIIb studies have been initiated and the ELIXA cardiovascular outcomes trial is ongoing.

A proof-of-concept study to compare insulin glargine/lixisenatide fixed ratio combination versus insulin glargine on glycemic control over 24 weeks has been fully recruited.

GLP-1 is a naturally-occurring peptide hormone that is released within minutes after eating a meal. It is known to suppress glucagon secretion from pancreatic alpha cells and stimulate glucose-dependent insulin secretion by pancreatic beta cells.

The active ingredient of Lyxumia® is in-licensed from Zealand Pharma.

**The main compound currently in Phase III clinical development in the Diabetes field is New Glargine Formulation:** A new formulation of insulin glargine with an improved pharmacodynamic profile is now in Phase III clinical testing. In addition to the two Phase III studies started during 2011, in the second half of 2012 the EDITION III and IV Phase III trials were initiated together with two dedicated clinical studies in Japan.

### ***Rare Diseases***

The acquisition of Genzyme in 2011 brought to the Group specific expertise in rare diseases, a sector where there are still many unmet needs, and expanded Sanofi's presence in the biotechnology sector.

Our Rare Disease business is focused on products for the treatment of rare genetic diseases and other chronic debilitating diseases, including lysosomal storage disorders, or LSDs, a group of metabolic disorders caused by enzyme deficiencies. Our principal rare disease products are enzyme replacement therapies: Cerezyme® (imiglucerase for injection) to treat Gaucher disease, Fabrazyme® (agalsidase beta) to treat Fabry disease and Myozyme® / Lumizyme® (alglucosidase alpha) to treat Pompe disease. In January 2013, Kynamro (mipomersen), an antisense oligonucleotide that inhibits the synthesis of apolipoprotein B-100, was approved by the FDA for homozygous familial hypercholesterolemia.

#### **Cerezyme®**

Cerezyme® (imiglucerase for injection) is an enzyme replacement therapy used to treat Gaucher disease, an inherited, potentially life-threatening LSD. It is estimated that there are approximately 10,000 Gaucher patients worldwide.

Cerezyme® is the only therapy with an 18-year history of reducing, relieving and reversing many of the symptoms and risks of Type 1 and Type 3 (in certain markets) Gaucher disease. Cerezyme® is administered by intravenous infusion over 1-2 hours.

In 2012, significant progress was made in resolving supply challenges encountered starting in 2009, and successfully restoring existing patients in major markets to normal dosing. For more information regarding manufacturing issues related to Cerezyme®, see "Item 4 Information on the Company Production and Raw Materials".

The principal markets for Cerezyme® are the United States, Europe and Latin America.

#### **Fabrazyme®**

Fabrazyme® (agalsidase beta) is an enzyme replacement therapy used to treat Fabry disease, an inherited, progressive and potentially life-threatening LSD. Fabry disease is estimated to affect between 5,000 and 10,000 people worldwide. Fabrazyme® is administered by intravenous infusion.

Fabrazyme® is available in over 30 countries, including the United States and Europe.

The strong recovery of Fabrazyme®, following manufacturing issues which began in 2009, continued in 2012 with the approval of the new Framingham plant in January 2012, stable production runs, the return of all existing patients in all markets to full dose and the addition of new patients. In the U.S., Fabrazyme® also benefited from Shire's withdrawal of the Replagal® BLA. For more information regarding manufacturing issues related to Fabrazyme®, see "Item 4 Information on the Company Production and Raw Materials".

#### **Myozyme® / Lumizyme®**

Myozyme® / Lumizyme® (alglucosidase alpha) are enzyme replacement therapies used to treat Pompe disease, an inherited, progressive and often fatal LSD. We estimate that there are approximately 10,000 Pompe patients worldwide.

Myozyme® has been marketed since 2006 in the United States and the EU and is currently available in 48 markets worldwide. Lumizyme® is the first treatment approved in the United States specifically to treat patients

with late-onset Pompe disease: Lumizyme® has been marketed since June 2010. Myozyme® and Lumizyme® are administered by intravenous infusion. Lumizyme® is used to treat Pompe disease in patients over eight years of age without evidence of cardiac hypertrophy.

Both products are a recombinant form of the same human enzyme but are manufactured using different sized bioreactors.

### **Kynamro**

Kynamro (mipomersen) is an antisense oligonucleotide (ASO) that inhibits the synthesis of apoB, a primary protein constituent of atherogenic lipoproteins. Mipomersen is being developed, in collaboration with Isis Pharmaceuticals Inc., for the treatment of patients with homozygous familial hypercholesterolemia (HoFH) and severe heterozygous FH (HeFH). FH is a genetic disorder that causes chronic and lifelong exposure to markedly elevated concentrations and numbers of atherogenic, apoB-containing lipoproteins (LDL, Lp(a)) leading to premature and severe cardiovascular disease. On January 29, 2013, Genzyme and Isis announced the FDA approval of Kynamro (Mipomersen sodium) for homozygous familial hypercholesterolemia. On December 14, 2012 Genzyme and Isis announced that the Committee for Medicinal Products for Human Use (CHMP) had adopted a negative opinion for its marketing authorization application submitted in 2011. In January 2013, Genzyme requested a re-examination of the CHMP opinion.

### **The main compounds currently in Phase II or III clinical development in the Rare Diseases field are:**

**Eliglustat tartrate** Substrate reduction therapy targeted for the treatment of Gaucher disease type 1. This product candidate is administered orally in capsule form and has the potential to transform the treatment experience of patients by providing an alternative to bi-weekly infusions. The fourth year of data from the Phase II trial of eliglustat tartrate suggests continued improvement across all endpoints including markers of bone disease. On February 15, 2013 Sanofi and Genzyme announced positive new data from the Phase III ENGAGE and ENCORE Studies. In ENGAGE, a Phase III trial aimed at evaluating the safety and efficacy of eliglustat in 40 treatment-naïve patients with Gaucher disease type 1, improvements were observed across all primary and secondary efficacy endpoints over the nine-month study period.

In ENCORE, a Phase III study assessing eliglustat vs. Cerezyme® in 160 patients with Gaucher disease type 1, the primary composite endpoint of clinical stability was met as well as for the individual components of the composite endpoint which was secondary endpoints.

### ***Multiple Sclerosis (MS)***

Our Multiple Sclerosis franchise is focused on the development and commercialization of therapies that treat this chronic autoimmune disease of the central nervous system. More than 2 million people suffer from MS worldwide. Our MS franchise consists of Aubagio® (teriflunomide), a once daily, oral immunomodulator that is approved in the United States and Australia, and Lemtrada (alemtuzumab), a monoclonal antibody that has completed two Phase III pivotal studies and has marketing applications under review by regulatory authorities in the U.S. and Europe.

### **Aubagio®**

Aubagio® (teriflunomide), an immunomodulatory agent with anti-inflammatory properties, inhibits dihydroorotate dehydrogenase, a mitochondrial enzyme involved in de novo pyrimidine synthesis. The exact mechanism by which teriflunomide exerts its therapeutic effect in MS is unknown but may involve a reduction in the number of activated lymphocytes in CNS. Aubagio® has shown significant efficacy across key measures of MS disease activity, including reducing relapses, slowing the progression of physical disability, and reducing the number of brain lesions as detected by MRI. Results of the first pivotal study (TEMSO), indicating that the product had an effect on disease activity in terms of relapse rate, disability progression and brain lesions with a favorable safety profile, were published in the New England Journal of Medicine in October 2011. Results from the second pivotal study (TOWER) were presented at 28th Congress of the European Committee for Treatment and Research

in Multiple Sclerosis (ECTRIMS) in October 2012. These results showed that Aubagio® significantly reduced the annualized relapse rate and slowed progression of disability in patients with relapsing forms of multiple sclerosis compared to placebo. Aubagio® is the first and only oral MS therapy to significantly slow the progression of disability in two Phase III trials.

Aubagio® received FDA approval in the United States in September 2012 for patients with relapsing forms of MS. The product also received regulatory approval in Australia in November 2012. Marketing applications for Aubagio® are currently under review by the European Medicines Agency and other regulatory authorities.

**The main compound currently in Phase III clinical development in the multiple sclerosis field is Lemtrada** (alemtuzumab), a humanized monoclonal antibody targeting CD52 antigen abundant on the surface of B and T lymphocytes leading to changes in the circulating lymphocyte pool. Alemtuzumab has been developed to treat patients with relapsing forms of MS. The two pivotal Phase III studies demonstrating the safety and efficacy of alemtuzumab were completed in 2011 and the results were published in the *Lancet* in November 2012. The first study, CARE-MS I, demonstrated strong and robust treatment effect on the relapse rate co-primary endpoint vs Rebif in treatment-naïve MS patients. The co-primary endpoint of disability progression (time to sustained accumulation of disability: SAD) did not meet statistical significance. The second study, CARE-MS II, demonstrated that relapse rate and SAD were significantly reduced in MS patients receiving alemtuzumab as compared with Rebif in MS patients who had relapsed on prior therapy. Results from CARE-MS II also showed that patients treated with Lemtrada were significantly more likely to experience improvement in disability scores than those treated with Rebif, suggesting a reversal of disability in some patients. In both pivotal studies, safety results were consistent with previous alemtuzumab use in MS and adverse events continued to be manageable. Marketing applications for Lemtrada are currently under review by regulatory authorities.

### **Oncology**

Sanofi has started to diversify its presence in the oncology field beyond chemotherapy (Eloxatine®, Taxotere® and Jevtana®), and launched an angiogenesis inhibitor, Zaltrap®, in August 2012 in the U.S.

#### **Taxotere®**

Taxotere® (docetaxel), a taxoid class derivative, inhibits cancer cell division by essentially "freezing" the cell's internal skeleton, which is comprised of microtubules. Microtubules assemble and disassemble during a cell cycle. Taxotere® promotes their assembly and blocks their disassembly, thereby preventing many cancer cells from dividing and resulting in death in many cancer cells.

Taxotere® is available in more than 90 countries as an injectable solution. The single vial formulation (one vial IV route 20-80mg) was launched in the U.S. and in the European Union in 2010. It has been approved for use in eleven indications in five different tumor types (breast, prostate, gastric, lung, and head and neck). Taxotere® is indicated for early stage and metastatic breast cancer, first-line and second-line metastatic Non-Small Cell Lung Cancer (NSCLC), androgen-independent (hormone-refractory) metastatic prostate cancer, advanced gastric adenocarcinoma (including adenocarcinoma of the gastroesophageal junction), and the induction treatment of patients with locally advanced squamous cell carcinoma of the head and neck.

The top four countries contributing to sales of Taxotere® in 2012 were the United States, Japan, China and Russia. Generics of docetaxel were launched at the end of 2010 in Europe, in April 2011 in the U.S., and in December 2012 in Japan (see " Patents, Intellectual Property and Other Rights" below).

#### **Eloxatine®**

Eloxatine® (oxaliplatin) is a platinum-based cytotoxic agent. Eloxatine®, in combination with infusional (delivered through the bloodstream) administration of two other chemotherapy drugs, 5-fluorouracil/leucovorin (the FOLFOX regimen), is approved by the FDA for adjuvant treatment of people with stage III colon cancer who have had their primary (original) tumors surgically removed. This approval was based on evidence of an improvement in disease-free survival after four years.

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Eloxatine® is in-licensed from Debiopharm and is marketed in more than 70 countries worldwide. The top four countries contributing to sales of Eloxatine® in 2012 were the United States, Canada, China, and South Korea.

Following the end of Eloxatine® European regulatory data exclusivity in April 2006, a number of oxaliplatin generics have been launched throughout Europe. Market exclusivity in the United States was lost on August 9, 2012. Several generics of oxaliplatin are available globally, except in Canada where Eloxatine® still has exclusivity.

### **Jevtana®**

Jevtana® (cabazitaxel) is a taxane derivative approved in combination with prednisone for the treatment of patients with hormone-refractory metastatic prostate cancer previously treated with a docetaxel-containing treatment regimen. Jevtana® was the result of a 14-year research and development program to address the significant unmet medical need after taxane-based treatment progression.

Jevtana® was launched in the United States in 2010. Jevtana® therapy is now covered by CMS (Committee for Medicare and Medicaid Services), and by most of the private insurance companies that pay for oncology care. In addition, the safety profile seen in clinical practice has been consistent with that seen in the pivotal TROPIC study.

In March 2011, Jevtana® received marketing authorization from the European Commission. The product was launched during the second quarter of 2011 in Germany and the UK. Jevtana® is now approved in 78 countries.

Sanofi has initiated a broad development program with Jevtana®. The clinical program is projected to evaluate Jevtana® in first- and second-line treatment of prostate cancer patients, second-line treatment of small-cell lung cancer patients, and pediatric patients with brain cancer.

The top four countries contributing to sales of Jevtana® in 2012 were the U.S., Germany, Italy and Brazil.

### **Mozobil®**

Mozobil® (plerixafor injection) is a hematopoietic stem cell mobilizer indicated in combination with granulocyte-colony stimulating factor (G-CSF) to mobilize hematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in patients with non-Hodgkin's lymphoma (NHL) and multiple myeloma (MM).

The main countries contributing to Mozobil® sales in 2012 were the U.S., Germany, France, the U.K. and Italy.

### **Zaltrap®**

Zaltrap® (aflibercept) is a recombinant fusion protein which acts as a soluble decoy receptor that binds to Vascular Endothelial Growth Factor-A (VEGF-A), VEGF-B and placental growth factor (PlGF), preventing the bound VEGF from binding to their native receptors. VEGF-A is one of the mediators contributing to angiogenesis. VEGF-B and PlGF, related growth factors in the VEGF family, may contribute to tumor angiogenesis as well. In the U.S., Zaltrap® is a registered trademark of Regeneron Pharmaceuticals, Inc.

In the U.S., Zaltrap® is approved under the U.S. proper name ziv-aflibercept for use in combination with FOLFIRI, in patients with metastatic colorectal cancer (mCRC) that is resistant to or has progressed following an oxaliplatin-containing regimen. Zaltrap® is marketed in the U.S. in August 2012.

In the European Union, Zaltrap® (aflibercept) was approved in February 2013 by the European Commission to treat metastatic colorectal cancer that is resistant to or has progressed after an oxaliplatin-containing regimen.

The marketing of Zaltrap® is organized through our collaboration with Regeneron (see "Item 5 Alliance Arrangements with Regeneron").

Concerning the development program for the treatment of metastatic prostate cancer, the Phase III VENICE trial (First-line treatment for androgen-independent (hormone-refractory) metastatic prostate cancer in combination

with docetaxel and prednisone) did not meet the pre-specified criterion of improvement in overall survival. The safety profile was generally consistent with previous studies of Zaltrap® in combination with docetaxel.

**The oncology R&D pipeline** includes a broad spectrum of novel agents with a variety of mechanisms of action for treating cancer, including cytotoxic agents, anti-mitotic agents, anti-angiogenic agents, targeted therapies and monoclonal anti-bodies (unconjugated or conjugated with cytotoxics). Projects are presented from the most advanced to the least advanced stage of development.

**The main compounds currently in Phase II or III clinical development in the Oncology field are:**

**Iniparib** (SAR240550; BSI-201) is an agent with novel mechanism of activity that is currently being studied in advanced squamous non-small cell lung cancer (Phase III, fully accrued) as well as ovarian and breast cancers (Phase II). While the initial dosing regimen was based on the putative PARP inhibitory activity, current efforts are aimed at elucidating the mechanism of action and exploring the maximal tolerated dose both as a single agent and in combination with chemotherapy.

**SAR302503** (TG101348) was acquired when we purchased TargeGen, Inc. in 2010 and is being developed exclusively by Sanofi. SAR302503 is a selective oral, small molecule inhibitor of the JAK2 kinase. JAK2 and the JAK/stat pathway have been identified as key regulators of growth and differentiation of normal hematopoietic cells, and are commonly dysregulated in multiple myeloproliferative disorders, including myelofibrosis (MF), polycythemia vera (PV), and essential thrombocytosis (ET). SAR302503 is now in Phase III, being investigated in the JAKARTA trial for the treatment of primary and secondary myelofibrosis. Enrollment in this study has been completed. The unique ability of SAR302503 to decrease bone marrow fibrosis will be further explored in the JAKARTA trial. In addition, a Phase II study in MF has recently been completed and results were presented at the December 2012 conference of the American Society of Hematology (ASH). A trial in myelofibrosis patients who have failed treatment with the JAK2 kinase inhibitor, JAKAFI /JAKAVI, has been initiated and enrollment is ongoing. Also ongoing is a Phase II trial in hydroxyurea-resistant PV and ET.

**SAR256212** (MM-121). Under an exclusive global collaboration and licensing agreement, Merrimack Pharmaceuticals, Inc. and Sanofi are co-developing SAR256212, a fully human monoclonal antibody targeting ErbB3. ErbB3 has been identified as a key node in tumor growth and survival. SAR256212 blocks Heregulin binding to ErbB3, and formation of pErbB3 and pAKT. Given SAR256212's mode of action, it has the potential to be used in a wide number of tumors and settings. SAR256212 is in Phase II stage of development in Breast, Lung and Ovarian cancers in order to achieve Proof of Concept of its activity at reversing resistance to hormones, chemotherapy and agents targeting EGFR. During 2012, over 450 patients were enrolled in this phase II program that will complete by the second half of 2013. Biopsies at study entry are being performed for all patients to identify biomarkers predictive of response to MM-121. A companion diagnostic tool will be developed during the clinical program.

In addition, a phase 1 combination of **SAR256212 and SAR245408** has been ongoing throughout 2012 in three U.S. sites, based on the rationale that dual blockade of the PI3K pathway prevents feedback loop for reactivating the pathway. The last dose escalation cohort at full dose of both drugs will start in January 2013; so far the safety of the 2 agents together is excellent with no DLTs reported.

**SAR245408** (XL147) was in-licensed from Exelixis, Inc. and is being developed by Sanofi. This oral phosphoinositide-3-kinase (PI3K) inhibitor is under evaluation in a Phase Ib study in combination with MM121 (see above) and a Phase II study in patients with hormone receptor positive breast cancer in combination with letrozole. Development in endometrial cancer has been discontinued due to insufficient evidence of activity. Development of the combination of SAR245408 in combination with pimasertib (also known as MSC1936369B) in Phase 1b (under collaboration with Merck Serono, a division of Merck KGaA, Darmstadt, Germany) was discontinued in order to focus on the SAR245409 pimasertib combination.

**SAR245409** (XL765) was also in-licensed from Exelixis, Inc. and is being developed by Sanofi. This oral agent is an inhibitor of phosphoinositide-3-kinase (PI3K) and also acts against the mammalian target of rapamycin (mTOR). A Phase II trial of monotherapy in mantle cell lymphoma, follicular lymphoma, chronic lymphocytic leukemia and diffuse large B cell lymphoma is ongoing. As indicated above, a

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Phase I trial of a novel combination with MSC1936369B (under collaboration with Merck Serono, a division of Merck KGaA, Darmstadt, Germany) is ongoing. Combinations with bendamustine and rituximab are also being evaluated. Development in metastatic hormone-receptor-positive breast cancer has been discontinued due to insufficient evidence of activity.

**SAR3419** (Antibody Drug Conjugate (ADC) maytansin-loaded anti-CD19 mAb; B-cell malignancies: B-Non Hodgkin's Lymphomas (NHL), B-Acute Lymphoblastic Leukemias (ALL). License from Immunogen Inc.). The clinical development program is in the Phase II stage in Diffuse Large B Cell Lymphoma (DLBCL, aggressive lymphoma type) with the aim of confirming clinical activity both as a single agent and in combination with Rituximab (rituxan, anti CD20 mAb). A second indication is being developed with a Phase II study in adult patients with R/R ALL.

Three further projects (semuloparin, ombrabulin and clofarabine) that were under regulatory review and in Phase III respectively in 2012, have experienced the following changes:

**Semuloparin:** Following the June 20, 2012 semuloparin data review by the FDA Oncologic Drugs Advisory Committee, and its vote against the approval of semuloparin for prophylactic prevention of venous thromboembolism (VTE) in cancer patients undergoing chemotherapy, as well as other comments released by some regulatory authorities, Sanofi has decided to withdraw all applications concerning semuloparin.

**Ombrabulin** (AVE8062) combretastatin derivative, a new anti-vascular agent in-licensed from Ajinomoto; sarcoma; Phase III). The ombrabulin project has been discontinued for the following reasons: the results of the phase III study in sarcoma which despite reaching its primary PFS (progression free survival) endpoint, did not demonstrate sufficient clinical benefit to support regulatory submissions; the negative outcome of a phase II trial in NSCLC; and the early termination of the phase II study in ovarian cancer based on the results of a pre-specified interim analysis. In all these trials there were no substantial safety concerns.

**Clofarabine** (Clolar® / Evoltra®) (Genzyme) (Purine-nucleoside analog). No additional indications are being developed via corporate-sponsored studies for clofarabine in either i.v. or oral formulations, although investigator-initiated studies are continuing.

### *Other Prescription Products*

#### **Lovenox®/Clexane®**

Lovenox® (enoxaparin sodium) is available in over 100 countries. It has been used to treat over 350 million patients since its launch.

Lovenox® has the broadest range of indications amongst low molecular weight heparins (LMWH). A comprehensive clinical development plan has demonstrated the efficacy and safety of Lovenox® in the prevention and treatment of venous thrombo-embolism (VTE) and in the management of the full spectrum of acute coronary syndromes (ACS).

In VTE management, Lovenox® is continuing to grow as a treatment for the prevention of VTE, mainly in acutely ill patients not undergoing surgery.

Two competing generics of enoxaparin are available in the U.S. No biosimilar has been approved in the European Union. An authorized generic is available in the U.S. See "Item 5. Operating and Financial Review and Prospects Impacts from generic competition".

In 2012, Lovenox® was the leading anti-thrombotic in Germany, France, Italy, Spain, and the United Kingdom (source: IMS 2012 sales).

#### **Plavix®/Iscover®**

Plavix® (clopidogrel bisulfate), a platelet adenosine diphosphate (ADP) receptor antagonist with a rapid onset of action that selectively inhibits platelet aggregation induced by ADP, is indicated for long-term prevention of





atherothrombotic events in patients with a history of recent myocardial infarction, recent ischemic stroke or established peripheral arterial disease. Plavix® is indicated for the secondary prevention of atherothrombosis regardless of the location of the arteries initially affected (heart, brain, lower limbs). Plavix® is now also indicated for the treatment of acute coronary syndrome (ACS) with and without ST segment elevation in combination with ASA.

Plavix® is also available in a 300 mg tablet that reinforces early use by simplifying its approved loading dose administration in patients with ACS.

In 2011, on the basis of the ACTIVE A study results (7,554 patients), the EMA granted marketing authorization for Plavix® in combination with ASA for the prevention of atherothrombotic and thromboembolic events, including stroke, in patients with atrial fibrillation who have at least one risk factor for prevention of vascular events, are not suitable for treatment with Vitamin K antagonists (VKA), and have a low bleeding risk.

CoPlavix® / DuoPlavin®, a fixed dose combination of clopidogrel bisulfate and acetylsalicylic acid (ASA), is indicated for the prevention of atherothrombotic events in adult patients with acute coronary syndrome who are already taking both clopidogrel and ASA.

The marketing of Plavix® / CoPlavix® / DuoPlavin® is organized through our alliance with BMS which was restructured in 2012 with effect on January 1, 2013 (see "Item 5 Alliance Arrangements with Bristol-Myers Squibb"). Sales of Plavix® in Japan are outside the scope of our alliance with BMS. Exclusivity for Plavix® in the U.S. expired on May 17, 2012 and a number of generics have been launched. Previously, generics had also been launched in Europe.

Plavix® is the leading anti-platelet in the Chinese and Japanese markets (source: IMS 2012 sales).

#### **Aprovel®/Avapro®/Karvea®**

Aprovel® (irbesartan) is an anti-hypertensive belonging to the class of angiotensin II receptor antagonists. These highly effective and well tolerated antagonists act by blocking the effect of angiotensin II, the hormone responsible for blood vessel contraction, thereby enabling blood pressure to return to normal. In addition to Aprovel®/Avapro®/Karvea®, we also market CoAprovel®/Avalide®/Karvezide®, a fixed dose combination of irbesartan and hydrochlorothiazide (HCTZ), a diuretic that increases the excretion of water and sodium by the kidneys and provides an additional blood pressure lowering effect. These products achieve control of blood pressure in over 80% of patients, with a very good safety profile.

Aprovel® and CoAprovel® tablets are available in a wide range of dosages to fit the needs of patients with different levels of hypertension severity.

Aprovel® is indicated as a first-line treatment for hypertension and for the treatment of nephropathy in hypertensive patients with type 2 diabetes. CoAprovel® is indicated in patients whose blood pressure is not adequately controlled with a monotherapy, but also as initial therapy in patients who are likely to need multiple drugs to achieve their blood pressure goals (in the United States only).

Aprovel® and CoAprovel® are marketed in more than 80 countries. The marketing of Aprovel® and CoAprovel® is organized through an alliance with BMS which was restructured in 2012 (see "Item 5 Alliance Arrangements with Bristol-Myers Squibb" below). In Japan, the product is licensed/sub-licensed to Shionogi Co. Ltd and Dainippon Sumitomo Pharma Co. Ltd, respectively. Aprovel® U.S. market exclusivity expired in March 2012 and a number of generic versions have been launched.

## Multaq®

Multaq® (dronedaron) is the most extensively studied anti-arrhythmic drug (AAD) in Atrial Fibrillation (AF) and has demonstrated a unique cardiovascular (CV) outcome benefit in the ATHENA study in addition to effective rhythm control in the EURIDIS and ADONIS studies.

Multaq® is a multichannel blocker with both rhythm (prevention of atrial fibrillation recurrences) and rate (decrease of ventricular rate) controlling properties and additional effects (anti-hypertensive, vasodilatory). It is the first and only anti-arrhythmic drug to have shown a significant reduction in cardiovascular hospitalization and death in patients with paroxysmal and persistent Atrial Fibrillation/Atrial Flutter .

Following reports in January 2011 of hepatocellular liver injury and hepatic failure in patients receiving Multaq®, including two post-marketing reports of acute hepatic failure requiring transplantation, Sanofi has collaborated with health authorities agencies to update prescribing information and include liver function monitoring. Sanofi coordinated the implementation of the updated label by disseminating proactively relevant educational materials to prescribers.

The Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) confirmed in September 2011 that the benefits of Multaq® continue to outweigh the risks with a revised indication for the treatment of a limited, newly defined population: Multaq® is indicated for the maintenance of sinus rhythm after successful cardioversion in adult clinically stable patients with paroxysmal or persistent atrial fibrillation. Due to its safety profile, Multaq® should only be prescribed after alternative treatment options have been considered and should not be given to patients with left ventricular systolic dysfunction or to patients with current or previous episodes of heart failure.

The FDA approved a label update in December 2011 to ensure its use in the appropriate patient population, specifically in patients in sinus rhythm with history of paroxysmal or persistent atrial fibrillation (AF), and also reinforcing warnings and precautions for use.

In Europe, updated guidelines were issued by the European Society of Cardiology (ESC) confirming Multaq®'s crucial role in the AF treatment armamentarium as a first line option in a broad range of patients. Multaq® is the only recommended first line AAD for AF patients with hypertensive heart disease and left ventricular hypertrophy. Multaq® is still the only AAD recommended in non-permanent AF with CV risk factors to reduce CV hospitalization.

The main countries contributing to Multaq® sales in 2012 were the U.S., Germany and Italy.

## Renagel® and Renvela®

Renagel® (sevelamer hydrochloride) and Renvela® (sevelamer carbonate) are oral phosphate binders used by chronic kidney disease (CKD) patients on dialysis as well as late-stage CKD patients in Europe to treat a condition called hyperphosphatemia, or elevated phosphorus levels, which is associated with heart and bone disease. Renvela® is a second generation, buffered phosphate binder.

In the United States, there are an estimated 395,000 dialysis patients, approximately 90% of whom receive a phosphate binder. There are an estimated 350,000 dialysis patients in the EU and 65,000 in Brazil. In the EU, Renvela® is also approved to treat CKD patients not on dialysis.

We market Renagel® and Renvela® directly to nephrologists through Sanofi's employee sales force and distribute these products through wholesalers and distributors. In Japan and several Pacific Rim countries, Renagel® is marketed by Chugai Pharmaceutical Co., Ltd and its sublicensee, Kyowa Hakko Kirin Co., Ltd.

In the United States, Genzyme and generic manufacturers have settled pending litigation with regard to the production and sale of generic formulations of Renvela® tablets, Renvela® for oral suspension and Renagel®. According to the terms of the settlements, the first-filer for each product can enter the U.S. market on March 16, 2014 and second-filers can enter the market on September 16, 2014, or earlier under certain circumstances, pending approval of their generic application.

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The top five countries contributing to the sales of Renegel® and Renvela® in 2012 were the U.S., Italy, France, the UK, and Brazil.

### **Synvisc®/Synvisc-One®**

Synvisc® and Synvisc-One® (hylan G-F 20) are viscosupplements used to treat pain associated with osteoarthritis of certain joints. Synvisc is indicated for the treatment of pain associated with osteoarthritis of the knee, hip, ankle, and shoulder joint in countries that have adopted CE marking, and for pain due to knee osteoarthritis in the United States. Currently the main viscosupplementation market is for the treatment of pain associated with osteoarthritis of the knee.

Synvisc® is a triple-injection product and Synvisc-One® a single-injection product. Both are administered directly into the intra-articular space of the joint to temporarily restore osteoarthritis synovial fluid.

Synvisc® and Synvisc-One® are primarily marketed through Sanofi's employee sales force directly to physicians, hospitals, and pharmacies, while in some countries the products are still promoted by independent distributors.

In 2012, Sanofi initiated a pivotal clinical trial of Synvisc-One® for treatment of pain associated with mild to moderate primary osteoarthritis of the hip. The trial is a double-blind, randomized, placebo-controlled study in 350 patients recruited from 26 sites in the United States.

In 2012, the top five countries contributing to Synvisc® and Synvisc-One® sales were the U.S., Canada, France, Mexico and Germany.

### **LeGoo®**

At the end of 2012, Sanofi launched LeGoo®, a gel for temporary endovascular occlusion of blood vessels during surgical procedures in the U.S. LeGoo® is an innovative technology that is expected to enhance the Sanofi Biosurgery portfolio.

### **Stilnox®/Ambien® /Myslee®**

Stilnox® (zolpidem tartrate) is indicated in the short-term treatment of insomnia. Stilnox® rapidly induces sleep that is qualitatively close to natural sleep and devoid of certain side effects that are characteristic of the benzodiazepine class as a whole. Its action lasts for a minimum of six hours, and it is generally well tolerated, allowing the patient to awaken with a reduced risk of impaired attention, decreased alertness or memory lapses throughout the day.

Stilnox® is marketed in over 100 countries. It is available under the brand name Ambien® / Ambien®CR in the United States and Myslee® in Japan, where it is co-promoted jointly with Astellas.

Stilnox® and Ambien CR® are subject to generic competition in most markets, including the United States and Europe. In Japan, generics of Myslee® entered the market in June 2012.

### **Allegra®/Telfast®**

Allegra® (fexofenadine hydrochloride) is a long-lasting (12- and 24-hour) non-sedating prescription anti-histamine for the treatment of seasonal allergic rhinitis (hay fever) and for the treatment of uncomplicated hives. It offers patients significant relief from allergy symptoms without causing drowsiness.

We also market Allegra-D® 12 Hour and Allegra-D® 24 Hour, anti-histamine/decongestant combination products with an extended-release decongestant for effective non-drowsy relief of seasonal allergy symptoms, including nasal congestion. Generics of most forms of Allegra®/Telfast® have been approved in our major markets.

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In the United States, the Allegra® family moved to over-the-counter (OTC) use in adults and children two years of age and older in 2011. Allegra® was also launched on the OTC market in Japan in November 2012, though it also remains available on prescription (see "Consumer Health Care" below).

Allegra®/Telfast® is marketed in approximately 80 countries. The largest market for prescriptions of Allegra® is Japan, where competing generics entered the market in early 2013 (for more information see "Item 8 Financial Information A. Consolidated Financial Statements and Other Financial Information Information on Legal or Arbitration Proceedings").

### **Depakine®**

Depakine® (sodium valproate) is a broad-spectrum anti-epileptic that has been prescribed for more than 40 years. Numerous clinical trials and long years of experience have shown that it is effective for all types of epileptic seizures and epileptic syndromes, and is generally well tolerated. Consequently, Depakine® remains a reference treatment for epilepsy worldwide.

Depakine® is also a mood stabilizer, registered in the treatment of manic episodes associated with bipolar disorder and, in numerous countries, in the prevention of mood episodes.

We provide a wide range of formulations of Depakine® enabling it to be adapted to most types of patients: syrup, oral solution, injection, enteric-coated tablets, Depakine® Chrono (a sustained release formulation in tablets) and Depakine® Chronosphere (sustained release formulation of Depakine® packaged in stick packs, facilitating its use by children, the elderly and adults with difficulties swallowing).

Depakine® is marketed in over 100 countries, and is generally subject to generic competition.

### **Auvi-Q**

At the end of January 2013, Sanofi launched Auvi-Q (epinephrine injection, USP) in the U.S. Auvi-Q is the first-and-only epinephrine auto-injector with audio and visual cues for the emergency treatment of life-threatening allergic reactions in people who are at risk for or have a history of anaphylaxis. Up to six million Americans may be at risk for anaphylaxis, although the precise incidence is unknown and likely underreported.

Sanofi US licensed the North American commercialization rights to Auvi-Q from Intelliject, Inc.

### **Main compounds currently in Phase II or III clinical development:**

In the Metabolic field:

Phase II results for **SAR236553**, co-developed with Regeneron (REGN727: anti-PCSK9 mAb), have been obtained confirming a significant reduction in mean LDL-C by 40% to 72% over 8 to 12 weeks in patients with elevated LDL-C in patients on stable dose of statins.

A large phase III clinical program has been initiated (11 trials, 22,000 patients), and the first results are expected during the third quarter of 2013.

In the Ophthalmology field:

Sanofi started establishing its footprint in ophthalmology through the acquisition of Fovea, a French ophthalmology specialist (in October 2009), the ophthalmology assets of Genzyme (acquired in 2011), and a collaboration agreement with Oxford BioMedica (April 2009) that led to the exercise of two opt-in options in August 2012.

One project in Phase II (**FOV2304** eye-drop formulation of a bradykinin B1 receptor antagonist evaluated in diabetic macular edema) was discontinued in October 2012, and the review of Phase IIb results for **FOV-1101** (eye-drop fixed dose combination of prednisolone acetate and cyclosporine A for the treatment of allergic conjunctivitis) led to a reassessment of the commercial prospects for this compound and a decision to continue development under a sublicense agreement with an as yet unidentified third party.

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In the Thrombosis and Cardiovascular field:

**Otamixaban** (direct factor Xa inhibitor, interventional cardiology; Phase III). Otamixaban is an injectable, selective direct inhibitor of coagulation factor Xa. It is a synthetic small molecule. Otamixaban exhibits a fast on- and off-set of action. A Phase III program to confirm the positive outcome from the SEPIA-ACS Phase II study was initiated in 2010 and is now ongoing; results are expected in the 2<sup>nd</sup> quarter of 2013.

In the Internal Medicine field:

**Sarilumab (SAR153191)**, a monoclonal antibody against the Interleukin-6 Receptor (anti IL-6R mAb) derived from our alliance with Regeneron, is in Phase III in adult patients with moderate to severe rheumatoid arthritis (RA). The SARIL-RA phase III program is underway with three ongoing clinical studies:

SARIL-RA-MOBILITY study, investigating the effects of sarilumab, (when added to Methotrexate (MTX) in patients with active RA who are inadequate responders to MTX therapy), on the reduction of signs and symptoms of rheumatoid arthritis at 24 weeks, inhibition of progression of structural damage at 52 weeks and improvement in physical function over 52 weeks;

SARIL-RA-TARGET study, investigating the effects of Sarilumab when added to DMARD therapy in patients with active RA who are inadequate responders or intolerant to tumor necrosis factor alpha (TNF- $\alpha$ ) antagonists on reduction of signs and symptoms at week 24 and improvement of physical function over 24 weeks in patients;

SARIL-RA-EXTEND study, which is enrolling participants by invitation from currently ongoing studies and aims to evaluate in this uncontrolled extension the long term safety and efficacy of Sarilumab on top of DMARDs in patients with active RA.

Additional studies in the SARIL-RA phase III clinical program are to be implemented in 2013.

**Dupilumab (SAR231893)**, a monoclonal antibody against the Interleukin-4 alpha Receptor (anti IL-4R alpha) derived from our alliance with Regeneron, is currently being developed in two indications. Dupilumab modulates signaling of both IL-4 and IL-13 pathways. Asthma will enter Phase IIb in 2Q2013. The asthma PoC study results demonstrated broader efficacy (exacerbations, lung function and symptoms) than the competition. Atopic dermatitis will also enter Phase IIb in 2Q2013. The atopic dermatitis PoC study results demonstrated improvement in signs and symptoms of active disease, with very effective and rapid onset of action compared to systemic therapies currently used in AD.

### Consumer Health Care (CHC)

Consumer Health Care is a growth platform identified in our broader strategy. In 2012, we recorded CHC sales of €3,008 million, an increase of 9.9%. Nearly half of our CHC sales were in emerging markets, 22% in Europe, and 21% in the United States.

In March 2011, the Allegra® family of allergy medication products was commercially launched in the U.S. for over-the-counter (OTC) use in adults and children two years of age and older. The Allegra® family of OTC products is available in drug, grocery, mass merchandiser, and club stores nationwide. In November 2012, Sanofi launched Allegra® OTC in Japan, for patients suffering allergic rhinitis (15 years and older).

CHC sales are also supported by our legacy CHC brands, which provide us with a strong presence in the fever & pain and digestive health areas.

Doliprane® is a range of paracetamol formulas to fight pain and fever. Thanks to a wide offer both in terms of dosages (from 2.4% paracetamol suspension up to 1g formulas) and pharmaceutical forms (suspension, tablets, powder, suppositories), Doliprane® covers the needs of patients from baby to elderly. Doliprane® is sold mainly in France and in some African countries.



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NoSpa® is a product containing drotaverine hydrochloride. NoSpa® is indicated in abdominal spastic pain such as intestinal spasm, menstrual pain, or vesical spasm. NoSpa® is sold mainly in Russia and Eastern Europe.

Enterogermina® is composed of two billion Bacillus clausii spores in a ready-to-drink oral suspension in vials of 5ml and in capsules. Enterogermina® is indicated in the prevention and the treatment of intestinal imbalance during acute or chronic intestinal disorders (from babies to adults). Enterogermina® is sold mainly in Europe and has been enjoying strong growth in Latin America, India and Central Asia.

Essentiale® is a herbal preparation for liver therapy, made of highly purified essential phospholipids extracted from soybeans and containing a high percentage of phosphatidylcholine, a major constituent of cellular membrane. Essentiale® is used to treat symptoms such as lack of appetite, sensation of pressure in the right epigastrium, toxico-nutritional liver damage and hepatitis. Essentiale® is sold mainly in Russia, Eastern Europe, and some South East Asian countries.

Maalox® is a well-established brand containing two antacids: aluminium hydroxide and magnesium hydroxide. Maalox® is available in several pharmaceutical forms – tablets, suspension, and stick packs – to provide consumer choice. Maalox® is present in 55 countries: in Europe, Latin America, Russia, Africa, Middle East, and in some Asian countries.

Magne B6® is a product containing magnesium and vitamin B6. MagneB6® has various therapeutic indications from irritability, anxiety and sleep problems to women's health issues like premenstrual syndrome or menopause discomfort. MagneB6® is present in Europe and Russia.

Lactacyd® is a range of products for feminine hygiene. Lactacyd® is sold mainly in Brazil and Asia. Lactacyd® was launched in China in May 2011.

Complementary to our legacy CHC business, our other products include:

Chattem's products in the United States (other than the Allegra® family of OTC products), mainly comprising branded consumer healthcare products, toiletries and dietary supplements across niche market segments. Chattem's well-known brands include Gold Bond®, Icy Hot®, ACT®, Cortizone-10®, Selsun Blue® and Unisom®. In January 2013, Chattem completed the acquisition of the worldwide rights to the Rolaid® brand from McNeil Consumer Healthcare Division of McNeil-PPC, Inc. Rolaid® is an over-the-counter antacid that helps relieve heartburn and acid indigestion.

Oenobiol's products in France: dietary supplements to promote beauty (sun care, weight, hair care, skin care) and well-being (digestive comfort, anti-stress) and to help manage menopausal problems.

BMP Sunstone products in China, including the leading pediatric cough and cold brand Haowawa®.

Minsheng products in China, including 21 Super Vita®, one of the leading vitamins & mineral supplements.

Universal Medicare brands in India, comprising a wide range of nutraceutical and lifestyle management products vitamins, antioxidants, mineral supplements and anti-arthritis such as Seacod®, CoQ®10, Collaflex® and Multivit®.

The top three countries contributing to our CHC sales in 2012 were the United States, France, and Russia.

### Generics

In 2012, sales of the generics business reached €1,844 million, an increase of 5.0%. Performance was impacted by lower sales of the authorized generic of Lovenox® in the U.S. and less favorable market conditions in Brazil (heightened competition coupled with once-off tax



changes in Sao Paulo State which influenced the generics market).

In Latin America, Medley®, Sanofi's Brazilian brand of affordable medicines, was rolled out in Mexico and Venezuela at end of 2011 and in Colombia and Central America during 2012. In October 2012, Sanofi announced that it had signed an agreement to acquire Genfar S.A., a leading pharmaceuticals manufacturer headquartered in

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Bogota, Colombia, and a major player in Colombia and the other countries in Latin America. The closing of the transaction is subject to certain conditions precedent and is expected to occur in the first quarter of 2013.

In 2012, Sanofi sales of generic products in Emerging Markets exceeded €1 billion. See "Item 5. Operating and Financial Review and Prospects Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011 Net Sales by Product Pharmaceuticals segment".

In March 2009 we created our European Generics Platform, covering generics activities across Western and Eastern Europe, Russia and Turkey. The rebranding of Sanofi Generics activities under the Zentiva® brand in Western Europe, initiated in 2010, is nearly complete.

### Vaccine Products

Sanofi Pasteur is a fully integrated vaccines division offering a broad range of vaccines. In 2012, Sanofi Pasteur provided more than 1 billion doses of vaccine, making it possible to immunize more than 500 million people across the globe against 20 serious diseases, and generated net sales of €3,897 million. Sales were favorably impacted by strong growth in markets outside North America and Europe, including sales of the IPV (inactivated polio vaccine) Imovax® Polio in Japan, continued growth of Pentaxim® sales and successful seasonal influenza vaccine campaigns in both the Northern and Southern hemispheres. See "Item 5. Operating and Financial Review and Prospects Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011 Net Sales Human Vaccines (Vaccines) segment."

Sanofi Pasteur is a world leader in the vaccine industry in terms of sales. In the United States, Sanofi Pasteur is the market leader in the segments where we compete (source: based on internal estimates).

In Europe, Sanofi Pasteur vaccine products are developed and marketed by Sanofi Pasteur MSD, a joint venture created in 1994 and held equally by Sanofi Pasteur and Merck & Co. Inc., which serves 19 countries. Sanofi Pasteur MSD also distributes such Merck & Co. vaccine products as Gardasil® and Zostavax®, in the joint venture's geographic scope. In 2012, Sanofi Pasteur MSD net sales, which are accounted for using the equity method, amounted to €845 million.

Sanofi Pasteur has been expanding in Asia (China, India and Japan), Latin America (Mexico and Brazil), Africa, the Middle-East and Eastern Europe. Sanofi Pasteur is very active in publicly-funded international markets such as UNICEF and the Global Alliance for Vaccines and Immunization (GAVI).

See " Vaccines Research and Development" below for a presentation of the Sanofi Pasteur R&D portfolio.

The table below shows net sales of vaccines by product range:

	2012
(€ million)	Net Sales
Polio/Pertussis/Hib Vaccines	1,184
Influenza Vaccines *	884
Meningitis/Pneumonia Vaccines	650
Adult Booster Vaccines	496
Travel and Other Endemics Vaccines	364
Other Vaccines	319
<b>Total Human Vaccines</b>	<b>3,897</b>

\*

*Seasonal and pandemic influenza vaccines.*

### Pediatric, Combination and Poliomyelitis (Polio) Vaccines

These vaccines vary in composition due to diverse immunization schedules throughout the world.

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Sanofi Pasteur is one of the key players in pediatric vaccines in both emerging and mature markets with a broad portfolio of standalone and combination vaccines protecting against up to six diseases in a single injection.

Pentacel®, a vaccine protecting against five diseases (pertussis, diphtheria, tetanus, polio and *Haemophilus influenzae* type b), was launched in the United States in 2008.

Pediacel®, a fully liquid pentavalent vaccine, has been the standard of care in the United Kingdom since 2004 for protecting against diphtheria, tetanus, pertussis (whooping cough), polio and *Haemophilus influenzae* type b infections. As of December 31, 2011, Pediacel® was approved in 29 countries across Europe in a new syringe presentation.

Pentaxim®, a combination vaccine protecting against diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b, was first marketed in 1997 and was launched in China in May 2011. To date, more than 150 million doses of Pentaxim® have been distributed in over 100 countries, and the vaccine has been included in the national immunization programs in more than 23 countries.

Act-HIB®, for the prevention of *Haemophilus influenzae* type b (Hib) infections, is also an important growth driver within the pediatric product line. In 2008, Act-HIB® became the first Hib vaccine to be approved in Japan.

Hexaxim® is the only fully liquid, ready to use 6-in-1 (hexavalent) pediatric vaccine providing protection against diphtheria, tetanus, pertussis, polio, *Haemophilus influenzae* type b infections and hepatitis B. In June 2012, Sanofi Pasteur received a positive scientific opinion for Hexaxim® from the European Medicines Agency (EMA) as part of the Article 58 procedure designed to evaluate medicinal products intended for international markets outside the European Union. As a second step, to ensure continuity of supply as well as expanded access to hexavalent vaccines throughout the 27 E.U. member states, the vaccine was submitted to the European Medicines Agency for license review in Europe. In February 2013, the EMA recommended market approval for the 6 in 1 pediatric vaccine. This innovative vaccine will be commercialized under the brand name Hexyon in Western Europe by Sanofi Pasteur MSD, and under the brand name Hexacima in Eastern Europe by Sanofi Pasteur.

PR5I is a combination vaccine designed to help protect against six diseases: diphtheria, tetanus, pertussis, polio (poliovirus type 1, 2 and 3), invasive disease caused by *Haemophilus influenzae* type b, and hepatitis B. This product is jointly being developed between Sanofi Pasteur and Merck in the U.S. and Europe. Phase III studies in the U.S. and Europe began in April 2011.

Sanofi Pasteur is one of the world's leading developers and manufacturers of polio vaccines, in both oral (OPV) and enhanced injectable (eIPV) form. The worldwide polio eradication initiative led by the World Health Organization (WHO) and UNICEF has positioned Sanofi Pasteur as a global preferred partner with both OPV and eIPV vaccines.

Sanofi Pasteur is also supporting the introduction of eIPV internationally. With recent progress towards polio eradication in countries such as Brazil and Japan in 2012, Sanofi Pasteur expects the use of eIPV to gradually increase. As a result, Sanofi Pasteur is expanding its production capacity to meet the growing demand.

Shantha Biotechnics (Shantha) in India is currently pursuing requalification of Shan5®, a combination vaccine protecting against diphtheria, tetanus, pertussis, hepatitis B and *Haemophilus influenzae* type b, with the WHO. Shantha has worked closely with Sanofi Pasteur to improve key manufacturing steps in the production of the antigen components of the vaccine. The path back to obtaining prequalification status has been discussed extensively with the WHO and local Indian regulators. Based on the successful completion of clinical studies, Shan5® is expected to regain WHO prequalification in 2014.

### **Influenza Vaccines**

Sanofi Pasteur is a world leader in the production and marketing of influenza vaccines. Sales of the influenza vaccines Fluzone® and Vaxigrip®/Mutagrip® have more than tripled since 1995 and annual supply reached more than 200 million doses in 2012 to better meet increasing demand. In recent years, influenza vaccine demand has experienced strong growth in many countries, particularly in the U.S., Brazil and Mexico. Sanofi Pasteur expects

the global demand for influenza vaccines to continue to grow within the next decade due to increased disease awareness, growth in emerging markets and wider government immunization recommendations.

Sanofi Pasteur remains focused on maintaining its leadership in the influenza market and on meeting the increasing demand for both pandemic and seasonal influenza vaccines through the launch of innovative vaccines.

In 2012, Sanofi Pasteur expanded its launch of Fluzone® ID in the U.S. in adults. The advantages of this vaccine are particularly its convenience and ease of administration. Fluzone ID® and Intanza®/IDflu® vaccines are now approved in the United States, European Union, Canada, Australia and other countries for the prevention of seasonal influenza in adults from 18 to 64 years of age.

Fluzone® High-Dose vaccine, launched in the United States in 2010, was specifically designed to generate a more robust immune response against influenza in people 65 years of age or older. This age group, which typically shows a weaker immune response, has proven to respond better to the Fluzone® High-Dose vaccine. It continued its strong growth in 2012.

Fluzone® QIV candidate vaccine is a quadrivalent inactivated influenza vaccine containing two antigens of type A (H1N1 and H3N2) and two antigens of type B (one each from Yamagata and Victoria lineage). Selecting the prevailing influenza strains for upcoming seasons is an incredibly difficult task. In the recent past, there have been a number of mismatches of the B strain component in the trivalent vaccine compared with the circulating B lineage. Sanofi Pasteur expects that increasing the number of strains in the vaccine will give increased protection against the most prevalent strains. Sanofi Pasteur filed a supplemental Biologics License Application (sBLA) with the FDA for Fluzone® QIV in October 2012. The sBLA file has been accepted by the FDA for full review, and an action date is anticipated in the second quarter of 2013.

### **Adult and Adolescent Boosters**

Pertussis (whooping cough) affects children, adolescents and adults. Resurgence, in particular in the U.S. and other parts of the world, combined with increased awareness of the dangers of vaccine-preventable diseases in general, has led to higher sales of this product group in recent years.

Adacel®, the first trivalent adolescent and adult booster against diphtheria, tetanus and pertussis, was licensed and launched in the United States in 2005. This vaccine plays an important role in efforts to better control pertussis, by preventing the disease in adolescents and adults, and by breaking the cycle of transmission to infants too young to be immunized or only partially vaccinated. Adacel® is now registered in more than 50 countries.

Quadracel®, a quadrivalent booster vaccine (fifth dose) including diphtheria, tetanus, acellular pertussis and IPV, is being developed for the U.S. market. It would allow a child to complete the entire childhood series with the fewest doses possible. It is currently in Phase III trials.

### **Meningitis and pneumonia vaccines**

Sanofi Pasteur is at the forefront of the development of vaccines to prevent bacterial meningitis. In 2005, Sanofi Pasteur introduced Menactra®, the first conjugate quadrivalent vaccine against meningococcal meningitis, considered by many as the deadliest form of meningitis in the world. By April 2011, the FDA had granted Sanofi Pasteur a license to expand the indication of Menactra® to children as young as 9 months of age. Menactra® is now indicated for people aged 9 months through 55 years in the United States, Canada, Saudi Arabia and numerous other countries in Latin America, the Middle East and Asia Pacific regions.

Meningitis A, C, Y, W-135 conj. Second Generation is a project targeting a second generation meningococcal vaccine that uses an alternative conjugation technology. In 2011, interim Phase II clinical trial results were obtained and indicated that the product is sufficiently immunogenic for further development in infants.

### **Travel and Endemics Vaccines**

Sanofi Pasteur provides a wide range of travel and endemic vaccines including hepatitis A, typhoid, rabies, yellow fever, cholera vaccines and anti-venoms. These vaccines are used in endemic settings in the developing

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world and are the basis for important partnerships with governments and organizations such as UNICEF. They are also used by the military and travelers to endemic areas. As the global leader in the majority of these vaccine markets, Sanofi Pasteur's Travel/Endemics activity has demonstrated stable growth.

IMOJEV<sup>®</sup>, a Japanese encephalitis vaccine, is also in development. The Australian healthcare authorities granted approval of the latest variations of the IMOJEV<sup>®</sup> file on September 24, 2012 for individuals aged 12 months and over, followed by the Thai Food and Drug Administration on November 14, 2012. IMOJEV<sup>®</sup> has now been launched in these two countries.

A new generation Vero serum-free vaccine (VerorabVax<sup>®</sup>) will provide a worldwide, single rabies vaccine as a replacement to our current rabies vaccine offerings. Results from the 2009 Phase II clinical trial demonstrated non-inferiority of VRVg versus Verorab<sup>®</sup> in pre-exposure prophylaxis. VRVg was approved in France as a line extension of VeroRab in January 2011 and clinical development is finalized in China with completion of Phase III confirming non-inferiority vs. Verorab<sup>®</sup> in simulated post-exposure prophylaxis.

In December 2009, Shantha launched ShanChol<sup>™</sup>, India's first oral vaccine to protect against cholera in children and adults. ShanChol<sup>™</sup> was World Health Organization pre-qualified in 2011 and more than 1 million doses of ShanChol<sup>™</sup> were sold worldwide in 2012.

### Other Products

Sanofi Pasteur acquired Topaz Pharmaceuticals in October 2011. The integration of Topaz was completed in 2012. The FDA licensed Sklice<sup>®</sup> (ivermectin) lotion, 0.5%, on February 7, 2012 as a one-time treatment for head lice in persons aged 6 months and older, and commercial launch commenced in July 2012.

### Animal Health: Merial

Our animal health activity is carried out through Merial, one of the world's leading animal healthcare companies (source: Vetnosis), dedicated to the research, development, manufacture and delivery of innovative pharmaceuticals and vaccines used by veterinarians, farmers and pet owners. It provides a comprehensive range of products to enhance the health, well-being and performance of a wide range of production and companion animals. Its net sales for 2012 amounted to €2,179 million.

Merial became Sanofi's dedicated animal health division following the joint statement issued by Merck and Sanofi in March 2011 announcing the end of their agreement to create a new animal health joint venture by combining their respective animal health segments. Consequently all Merial financials are consolidated in Group reports. See Note D.2. to our consolidated financial statements included at Item 18 of this annual report.

The animal health product range comprises four major segments: parasiticides, anti-infectious drugs, other pharmaceutical products (such as anti-inflammatory agents, anti-ulcerous agents, etc.) and vaccines. Merial's top-selling products include Frontline<sup>®</sup>, a topical anti-parasitic flea and tick brand for dogs and cats, the highest selling veterinary product in the world (source: Vetnosis); Heartgard<sup>®</sup>, a parasiticide for control of heartworm in companion animals; Ivomec<sup>®</sup>, a parasiticide for the control of internal and external parasites in livestock; Vaxxitek<sup>®</sup>, a high-technology vector vaccine, protects chickens against infectious bursal disease (IBD) and Marek's disease; Previcox<sup>®</sup>, a highly selective anti-inflammatory/COX-2 inhibitor for relief of pain and control of inflammation in dogs; Eprinex<sup>®</sup>, a parasiticide for use in cattle; and Circovac<sup>®</sup> a PCV2 (porcine circovirus type 2) vaccine for swine. Merial plays a key role in the veterinary public health activities of governments around the world. It is the world leader in vaccines for Foot-and-Mouth disease (FMD), rabies, and bluetongue (BTV) (source: Vetnosis).

The compound patent protecting fipronil, the active ingredient of Frontline<sup>®</sup>, expired in 2009 in Japan and in some European countries, including France, Germany, Italy, and the United Kingdom, and in August 2010 in the United States. In those markets where the fipronil compound patent has expired, Frontline<sup>®</sup> products are generally still protected through formulation patents (directed to combinations) which expire at the latest in 2017 in Europe (August 2016 in the United States). Frontline<sup>®</sup> is also protected by a method of use patent in the United States and the European Patent area (Germany, France, Italy and the United Kingdom), expiring March 2018. As for human

pharmaceutical products, patent protection for animal pharmaceutical products extends in most cases for 20 years from the filing date of the priority application.

As regards regulatory exclusivity, the position of veterinary medicinal products in Europe is similar to that of human pharmaceutical products: eight-year data exclusivity and ten-year market exclusivity. In the United States, there is ten-year data exclusivity for products approved by the Environmental Protection Agency and an additional five years during which a generic applicant has to compensate the originator if it cites the originator's data. For FDA approved veterinary medicinal products, a regulatory exclusivity period of five years is granted for a new chemical entity and three years for a previously-approved active ingredient. No data exclusivity exists at present for veterinary vaccines in the United States.

In April 2012, Merial acquired Newport Laboratories (Newport), a privately held company based in Worthington, Minnesota (United States), a leader in autogenous vaccines with a focus on swine and bovine production markets.

On December 20, 2012, Merial entered into a binding agreement to acquire the animal health division of the Indian company Dosch Pharmaceuticals Private Limited, creating a market entry for Merial in that country's strategically important and growing animal health sector. The agreement is subject to regulatory approval and is expected to finalize sometime in the first half of 2013.

The 2012 performance of the companion animals franchise was driven by the growth of pet vaccines worldwide and by the performance of Heartgard® in the U.S. For production animals, the performance was mainly driven by the avian segment (notably Vaxxitek®) and the swine segment, thanks to Circovac® sales and the acquisition of Newport.

Merial's major markets are the United States, France, Brazil, Italy, the United Kingdom, Australia, Germany, Japan, Spain, China, and Canada. Emerging Markets contributed double digit sales growth in 2012, and now account for 26.6% of total Merial sales.

Merial operates through a network of 17 production sites, with major sites located in France, the United States, Brazil and China. The major R&D sites are located in France and in the United States. Merial employs approximately 6,060 people worldwide (see Item 4D "Property, Plant & Equipment").

### **Global Research & Development**

The mission of Sanofi's Global Research & Development organization is to discover and develop therapies that prevent, treat and cure diseases. Our day-to-day commitment is to respond to patients' real needs and to provide them with adapted therapeutic solutions in order to improve their well-being and extend their life.

To meet these challenges, R&D has evolved towards an integrated organization, encompassing a wide range of therapeutic areas that represent a large and growing burden on populations and healthcare systems, in line with trends and the most pressing health needs.

These include:

Diabetes. Diabetes is rapidly growing health problem in all parts of the world. The current global prevalence of diabetes is approximately 366 million and this number is expected to exceed half a billion subjects by 2030 (source: [www.idf.org](http://www.idf.org)). Despite numerous therapeutic offerings, people with diabetes are at considerably higher risk of premature death and debilitating complications impairing their quality of life and imposing health care systems all over massive costs.

Cardiovascular diseases. Despite medical advances, cardiovascular diseases account for the largest number of deaths worldwide. Today over 17 million annual deaths are attributable to cardiovascular diseases and because of an aging population and a global epidemic of metabolic disease these numbers are expected to double over the next 25 years (source: WHO 2008).

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Oncology. Cancer remains a leading cause of death worldwide accounting for over 7 million deaths per year. Deaths from cancer are projected to continue to rise with over 13 million deaths projected in 2030 (source: WHO 2008). While progress has been made in some cancers, development of new therapies is desperately needed.

Immune mediated diseases (including Multiple Sclerosis).

Age-related degenerative diseases. The increasing proportion of older people in the global population is contributing to a rise in age-related degenerative diseases and has serious implications for health care systems. Care-givers, health systems and societies need to be ready to cope with the growing needs of elderly in every part of the world.

Infectious diseases. These create significant and critical unmet medical needs both in the developed and developing worlds. Hospital-acquired infections are a major concern for public health in industrialized countries. Every year in the United States, 1.7 million people fall victim to hospital-acquired bacterial infections. In low-income countries, people predominantly die of infectious diseases such as lung infections, tuberculosis and malaria.

Rare diseases. Approximately 7,000 rare disorders are known to exist and new ones are discovered each year. Rare diseases affect between 25-30 million people in the United States, and about 30 million people in the European Union.

Vaccines. See " Vaccines Research and Development" below.

Animal health.

To carry out our mission, meet these challenges and maximize our impact we are striving to bring innovation to patients and to build a pipeline of high value projects.

Medical value, scientific quality and operational effectiveness are the three drivers that underpin our strategy. We focus on projects that have the potential to provide the best medical value differential to patients and payers and to reduce healthcare costs for society.

By using a translational medicine approach, ensuring that research hypotheses are validated in humans as early as possible, we can translate basic research findings into medical practice more quickly and efficiently and improve the scientific quality of our projects. The open innovation and large collaboration processes applied worldwide helped us to deliver the best and most innovative solutions for patients. By implementing new operating models to ensure optimal progress on our projects, especially during clinical development phases, we will improve our operational effectiveness and deliver the right therapeutic solutions to patients more quickly.

### **Research & Development Organization**

Over recent years, we have moved from a pure pharmaceutical R&D organization to a global and integrated R&D organization where forces are combined to meet a diversity of health needs.

Sanofi Pharma R&D, which is dedicated to the discovery and development of human medicines. This is a decentralized organization, consisting of two divisions (Oncology and Diabetes), five therapeutic Units (TSUs), several Distinct Project Units (DPUs) and five Scientific platforms, responsible for the operational aspects of development.

Genzyme R&D, which has strong expertise in rare diseases, is now fully integrated into Sanofi Pharma R&D. It consists of two different departments covering early and late stage products (according to the development phase of each project).

Sanofi Pasteur R&D, which closely monitors all new approaches and technological discoveries in vaccines against infectious diseases. Its research priorities include new vaccines, the improvement of existing vaccines, combination vaccines, administration systems and innovative technologies.

Merial R&D, which aims to deliver and support effective, innovative, safe and cost-effective animal health products. Although the specifics of animal health are different from human health, there are many potential synergies opening up a wide range of new research avenues.



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We are constantly adapting our R&D approach, combining global and local action, leveraging local innovative research ecosystems and global high quality development capabilities in order to achieve the greatest possible impact.

We are creating geographically-focused integrated research innovation centers also called "hubs" in four areas: North America, Germany, France and Asia. In the Boston area (United States), which has a high concentration of universities and innovative biotechnology companies, our R&D has been reorganized to support the increasing presence of the Group.

Our R&D is now organized to promote the best use of our resources within the local ecosystem. Our network-based organization is open to external opportunities, and enables us to more effectively capitalize on innovation from a wide range of sources.

### **Portfolio**

As in 2011, R&D again conducted a rigorous and comprehensive portfolio review. Projects were assessed using two key criteria which allow management to rapidly understand how the portfolio performs in terms of innovation, unmet medical needs, risk and value. The two key criteria include:

relative medical value: which encompasses the extent of the unmet need, the market dynamics and the likelihood of achieving the desired price and reimbursement based on the health authorities' positioning and Sanofi competencies.

science translation: which includes the level of innovation and translatability of the science including likelihood of development success.

The clinical portfolio as of the date of filing of this annual report is the result of decisions taken during these reviews, plus compounds entering the portfolio from the discovery phase or from third parties via acquisition, collaboration or alliances.

As described at "Item 3. Key Information D. Risk Factors Risks Relating to Our Business We may fail to adequately renew our product portfolio whether through our own research and development or through acquisitions and strategic alliances." our product development efforts are subject to the risks and uncertainties inherent in any new product development program.

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The clinical portfolio for new medical entities can be summarized as follows:

	Phase I	Phase II	Phase III /registration
<b>Diabetes Solutions</b>			lixisenatide(AVE0010)
<b>Cardiovascular diseases</b>	SAR164653 GZ402669 SAR126119 SAR127963		SAR236553 mipomersen otamixaban(XRP0673)
<b>Oncology</b>	SAR125844 SAR153192 SAR260301 SAR307746 GZ402674 SAR405838 SAR566658 SAR650984	SAR245408 SAR245409 SAR256212 SAR3419	iniparib(BSI-201) SAR302503
<b>Immune Mediated diseases (including MS)</b>	SAR100842  SAR113244 SAR252067	SAR156597  SAR339658 dupilumab	alemtuzumab  teriflunomide sarilumab(SAR153191)
<b>Age related degenerative diseases</b>	SAR228810 SAR391786 SAR399063 SAR404460	SAR110894 SAR113945 SAR292833	
<b>Infectious Diseases</b>		ferroquine SAR97276 SAR279356	
<b>Rare Diseases</b>	GZ402665 GZ402671 GZ404477		eliglustat tartrate
<b>Ophthalmology</b>	GZ402663 StarGen UhsStat RetinoStat®	FOV1101	

Phase I studies are the first studies performed in humans, in healthy volunteers. Their main objective is to assess the tolerability, the pharmacokinetic profile (the way the product is distributed and metabolized in the body and the manner by which it is eliminated) and where possible the pharmacodynamic profiles of the new drug (i.e. how the product may react on some receptors).

Phase II studies are early controlled studies in a limited number of patients under closely monitored conditions to show efficacy and short-term safety and to determine the dose and regimen for Phase III studies.

Phase III studies have the primary objective of demonstrating or confirming the therapeutic benefit and the safety of the new drug, in the intended indication and population. They are made to provide an adequate basis for registration.

Our Phase II & III compounds are described in the section " Pharmaceutical Products Main Pharmaceutical Products" above. A table summarizing selected key facts concerning our late stage experimental pharmaceutical products follows, at the end of this section.

The remainder of this section focuses on compounds entering Phase I or in Phase II and also lists projects that were terminated in 2012.



### Diabetes/Other Metabolic Disorders portfolio

**SAR164653**, an inhibitor of Cathepsin A, entered Phase I development. The product is being developed to prevent heart failure for patients having experienced episodes of acute heart failure.

The network of R&D collaborations with world leading academic institutions was significantly extended in 2012. A collaboration with the Charité in Berlin that began in 2010 was further extended to include Diabetes as an additional focus. In addition we entered into a research alliance with the Helmholtz Zentrum in Munich, and a new collaboration with the Joslin Diabetes Center (affiliate of Harvard Medical School) was formed to promote the development of new medicines for the treatment of diabetes and related disorders.

### Oncology portfolio

**Two compounds, SAR260301 (PI3K $\beta$  selective inhibitor) and SAR405838 (P53/HDM2 antagonist)** were added to the Sanofi Phase I pipeline.

**GC 1008, an anti-TGF $\beta$  monoclonal antibody**, is not being further developed for oncology indications via corporate-sponsored studies, although investigator-initiated studies are continuing.

In 2012, we established further collaborations with other companies, universities and institutes to investigate novel oncology agents with partners including the Massachusetts General Hospital (MGH) in the United States and the Institut Gustave-Roussy (IGR) in France.

### Sanofi Genzyme early stage portfolio

**rhASM** Enzyme replacement therapy targeting the treatment of Niemann-Pick B disease. A Phase Ib study should start early 2013.

**Fresolimumab** TGF- $\beta$  antagonist targeting the treatment of Focal Segmental Glomerulosclerosis (FSGS). The Phase II program was launched early 2013.

**AAV-AADC** Gene therapy based on AAV vector targeting the treatment of moderate to severe Parkinson's disease. Phase I is to be completed.

**SAR339658** (also known as GBR500), a monoclonal antibody directed at the VLA-2 (Very Late Antigen 2) integrin receptor was in-licensed from Glenmark Pharmaceuticals in May 2011. The primary target indication is inflammatory bowel disease such as ulcerative colitis or Crohn's disease. The compound successfully completed Phase I in 2010 and entered Phase IIa in 2012.

### TSU Aging portfolio

Two compounds have completed their Phase II clinical program with data analysis ongoing:

**SAR110894** (H3 receptor antagonist for the treatment of Alzheimer's dementia).

**SAR113945** (IKK- $\beta$  kinase inhibitor for the treatment of osteoarthritis by intra-articular administration).

One compound has progressed into phase II clinical development:

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**SAR292833** GCR-15300, licensing agreement with Glenmark Pharmaceutical (TRPV3 antagonist for the oral treatment of chronic pain).

Two compounds have entered Phase I clinical development:

**SAR228810** (anti-protofibrillar AB mAb for the treatment of Alzheimer's dementia).

**SAR391786** REGN1033 (Anti GDF8 mAb in sarcopenia) in collaboration with Regeneron.

One nutraceutical project has entered a clinical program:

**SAR399063** (DHA-GPL & Vit D) for the treatment of sarcopenia.

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Three compounds have entered preclinical development:

**SAR396049** (CDRAP-MIA in osteoarthritis), licensing agreement with SCIL.

**SAR244181** (P75 dimerization inhibitor in Overactive Bladder).

**SAR296968** (NCX inhibitor in Chronic Heart Failure).

Two compounds have been terminated:

**SAR114137** (CathepsinS/K inhibitor for the oral treatment of chronic pain).

**SAR407899** (Rho-Kinase inhibitor).

### Discovery/development partnerships:

The agreement with Audion Therapeutics (research in hearing disorders) has been terminated.

An agreement was signed in March 2012 with CNRH, INRA, ASL, 3iNature (Biotechs in Auvergne, France) on the development of products for treatment of sarcopenia.

### TSU Infectious Diseases portfolio

**Ferroquine/OZ439** combination for malaria (Partnership with Medicines for Malaria Venture (MMV)). Ferroquine is a new 4-amino-quinoline being developed for the treatment of acute uncomplicated malaria. Ferroquine is active against chloroquine-sensitive and chloroquine-resistant Plasmodium strains, and due to its long half-life has the potential to be part of single dose cure regimens and the unified global treatment of both vivax and falciparum malaria.

OZ439 is a synthetic peroxide antimalarial drug candidate from MMV designed to provide a single dose oral cure in humans. An IND was filed with the FDA in November 2012 and a phase I study of combinations of the two compounds is planned to start in February 2013.

**SAR279356** (first-in-class human monoclonal antibody for the prevention and treatment of *S. aureus*, *S. epidermidis*, *E. coli*, *Y. pestis* and other serious infections) The option to acquire an exclusive worldwide license from Alopexx Pharmaceuticals LLC for the development and commercialization of SAR279356 was exercised in October 2010. Following the successful completion of a Phase I study in early 2011, a Phase II PK/PD study was initiated. This study was terminated in 4Q2012 in favor of a revised development plan to include more extensive preclinical credentialing prior to conduct of a future phase II proof of concept study.

**SAR97276** (in licensed from CNRS) is an antimalarial drug belonging to a new chemical class with an innovative mechanism of action, being developed for the treatment of severe malaria. Clinical development of monotherapy treatment is on hold while the potential for the product as a combination therapy with other antimalarials is evaluated.

**The Sanofi Fovea ophthalmology pipeline** now includes four projects in clinical-stage development:

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**sFlt01** (Phase I): a gene therapy to deliver anti-angiogenic gene (anti-sFlt01) to stop the progression of neovascularization and edema related to wet Age related Macular Degeneration (AMD) and to improve patients' vision;

**Retino Stat®** (Phase I): a gene therapy to treat wet Age-related Macular Degeneration (AMD);

**StarGen** (Phase I): a gene therapy to treat (by replacing missing ABCR gene) Stargardt disease, an orphan inherited condition that leads to progressive sight loss from age seven+;

**UshStat** (Phase I): a gene therapy to deliver functional MY07A gene to photoreceptor in Usher type 1B disease, an orphan inherited condition that results in progressive visual field constriction and vision loss.

**Other Projects portfolio**

The Phase I program for **SAR126119**, an injectable synthetic inhibitor of TAFI (thrombin-activable fibrinolysis inhibitor) has been successfully conducted. We are looking for a partnership to pursue the development of this molecule and set up a phase II study in the treatment of acute ischemic stroke (AIS).

The development of **SSR411298** (an oral fatty acid amide hydrolase (FAAH) inhibitor) as a treatment of chronic pain in cancer patients has been discontinued in light of our positioning in pain treatment and the priorities for our R&D portfolio.

**R&D expenditures for late stage development**

Expenditures on research and development amounted to €4,922 million in 2012, of which €4,219 million in the Pharmaceuticals segment, €539 million in Human Vaccines and €164 million in Animal Health. Research and development expenditures were the equivalent of 14.1% of net sales in 2012, compared to 14.4% in 2011, 14.1% in 2010 and 15.5% in 2009. The stability of R&D expenditure as a percentage of sales over the past three years is explained by the management of the portfolio and close control over expenditures, despite the increasing proportion of products in late stage development. Preclinical research in the Pharmaceuticals segment amounted to €1,038 million in 2012, compared to €1,113 million in 2011 and €1,037 million in 2010. Of the remaining €3,181 million relating to clinical development in the pharmaceutical sector (€2,989 million in 2011 and €2,848 million in 2010), the largest portion was generated by Phase III or post-marketing studies, reflecting the cost of monitoring large scale clinical trials.

For each of our late stage compounds in the Pharmaceutical segment that were in Phase III in 2012, we set out below the date at which this compound entered into Phase III development, information concerning any compound patent in the principal markets for innovative pharmaceutical products (the United States, European Union and Japan) as well as comments regarding significant future milestones that are reasonably determinable at this date. Because the timing of such milestones typically depends on a number of factors outside of our control (such as the time to validate study protocols and recruit subjects, the speed with which endpoints are realized, and the substantial time taken by regulatory review) it is frequently not possible to provide such estimates, and any such estimates as are given should be understood to be indicative only. See also "Item 3. Key Information D. Risk Factors Risks Relating to Our Business".

Phase III	Entry into Phase III <sup>(1)</sup>	Compound Patent Term <sup>(2)</sup>			Comments
	(month/year)	U.S.	E.U.	Japan	
Lyxumia® (lixisenatide) <sup>(3)</sup>	May 2008 <sup>(4)</sup>	2020	2020	2020	Dossier approved in Europe in February 2013 and submitted in the U.S. in December 2012. The FDA accepted the file for review on February 19, 2013
Zaltrap® (aflibercept)	July 2006	2020	2020	2020	2 <sup>nd</sup> line colorectal cancer, approved and launched in the U.S. in August 2012, and approved in the E.U. in February 2013
iniparib (BSI-201)	June 2009	2013	2014	N/A	Phase III program ongoing in 1 <sup>st</sup> line squamous Non Small Cell Lung Cancer Phase II program in 2 <sup>nd</sup> line ovarian cancer ongoing



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Phase III	Entry into Phase III <sup>(1)</sup>	Compound Patent Term <sup>(2)</sup>			Comments
	(month/year)	U.S.	E.U.	Japan	
otamixaban	April 2010	2016	2016	2016	Phase III results in Acute Coronary Syndrome (ACS) expected in the second quarter of 2013
Aubagio® (teriflunomide) <sup>(3)</sup>	September 2004	2014	expired	expired	In the monotherapy treatment of multiple sclerosis, dossier approved in September 2012 in the U.S., launched in October and submitted in February 2012 in Europe.
SAR236553 (REGN727) (anti PCSK-9 mAb)	July 2012	2029	2029	2029	Phase III program on going in hypercholesterolemia
SAR302503 (TG101348)	January 2012	2026	2026 <sup>(3)</sup>	2026 <sup>(3)</sup>	Phase III program ongoing in the treatment of myelofibrosis
Lemtrada (alemtuzumab)	September 2007 (MS)	2015 <sup>(5)</sup>	2014	expired	Dossier submitted in Europe and U.S. for the treatment of relapsing forms of Multiple Sclerosis in May and November 2012, respectively
New formulation Insulin glargine	December 2011	2015 <sup>(6)</sup>	2014	2014	Phase III program ongoing
Kynamro (mipomersen) <sup>(3)</sup>	August 2007	2025	pending	2023	Dossier submitted in July 2011 in Europe and approved in the U.S. on January 29, 2013 in the treatment of homozygous familial hypercholesterolemia (HoFH)
eliglustat tartrate	September 2009	2022	2022	2022	Phase III program ongoing in the treatment of Gaucher Disease type 1
sarilumab	August 2011	2028	2027	2027	Phase III program in the treatment of Rheumatoid Arthritis ongoing

<sup>(1)</sup> First entry into Phase III in any indication.

<sup>(2)</sup> Subject to any future supplementary protection certificates and patent term extensions.

<sup>(3)</sup> Application pending in some countries.

<sup>(4)</sup> Development of lixisenatide as stand alone entity. A program evaluating the benefit of a combination of lixisenatide / Lantus® is in development.

<sup>(5)</sup> Regulatory exclusivity: May 2013.

<sup>(6)</sup> Including a 6-month pediatric extension.

With respect to the compound patent information set out above, investors should bear the following additional factors in mind.

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The listed compound patent expiration dates do not reflect possible extensions of up to five years available in the United States, the European Union, and Japan for pharmaceutical products. See " Patents, Intellectual Property and Other Rights Patent Protection" for a description of supplementary protection certificates and patent term extensions.

Depending on the circumstances surrounding any final regulatory approval of the compound, there may be other listed patents or patent applications pending that could have relevance to the product as finally approved; the relevance of any such application would depend upon the claims that ultimately may be granted and the nature of the final regulatory approval of the product.

Regulatory exclusivity tied to the protection of clinical data is complementary to patent protection, and in many cases may provide more efficacious or longer lasting marketing exclusivity than a compound's patent estate. See " Patents, Intellectual Property and Other Rights Regulatory Exclusivity" for additional information. In the United States the data protection generally runs five years from first marketing approval of a new chemical entity extended to seven years for an orphan drug indication and twelve years from first marketing approval of a biological product (e.g., aflibercept). In the European Union and Japan the corresponding data protection periods are generally ten years and eight years, respectively.

### Vaccines Research and Development

Our human vaccine research and development (R&D) remains focused on improving existing vaccines, as well as on the development of new prophylactic vaccines.

#### *Portfolio*

The Sanofi Pasteur R&D portfolio includes 14 vaccines currently in advanced development as shown in the table below. The portfolio includes five vaccines/antibody products for novel targets and nine vaccines which are enhancements of existing vaccine products.

Phase I	Phase II	Phase III	Submitted
<b><i>Streptococcus pneumoniae</i></b> * Meningitis & pneumonia vaccine	<b>Meningitis A,C,Y,W conj. 2<sup>nd</sup> generation</b> meningococcal conjugate infant vaccine	<b>Quadracel®</b> DTP <sup>(1)</sup> IPV vaccine 4-6 years U.S.	<b>Hexaxim®/New hexavalent vaccine</b> DTP-HepB-Polio-Hib vaccine <sup>(1)</sup>
<b>Tuberculosis</b> * Recombinant subunit vaccine	<b>Rabies VRVg</b> Purified vero rabies vaccine	<b>Dengue</b> * Mild-to-severe dengue fever vaccine	<b>Fluzone® QIV ID</b> Quadrivalent inactivated influenza vaccine intradermal
<b>Rotavirus</b> Live attenuated tetravalent rotavirus oral vaccine	<b>ACAM C. diff</b> * <i>Clostridium difficile</i> Toxoid vaccine	<b>Fluzone® QIV IM</b> Quadrivalent inactivated influenza vaccine	
<b><i>Pseudomonas aeruginosa</i></b> * Antibody fragment product Prevention of ventilator-associated pneumonia		<b>Vaxigrip® QIV IM</b> Quadrivalent inactivated influenza vaccine	
		<b>DTP-HepB-Polio-Hib</b> <sup>(1)</sup> Pediatric hexavalent vaccine	

<sup>(1)</sup> D=Diphtheria, T=Tetanus, Hib=Haemophilus influenzae b, HepB=Hepatitis B, P=Pertussis.

\*

*New targets*

#### **Project highlights**

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This section focuses on Phase I compounds and novel targets. Other vaccines in Phase II or III are described in the section " Vaccine Products" above.

## **Influenza**

To sustain our global leadership in the development of influenza vaccine, our R&D efforts are focused on innovative approaches for assessing new formulations and alternative delivery systems, as well as quadrivalent flu vaccine development (see " Vaccine Products").

### **Pediatric Combination & Adolescent/Adult Boosters**

Several pediatric vaccines are under development. Tailored for specific markets, they are aimed at protecting against five or all six of the following diseases: diphtheria, tetanus, pertussis, poliomyelitis (polio), *Haemophilus influenzae* type b infections and hepatitis B (see " Vaccine Products").

## **Meningitis**

*Neisseria meningitidis* bacteria is a leading cause of meningitis in the United States, Europe and elsewhere, affecting infants and children as well as adolescents. The primary focus of several ongoing projects related to Menactra® is to decrease the age at which this vaccine can first be administered. (see " Vaccine Products").

## **Pneumococcal Vaccine**

*Streptococcus pneumoniae* bacteria is the leading etiological agent causing severe infections such as pneumonia, septicemia, meningitis and otitis media, and is responsible for over three million deaths per year worldwide, of which one million are children. Anti-microbial resistance in *Streptococcus pneumoniae* has complicated the treatment of pneumococcal disease and further emphasized the need for vaccination to prevent large-scale morbidity and mortality.

Sanofi Pasteur is focused on the development of a multi-protein-based pneumococcal vaccine. This approach should result in a vaccine with superior serotype coverage as compared to current polysaccharide or conjugate based vaccines and should not induce nor be sensitive to serotype replacement. Results from the first Phase I clinical trial of a bi-component formulation demonstrated safety and immunogenicity. Results from a second Phase I clinical trial to evaluate a third antigen also demonstrated safety and immunogenicity (ability to induce an immune response). A third Phase I clinical trial of a tri-component formulation began in September 2011 in adults, adolescents, and infants in Bangladesh.

## **Rabies Vaccine**

**Rabies mAb Post Exposure Prophylaxis** This product consists of two rabies monoclonal antibodies (mAbs) that will be used in association with the rabies vaccine for post-exposure prophylaxis. In 2011, Sanofi Pasteur reviewed the rabies mAb project, developed in partnership with Crucell. Crucell, acquired by Johnson & Johnson in 2011, has taken over full responsibility for the development of the product and Sanofi Pasteur will market it, when the vaccine is available.

## **New Vaccine Targets**

**Dengue** Dengue fever has increasing epidemiological importance due to global socio-climatic changes. It is a major medical and economic burden in the endemic areas of Asia-Pacific, Latin America and Africa. It is also one of the leading causes of fever among travelers. Multiple approaches have been tested to develop a vaccine covering the four viral serotypes of dengue fever in order to prevent this disease and its severe complications (hemorrhagic fever). Sanofi Pasteur's dengue vaccine research program includes ongoing clinical studies (adults and children) in several countries in endemic regions. The complexity of dengue virus infection has hampered vaccine research for decades and it is the first time in 50 years of dengue research that a vaccine was seen that protected a large group of children from clinical disease caused by dengue viruses. The results of the world's first efficacy study confirmed the excellent safety profile of Sanofi Pasteur's dengue vaccine candidate. The full analysis of vaccine efficacy against each serotype, reflecting real-life conditions (intent to treat analysis) showed vaccine efficacy to be 61.2% against dengue virus type 1, 81.9% against type 3 and 90% against type 4. One of the

dengue virus types (serotype 2) eluded the vaccine. Analyses are ongoing to understand the lack of protection for serotype 2. Phase III efficacy studies are ongoing in several Latin American and South East Asian countries.

**Tuberculosis** Statens Serum Institute of Denmark (SSI) has granted Sanofi Pasteur a license to its technology with regard to the use of certain fusion proteins in the development of a tuberculosis vaccine. The license from SSI includes access to the Intercell IC31® adjuvant. The candidate vaccine is made up of recombinant protein units. Results from the 2008 Phase I trial found that the H4/IC31 candidate was safe when administered to healthy adults living in a region of high endemic tuberculosis. Rapid and poly-functional antigen-specific T cell responses were induced following a single dose of the investigational vaccine. A second Phase I trial was initiated in Switzerland in December 2010. A Phase I/II study will be initiated in the Republic of South Africa in infants primed with BCG.

**HIV** A follow-up study to the Phase III clinical trial in Thailand provided new clues in 2011 about the types of immune responses that may have played a role in the protection seen in 2009 with our ALVAC®-HIV vaccine. In 2011, Sanofi Pasteur entered into a public-private partnership with Novartis Vaccines, the Bill & Melinda Gates Foundation, the U.S. National Institutes of Health (NIH), the HIV Vaccine Trial Network, and the Military HIV Research Program to substantiate and extend the vector prime/protein subunit boost regimen used in Thailand. Plans are being made to also study the regimen in the Republic of South Africa. This collaboration is expected to further the field of HIV vaccine development by sharing resources and by providing the manufacturing component of a partnership of funding agencies, research organizations, governments, and experts in the field of HIV vaccine development. Sanofi Pasteur is also looking at its NYVAC-HIV vaccine replicating vectors and a flavivirus-based viral vector, Replivax, by participating in international consortium and under the Collaboration for AIDS Vaccine Discovery (CAVD).

**ACAM-Cdiff** *Clostridium difficile* is a major public health concern in North America and Europe. In hospitals, it is the leading cause of infectious diarrhea in adults, particularly the elderly. The epidemiology of *Clostridium difficile* associated disease (CDAD) has been increasing at a worrying rate since 2003, driven primarily by the emergence of a treatment-resistant, highly virulent strain CD027. There is currently no vaccine available and the only vaccine candidate currently in development is ACAM-Cdiff. ACAM-Cdiff is a toxoid-based vaccine. Toxoids have been used as the basis of a number of highly successful licensed vaccines. This vaccine candidate has successfully completed Phase I clinical trials with more than 200 participants in which safety and immunogenicity were evaluated. Sanofi Pasteur received a positive response from the United States FDA's Center for Biologics Evaluation & Research (CBER) on the Fast Track Development Program submission in 2010. In November 2010, our *Clostridium difficile* vaccine started Phase II of clinical study in the U.S. This trial is focused on evaluating prevention of the first episode of *Clostridium difficile* infection (CDI) in at-risk individuals, which includes adults with imminent hospitalization or current or impending residence in a long-term care or rehabilitation facility. Results from the first stage of this study showed the vaccine was safe and immunogenic and provided important information for dose selection. Phase II study results are under review. A multinational Phase III trial is planned to start in the third quarter of 2013.

***Pseudomonas aeruginosa*** In February 2010, Sanofi Pasteur entered into an agreement with KaloBios Pharmaceuticals, a U.S.-based, privately held biotech company, for the development of a Humaneered™ antibody fragment to both treat and prevent *Pseudomonas aeruginosa* (*Pa*) infections. Most serious *Pa* infections occur in hospitalized and critically or chronically ill patients primarily affecting the respiratory system in susceptible individuals and are a serious clinical problem due to their resistance to antibiotics. The two primary target indications for the antibody are prevention of *Pa* associated pneumonia in mechanically ventilated patients in hospitals, and prevention of relapses and potential improvement of treatment outcomes in patients with an ongoing *Pa* infection. Under the terms of the agreement, Sanofi Pasteur acquired worldwide rights for all disease indications related to *Pa* infections except cystic fibrosis and bronchiectasis, which Sanofi Pasteur has the option to obtain at a later date. KaloBios has already completed Phase I clinical trials one in healthy volunteers and one in cystic fibrosis patients and a small proof of concept Phase II clinical trial in mechanically ventilated patients using an *E. coli*-derived antibody fragment. A Phase I study in healthy adult volunteers has been initiated in December 2012 with a Chinese hamster ovary cell-derived antibody fragment.

**Rotavirus** Rotavirus is the leading cause of severe, dehydrating diarrhea in children aged under five globally. Estimates suggest that rotavirus causes over 25 million outpatient visits, over 2 million hospitalizations and over 500,000 deaths per year. The burden of severe rotavirus illness and deaths falls heavily upon children in the poorer countries of the world, with more than 80% of rotavirus-related deaths estimated to occur in lower income countries of Asia, and in sub-Saharan Africa. Two vaccines (RotaTeq® and Rotarix®) are licensed worldwide, but production of local vaccines is necessary to achieve wide coverage. Shantha has a non-exclusive license of rotavirus strains from the U.S. NIH and is developing a live-attenuated human bovine (G1-G4) reassortant vaccine. The license excludes Europe, Canada, United States, China and Brazil. The project is currently in Phase I/II (dose finding study).

## Patents, Intellectual Property and Other Rights

### Patent Protection

We own a broad portfolio of patents, patent applications and patent licenses worldwide. These patents are of various types and may cover:

active ingredients;

pharmaceutical formulations;

product manufacturing processes;

intermediate chemical compounds;

therapeutic indications/methods of use;

delivery systems; and

enabling technologies, such as assays.

Patent protection for individual products typically extends for 20 years from the patent filing date in countries where we seek patent protection. A substantial part of the 20-year life span of a patent on a new chemical entity has generally already passed by the time the related product obtains marketing approval. As a result, the effective period of patent protection for an approved product's active ingredient is significantly shorter than 20 years. In some cases, the period of effective protection may be extended by procedures established to compensate significant regulatory delay in Europe (a Supplementary Protection Certificate or SPC), the United States (a Patent Term Extension or PTE) and Japan (also a PTE).

Additionally, the product may benefit from the protection of patents obtained during development or after the product's initial marketing approval. The protection a patent affords the related product depends upon the type of patent and its scope of coverage, and may also vary from country to country. In Europe for instance, applications for new patents may be submitted to the European Patent Office (EPO), an intergovernmental organization which centralizes filing and prosecution. As of December 2012, an EPO patent application may cover the 38 European Patent Convention member states, including all 27 member states of the European Union. The granted "European Patent" establishes corresponding national patents with uniform patent claims among the member states. However, some older patents were not approved through this centralized process, resulting in patents having claim terms for the same invention that differ by country. Additionally, a number of patents prosecuted through the EPO may pre-date the European Patent Convention accession of some current European Patent Convention member states, resulting in different treatment in those countries.

We monitor our competitors and vigorously seek to challenge patent infringement when such challenges would negatively impact our business objectives. See "Item 8 A. Consolidated Financial Statements and Other Financial Information Patents" of this annual report.

The expiration or loss of a compound patent may result in significant competition from generic products and can result in a dramatic reduction in sales of the original branded product. See "Item 3. Key Information D. Risk Factors We may lose market share to competing remedies or generic brands if they are perceived to be equivalent or superior products". In some cases, it is possible to continue to obtain commercial benefits from product



manufacturing trade secrets or from other types of patents, such as patents on processes, intermediates, structure, formulations, methods of treatment, indications or delivery systems. Certain categories of products, such as traditional vaccines and insulin, have been historically relatively less reliant on patent protection and may in many cases have no patent coverage, although it is increasingly frequent for novel vaccines and insulins to be patent protected. See " Focus on Biologics" below. Patent protection is also an important factor in our animal health business, but is of comparatively lesser importance to our Consumer Health Care and generics businesses, which rely principally on trademark protection.

### **Regulatory Exclusivity**

In some markets, including the European Union and the United States, many of our pharmaceutical products may also benefit from multi-year regulatory exclusivity periods, during which a generic competitor may not rely on our clinical trial and safety data in its drug application. Exclusivity is meant to encourage investment in research and development by providing innovators the exclusive use for a limited time of the innovation represented by a newly approved drug product. This exclusivity operates independently of patent protection and may protect the product from generic competition even if there is no patent covering the product.

In the United States, the FDA will not grant final marketing approval to a generic competitor for a New Chemical Entity (NCE) until the expiration of the regulatory exclusivity period (generally five years) that commences upon the first marketing authorization of the reference product. The FDA will accept the filing of an Abbreviated New Drug Application (ANDA) containing a patent challenge one year before the end of this regulatory exclusivity period (see the descriptions of ANDAs in " Product Overview Challenges to Patented Products" below). In addition to the regulatory exclusivity granted to NCEs, significant line extensions of existing NCEs may qualify for an additional three years of regulatory exclusivity. Also, under certain limited conditions, it is possible to extend unexpired U.S. regulatory and patent-related exclusivities by a pediatric extension. See " Pediatric Extension", below.

Further, in the United States, a different regulatory exclusivity period applies to biological drugs. The Biologics Price Competition and Innovation Act of 2009 ("BPCIA"), was enacted on March 23, 2010 as part of the much larger health care reform legislation known as the Patient Protection and Affordable Care Act ("PPACA"). The BPCIA introduced an approval pathway for biosimilar products. A biosimilar product is a biologic product that is highly similar to the reference (or innovator) product notwithstanding minor differences in clinically inactive components, and which has no clinically meaningful differences from the reference product in terms of the safety, purity, and potency of the product. The BPCIA provides that an application for a biosimilar product that relies on a reference product may not be submitted to the FDA until four years after the date on which the reference product was first licensed, and that the FDA may not approve a biosimilar application until 12 years after the date on which the reference product was first licensed.

In the European Union, regulatory exclusivity is available in two forms: data exclusivity and marketing exclusivity. Generic drug applications will not be accepted for review until eight years after the first marketing authorization (data exclusivity). This eight-year period is followed by a two-year period during which generics cannot be marketed (marketing exclusivity). The marketing exclusivity period can be extended to three years if, during the first eight-year period, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which are deemed to provide a significant clinical benefit over existing therapies. This is known as the "8+2+1" rule.

In Japan, the regulatory exclusivity period varies from four years for medicinal products with new indications, formulations, dosages, or compositions with related prescriptions, to six years for new drugs containing a medicinal composition, or requiring a new route of administration, to eight years for drugs containing a new chemical entity, to ten years for orphan drugs or new drugs requiring pharmaco-epidemiological study.

### **Emerging Markets**

One of the main limitations on our operations in emerging market countries is the lack of effective intellectual property protection or enforcement for our products. The World Trade Organization (WTO) Agreement on Trade-



Related Aspects of Intellectual Property Rights (TRIP) has required developing countries to amend their intellectual property laws to provide patent protection for pharmaceutical products since January 1, 2005, although it provides a limited number of developing countries an extension to 2016. Additionally, these same countries frequently do not provide non-patent exclusivity for innovative products. While the situation has gradually improved, the lack of protection for intellectual property rights or the lack of robust enforcement of intellectual property rights poses difficulties in certain countries. Additionally, in recent years a number of countries facing health crises have waived or threatened to waive intellectual property protection for specific products, for example through compulsory licensing of generics. See "Item 3. Key Information D. Risk Factors Risks Relating to Our Business The globalization of the Group's business exposes us to increased risks."

### **Pediatric Extension**

In the United States and Europe, under certain conditions, it is possible to extend a product's regulatory exclusivities for an additional period of time by providing data regarding pediatric studies.

In the United States, the FDA may ask a company for pediatric studies if it has determined that information related to the use of the drugs in the pediatric population may produce health benefits. The FDA has invited us by written request to provide additional pediatric data on several of our main products. Under the Hatch-Waxman Act, timely provision of data meeting the FDA's requirements (regardless of whether the data supports a pediatric indication) may result in the FDA extending regulatory exclusivity and patent life by six months, to the extent these protections have not already expired (the so-called "pediatric exclusivity"). Our main products which have received FDA grants of pediatric exclusivity at some point are Aprovel®, Lantus®, Allegra®, Ambien®/Ambien® CR, Plavix®, Taxotere®, and Actonel®.

In Europe, a regulation on pediatric medicines provides for pediatric research obligations with potential associated rewards including extension of patent protection (for patented medicinal products) and regulatory exclusivity for pediatric marketing authorization (for off-patent medicinal products).

In Japan, for pediatric research there is no extension of patent protection (for patented medicinal products), however, it may result in an extension of marketing exclusivity from 8 to 10 years.

### **Orphan Drug Exclusivity**

Orphan drug exclusivity may be granted in the United States to drugs intended to treat rare diseases or conditions (affecting fewer than 200,000 patients in the U.S. or in some cases more than 200,000 with no expectation of recovering costs).

Obtaining orphan drug exclusivity is a two-step process. An applicant must first seek and obtain orphan drug designation from the FDA for its drug. If the FDA approves the drug for the designated indication, the drug will receive orphan drug exclusivity.

Orphan drug exclusivity runs from the time of approval and bars approval of another application (ANDA, 505(b)(2), New Drug Application (NDA) or Biologic License Application (BLA)) from a different sponsor for the same drug in the same indication for a seven-year period. Whether a subsequent application is for the "same" drug depends upon the chemical and clinical characteristics. The FDA may approve applications for the "same" drug for indications not protected by orphan exclusivity.

Orphan drug exclusivities also exist in the European Union and Japan.

### **Product Overview**

We summarize below the intellectual property coverage in our major markets of the marketed products described above at " Pharmaceutical Products Main Pharmaceutical Products". Concerning animal health products, Meril's intellectual property coverage is described above (see " Animal Health: Meril"). In the discussion of patents below, we focus on active ingredient patents (compound patents) and any later filed patents listed, as applicable, in the FDA's list of Approved Drug Products with Therapeutic Equivalence Evaluations (the

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"Orange Book") or on their foreign equivalents. These patents tend to be the most relevant in the event of an application by a competitor to produce a generic version of one of our products or the equivalent of these patents in other countries (see "Challenges to Patented Products" below). In some cases, products may also benefit from pending patent applications or from patents not eligible for Orange Book listing (*e.g.*, patents claiming industrial processes). In each case below, we specify whether the active ingredient is claimed by an unexpired patent. Where patent terms have been extended to compensate for regulatory delay, the extended dates are presented below. U.S. patent expirations presented below reflect U.S. Patent and Trademark Office dates, and also reflect six-month pediatric extensions to the FDA's Orange Book dates for Lantus® and Actonel®.

We do not provide later filed patent information relating to formulations already available as an unlicensed generic. References below to patent protection in Europe indicate the existence of relevant patents in most major markets in the European Union. Specific situations may vary by country, most notably with respect to older patents and to countries having only recently joined the European Union.

We additionally set out any regulatory exclusivity from which these products continue to benefit in the United States, European Union or Japan. Regulatory exclusivities presented below incorporate any pediatric extensions obtained. While E.U. regulatory exclusivity is intended to be applied throughout the European Union, in some cases member states have taken positions prejudicial to our exclusivity rights.

### *Lantus® (insulin glargine)*

U.S.	E.U.	Japan
Compound: August 2014, protection extended to February 2015 by Pediatric extension	Compound: November 2014 in most of Western Europe requests for pediatric exclusivity until May 2015 are pending	Compound: November 2014

### *Apidra® (insulin glulisine)*

U.S.	E.U.	Japan
Compound: June 2018	Compound: September 2019 in most of the EU	Compound: May 2022
Later filed patent: ranging through January 2023	Later filed patent: March 2022	Later filed patent: July 2022
	Regulatory exclusivity: September 2014	Regulatory exclusivity: April 2017

### *Taxotere® (docetaxel)*

U.S.	E.U.	Japan
Compound: expired Generics on the market	Compound: expired Generics on the market	Compound: expired Generics on the market

### *Eloxatine® (oxaliplatin)* <sup>(1)</sup>

U.S.	E.U.	Japan
Compound: expired Generics on the market <sup>(2)</sup>	Compound: expired Generics on the market	Compound: N/A <sup>(3)</sup>

<sup>(1)</sup> We do not own most Eloxatin® patents but license them from Debiopharm for marketing.

<sup>(2)</sup> See "Item 8 A. Consolidated Financial Statements and Other Financial Information Patents Eloxatin® (oxaliplatin) Patent Litigation".

<sup>(3)</sup> No rights to compound in Japan.



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*Jevtana® (cabazitaxel)*

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
Compound: March 2016 (up to March 2021 if PTE is granted)	Compound: March 2016	Compound: March 2016 (patent term extension to be determined once product is approved in Japan)
Later filed patents: coverage ranging through December 2025	Later filed patents: coverage ranging through September 2024	Later filed patents: coverage ranging through September 2024
Regulatory exclusivity: June 2015	Regulatory exclusivity: March 2021	Regulatory exclusivity: to be determined upon approval of a product in Japan

*Lovenox® (enoxaparin sodium)*

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
Compound: no compound patent coverage Generics on the market	Compound: expired	Compound: expired Regulatory exclusivity: January 2016

*Plavix® (clopidogrel bisulfate)*

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
Compound: Expired Generics on the market	Generics on the market	Compound: expired Regulatory exclusivity: January 2014

*Aprovel® (irbesartan)*

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
Compound: expired	Compound: expired in most of the EU; exceptions: May 2013 in Lithuania. No compound patent in force in Spain, Portugal, Finland, Norway and much of Eastern Europe	Compound: March 2016
Generics on the market	Generics on the market	Regulatory exclusivity: April 2016

*Tritace® (ramipril)*

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
N/A <sup>(1)</sup>	Compound: expired Generics on the market	Compound: expired

<sup>(1)</sup> No rights to compound in the U.S.

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**Multaq® (dronedaron hydrochloride)**

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
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Compound: July 2013 with interim petition granted (July 2016 if PTE petition is granted) Later filed patent: formulation (June 2018) Regulatory exclusivity: July 2014	Compound: expired  Later filed patent: formulation June 2018 extended with SPC up to June 2023 in most of the countries Regulatory exclusivity: November 2019	Compound: expired
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**Stilnox® (zolpidem tartrate)**

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
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Compound patent: expired Generics on the market	Compound patent: expired Generics on the market	Compound patent: expired  Regulatory exclusivity: expired Later filed patent: Ambien® CR formulation (December 2019); not commercialized.
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**Depakine® (sodium valproate)**

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
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Compound: N/A <sup>(1)</sup>	Compound: N/A <sup>(1)</sup> Later filed patent: Depakine® Chronosphere formulation (October 2017)	Compound: N/A <sup>(1)</sup> Later filed patent: Depakine® Chronosphere formulation (October 2017)
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<sup>(1)</sup> No rights to compounds in the U.S., E.U. and Japan.

**Allegra® (fexofenadine hydrochloride)**

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b> <sup>(1)</sup>
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Compound: expired Generics on the market Converted to Over-the-Counter	Compound: expired Generics on the market	Compound: expired Generics on the market Converted to over-the counter Later filed patents: coverage ranging through January 2016
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<sup>(1)</sup> See "Item 8 A. Consolidated Financial Statements and Other Financial Information Patents Allegra® Patent Litigation" of this annual report for further information.

**Nasacort® (triamcinolone acetonide)** <sup>(1)</sup>

<b>U.S.</b>	<b>E.U.</b>	<b>Japan</b>
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Compound: expired	Compound: expired Later filed patent: formulation July 2017	Compound: expired
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Later filed patents: formulation and method  
of use July 2016  
Generics on the market

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(1) *A license was granted to Barr Laboratories, Inc. in settlement of patent litigation.*

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*Xatral® (alfuzosin hydrochloride)*

U.S.	E.U.	Japan
Compound: expired Generics on the market	Compound: expired Generics on the market	Compound: expired Generics on the market

*Actonel® (risedronate sodium)* <sup>(1)</sup>

U.S.	E.U.	Japan
Compound: December 2013, Extended to June 2014 by Pediatric extension Later filed patents: coverage ranging through June 2018	Compound: expired  Later filed patents: coverage ranging through June 2018	Compound: Expired

(1) On October 30, 2009, Procter & Gamble Pharmaceuticals (P&G) sold its pharmaceutical business to Warner Chilcott (WCRX) which became the successor to P&G in rights and interests for the Actonel® alliance and now holds the NDA and the patents for this product in the United States. We commercialize Actonel® with WCRX. See "Item 5 Financial Presentation of Alliances".

*Amaryl® (glimepiride)*

U.S.	E.U.	Japan
Compound: expired	Compound: expired	Compound: expired

*Insuman® (human insulin)*

U.S.	E.U.	Japan
Compound: N/A	Compound: N/A	Compound: N/A

*Fabrazyme® (agalsidase beta)*

U.S.	E.U.	Japan
Compound: N/A Later filed patents: coverage ranging through September 2015 Biologics Regulatory Exclusivity: April 2015	Compound: N/A	Compound: N/A Later filed patents: November 2013  Orphan regulatory exclusivity: January 2014

*Cerezyme® (imiglucerase)*

U.S.	E.U.	Japan
Compound: August 2013	Compound: N/A	Compound: N/A

*Lumizyme® / Myozyme® (alglucosidase alpha)*

U.S.	E.U.	Japan

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Compound: N/A

Later filed patents: coverage ranging through February 2023  
Orphan Drug Exclusivity: April 2013  
Biologics Regulatory Exclusivity: April 2018

Compound: N/A

Later filed patents: coverage ranging from March 2021 to May 2023  
Orphan Regulatory Exclusivity: March 2016  
Biologics Regulatory Exclusivity: March 2016

Compound: N/A

Later filed patents: 2021  
Orphan Regulatory Exclusivity: April 2017



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*Renagel® (sevelamer hydrochloride)*

U.S.	E.U.	Japan
Compound: N/A Later filed patent: coverage ranging through August 2013 and September 2014	Compound: N/A Later filed patent: August 2014  SPC coverage to January 2015 in certain EU countries	Compound: N/A Later filed patent: August 2014  PTE protection to December 2016

*Renvela® (sevelamer carbonate)*

U.S.	E.U.	Japan
Compound: N/A Later filed patent: coverage ranging through August 2013 and September 2014	Compound: N/A Later filed patent: August 2014  SPC coverage to January 2015 in certain EU countries SPC coverage to August 2019 in certain countries (Austria, Greece and Luxembourg)	Compound: N/A Later filed patent: August 2014

*Synvisc® (hyaline G-F 20)*

U.S.	E.U.	Japan
Compound: expired	Compound: N/A	Compound: expired

*Synvisc-One® (hyaline G-F 20)*

U.S.	E.U.	Japan
Compound: expired Later filed patent: January 2028	Compound: N/A	Compound: expired

*Lyxumia® (lixisenatide)*

U.S.	E.U.	Japan
Compound: July 2020	Compound: July 2020	Compound: July 2020

*Zaltrap® (aflibercept)*

U.S.	E.U.	Japan
Compound: May 2020 (July 2022 if PTE is granted) Biologics Regulatory Exclusivity: November 2023	Compound: May 2020 (May 2025 if SPC granted) Regulatory Exclusivity: November 2022	Compound: May 2020

*Aubagio® (teriflunomide)*

**U.S.**

**E.U.**

**Japan**

Compound: October 2014 (2019 if PTE is granted)

Compound: expired

Compound: expired

Regulatory Exclusivity: September 2017

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*Kynamro (mipomersen)*

U.S.	E.U.	Japan
Compound: December 2025	Compound: pending	Compound: 2023

Patents held or licensed by the Group do not in all cases provide effective protection against a competitor's generic version of our products. For example, notwithstanding the presence of unexpired patents, competitors have launched generic versions of Eloxatin® in Europe, Allegra® in the United States (prior to the product being switched to over-the-counter status) and Plavix® in Europe.

We caution the reader that there can be no assurance that we will prevail when we assert a patent in litigation and that there may be instances in which the Group determines that it does not have a sufficient basis to assert one or more of the patents mentioned in this report, for example in cases where a competitor proposes a formulation not appearing to fall within the claims of our formulation patent, a salt or crystalline form not claimed by our composition of matter patent, or an indication not covered by our method of use patent. See "Item 3. Key Information D. Risk Factors Risks Relating to Legal Matters We rely on our patents and proprietary rights to provide exclusive rights to market certain of our products, and if such patents and other rights were limited or circumvented, our financial results could be materially and adversely affected."

As disclosed in Item 8 of this annual report, we are involved in significant litigation concerning the patent protection of a number of our products.

**Challenges to Patented Products**

In the United States, companies have filed Abbreviated New Drug Applications (ANDAs), containing challenges to patents related to a number of our products. An ANDA is an application by a drug manufacturer to receive authority to market a generic version of another company's approved product, by demonstrating that the purportedly generic version has the same properties as the original approved product. ANDAs may not be filed with respect to drugs licensed as a biological. See " Focus on Biologics" below. An ANDA relies on the safety and other technical data of the original approved product, and does not generally require the generic manufacturer to conduct clinical trials (thus the name "abbreviated" new drug application), presenting a significant benefit in terms of time and cost. As a result of regulatory protection of our safety and other technical data, the ANDA may generally be filed only five years following the initial U.S. marketing authorization of the original product. See " Regulatory Exclusivity" above. This period can be reduced to four years if the ANDA includes a challenge to a patent listed in the FDA's Orange Book. However, in such a case if the patent holder or licensee brings suit in response to the patent challenge within the statutory window, then the FDA is barred from granting final approval to an ANDA during the 30 months following the patent challenge (this bar is referred to in our industry as a "30-month stay"), unless, before the end of the 30 months, a court decision or settlement has determined either that the ANDA does not infringe the listed patent or that the listed patent is invalid and/or unenforceable.

FDA approval of an ANDA after this 30-month period does not resolve outstanding patent disputes, but it does remove the regulatory impediments to a product launch by a generic manufacturer willing to take the risk of later being ordered to pay damages to the patent holder.

Procedures comparable to the ANDA exist in other major markets.

In the European Union, a generic drug manufacturer may only reference the data of the regulatory file for the original approved product after data exclusivity has expired. However, there is no patent listing system in Europe comparable to the Orange Book, which would allow the patent holder to prevent the competent authorities from granting marketing approval by bringing patent infringement litigation prior to approval. As a result, generic products may be approved for marketing following the expiration of marketing exclusivity without regard to the patent holder's rights. Nevertheless, in most of these jurisdictions once the competing product is launched and in some jurisdictions, even prior to launch (once launch is imminent), the patent holder may seek an injunction against such marketing if it believes its patents are infringed. See Item 8 of this annual report.

The accelerated ANDA-type procedures are potentially applicable to many, but not all, of the products we manufacture. See " Focus on Biologics" and " Regulation" below. We seek to defend our patent rights vigorously in these cases. Success or failure in the assertion of a given patent against a competing product is not necessarily predictive of the future success or failure in the assertion of the same patent *on fortiori* the corresponding foreign patent against another competing product due to factors such as possible differences in the formulations of the competing products, intervening developments in law or jurisprudence, local variations in the patents and differences in national patent law and legal systems. See "Item 3. Key Information D. Risk Factors Risks Relating to Legal Matters We rely on our patents and proprietary rights to provide exclusive rights to market certain of our products, and if such patents and other rights were limited or circumvented, our financial results could be materially and adversely affected".

## Trademarks

Our products are sold around the world under trademarks that we consider to be of material importance in the aggregate. Our trademarks help to identify our products and to protect the sustainability of our growth. Trademarks are particularly important to the commercial success of our CHC, generics and retail animal health business.

It is our policy to protect and register our trademarks with a strategy adapted to each product or service depending on their countries of commercialization: *i.e.*, on a worldwide basis for worldwide products or services, or on a regional or local basis for regional or local products or services.

The process and degree of trademark protection vary country by country, as each country applies its own trademark laws and regulations. In most countries, trademark rights may only be obtained through formal trademark application and registration. In some countries, trademark protection can be based primarily on use. Registrations are granted for a fixed term (in most cases ten years) and are renewable indefinitely, except in some countries where maintenance of the trademarks is subject to their effective use.

When trademark protection is based on use, it covers the products and services for which the trademark is used. When trademark protection is based on registration, it covers only the products and services designated in the registration certificate. Additionally, in certain cases, we may enter into a coexistence agreement with a third-party that owns potentially conflicting rights in order to better protect and defend our trademarks.

Our trademarks are monitored and defended based on this policy and in order to prevent counterfeit, infringement and/or unfair competition.

## Production and Raw Materials

For many years, we have chosen to keep the manufacture of our products in-house in order to have better control of quality and distribution. Our production process consists of three principal stages: the manufacture of active pharmaceutical ingredients, the transformation of these ingredients into products, and packaging.

Our general policy is to produce our main active ingredients and principal products at our own plants in order to minimize our dependence on external manufacturers and to maintain strict and precise control over the product throughout the production cycle. In some cases, however, we rely on third parties for the manufacture and supply of certain active ingredients and medical devices. We have outsourced some of our production, under supply contracts associated with plant divestitures or to establish a local presence to capitalize on growth in emerging markets. In particular, we outsource part of the production of the active ingredients used in Stilnox® and Xatral®, and certain pharmaceutical product formulations. Our main pharmaceutical subcontractors are Famar, Haupt, Patheon, Catalent and Sofarimex. These subcontractors follow our general quality and logistics policies, as well as meeting other criteria. See "Item 3. Key Information D. Risk Factors Risks Relating to Our Business".

We also depend on third parties for the manufacture of certain products. Under our alliance with BMS, multi-vendor supply and safety stock arrangements are in place for Plavix® (clopidogrel bisulfate) and Aprovel® (irbesartan).

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Our pharmaceutical production sites are divided into three categories:

Global sites, which serve all markets. Situated principally in Europe, these facilities are dedicated to the manufacture of our active ingredients, injectables, and a number of our principal products in solid form;

Regional sites, which serve markets at continental level, in Europe and particularly the BRIC-M countries (Brazil, Russia, India, China and Mexico), giving us a strong industrial presence in emerging markets;

Local sites, which serve their domestic market only.

Sanofi Pasteur produces vaccines at sites located in North America, France, Mexico, China, Thailand, Argentina and India. The pharmaceutical sites at Le Trait (France) and Anagni (Italy) also contribute to Sanofi Pasteur's industrial operations by making available their aseptic filling and freeze-drying facilities. A new antigen production facility in Mexico for seasonal and pandemic influenza vaccines was approved by the Mexican authorities early in 2012, and began commercial production in time for the Mexican influenza vaccination campaign in September 2012.

In 2011, we diversified our industrial operations into rare diseases (with the acquisition of Genzyme) and via the integration of Merial, Sanofi's dedicated animal health division.

Merial markets pharmaceutical products (Frontline®, Heartgard®, Zactran®, Previcox®) and a broad range of vaccines for different animal species (dogs, cats, horses, ruminants, pigs and fowl). A number of pharmaceutical products are subcontracted (Heartgard®, Eprinex®) but almost all veterinary vaccines are manufactured at its own plants. Merial's dedicated animal health industrial operations cover all activities, from the purchase of raw materials through to the delivery of the finished product, meeting customer needs through a reliable and flexible offering that meets quality expectations. There are 17 production sites spread across nine countries.

All of our pharmaceutical and vaccine facilities are Good Manufacturing Practices (GMP) compliant, in line with international guidelines. Our principal sites are approved by the U.S. Food & Drug Administration (FDA).

This applies to our pharmaceutical facilities in France (Ambarès, Tours, Le Trait, Maisons-Alfort, Compiègne and Lyon); in the United Kingdom (Haverhill, Holmes Chapel, Dagenham and Fawdon, the last two of which are due to close in 2013 and 2015, respectively); in Ireland (Waterford); in Germany (Frankfurt); in Hungary (Veresegyhaz); in Italy (Anagni); and in the United States (Saint Louis). Our Vaccines sites with FDA approval are Marcy l'Étoile and Le Trait (Fluzone® ID USA) in France; Swiftwater, Canton and Rockville in the United States; and Toronto in Canada.

The Genzyme facilities in the United States (Allston, Framingham, Ridgefield, Cambridge) and in Europe (Geel, Belgium) are all FDA approved.

Our animal health facilities in Athens, Worthington, Gainesville, Berlin and Raleigh in the United States are managed by the U.S. Department of Agriculture (USDA), while the sites at Paulinia (Brazil) and Toulouse (France) have FDA approval for some of their operations.

Wherever possible, we seek to have multiple plants approved for the production of key active ingredients and our strategic finished products. This is the case with Lovenox®, for example.

In February 2011, we received an FDA warning letter concerning our Frankfurt facility following a routine FDA inspection in September 2010. The warning letter cited GMP compliance issues in certain manufacturing processes, without referring to specific products. While believing that the points raised in the letter did not compromise the quality of our marketed products, we acted on this warning and worked towards satisfying the recommendations through a "compliance first" action plan at the Frankfurt facility. In October 2011, we notified the FDA that we had completed this plan. The FDA reinspected the site in April 2012, and issued an unqualified report on Form FDA 483. This was confirmed in the FDA Establishment Inspection Report, received August 14, 2012, which officially closed the warning letter procedure.

On May 24, 2010, Genzyme entered into a consent decree with the FDA relating to the facility at Allston in the United States, following FDA inspections at the facility that resulted in observations and a warning letter raising

Current Good Manufacturing Practices (CGMP) deficiencies. A consent decree is a court order entered by agreement between a company and the government (in this case the FDA) that requires the company to take certain actions as set out in the decree. Under the terms of Genzyme's consent decree, Genzyme is permitted to continue manufacturing at the site during the remediation process, subject to compliance with the terms of the consent decree.

The consent decree requires Genzyme to implement a plan to bring the Allston facility operations into compliance with applicable laws and regulations. The plan must address any deficiencies reported to Genzyme or identified as part of an inspection completed by a third-party expert in February 2011. Genzyme has itself retained an expert to monitor and oversee the implementation of the remediation workplan. This workplan was submitted to the FDA in April 2011 and accepted by the FDA in January 2012, and is expected to take a further three years to complete. It includes a timetable of specified milestones. If the milestones are not met in accordance with the timetable, the FDA can require us to pay \$15,000 per day, per affected drug, until these compliance milestones are met. Upon satisfying all compliance requirements in accordance with the terms of the consent decree, Genzyme will be required to retain an auditor to monitor and oversee ongoing compliance at the Allston facility for an additional five years. To date, all requirements of the consent decree, including all requirements of the workplan, have been met by Genzyme.

In March 2012, modifications to the workplan were submitted to the FDA to take account of planned changes in manufacturing operations for Fabrazyme® and Cerezyme® at the Allston facility. These modifications were accepted by the FDA. In addition, the U.S. facility at Framingham was approved by the FDA and the EMA in January 2012 for the production of Fabrazyme®.

On July 12, 2012, Sanofi Pasteur received a warning letter from the FDA following routine inspections conducted during 2012 at its facilities in Toronto (Canada) and Marcy l'Étoile (France). The warning letter contains observations about products intended for the U.S. market, and the premises in which they are produced. Sanofi Pasteur takes these observations extremely seriously, and is working actively with the FDA to implement a series of immediate and ongoing measures to address the issues raised in the warning letter and to further strengthen its production tools and quality systems.

More details about our manufacturing sites are found below at " Property, Plant and Equipment".

#### **Health, Safety and Environment (HSE)**

The manufacturing and research operations of Sanofi are subject to increasingly stringent health, safety and environmental (HSE) laws and regulations. These laws and regulations are complex and rapidly changing, and Sanofi invests the necessary sums in order to comply with them. This investment, which aims to respect health, safety and the environment, varies from year to year and totaled approximately €100 million in 2012.

The applicable environmental laws and regulations may require Sanofi to eradicate or reduce the effects of chemical substance usage and release at its various sites. The sites in question may belong to the Group, be currently operational, or they may have been owned or operational in the past. Under some of these laws and regulations, a current or previous owner or operator of a property may be held liable for the costs of removal or remediation of hazardous substances on, under or in its property, or transported from its property to third party sites, without regard to whether the owner or operator knew of, or under certain circumstances caused the presence of the contaminants, or at the time site operations occurred, the discharge of those substances was authorized.

Moreover, as is the case for a number of companies involved in the pharmaceutical, chemical and agrochemical industries, soil and groundwater contamination has occurred at some Group sites in the past, and may still occur or be discovered at others. In the Group's case, such sites are mainly located in the United States, Germany, France, Hungary, the Czech Republic, Slovakia, Brazil, Italy and the United Kingdom. As part of a program of environmental audits conducted over the last few years, detailed assessments of the risk of soil and groundwater contamination have been carried out at current and former Group sites. In cooperation with national and local authorities, the Group regularly assesses the rehabilitation work required and carries out such work when appropriate. Long-term rehabilitation work is in progress or planned in Rochester, Cincinnati, Mount-Pleasant, East Palo Alto, Ambler and Portland in the United States; Frankfurt in Germany; Beaucaire, Valernes, Limay, Rousset,

Romainville, Neuville, Vitry and Toulouse in France; Dagenham in the United Kingdom; Brindisi and Garessio in Italy; Ujpest in Hungary; Hlohovec in Slovakia; Prague in the Czech Republic; and on a number of sites divested to third parties and covered by contractual environmental guarantees granted by Sanofi. Sanofi may also have potential liability for investigation and cleanup at several other sites.

Provisions have been established for the sites already identified and to cover contractual guarantees for environmental liabilities for sites that have been divested. For example, in 2007 the State of New Jersey initiated a claim against Bayer CropScience seeking compensation for damages caused to natural resources (NRD) at a former Rhône-Poulenc site in the United States, resulting in indemnification claims by Bayer CropScience against the Group under contractual environmental guarantees granted at the time of Bayer's acquisition of the CropScience business. Rehabilitation studies and an NRD assessment are underway in a similar project in Portland, Oregon. Potential environmental contingencies arising from certain business divestitures are described in Note D.22.e) to the consolidated financial statements included at Item 18 of this annual report. In 2012, Sanofi spent €45 million on rehabilitating sites previously contaminated by soil or groundwater pollution. During the year ended December 31, 2012, a comprehensive review was carried out relating to the legacy of environmental pollution. In light of data collected during this review, the Group adjusted the provisions to approximately €728 million as at December 31, 2012; this figure includes the provisions related to Genzyme.

Due to changes in environmental regulations governing site remediation, the Group's provisions for remediation obligations may not be adequate due to the multiple factors involved, such as the complexity of operational or previously operational sites, the nature of claims received, the rehabilitation techniques considered, the planned timetable for rehabilitation, and the outcome of discussions with national regulatory authorities or other potentially responsible parties, as in the case of multiparty sites. Given the long industrial history of some of our sites and the legacy obligations of Aventis arising from its past involvement in the chemical and agrochemical industries, it is impossible to quantify the future impact of these laws and regulations with precision. See "Item 3.D. Risk Factors Environmental Risks of Our Industrial Activities".

To our knowledge, the Group is not currently subject to liabilities for non-compliance with current HSE laws and regulations that could be expected to significantly jeopardize its activities, financial situation or operating income. We also believe that we are in substantial compliance with current HSE laws and regulations and that all the environmental permits required to operate our facilities have been obtained. Regular HSE audits (53 in 2012) are carried out by the Group in order to assess compliance with our standards (which implies compliance with regulations) and to initiate corrective measures. Additionally, nine specialized audits covering contractors or biosafety and 163 loss prevention technical visits were carried out by our teams in 2012.

Sanofi has implemented a worldwide master policy on health, safety and the environment to promote the health and well-being of the employees and contractors working on its sites and respect for the environment. We consider this master policy to be an integral part of our commitment to social responsibility. In order to implement this master policy, 78 rules (policies) have been drawn up in the key fields of HSE management, Good HSE Practices, safety in the workplace, process safety, industrial hygiene, health in the workplace and protection of the environment.

### ***Health***

From the development of compounds to the commercial launch of new drugs, Sanofi research scientists continuously assess the effect of products on human health. This expertise is made available to employees through two committees responsible for chemical and biological risk assessment. The Group's COVALIS committee classifies all chemical and pharmaceutical products handled within the Group and establishes workplace exposure limits for each of them. The Group's TRIBIO Committee is responsible for classifying all biological agents according to their degree of pathogenicity, and applies rules for their containment and the preventive measures to be respected throughout the Group. See "Item 3. Key Information D. Risk Factors Environmental Risks of Our Industrial Activities Risks from the handling of hazardous materials could adversely affect our results of operations".

Appropriate industrial hygiene practices and programs are defined and implemented in each site. These practices consist essentially of containment measures for collective and individual protection against exposure in all workplaces where chemical substances or biological agents are handled. All personnel are monitored with an appropriate initial and routine medical program, focused on the potential occupational health risks linked to their duties.

In addition, a committee has been set up to prepare and support the implementation of the new European Union REACH regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. To fully comply with the new European regulation on the labeling of chemicals (Classification Labeling Packaging), the Group has registered the relevant hazardous chemical substances with the European Chemicals Agency (ECHA).

### *Safety*

Sanofi has rigorous policies to identify and evaluate safety risks and to develop preventive safety measures, and methods for checking their efficacy. Additionally, Sanofi invests in training that is designed to instill in all employees a sense of concern for safety, regardless of their duties. These policies are implemented on a worldwide scale to ensure the safety of all employees and to protect their health. Each project, whether in research, development or manufacturing, is subject to evaluation procedures, incorporating the chemical substance and process data communicated by the COVALIS and TRIBIO committees described above. The preventive measures are designed primarily to reduce the number and seriousness of work accidents and to minimize exposures involving permanent and temporary Sanofi employees as well as our sub-contractors.

The French chemical manufacturing sites in Aramon, Neuville-sur-Saône, Sisteron and Vertolaye, as well as the plants located in the Hoechst Industry Park in Frankfurt, Germany, the Zentiva site in Hlohovec, Slovakia, and the chemical production site in Budapest, Hungary, are listed Seveso II (from the name of the European directive that deals with potentially dangerous sites through a list of activities and substances associated with classification thresholds). In accordance with French law on technological risk prevention, the French sites are also subject to heightened security inspections due to the toxic or flammable materials stored on the sites and used in the operating processes.

Risk assessments of processes and installations are drawn up according to standards and internal guidelines incorporating the best state-of-the-art benchmarks for the industry. These assessments are used to fulfill regulatory requirements and are regularly updated. Particular attention is paid to any risk-generating changes: process or installation changes, as well as changes in production scale and transfers between industrial or research units.

Our laboratories that specialize in process safety testing, which are fully integrated into our chemical development activities, apply methods to obtain the physico-chemical parameters of manufactured chemical substances (intermediate chemical compounds and active ingredients) and apply models to measure the effect of potentially leachable substances in the event of a major accident. In these laboratories the parameters for qualifying hazardous reactions are also determined to define scale-up process conditions while transferring from development stage to industrial scale. All these data ensure that our risk assessments are relevant.

We believe that the safety management systems implemented at each site, the hazard studies carried out and the risk management methods implemented, as well as our third-party property insurance policies covering any third-party physical damage, are consistent with legal requirements and the best practices in the industry.

### *Environment*

The main objectives of our environmental policy are to implement clean manufacturing techniques, minimize the use of natural resources and reduce the environmental impact of our activities. In order to optimize and improve our environmental performance, we have a strategy of continuous improvement practiced at all our sites through the annual implementation of HSE progress plans. In addition, 60 sites are currently ISO 14001 certified and 15 buildings are LEED certified either in U.S. and Europe. We believe that this strategy clearly expresses the commitment of both management and individuals to health, safety and the environment. In 2012, seven of our European sites were included in the scope of the European CO<sub>2</sub> Emissions Credit Trading Scheme aimed at helping to reach the targets set by the Kyoto protocol.



Our recent efforts in terms of environmental protection have mainly targeted reductions in energy consumption, greenhouse gas emissions control, improvements in the performance of water treatment installations, reduction of volatile organic compound emissions, raw material savings and recycling, and reductions in waste materials or increases in the percentage being recycled. In 2012, we reduced carbon dioxide emissions caused by our sales representation car fleet by 10% versus 2011, due to the policy of using energy efficient cars as well as a reduction in the number of cars. Measured against the benchmark year for our new targets (2010), direct and indirect emissions from our production and research facilities (excluding vehicle fleets) have fallen by 7.2% overall. We are targeting a 20% reduction in CO<sub>2</sub> emissions in 2020 vs. 2010 on a constant structure basis.

An internal committee of experts called ECOVAL assesses the environmental impact of the pharmaceutical agents found in products marketed by Sanofi. It has developed an environmental risk assessment methodology and runs programs to collect the necessary data for such assessments. Additional ecotoxicity assessments are being performed on certain substances which predate current regulations, in order to obtain information that was not gathered when they were launched (as regulatory requirements were different at that time) and evaluate environmental risks resulting from their use by patients.

## Markets

A breakdown of revenues by business segment and by geographic region for 2012, 2011 and 2010 can be found at Note D.35. to our consolidated financial statements included at Item 18 of this annual report.

The following market shares and ranking information is based on sales data from IMS Health MIDAS, retail and hospital for full year 2011, in constant euros (unless otherwise indicated). For more information on market shares and ranking, see "Presentation of Financial and Other Information" at the beginning of this document.

Genzyme's sales are included from the acquisition date (April 1, 2011).

## Marketing and Distribution

Sanofi has a commercial presence in approximately 100 countries, and our products are available in more than 170. Our main markets in terms of net sales are, respectively:

Emerging Markets (see definition in "Item 4. Information on the Company Introduction" above) represent 31.9% of our net sales, the largest contribution to net sales of any region. We are the leading healthcare company in emerging markets. In 2012, sales in emerging markets grew by 8.3% at constant exchange rates (or +7.2% including the non consolidated sales of Genzyme in the first quarter of 2011). Latin America, Asia and Middle East recorded double-digit sales growth in 2012. Sales in BRIC countries were up 12.0%, accounting for 35.0% of Emerging Markets sales. Sales in China, Brazil, Russia were up 15.0%, 7.7% and 13.6% respectively. In 2012, sales in Africa and the Middle East each exceeded €1 billion for the first time.

The United States represent 31.1% of our net sales; we rank twelfth with a market share of 3.7% (3.1% in 2011). Sales in the U.S. were up 0.7% at constant exchange rates in 2012 (or -2.8% including the non consolidated sales of Genzyme in the first quarter of 2011), driven by strong performances for Diabetes and Generics but impacted by the loss of exclusivity of Eloxatine® and generic competition for Lovenox®.

Western Europe represents 23.8% of our net sales; we are the leading pharmaceutical company in France where our market share is 9.3% (9.9% in 2011), and we rank fourth in Germany with a 4.7% market share (after the Copaxone® transfer and without taking into account parallel trade). In 2012, sales in Western Europe were down 9.3% at constant exchange rates (or -7.5% including the non consolidated sales of Genzyme in the first quarter of 2011 and excluding Copaxone®), impacted by the transfer of the Copaxone® business to Teva, generic competition for Plavix®, Aprovel® and Taxotere® and the impact of austerity measures.

Other countries represent 13.1% of our net sales; our market share in Japan is 3.5% (3.4% in 2011). Full-year 2012 sales in Japan were up 6.6% at constant exchange rates (or +4.7% with Genzyme on a full-year basis in 2011).

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A breakdown of our sales by geographic market is presented in "Item 5. Operating and Financial Review and Prospects Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011."

Although specific distribution patterns vary by country, we sell prescription drugs primarily to wholesale drug distributors, independent and chain retail drug outlets, hospitals, clinics, managed care organizations and government institutions. Rare disease, renal, and biosurgery products are also sold directly to physicians. With the exception of Consumer Health Care products, these drugs are ordinarily dispensed to patients by pharmacies upon presentation of a doctor's prescription.

We use a selection of channels to disseminate information about and promote our products among healthcare professionals and patients, ensuring that the channels not only cover our latest therapeutic advances but also our mature products, as they provide the foundation for satisfying major therapeutic needs. We regularly advertise in medical journals and exhibit at major medical congresses. In some countries, products are also marketed directly to patients by way of television, radio, newspapers and magazines, and we sometimes use new media channels (such as the internet) to market our products. National education and prevention campaigns can be used to improve patients' knowledge of conditions.

Our medical representatives, who work closely with healthcare professionals, use their expertise to promote and provide information on our drugs. They represent our values on a day-to-day basis and are required to adhere to a code of ethics. As of December 31, 2012, we had a global sales force of 32,874 representatives: 9,866 in Europe, 4,866 in the United States, and 18,142 in the rest of the world.

Although we market most of our products through our own sales forces, we have entered into and continue to form partnerships to co-promote/co-market certain products in specific geographic areas. Our major alliances are detailed at "Item 5. Operating and Financial Review and Prospects Financial Presentation of Alliances." See also "Item 3. Key Information D. Risk Factors We rely on third parties for the marketing of some of our products."

Our vaccines are sold and distributed through multiple channels, including physicians, pharmacies, hospitals, private companies and distributors in the private sector, and governmental entities and non-governmental organizations in the public and international donor markets, respectively.

Our animal health products are sold and distributed through various channels, depending on each country's legislation for veterinary products. Merial takes into account each country's specific characteristics and sells either to veterinaries, chemists, or via wholesalers. In the case of epizootics, Merial delivers directly to governments.

### Competition

The pharmaceutical industry continues to experience significant changes in its competitive environment. Innovative drugs, a broad product range, and a presence in all geographical markets are key factors in maintaining a strong competitive position.

There are four types of competition in the prescription pharmaceutical market:

competition between pharmaceutical companies to research and develop new patented products or new therapeutic indications;

competition between different patented pharmaceutical products marketed for the same therapeutic indication;

competition between original and generic products or between original biological products and biosimilars, at the end of regulatory exclusivity or patent protection; and

competition between generic or biosimilar products.

We compete with other pharmaceutical companies in all major markets to develop innovative new products. We may develop new technologies and new patented products wholly in-house, but we also enter into collaborative

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R&D agreements in order to access new technologies. See Note D.21. to our consolidated financial statements included at Item 18 of this annual report.

Our prescription drugs compete in all major markets against patented drugs from major pharmaceutical companies like: Novo Nordisk in diabetes; Eli Lilly in diabetes and oncology; Bristol-Myers Squibb in diabetes and oncology; Merck & Co in diabetes and hypertension; GlaxoSmithKline in diabetes, oncology and thrombosis; Novartis in diabetes, multiple sclerosis, oncology and hypertension; Shire in rare diseases and renal; Pfizer in rare diseases and oncology; Biogen Idec, Teva and Merck Serono in multiple sclerosis; Bayer in multiple sclerosis and thrombosis prevention; Roche in oncology; Johnson & Johnson in oncology and thrombosis prevention; AstraZeneca in cardiovascular diseases, hypertension and oncology; Boehringer-Ingelheim in diabetes; Fresenius Medical Care in renal diseases.

Our Consumer Health Care business competes with multinational corporations such as Johnson & Johnson, Bayer, Novartis, Pfizer and GlaxoSmithKline and local players, especially in emerging markets.

Our generics business competes with multinational corporations such as Teva, Sandoz (a division of Novartis), Mylan and Actavis and local players, especially in emerging markets.

In our Vaccines business, we compete primarily with multinational players backed by large healthcare groups, including Merck (outside Europe), GlaxoSmithKline, Pfizer (Wyeth), Novartis and Johnson & Johnson (Crucell).

In selected market segments, Sanofi Pasteur competes with mid-size international players (such as CSL of Australia in the influenza market for the Southern Hemisphere). Sanofi Pasteur also competes with an increasing number of manufacturers, entrenched in densely populated and economically emerging regions, which are leveraging their cost/volume advantage and raising their level of technical capability and quality standards to compete on more sophisticated antigens in their domestic markets and increasingly in international donor markets. Multinational players are increasingly seeking alliances with manufacturers from emerging economies to secure positions in their markets of origin. Finally, there are emerging vaccine manufacturers in middle income countries, where privately owned companies in various industry sectors are investing in me-too vaccine production. Overall, there is increasingly intense competition on existing vaccines across the middle to low income segments.

In our Animal Health business, we compete primarily with international companies like Pfizer in both production and companion animals; with Merck and Boehringer Ingelheim in production animals; with Boehringer Ingelheim mainly in the vaccines segment; with Novartis and Bayer for pets and particularly for pets parasiticides; and with Virbac, Ceva and Vetoquinol, French companies with global presence, for pharmaceuticals and vaccines (except for Vetoquinol, which operates only in the pharmaceutical segment).

We also face competition from generic drugs that enter the market when our patent protection or regulatory exclusivity expires, or when we lose a patent infringement lawsuit (see " Patents, Intellectual Property and Other Rights" above). Similarly, when a competing patented drug from another pharmaceutical company faces generic competition, these generic products can also affect the competitive environment of our own patented product. See "Item 3. Key Information D. Risk factors Risks related to our business".

Competition from producers of generics has increased sharply in response to healthcare cost containment measures and to the increased number of products for which patents or regulatory exclusivity have expired.

Generics manufacturers who have received all necessary regulatory approvals for a product may decide to launch a generic version before the patent expiry date. Such launch may occur notwithstanding the fact that the owner of the original product may already have commenced patent infringement litigation against the generics manufacturer. Such launches are said to be "at risk" for the promoter of the generic product because it may be required to pay damages to the owner of the original product in the context of patent infringement litigation; however, these launches may also significantly impair the profitability of the pharmaceutical company whose product is challenged.

Drug manufacturers also face competition through parallel trading, also known as reimportation. This takes place when drugs sold abroad under the same brand name as in a domestic market are imported into that domestic market by parallel traders, who may repackage or resize the original product or sell it through alternative channels such as mail order or the Internet. This situation is of particular relevance to the European Union, where these practices have been encouraged by the current regulatory framework. Parallel traders take advantage of the price differentials between markets arising from factors including sales costs, market conditions (such as intermediate trading stages), tax rates, or national regulation of prices.

Finally, pharmaceutical companies face illegal competition from counterfeit drugs. The WHO estimates that counterfeit products account for 10% of the market worldwide, rising to more than 30% in some countries. However, in markets where powerful regulatory controls are in place, counterfeit drugs are estimated to represent less than 1% of market value.

The WHO also estimates that 50% of drugs sold on illegal websites have been found to be counterfeit.

A counterfeit medicine is deliberately and fraudulently mislabeled with respect to its identity and/or its source. Counterfeiting can apply to both branded and generic products, and counterfeit products may include products with the correct ingredients or with the wrong ingredients, without active ingredients, with insufficient active ingredients, or with fake packaging.

Sanofi acts ethically and responsibly to protect patient health worldwide. We become involved in any efforts made to overcome drug counterfeiting and have implemented the following actions:

Ever closer collaboration with international organizations and with customs and police to reinforce regulatory frameworks (Medicrime Convention, European Directive on Falsified Medicines, etc.), to investigate suspected counterfeiters and to deliver information and educational programs to raise awareness about the risk related to falsified medicines;

Centralization and analysis in a specialized laboratory of all suspect Sanofi drugs, to detect falsified medicines and inform health and enforcement authorities; and

Development of technologies to make drugs more difficult to copy through packaging protection programs and traceability programs.

### **Regulatory Framework**

The pharmaceutical and health-related biotechnology sectors are highly regulated. National and supranational health authorities administer a vast array of legal and regulatory requirements that dictate pre-approval testing and quality standards to maximize the safety and efficacy of a new medical product. These authorities also regulate product labeling, manufacturing, importation/exportation and marketing, as well as mandatory post-approval commitments that may include pediatric development.

The submission of an application to a regulatory authority does not guarantee that a license to market will be granted. Furthermore, each regulatory authority may impose its own requirements during the course of the product development and application review. It may refuse to grant approval and require additional data before granting approval, even though the same product has already been approved in other countries. Regulatory authorities also have the authority to request product recalls, product withdrawals and penalties for violations of regulations based on data that are made available to them.

Product approval can vary from six months or less to several years from the date of application depending upon the country. Factors such as the quality of data submitted, the degree of control exercised by the regulatory authority, the review procedures, the nature of the product and the condition to be treated, play a major role in the length of time a product is under review.

In recent years, efforts have been made by the ICH (International Conference on Harmonization) participants to harmonize product development and regulatory submission requirements. The ICH consists of the regulatory agencies of the three founding members (European Union, Japan, United States), plus Health Canada and

Swissmedic as observers. An example of these efforts is the Common Technical Document (CTD), which can be used in different ICH regions for a product application review, with only local or regional adaptation. Electronic CTD is becoming the standard for worldwide product submission. Interestingly, emerging countries are starting to participate in ICH standardization discussions, and could be more involved in the near future.

International collaboration between regulatory authorities continues to develop with implementation of confidentiality arrangements between ICH regulatory authorities, and with non-ICH regulatory authorities. Examples include work-sharing on Good Manufacturing Practices (GMP) and Good Clinical Practices (GCP) inspections and regular interactions in the form of "clusters" (i.e. pediatrics, oncology, advanced therapy medicinal products, vaccines, pharmacogenomics, orphans, biosimilars, blood products) between the United States and the European Union. Other initiatives include the presence of permanent representatives from the FDA and the Japanese Pharmaceutical and Medical Devices Agency (PMDA) in London, and a corresponding permanent representative from EMA at the FDA.

The requirement of many countries, including Japan and several member states of the European Union, to negotiate selling prices or reimbursement rates for pharmaceutical products with government regulators significantly extends the time for market entry beyond the initial marketing approval. While marketing approvals for new pharmaceutical products in the European Union have been largely centralized with the EMA, pricing and reimbursement remain a matter of national competence.

**In the European Union**, there are three main procedures by which to apply for marketing authorization:

The centralized procedure is mandatory for certain types of medicinal products. When an application is submitted to the EMA, the scientific evaluation of the application is carried out by the Committee for Medicinal Products for Human Use (CHMP) and a scientific opinion is prepared. This opinion is sent to the European Commission which adopts the final decision and grants an E.U. marketing authorization. Such a marketing authorization is valid throughout the E.U. and the drug may be marketed within all E.U. member states.

If a company is seeking a national marketing authorization in more than one member state, the mutual recognition or decentralized procedure is available to facilitate the granting of harmonized national authorizations across member states. Both the decentralized and the mutual recognition procedures are based on the recognition by national competent authorities of a first assessment performed by the regulatory authority of one member state.

National authorizations are still possible, but are only for products intended for commercialization in a single E.U. member state or for line extensions to existing national product licenses.

Generic products are subject to the same marketing authorization procedures. A generic product must contain the same active medicinal substance as a reference product approved in the E.U. Generic applications are abridged: generic manufacturers only need to submit quality data and demonstrate that the generic drug is "bioequivalent" to the originator product (i.e., works in the same way in the patient's body), but do not need to submit safety or efficacy data since regulatory authorities can refer to the reference product's dossier. Generic product applications can be filed and approved in the European Union only after the originator product eight year data exclusivity period has expired. Further, generic manufacturers can only market their generic products after a 10- or 11-year period has elapsed from the date of approval of the originator product has elapsed.

Another relevant aspect in the E.U. regulatory framework is the "sunset clause": a provision leading to the cessation of the validity of any marketing authorization if it is not followed by marketing within three years or, if marketing is interrupted for a period of three consecutive years.

Post-authorization safety monitoring of pharmaceutical products is carefully regulated in Europe. The E.U. pharmaceutical legislation for medicinal products describes the respective obligations of the marketing authorization holder and of the regulatory authorities to set up a system for pharmacovigilance in order to collect, collate and evaluate information about suspected adverse reactions.

It is possible for the regulatory authorities to withdraw products from the market for safety reasons. Responsibilities for pharmacovigilance rest with the regulatory authorities of all the E.U. member states in which the marketing authorizations are held. In accordance with applicable legislation, each E.U. member state has a pharmacovigilance system for the collection and evaluation of information relevant to the benefit to risk balance of medicinal products. The regulatory authority regularly monitors the safety profile of the products available on its territory and takes appropriate action where necessary and monitors the compliance of marketing authorization holders with their obligations with respect to pharmacovigilance. All relevant information is shared between the regulatory authorities and the marketing authorization holder, in order to allow all parties involved in pharmacovigilance activities to fulfill their obligations and responsibilities.

In 2010, new legislation aimed at improving patient protection by strengthening the E.U. system for the safety monitoring of medicines was approved. In July 2012, Pharmacovigilance legislation came into force, with significant impacts on the regulatory environment. Changes include the creation of a new scientific advisory committee, the Pharmacovigilance Risk Assessment Committee (PRAC) at EMA level, with a key role in recommendation/advice on product safety issues. This committee, which includes a patient representative, can hold public hearings. Since its introduction in the second quarter of 2012 the PRAC has initiated reviews of products with subsequent regulatory actions leading to harmonization of the labeling. For instance several Sanofi products including zolpidem, clopidogrel, and insulin glargine are currently under review.

The Pharmacovigilance legislation also strengthens the legal basis for regulators to require post-authorization safety and efficacy studies throughout the life cycle of a medicinal product, with regulatory supervision of protocols and results. Such studies are aimed at collecting data to enable the safety or efficacy of medicinal products to be assessed in everyday medical practice. The granting of marketing authorization will be conditional on such studies being performed. Consequently, the pharmaceutical industry will have to build the need for post-authorization safety studies (PASS) and post-authorization efficacy studies (PAES) into development and life cycle management plans. As of today, no PASS or PAES has been requested to Sanofi.

The Pharmacovigilance legislation also introduces a new periodic safety report prepared by the companies. This is no longer limited to safety data, but instead presents a critical analysis of the risk-benefit balance of the medicinal product, taking into account new or emerging information in the context of cumulative information on risks and benefits.

In the **United States**, applications for approval are submitted for review to the FDA, which has broad regulatory powers over all pharmaceutical and biological products that are intended for sale and marketing in the U.S. To commercialize a product in the U.S., a New Drug Application (NDA) under the Food, Drug and Cosmetic (FD&C) Act or Biological License Application (BLA) under the Public Health Service (PHS) Act is submitted to the FDA with data for filing and pre-market review. Specifically, the FDA must decide whether the product is safe and effective for its proposed use, if the benefits of the drug's use outweigh its risks, whether the drug's labeling is adequate, and if the manufacturing of the drug and the controls used for maintaining quality are adequate to preserve the drug's identity, strength, quality and purity. Based upon this review, the FDA can require post-approval commitments and requirements. Approval for a new indication of a previously approved product requires the submission of a supplemental NDA (sNDA) for a drug or supplemental BLA (sBLA) for a biological product.

The FD&C Act provides another abbreviated option for NDA approved products, called the 505(b)(2) pathway. This pre-market application may rely on the FDA finding that the reference product has been found to be safe and effective by the FDA based upon the innovator's preclinical and clinical data.

Sponsors wishing to market a generic drug can file an Abbreviated NDA (ANDA) under 505(j) of the FD&C Act. These applications are "abbreviated" because they are generally not required to include data to establish safety and effectiveness, but need only demonstrate that their product is bioequivalent (i.e., performs in humans in the same manner as the originator's product). Consequently, the length of time and cost required for development of generics can be considerably less than for the originator's drug. With effect from October 1, 2012 (FDASIA GDUFA), an application for a generic drug product requires a user fee payment. User fees for generic drug applications are necessary to help alleviate the backlog of applications at the Office of Generics Drugs (OGD). The

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current review time for an ANDA exceeds 30 months. The ANDA pathway in the United States can only be used for generics of drugs approved under the FD&C Act.

The Patient Protection and Affordable Care Act, signed into law by President Obama on March 23, 2010, amends the Public Health Service Act to create an abbreviated licensure pathway (351k) for biological products that are demonstrated to be "biosimilar" to or "interchangeable" with an FDA-licensed biological product. As of January 1, 2013, no sponsor has submitted a 351k application to the FDA for review.

On July 9, 2012, President Obama signed into law the Food and Drug Administration Safety and Innovation Act (FDASIA), which primarily amends the Federal Food, Drug, and Cosmetic Act and Public Health Service Act. In addition to reauthorizing and amending several drug and medical device provisions that were scheduled to expire, the new law establishes new user fee statutes for generic drugs and biosimilars. FDASIA also provides the FDA with tools intended to expedite the development and review of innovative new medicines that address certain unmet medical needs, and with new authority concerning drug shortages, among other things. The law significantly changes the FDC Act and the PHS Act in several respects that will have considerable short- and long-term effects on the regulated industry.

FDASIA includes 11 titles, the first five of which concern drug and medical device user fee and pediatric-related programs. FDASIA § 501 makes permanent both the Best Pharmaceuticals for Children Act and Pediatric Research Equity Act by eliminating the "sunset" provision of the BPCA and a related PREA provision. Title VI includes changes to the law styled as medical device regulatory improvements. Title VII makes significant changes to enhance the FDA's inspection authority and the drug supply chain. Title VIII creates incentives to encourage the development of products for antibiotic-resistant infections. Title IX expands the scope of products that qualify for accelerated approval and creates a new "breakthrough therapy" program, among other things. Title X is intended to legislatively address the current drug shortage crisis. Finally, Title XI reauthorizes certain provisions created by the FDA Amendments Act of 2007, provides for the regulation of medical gases, and includes several miscellaneous provisions, such as provisions on prescription drug abuse, 180-day generic drug marketing exclusivity, citizen petitions, controlled substances, and nanotechnology to name a few.

**In Japan**, regulatory authorities can require local development studies, though they also accept multi-national studies. They can also request bridging studies to verify that foreign clinical data are applicable to Japanese patients and require data to determine the appropriateness of the dosages for Japanese patients. These additional procedures have created a significant delay in the registration of some innovative products in Japan compared to the European Union and the United States. In order to solve this drug-lag problem, the MHLW (Ministry of Health, Labor and Welfare) introduced the new NHI (National Health Insurance) pricing system on a trial basis. Reductions in NHI prices of new drugs every two years are compensated by a "Premium" for a maximum of 15 years. A "Premium" is granted in exchange for the development of unproved drugs/off-label indications with high medical needs. Pharmaceutical manufacturers are required to conduct literatures-based submission within six months or start a clinical trial for registration within one year after the official request. Otherwise, NHI prices of all products of the manufacturer would be reduced dramatically. In addition, the regulatory authorities have begun to promote multinational studies.

For new drugs and biosimilar products with approval applications submitted on or after April 2013, Japan will begin implementing a "Risk management plan", similar to the E.U. Pharmacovigilance system.

For generic products, the data necessary for filing are similar to E.U. and U.S. requirements. Pharmaceutical companies only need to submit quality data, and data demonstrating bioequivalence to the originator product, unless the drug is administered intravenously.

### Focus on Biologics

Products can be referred to as "biologics" when they are derived from plant or animal tissues, including blood products or products manufactured within living cells (e.g., antibodies). Most biologics are complex molecules or mixtures of molecules which are difficult to characterize and require physico-chemical-biological testing, and an understanding of and control over the manufacturing process.

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The concept of "generics" is not scientifically appropriate for biologics due to their high level of complexity and therefore the concept of "biosimilar" products is more appropriate. A full comparison of the purity, safety and efficacy of the biosimilar product against the reference biological product should be undertaken, including assessment of physical/chemical, biological, non-clinical and clinical similarity.

In the European Union, a regulatory framework for developing and evaluating biosimilar products has been in place since November 2005. The CHMP has issued several product/disease specific guidelines for biosimilar products including guidance on preclinical and clinical development of biosimilars of low molecular weight heparins (LMWH). However, starting in 2011 and continuing in 2012, the EMA has initiated a revision of the majority of the existing biosimilar guidelines (general guidelines, as well as immunogenicity and product-related guidelines for recombinant insulin and LMWH). Two new guidelines on monoclonal antibodies and immunogenicity of monoclonal antibodies have also been issued; other product-related guidelines (follitropin  $\alpha$  and  $\beta$  interferon) are under preparation.

In response to the European Commission's wish to stimulate the global development of biosimilars, biosimilar reference medicines sourced outside the European Economic Area will be allowed (the basis will always be a locally licensed product, but 'Bridging studies' to another product licensed in another part of the world will be allowed). Currently in the E.U., the reference product for a biosimilar has to be licensed in the E.U. and therefore clinical trials have to be repeated in all three major markets (Japan, E.U. and U.S.). This important change will enter into force after the revision of the EU so-called "over-arching" biosimilar guideline, already under review and expected for early 2013.

While the EMA has adopted so far a balanced approach for all biosimilars, which allows evaluation on a case-by-case basis in accordance with relevant biosimilar guidelines, it seems that there is some willingness to simplify the pathway in very specific circumstances. For a very simple biological fully characterized on the quality level, a biosimilar could be authorized based on a bioequivalence study combined only with an extensive quality package. With respect to vaccines, the CHMP position is that it is at present unlikely that these products may be characterized at the molecular level, and that each vaccine product must be evaluated on a case-by-case basis.

In Japan, guidelines defining the regulatory approval pathway for follow-on biologics were finalized in March 2009. These guidelines set out the requirements on CMC (Chemistry, Manufacturing and Control), preclinical and clinical data to be considered for the development of the new application category of biosimilars. Unlike the CHMP guidelines, the main scope of the Japanese guidelines includes recombinant proteins and polypeptides, but not polysaccharides such as LMWH.

In the United States, the Patient Protection and Affordable Care Act, in particular Title VII, Subtitle A "Biologics Price Competition and Innovation Act," was signed into law by President Obama on March 23, 2010. This law amends the Public Health Service Act to create an abbreviated licensure pathway (351k) for biological products that are demonstrated to be "biosimilar" to or "interchangeable" with an FDA-licensed biological product.

On February 15, 2012, the FDA published for consultation three draft guidance documents for biosimilar development: Scientific Considerations in Demonstrating Biosimilarity to a Reference Product, Quality Considerations in Demonstrating Biosimilarity to a Reference Protein Product, and Biosimilars: Questions and Answers Regarding Implementation of the Biologics Price Competition and Innovation Act of 2009. These guidance documents remain in draft format. A fourth document on clinical pharmacology has yet to be published.

The Federal Food, Drug, and Cosmetic Act, as amended by the Biosimilar User Fee Act of 2012 (Title IV of the Food and Drug Administration Safety and Innovation Act, Public Law 112-144, which was signed by the President on July 9, 2012), authorizes the FDA to assess and collect user fees for certain activities in connection with biosimilar biological product development, for certain applications and supplements for approval of biosimilar biological products, on establishments where approved biosimilar biological product products are made, and on biosimilar biological products after approval.

At the December 2012 FDA-CMS meeting, the agency stated that they had received 50 requests for initial meetings with potential biosimilar sponsors to talk about development plans and conducted 34. The agency has now



received 12 biosimilar INDs and has many other active programs with no IND submitted. Proposals have involved 12 reference products.

### **Focus on Medical Devices**

In the E.U., the European Commission released its legislative proposal on medical devices on September 26, 2012. The new revised framework could enter into force by 2015, if approved at first reading.

The main change of this proposal is the replacement of the current three directives by two regulations (one for medical devices and one for *in-vitro* medical devices).

The objectives of the legislation are to simplify and strengthen the current E.U. legal framework by implementing a robust and transparent regulatory framework. The revision impacts the pre-market assessment of devices by strengthening the oversight of Notified Bodies (NBs), post-market safety and continuous assessment of NB compliance, and the management of the regulatory system (better coordination, transparency and communication). A "scrutiny procedure" (via a European decentralized approach) would be used for high-risk Class III devices (novel technologies or specific public health threats). The new revised framework also formally introduces the concept of "companion diagnostic", which is expected to deliver a more accurate definition of the patient population that will benefit from a given product.

In addition, enhanced vigilance and post-market surveillance systems for medical devices, with greater harmonization of E.U. member states' market surveillance activities, are expected.

In the U.S., in January 2011, the FDA announced a Plan of Action, which includes 36 specific actions, to modernize and improve the FDA's premarket review of medical devices. In the two years since the FDA began implementing the plan, the speed and predictability of device review have improved for the first time in almost a decade, including significant reductions in the time it takes the FDA to review applications and the size of application backlogs. These results have been achieved even though the Plan of Action has not yet been fully implemented.

The FDA has met almost all of its early implementation timelines. As implementation continues and the impact of the Plan grows over the next several years, the FDA expects performance on review times and reductions in backlogs to continue to improve. The new process improvements and resources made available by this year's reauthorization of the Medical Device User Fee Act (MDUFA III) will accelerate the FDA's ability to make premarket review of devices predictable, consistent, transparent, efficient, and timely.

Recent biomedical breakthroughs are pushing medicine toward tailored therapeutics, or personalized medicine. This means an increase in the development of companion diagnostics. To address this issue, the FDA issued the draft guidance *In Vitro Companion Diagnostic Devices* on July 12, 2011, to communicate to industry how the FDA defines these devices and what the Agency's regulatory requirements are for them. The finalization of this guidance has been delayed.

### **Focus on transparency and public access to documents**

Over the last two to three years the pharmaceutical industry has been subject to growing pressure for greater transparency about clinical trials (conduct and results). Regulatory authorities are also being pushed for more openness and transparency, for example by making more comprehensive disclosure about the rationale and basis of regulatory decisions on medicinal products, so as to enhance the credibility of the regulatory process. This is a significant driver of the transparency initiatives undertaken in several countries.

Pharmaceutical manufacturers have committed to publishing protocols and results of clinical studies performed with their products in publicly accessible registries. In addition, both ICH and non-ICH countries often impose mandatory disclosure of clinical trials information.

From a regulatory perspective, ambitious initiatives have been undertaken by the major regulatory authorities.

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E.U. pharmaceutical legislation for medicinal products requires national regulatory authorities and the EMA to actively publish information concerning authorization and supervision of medicinal products. The EMA has introduced a series of initiatives aimed at improving the transparency of its activities, such as improving the format of the European Public Assessment Report, web-published product approvals, withdrawals and rejections. In addition, there is an increased focus on comparative efficacy and effectiveness. With the new E.U. pharmacovigilance legislation, there will be greater transparency, especially with regard to communication of safety issues (e.g. public hearings, specific European web-portals with information on medicinal products). Finally, patients and consumers are increasingly involved in the work of the EMA's scientific committees.

The European regulators recently took a major step towards more openness and transparency by giving much wider access to documents originated by pharmaceutical companies and submitted to the regulatory authorities for scientific evaluation after a regulatory decision is taken. Whilst it is anticipated that these documents would be redacted before disclosure in order to protect information contained therein that cannot be disclosed (commercial confidential information or personal data), the draft document released in June 2011 for public consultation by the EMA and the Head of Medicines Agencies (HMA) gives a narrower definition of commercially confidential information and personal data within the context of the marketing authorization dossier. Consequently, the scope of the information accessible to the public has been considerably widened (e.g., clinical study reports in a marketing authorization dossier, but also a significant portion of non-clinical test data).

During the second half of 2012 the EMA informed stakeholders about its intention to implement by January 2014 the previously announced proactive policy for public disclosure of raw data from clinical trials that are included in marketing authorization dossiers of approved medicinal products.

Protection of patients' personal data, data format definition and document redaction, rules of engagement for third parties willing to conduct new analyses on data files, legal aspects about risk of infringement of commercially confidential information are among the main ethical and technical issues to be overcome before the new transparency policy is enforced, and are to be discussed between the EMA and its stakeholders over the first part of 2013.

The EMA does not routinely require raw data files as part of the submitted dossier, implying that this new policy will apply in particular to prospective submissions.

In the highly competitive field of medicinal products, it is still necessary to reinforce the principle that non-innovators cannot obtain marketing authorization based solely on the originator's data released in the E.U. for as long as the data protection period is in force.

As of the end of 2012, the E.U. disclosure policy appears more advanced than that in other major markets.

In the U.S., FDA Commissioner, Dr. Margaret A. Hamburg, launched FDA's Transparency Initiative in June 2009, in response to President Obama's January 2009 "Open Government Initiative". The objective of the initiative was to render the FDA much more transparent and open to the American public by providing the public with useful, user-friendly information about agency activities and decision-making.

The FDA Transparency Initiative has three phases: Phase I Improving the understanding of FDA basics (completed with ongoing updates); Phase II Improving FDA's disclosure of information to the public (ongoing); and Phase III Improving FDA's transparency to regulated industry (ongoing). Proposals to improve transparency and access to information were released for consultation for both Phase II (May 19, 2010) and Phase III (January 6, 2011). Some of the less controversial proposals have been implemented; others, such as proactive release of information that the Agency has in its possession, may require revisions to U.S. federal regulations.

**Other new legislation proposed or pending implementation**

**Clinical trials applications:** a proposal for a regulation of the European Parliament and of the Council on clinical trials on medicinal products for human use, repealing Directive 2001/20/EC, was released in July 2012 with the following objectives:

- 1) To establish a modern regulatory framework for submission, assessment and regulatory follow-up of applications for clinical trials, taking into account the multinational research environment. The goal is to reduce administrative burdens and operational costs, and cut lead times to launch clinical trials, insofar as they are caused by regulation.
- 2) Regulatory requirements which are adapted to practical considerations, constraints and needs, without compromising the safety, wellbeing and rights of participants in clinical trials and without compromising data robustness, with a goal of reducing administrative burdens and operational costs as regards two key regulatory requirements: the annual safety report and obligatory insurance/indemnification.
- 3) Addressing the global dimension of clinical trials when ensuring compliance with Good Clinical Practices (GCP). The operational objective is to ensure that clinical trials conducted in non-EU countries comply with GCP.

Discussions have begun on this proposal (2012/2013) and the final regulation is expected to come into force by 2016.

Overall, the replacement of Directive 2001/20/EC by a Regulation is expected to introduce a harmonized review pathway and timelines without interfering with Member States' competences in terms of ethical aspects. A single E.U. submission portal is expected to significantly streamline the review process and will also allow increased transparency over the conduct and results of clinical trials.

**Falsified medicines:** implementation of Directive 2011/62/EU: The European Union (E.U.) has reformed the rules for importing into the E.U. active substances for medicinal products for human use. As of January 2, 2013, all imported active substances must have been manufactured in compliance with standards of good manufacturing practices (GMP) at least equivalent to the GMP of the E.U. The manufacturing standards in the EU for active substances are those of the "International Conference for Harmonisation" ICH Q7. As of July 2, 2013, this compliance must be confirmed in writing by the competent authority of the exporting country. This document must also confirm that the plant where the active substance was manufactured is subject to control and enforcement of good manufacturing practices at least equivalent to that in the E.U.

In practice, the full implementation of Directive 2011/62/EU by July 2013 could generate temporary drug shortages in the E.U. in those cases where manufacturers will be unable to supply the required documentation.

**Pricing & Reimbursement**

Rising overall healthcare costs are leading to efforts to curb drug expenditures in most markets in which Sanofi operates. Increasingly these efforts result in pricing and market access controls for pharmaceuticals. The nature and impact of these controls vary from country to country, but some common themes are reference pricing, systematic price reductions, formularies, volume limitations, patient co-pay requirements, and generic substitution. In addition, governments and third-party payers are increasingly demanding comparative / relative effectiveness data to support their decision making process. They are also increasing their utilization of emerging healthcare information technologies such as electronic prescribing and health records to enforce transparency and tight compliance with these regulations and controls. As a result, the environment in which pharmaceutical companies must operate in order to make their products available to patients and providers who need them continues to grow more complex each year.

Significant changes in the Pharmaceutical/Healthcare environment emerged since 2010:

In the United States, implementation of health insurance and market reforms continued during 2012. These reforms are expected to lead to a large number of uninsured being covered by 2014, either through

state programs or mandatory enrollment in private plans. Cost-containment pressures affecting pharmaceuticals are also persisting in the public and private health care sectors.

In Europe, emergency cost containment measures and reforms introduced since 2010 in several countries (including, Germany, Greece, Spain, Portugal, and Ireland) are being implemented. These will significantly affect the size of the pharmaceutical market. A number of Central and Eastern European countries are also implementing cost containment measures (Hungary, Slovakia, Poland). In parallel, the full effect of the new German laws (end to the free-price-setting system) has only just begun to see negative dividends for the industry. In 2011, France implemented numerous changes to pharmaceutical access. In addition, health economic assessment is now officially part of the price determination in countries such as France and Spain. Details of the UK value-based pricing of drugs scheme are still to be finalized and it is not clear how or if the emphasis of the Incremental Cost Effectiveness Ratio (ICER) used by the National Institute for Clinical Excellence (NICE) will be diminished.

In Japan, along with the usual biennial price cuts (April 2012), the extension of price premiums for drug development and measures to encourage the access to new medications have been announced.

Regardless of the exact method, we believe that third-party payers will continue to act to curb the cost of pharmaceutical products. While the impact of these measures cannot be predicted with certainty, we are taking the necessary steps to defend the accessibility and price of our products in order to reflect the value of our innovative product offerings:

We actively engage with our key stakeholders on the value of our products to them. These stakeholders including physicians, patient groups, pharmacists, government authorities and third-party payers can have a significant impact on the market accessibility of our products.

We continue to add flexibility and adaptability to our operations so as to better prepare, diagnose, and address issues in individual markets.

Keeping in mind the importance of recognizing the value of our products and the high cost of research and development, we continue to analyze innovative pricing and access strategies that balance patient accessibility with appropriate rewards for innovation. Specifically, we are involved in risk sharing agreements with payers, whereby part of the financial risk related to a treatment's success is carried by the marketing company. Those agreements usually foresee that the clinical efficacy of a drug is followed after its commercialization, for a specified period of time and patient population. The price and reimbursement level of the drug is then either confirmed or revised based on these post-marketing results.

### **Insurance and Risk Coverage**

We are protected by four key insurance programs, relying not only on the traditional corporate insurance and reinsurance market but also on our captive insurance company, Carraig Insurance Ltd (Carraig).

These four key programs cover Property & Business Interruption, General & Product Liability, Stock and Transit, and Directors & Officers Liability.

Our captive insurance company, Carraig, participates in our coverage for various lines of insurance mainly including excess property, stock and transit and general & product liability. Carraig is run under the supervision of the Irish regulatory authorities, is wholly-owned by Sanofi, and has sufficient resources to meet those portions of our risks that it has agreed to cover. It sets premiums for Group entities at market rates. Claims are assessed using the traditional models applied by insurance and reinsurance companies, and the company's reserves are regularly verified and confirmed by independent actuaries.

Our Property & Business Interruption program covers all Group entities worldwide, wherever it is possible to use a centralized program operated by our captive insurance company. This approach shares risk between Group entities, enabling us to set deductibles and guarantees that are appropriate to the needs of local entities. It also incorporates a prevention program, including a comprehensive site visit program covering our production, storage, research and distribution facilities and standardized repair and maintenance procedures across all sites. Specialist

site visits are conducted every year to address specific needs, such as testing of sprinkler systems or emergency plans to deal with flooding risks.

The Stock and Transit program protects goods of all kinds owned by the Group that are in transit nationally or internationally, whatever the means of transport, and all our inventories wherever they are located. Sharing risk between Group entities means that we can set deductibles at appropriate levels, for instance differentiating between goods that require temperature controlled distribution and those that do not. We have developed a prevention program with assistance from experts, implementing best practices in this area at our distribution sites. This program, which is led by our captive insurance company, has substantial capacity, largely to deal with the growth in sea freight which can lead to a concentration of value in a single ship.

Our General & Product Liability program has been renewed for all our subsidiaries worldwide wherever it was possible to do so, despite the increasing reluctance in the insurance and reinsurance market to cover product liability risks for large pharmaceutical groups. For several years, insurers have been reducing product liability cover because of the difficulty of insuring some products that have been subject to numerous claims. These products are excluded from the cover provided by insurers, and hence from the cover obtained by us on the insurance market. This applies to a few of our products, principally those described in Note D.22.a) to our consolidated financial statements included at Item 18 in this annual report. Because of these market conditions we have increased, year by year, the extent to which we self-insure.

The principal risk exposure for our pharmaceutical products is covered with low deductibles at the country level, the greatest level of risk being retained by our captive insurance company. The level of risk self-insured by the Group including our captive reinsurance company enables us to retain control over the management and prevention of risk. Our negotiations with third-party insurers and reinsurers are tailored to our specific risks. In particular, they allow for differential treatment of products in the development phase, for the discrepancies in risk exposure between European countries and the United States, and for specific issues arising in certain jurisdictions. Coverage is adjusted every year in order to take into account the relative weight of new product liability risks, such as those relating to rare diseases with very low exposure or to healthcare products which do not require marketing approval.

Our cover for risks that are not specific to the pharmaceutical industry (general liability) is designed to address the potential impacts of our operations.

For all lines of business of Carraig, outstanding claims are covered by provisions for the estimated cost of settling all claims incurred but not paid at the balance sheet date, whether reported or not, together with all related claims handling expenses. Where there is sufficient data history from the company or from the market for claims made and settled, management with assistance from independent actuaries prepares an actuarial estimate of the company's exposure to unreported claims for the risks covered. The actuaries perform an actuarial valuation of the company's IBNR (incurred but not reported) and ALAE (allocated loss adjustment expense) liabilities at year end. Two ultimate loss projections (based upon reported losses and paid losses respectively) are computed each year using the Bornhuetter-Ferguson method; these projections form the basis for the provisions set.

The Directors & Officers Liability program protects the legal entities under our control, and their directors and officers. Our captive insurance company is not involved in this program.

The Group also operates other insurance programs, but these are of much lesser importance than those described above.

All the insurance programs are backed by best-in-class insurers and reinsurers and are designed in such a way that we can integrate most newly-acquired businesses on a continuous basis. Our cover has been designed to reflect our risk profile and the capacity available in the insurance market. By centralizing our major programs, not only do we reduce costs, but we also provide world-class coverage for the entire Group.

**C. Organizational Structure****Significant subsidiaries**

Sanofi is the holding company of a consolidated group of subsidiaries. The table below sets forth our significant subsidiaries and affiliates as of December 31, 2012. For a list of the principal companies in our consolidated group, see Note F. to our consolidated financial statements, included in this annual report at Item 18.

Significant Subsidiary or Affiliate	Date of Incorporation	Country of Incorporation	Principal Activity	Financial and Voting Interest
Aventis Inc.	07/01/1998	United States	Pharmaceuticals	100%
Aventis Pharma S.A.	09/24/1974	France	Pharmaceuticals	100%
Genzyme Corporation	11/21/1991	United States	Pharmaceuticals	100%
Hoechst GmbH	07/08/1974	Germany	Pharmaceuticals	100%
Merial Ltd	08/01/1997	United Kingdom	Animal Health	100%
Merial S.A.S.	02/25/1941	France	Animal Health	100%
Sanofi-Aventis Amérique du Nord S.A.S.	09/20/1985	France	Pharmaceuticals	100%
Sanofi-Aventis Deutschland GmbH	06/30/1997	Germany	Pharmaceuticals	100%
Sanofi-Aventis Europe S.A.S.	07/15/1996	France	Pharmaceuticals	100%
Sanofi-Aventis U.S. LLC	06/28/2000	United States	Pharmaceuticals	100%
Sanofi Pasteur	02/08/1989	France	Vaccines	100%
Sanofi Pasteur Inc.	01/18/1977	United States	Vaccines	100%
Sanofi Winthrop Industrie	12/11/1972	France	Pharmaceuticals	100%

Since 2009, we have transformed our Group through numerous acquisitions (see Item 4A "History and Development of the Company"), in particular those of Genzyme in April 2011 and Merial in September 2009. The financial effects of the Genzyme acquisition are presented in Note D.1.2. to our consolidated financial statements, included in this annual report at Item 18. The financial effects of the Merial acquisition are presented in Note D.1.3. to our consolidated financial statements for the year ended December 31, 2010, included in our annual report on Form 20-F for that year.

In certain countries, we carry on some of our business operations through joint ventures with local partners. We have also entered into worldwide marketing arrangements. Two of our major products (Plavix® and Aprovel®) are marketed through an alliance with BMS, Actonel® is marketed through an alliance with Warner Chilcott, and Zaltrap® is marketed through an alliance with Regeneron. See "Item 5 Financial Presentation of Alliances".

**Internal organization of activities**

Sanofi and its subsidiaries form a group, organized around three activities: Pharmaceuticals, Human Vaccines (Vaccines) and Animal Health.

Within the Group, responsibility for research and development (R&D) in their respective fields rests with Sanofi and Genzyme Corporation (Pharmaceuticals), Sanofi Pasteur and Sanofi Pasteur, Inc. (Vaccines), and Merial Ltd and Merial S.A.S. (Animal Health); these entities define strategic priorities and coordinate R&D efforts. To fulfill this role, these entities subcontract R&D work to subsidiaries that have the necessary resources. They also license patents, manufacturing know-how and trademarks to certain French and foreign subsidiaries. In these cases, the licensee subsidiaries manufacture and distribute the Group's products, either directly or via local distribution entities.

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Our industrial property rights, patents and trademarks are mainly held by the following companies:

Pharmaceuticals: Sanofi, Aventis Pharma S.A. (France), Sanofi-Aventis Deutschland GmbH (Germany), Sanofi-Aventis U.S. LLC and Genzyme Corporation (United States).

Vaccines: Sanofi Pasteur (France) and Sanofi Pasteur, Inc. (United States).

Animal Health: Merial Ltd (United Kingdom) and Merial S.A.S. (France).

For a description of our principal items of property, plant and equipment, see Item 4.D. "Property, Plant and Equipment". These assets are mainly held by Sanofi Pasteur, Genzyme Corporation, Sanofi Chimie, Sanofi-Aventis Deutschland GmbH, Sanofi Pasteur Inc. and Sanofi Winthrop Industrie.

### ***D. Property, Plant and Equipment***

#### **D.1. Overview**

Our headquarters are located in Paris, France. See " Office Space" below.

We operate our business through office premises and research, production and logistics facilities in approximately 100 countries around the world. Our office premises house of all our support functions, plus operational representatives from our subsidiaries and the Group.

A breakdown of these sites by use and by ownership status (owned versus leasehold) is provided below. Breakdowns are based on surface area. All surface area figures are unaudited.

#### **Breakdown of sites by use\***

Industrial	63%
Research	13%
Offices	12%
Logistics	7%
Other	5%

\*

*Our Vaccines and Animal Health activities occupy offices and research, production and warehouse facilities. These sites are allocated between the first four categories in the table above as appropriate.*

#### **Breakdown of sites by ownership status**

Leasehold	32%
Owned	68%

We own most of our research and development and production facilities, either freehold or under finance leases with a purchase option exercisable at expiration of the lease.

#### **D.2. Description of our sites**

##### **Sanofi industrial sites**

We carry out our industrial production at 112 sites in nearly 40 countries (including 40 sites in emerging markets):

82 sites for our Pharmaceuticals activity, including Genzyme;

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13 sites for the industrial operations of Sanofi Pasteur in vaccines;

17 sites for the Animal Health activities of Merial.



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In 2012, we produced the following quantities:

Pharmaceuticals: 3,520 million boxes produced and packaged (4,117 including outsourced production) and for Genzyme, 9.1 million vials (42.7 million including outsourced production);

Vaccines: 417 million containers prepared (451 million including outsourced production);

Animal Health: 500 million doses of vaccines for all species other than avian, 90 billion doses of avian vaccines, and 1.7 billion units of pharmaceutical products (pipettes, pills, vials, syringes).

We believe that our production facilities are in compliance with all regulatory requirements, are properly maintained and are generally suitable for future needs. Nonetheless, we regularly inspect and evaluate these facilities with regard to environmental, health, safety and security matters, quality compliance and capacity utilization. For more information about our property, plant and equipment, see Note D.3 to the consolidated financial statements.

### **Industrial Sites: Pharmaceuticals**

Production of chemical and pharmaceutical products is the responsibility of our Industrial Affairs function, which is also in charge of most of our logistics facilities (distribution and storage centers).

The sites where our major drugs, active ingredients, specialties and medical devices are manufactured are:

France: Ambarès (Aprovel®, Depakine®, Multaq®), Aramon (irbesartan), Le Trait (Lovenox®), Lyon Gerland (Thymoglobulin®, Celsior®), Maisons-Alfort (Lovenox®), Neuville (dronedarone), Quetigny (Stilnox®, Plavix®), Sisteron (clopidogrel bisulfate, dronedarone, zolpidem tartrate), Tours (Stilnox®, Aprovel®, Xatral®), Vitry-sur Seine (docetaxel/aflibercept);

Germany: Frankfurt (insulins, Ramipril®, Lantus®, Tritace®, medical devices, Apidra®);

Ireland: Waterford (Myozyme®, Lumizyme®, Cholestagel®, Thymoglobulin®, Renagel®, Renvela®, and Cerezyme®);

Italy: Scoppito (Tritace®, Amaryl®) and Anagni (Depakine®, Fasturtec®, Rifa antibiotic family);

United Kingdom: Dagenham (Taxotere®, Eloxatine®, currently being transferred to Frankfurt in Germany), Fawdon (Plavix®, Aprovel®), Haverhill (sevelamer hydrochloride API (Renagel®), sevelamer carbonate API (Renvela®), Cerezyme®, Fabrazyme®, Thyrogen®, Myozyme®, etc), and Holmes Chapel (Nasacort®, Flutiform®);

Hungary: Ujpest (irbesartan), Csanyikvölgy (Lovenox®);

Japan: Kawagoe (Plavix®);

United States: Kansas City (Allegra®, currently being transferred to Tours and Compiègne in France), and Chattanooga (Consumer Health Care products);

Brazil: Suzano (Amaryl® and Novalgine®) and Campinas (generics);

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Mexico: Ocoyoacac (Flagyl®).

The rare diseases specialist Genzyme became a Sanofi subsidiary in April 2011. This acquisition expanded our presence in biotechnologies, especially rare diseases. Genzyme manages 11 production sites and works with more than 20 subcontractors to manufacture 22 commercial products over a broad range of technological platforms.

Genzyme's sites are as follows:

Belgium: Geel (alglucosidase alpha: Myozyme®/Lumizyme®);

United States: Allston (Cerezyme®, Fabrazyme®); Framingham (Fabrazyme®, Myozyme®, Thyrogen®, Septrafilm, Hyaluronic Acid); Cambridge (Carticel®, Epicel®, MACI® (Matrix-induced Autologous Chondrocyte Implantation)); Ridgefield (Synvisc®, Hectorol®, Mozobil®, Jonexa®, Prevelle®); and Lynnwood, Washington (Leukine®), a former Bayer Healthcare site;

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Australia: Perth (MACI®);

Denmark: Copenhagen (MACI®).

### **Industrial Sites: Vaccines (Sanofi Pasteur)**

The headquarters of our Vaccines division, Sanofi Pasteur, are located in Lyon, France. Sanofi Pasteur has production and/or R&D sites at Swiftwater, Cambridge, Rockville, Canton and Orlando (United States); Toronto, (Canada); Marcy l'Étoile, Neuville and Val de Reuil (France); Shenzhen (China); Pilar (Argentina); Chachoengsao (Thailand); Hyderabad (India); and Ocoyoacac (Mexico.)

In May 2009, we began construction of a new vaccine manufacturing center at our Neuville-sur-Saône site in France. This €300 million investment, the largest ever made by Sanofi, is intended to gradually transition the existing chemical activity to vaccine production from 2013 onwards.

In 2010, Sanofi Pasteur acquired VaxDesign, a U.S. company located in Orlando, Florida. VaxDesign's Modular IMMune In-vitro Construct (MIMIC®) System is designed to capture genetic and environmental diversity and predict human immune responses. The MIMIC® platform is expected to accelerate vaccine development, reduce time to market and increase success rates in the pre-clinical and clinical stages.

Sanofi Pasteur owns its Research and Development and production sites, either freehold or under finance leases with a purchase option exercisable at expiration of the lease.

### **Industrial Sites: Animal Health (Merial)**

Since Merck and Sanofi announced in March 2011 that they were maintaining separate activities in the field of animal health, Merial has become a dedicated Sanofi division. Merial has 17 industrial sites in nine different countries, 9 R&D sites, and numerous administrative offices including its headquarters at Lyon, France.

Merial industrial sites are as follows:

Brazil: Paulinia (ivermectin-based pharmaceutical products, and vaccines against foot-and-mouth disease and rabies);

China: Nanchang (live avian vaccines) and Nanjing (inactivated avian vaccines);

France: Toulouse (Frontline® and clostridial vaccines), St-Priest LPA (vaccines), Lyon Gerland, Saint-Herblon (Coophavet), Lentilly (packaging);

Italy: Noventa (inactivated avian vaccines);

Netherlands: Lelystad (antigen and vaccine against foot-and-mouth disease);

Uruguay: Montevideo (primarily anti-clostridium antigens);

United Kingdom: Pirbright (antigens and vaccines against foot-and-mouth disease);

United States: dedicated facilities for Merial's avian vaccines at Berlin (Maryland), Gainesville (Georgia) and Raleigh (North Carolina); dedicated facility for mammal viral and bacterial vaccines at Athens (Georgia); and dedicated facility for autogenous bovine and swine vaccines at Worthington (Minnesota);

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New Zealand: Ancare facility, Auckland (pharmaceutical products, mainly for the bovine market).

### **Research & Development sites: Pharmaceuticals**

Research and Development activities are conducted at 15 sites:

6 operational sites in France: Chilly/Longjumeau, Montpellier, Paris, Strasbourg, Toulouse and Vitry/Alfortville;

2 sites in the rest of Europe (Germany and the Netherlands), the largest of which is in Frankfurt (Germany);

5 sites in the United States, the largest being the Bridgewater, Cambridge and Framingham sites;

2 sites in Asia with 1 clinical research unit in Beijing, China and 1 unit in Japan.

### D.3. Acquisitions, Capital Expenditures and Divestitures

The carrying amount of our property, plant and equipment at December 31, 2012 was €10,578 million. During 2012, we invested €1,351 million (see Note D.3. to our consolidated financial statements, included at Item 18 of this annual report) in increasing capacity and improving productivity at our various production and R&D sites.

Our principal capital expenditures and divestitures in 2010, 2011 and 2012 are described in Notes D.1. ("Impact of changes in the scope of consolidation"), D.2. ("Merger"), D.3. ("Property, plant and equipment") and D.4. ("Goodwill and other intangible assets") to our consolidated financial statements, included at Item 18 of this annual report.

As of December 31, 2012, our firm commitments in respect of future capital expenditures amounted to €323 million. The principal sites involved were (for the Pharmaceuticals activity) the industrial facilities at Frankfurt (Germany), Framingham and Allston (United States), Vertolaye (France), and in Hungary; and for the Vaccines activity, the facility at Swiftwater (United States).

In the medium term and assuming no changes in the scope of consolidation, we expect to invest on average €1.4 billion a year in property, plant and equipment. We believe that our own cash resources and the undrawn portion of our existing credit facilities will be sufficient to fund these expenditures.

Our principal ongoing investments are described below. During 2012, our industrial network actively contributed to the development of our seven growth platforms: Emerging Markets, Diabetes Solutions, Consumer Health Care, New Genzyme and Other Innovative Products (all of which are part of our Pharmaceuticals activity), Vaccines, and Animal Health.

#### Pharmaceuticals

In our **Diabetes Solutions** growth platform, the Frankfurt site – the principal manufacturing center for Sanofi Diabetes products – is being equipped with a new aseptic processing area that uses isolator technology to significantly improve the aseptic filling process. This investment will be operational in 2016. The Sanofi Diabetes industrial network is expanding its footprint in emerging markets, both in Russia and in China (Beijing), where a new facility inaugurated in 2012 has begun assembly and packaging of **SoloSTAR®**, the pre-filled injection system for **Lantus®**.

Our industrial pharmaceutical operations for the **Consumer Health Care** platform are based on four growth hubs: in Europe, Asia (where a new consumer products facility at Hangzhou in China with a production capacity of 3 billion pills will be operational early in 2013), South America, and the United States (focused on the Chattem site in Tennessee, which in 2012 led preparations for the U.S. launch of the pediatric oral suspension formulation of Allegra®). The industrial development teams also contributed to over 30 new launches of consumer products during 2012, expanding our presence in this highly competitive market.

In the **Other Innovative Products** platform, our industrial teams are pooling their expertise to develop ever more sophisticated processes. Three dedicated biotech hubs are being developed in Europe at Frankfurt (Germany); Vitry-sur-Seine (France), our biggest integrated cell culture facility, which in 2012 produced the first technical batches of **afibercept** (the active ingredient of **Zaltrap®**); and Lyon Gerland (France), a new world center dedicated to the production of **thymoglobulin®** for the prevention and treatment of transplant rejection. During 2012, our teams at Lyon prepared a dossier for the healthcare authorities as part of the process of transferring production to this site.

The development of our **Emerging Markets** platform is built on a network of over 30 regional and local industrial sites in 20 countries, supporting growth in these markets. In addition to our recent investments in China in Diabetes and Consumer Health Care, a number of other projects are under way. In the Middle



East, 2012 saw Sanofi lay the foundation stone for a facility in Saudi Arabia that will produce solid pharmaceutical formulations, which will be marketed from 2015. In Latin America, where we already have a large industrial footprint, we are building a dedicated hormonal products facility in Brasilia. Also during 2012, the Ankleshwar Pharma site in Gujarat State (India) handled packaging and quality control through to release of the first commercial batches of **AIISTAR**, the first high-quality affordable insulin pen specifically intended for the local market. The Goa site (India) invested to extend its solid formulation production capacity to around 2.5 billion pills a year. And in Algeria, Sanofi signed an agreement with the local authorities for a major industrial investment that will lead to the construction of our biggest industrial complex in the Africa-Middle East region.

The industrial network of our Pharmaceuticals activity continued throughout 2012 with the roll-out of the economic performance improvement plan launched in 2011. This plan is intended to deliver performance standards commensurate with the diversity of our pharmaceuticals businesses and markets, and to meet the industrial challenges ahead to 2020. Our Industrial Affairs department is constantly adapting to market needs, as a result of which a number of sites are in the process of sale or closure, such as Kansas City (United States), Dagenham and Fawdon (United Kingdom), Romainville (France), and Hlohovec (Slovakia).

The industrial network of the **New Genzyme** growth platform is predominantly located in the United States where major investments are under way, especially at the Framingham Biologics site, which was approved by the FDA and the EMA in 2012 for the manufacture of Fabrazyme® (Fabry disease). The site at Allston (Massachusetts) has initiated a major investment program in connection with the implementation of its compliance remediation workplan, approved by the FDA in January 2012. Finally, the Bayer Healthcare facility at Lynnwood (Washington), specializing in the manufacture of Leukine®, joined the Genzyme industrial network in 2012.

#### **Vaccines (Sanofi Pasteur)**

**Sanofi Pasteur** is undergoing a major investment phase, particularly the new dedicated dengue fever vaccine facility at Neuville (France), which will produce its first batches in 2014. Two new dedicated influenza vaccine facilities are in the start-up phase: Shenzhen (China) is currently testing its production processes, while Ocoyoacac (Mexico) was approved by the Mexican authorities at the start of 2012 and began production in time for the Mexican influenza vaccination program in September 2012. In response to observations made by the FDA during routine inspections conducted in 2012 in Toronto (Canada) and Marcy l'Etoile (France), Sanofi Pasteur initiated a compliance program to address the quality issues identified.

#### **Animal Health (Merial)**

**Merial** is adapting its industrial capacity to keep pace with the growing animal health market. In 2012, Merial acquired Newport Laboratories, which has an autogenous vaccine production facility at Worthington, Minnesota (United States). In China, Merial is investing in a new site in the Nanchang high-tech development zone, in order to service future growth in vaccines for avian and other species in the local market. In Europe, a substantial portion of the investment in recent years has been directed at the transfer of vaccine production from Lyon Gerland (France) to a new site nearby at Saint Priest (Lyon Porte des Alpes). At the Toulouse site (France), Merial is adapting its production capacity to new products by investing in a packaging line for use in the manufacturing of **Certifact®** (compliant with European Union Good Manufacturing Practices (GMP), and approved by the U.S. Environmental Protection Agency) and in a building for the production of the injectable form of Zactran®.

Industrial innovation was a key theme in 2012. The fourth "Innovation Trophy" awards again illustrated the striking progress being made in this area, which we regard as a top priority in our industrial strategy. The **2012 Pierre Potier Prize** was awarded to the Chemicals and Biotechnology teams, who developed an innovative industrial process for the production of artemisinin, the basis for antimalarial drugs. Investment is ongoing in the installation of an innovative biosynthesis process at two French sites, Saint-Aubin-lès-Elbeuf (Seine Maritime) and Vertolaye (Puy de Dôme), with the aim of improving the international competitiveness of our corticosteroid production.

**D.4. Office Space**

As part of the rationalization of our office sites in the Paris region of France, we have since mid-2009 been carrying out a medium-term review of our office space master plan for the Greater Paris area.

This review will result in all our Group support functions and operating divisions being housed on a smaller number of sites (5 in 2012 on completion of phase 1, and 3 by 2015). All of these sites will meet environmental certification standards, and offer cost-effective space solutions.

**Item 4A. Unresolved Staff Comments**

N/A



## Item 5. Operating and Financial Review and Prospects

You should read the following discussion in conjunction with our consolidated financial statements and the notes thereto included in this annual report at Item 18.

Our consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and with IFRS adopted by the European Union as of December 31, 2012.

The following discussion contains forward-looking statements that involve inherent risks and uncertainties. Actual results may differ materially from those contained in such forward-looking statements. See "Cautionary Statement Regarding Forward-Looking Statements" at the beginning of this document.

Unless otherwise stated, all change figures in this item are given on a reported basis.

### 2012 Overview

During 2012, we continued to follow the strategic direction established in 2008 and to pursue the objectives for 2012-2015 announced in September 2011 and reiterated in February 2013. The thrust of these objectives is fourfold: grow a global healthcare leader with synergistic platforms, bring innovative products to market, seize value-enhancing growth opportunities, and adapt our structure for future challenges and opportunities.

Our 2012 full-year results were affected by the loss of exclusivity for Plavix® and Avapro® in the United States in the first half, and by ongoing generic competition for our former flagship products. However, the erosion in our net sales and profitability was cushioned by our growth platforms, the contribution from Genzyme, and tight cost control.

Our 2012 net sales reached €34,947 million, 4.7% higher than in 2011 (0.5% at constant exchange rates, see definition at "Presentation of Net Sales" below), driven mainly by the performance of the Emerging Markets, Diabetes, Vaccines, Consumer Health Care, Animal Health and Other Innovative Products growth platforms, by advances for the Generics business, and by the contribution from Genzyme (whose net sales have only been consolidated since April 2011). This performance was achieved in spite of the significant impact of competition from generics, which cost us €1.2 billion in lost sales (€1.3 billion at constant exchange rates, see "Impacts from generic competition" below), and the ending of the co-promotion agreement with Teva on Copaxone®. Milestones for our research efforts during 2012 included the launch of Zaltrap® (metastatic colorectal cancer) and Aubagio® (multiple sclerosis) in the United States.

The ongoing realignment of our resources cut research and development expenses by 0.4% and limited the rise in selling and general expenses to 1.8%, after including Genzyme's costs over the full year. Business net income was €8,179 million, 7.0% lower than in 2011 on a reported basis, mainly due to the loss of exclusivity for Plavix® and Avapro® in the United States and to competition from generics. Business earnings per share was €6.20, 6.8% lower than in 2011. Business net income and business earnings per share are non-GAAP financial measures which our management uses to monitor our operational performance, and which are defined at "Business Net Income" below.

Net income attributable to equity holders of Sanofi came to €4,967 million, down 12.8% on 2011. Basic earnings per share amounted to €3.76, also 12.8% lower than in 2011; diluted earnings per share for 2012 were €3.74 (12.8% lower).

During 2012, we continued with our policy of targeted acquisitions and of alliances in research and development. In Generics, we announced in October 2012 that we had signed an agreement to acquire Genfar S.A., a Colombian pharmaceutical company which is a key generics player not only in Colombia, but also in other Latin American countries. Closing of this acquisition is subject to certain conditions, and is expected to take place during the first half of 2013. In biosurgery, we acquired the U.S. medical devices company Pluromed, Inc. in April 2012. We strengthened our Animal Health division with the April 2012 acquisition of Newport Laboratories (a U.S. American producer of autogenous vaccines for the bovine and swine markets), and by entering into an agreement to acquire the animal health division of Dosch Pharmaceuticals Pvt Ltd that will give Merial an entry point into the

Indian market. We also entered into various alliances and licensing deals to extend or strengthen our existing research fields.

In October 2012, Sanofi and Bristol-Myers Squibb announced that they were restructuring their alliance following the loss of exclusivity for Plavix® and Avapro®/Avalide® in many major markets. The new agreement, which took effect on January 1, 2013, returns the rights for Plavix® and Avapro®/Avalide® to Sanofi worldwide (except for the United States and Puerto Rico for Plavix®), thereby giving Sanofi exclusive control over these products and their commercialization.

In August 2012, we sold our interest in Société Financière des Laboratoires de Cosmétique Yves Rocher, in line with our desire to focus on strategic activities.

As of December 31, 2012, we had reduced our debt, net of cash and cash equivalents to €7.7 billion, compared with €10.9 billion as of December 31, 2011. The Annual General Meeting of shareholders, to be held on May 3, 2013, will be asked to approve a dividend of €2.77 per share in respect of the 2012 fiscal year, representing a payout equivalent to 45% of our business net income.

While we remain focused on our objectives for 2012-2015 announced in September 2011, we expect erosion from generic competition to continue, with a negative impact on net income in 2013 (see " Impacts from generic competition" below). While we continue to save costs, we expect that part of the savings will be reinvested in product launches and late-stage clinical trials.

Our operations generate significant cash flow. We recorded €8,171 million of net cash provided by operating activities in 2012 compared to €9,319 million in 2011. During the course of 2012, we paid out €3.5 billion in dividends and repaid part of our debt. With respect to our financial position, we ended 2012 with our debt, net of cash and cash equivalents (see definition at " Liquidity and Capital Resources" below) at €7,719 million (2011: €10,859 million). Debt, net of cash and cash equivalents, is a financial indicator that is used by management to measure the Company's overall net indebtedness and to manage the Group's equity capital. In order to assess the Company's financing risk, we also use a "gearing ratio", a non-GAAP financial measure, that we define as the ratio of debt, net of cash and cash equivalents, to total equity. Our gearing ratio was 13.4% at the end of 2012 versus 19.3% at the end of 2011. See " Liquidity and Capital Resources" below.

**Impacts from generic competition**

Some of our flagship products continued to experience sales erosion in 2012 due to generic competition. While we do not believe it is possible to state with certainty what level of net sales would have been achieved in the absence of generic competition, we are able to estimate the impact of generic competition for each product.

A comparison of our net sales for the years ended December 31, 2012 and 2011 (see " Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011") shows that competition from generics was associated with a decline of €1.2 billion in net sales in 2012 (or €1.3 billion at constant exchange rates). The table below shows the impact by product.

<i>(€ million)</i>				
<b>Product</b>	<b>2012 Reported</b>	<b>2011 Reported</b>	<b>Change on a reported basis</b>	<b>Change on a reported basis (%)</b>
Plavix® Western Europe	285 <sup>(1)</sup>	406 <sup>(1)</sup>	(121)	-29.8%
Aprovel® Western Europe	542 <sup>(1)</sup>	718 <sup>(1)</sup>	(176)	-24.5%
Taxotere® Western Europe	53	189	(136)	-72.0%
Eloxatine® U.S.	718	806	(88)	-10.9%
Lovenox® U.S.	319	633	(314)	-49.6%
Plavix® U.S.	76 <sup>(2)</sup>	196	(120)	-61.2%
Aprovel® U.S.	45 <sup>(2)</sup>	49	(4)	-8.2%
Taxotere® U.S.	53	243	(190)	-78.2%
Ambien® U.S.	85	82	+3	+3.7%
Xatral® U.S.	20	75	(55)	-73.3%
Nasacort® U.S.	21	54	(33)	-61.1%
Xyzal® U.S.	6	13	(7)	-53.8%
Allegra® U.S.	(1)	3	(4)	-133.3%
<b>Total</b>	<b>2,222</b>	<b>3,467</b>	<b>(1,245)</b>	<b>-35.9%</b>

<sup>(1)</sup> Excluding industrial sales (Plavix®: €22 million in 2012, €8 million in 2011; Aprovel®: €15 million in 2012, €35 million in 2011).

<sup>(2)</sup> Sales of active ingredient to the BMS majority-owned entity in the United States.

Despite the introduction of generics in the second half of 2012, Myslee® in Japan posted a 2.8% rise in net sales in 2012 (or a fall of 4.9% at constant exchange rates), to €292 million.

We expect erosion from generic competition to continue in 2013, with a negative impact on net income. The following products are expected to be impacted by generics in 2013:

products for which new generic competition can reasonably be expected in 2013 based on expiration dates, patents or other regulatory or commercial exclusivity: Allegra® in Japan;

products for which generics competition began in 2012 and is expected to continue in 2013: Plavix®, Avapro® and Eloxatine® in the United States (net sales of Plavix® and Avapro® in the U.S. are not included in our consolidated net sales), Co-Aprovel® in Europe, and Myslee® and Taxotere® in Japan;

products which already faced generic competition as of January 1, 2012, but for which 2013 sales can reasonably be expected to be subject to further erosion: Plavix®, Eloxatine®, Aprovel® and Taxotere® in Europe; and Lovenox®, Ambien®, Xyzal®, Taxotere®, Xatral® and Nasacort® in the U.S.

Eloxatine® in the U.S. is a special case. This product was subject to generic competition for part of 2010 until a court ruling prevented further sales of unauthorized generics from June 2010 until August 9, 2012.

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In 2012, aggregate consolidated net sales generated by all the products in countries where generic competition currently exists or is expected in 2013 (excluding Plavix® and Avapro® in the U.S., and industrial sales of these two products worldwide) were €2,996 million, including €1,221 million in the U.S., €880 million in Europe and €

895 million in Japan (Allegra®, Myslee® and Taxotere®). The negative impact on our 2013 net sales is liable to represent a substantial portion of this amount, but the actual impact will depend on a number of factors such as the actual launch dates of generic products in 2013, the prices at which they are sold, and potential litigation outcomes.

In addition, the loss of Plavix® and Avapro® exclusivity in the U.S. in the first half of 2012 is expected to negatively impact our net income by €0.8 billion in 2013 relative to 2012. Although sales of Plavix® and Avapro® in the U.S. are not included in our consolidated net sales, these products nonetheless have an impact on our net income (see " Financial Presentation of Alliances Alliance Arrangements with Bristol-Myers Squibb" below for further explanations).

#### **Purchase Accounting Effects**

Our results of operations and financial condition for the years ended December 31, 2012, December 31, 2011 and December 31, 2010 have been significantly affected by our August 2004 acquisition of Aventis and certain subsequent transactions, mainly our acquisition of Genzyme on April 4, 2011.

The Aventis acquisition has given rise to significant amortization (€1,489 million in 2012, €1,788 million in 2011, and €3,070 million in 2010) and impairment of intangible assets (reversals of €12 million in 2012 and of €34 million in 2011, and charges of €127 million in 2010). The Genzyme acquisition has also given rise to amortization of intangible assets (€981 million in 2012 and €709 million in 2011) and impairment of intangible assets (€25 million in 2012 and €119 million in 2011).

In order to isolate the purchase accounting effects of all acquisitions and certain other items, we use a non-GAAP financial measure that we refer to as "business net income". For a further discussion and definition of "business net income", see " Business Net Income" below.

Business net income for the years ended December 31, 2012, 2011 and 2010 is presented in " Business Net Income" below.

#### **Sources of Revenues and Expenses**

*Revenue.* Revenue arising from the sale of goods is presented in the income statement under "Net sales". Net sales comprise revenue from sales of pharmaceutical products, human vaccines, animal health products and active ingredients, net of sales returns, of customer incentives and discounts, and of certain sales-based payments paid or payable to the healthcare authorities. Returns, discounts, incentives and rebates described above are recognized in the period in which the underlying sales are recognized, as a reduction of sales revenue. See Note B.14. to our consolidated financial statements included at Item 18 of this annual report. We sell pharmaceutical products and human vaccines directly, through alliances, and through licensees throughout the world. When we sell products directly, we record sales revenues as part of our consolidated net sales. When we sell products through alliances, the revenues reflected in our consolidated financial statements are based on the overall level of sales of the products and on the arrangements governing those alliances. For more information about our alliances, see " Financial Presentation of Alliances" below. When we sell products through licensees, we receive royalty income that we record in "Other revenues". See Note C. to the consolidated financial statements included at Item 18 of this annual report.

*Cost of Sales.* Our cost of sales consists primarily of the cost of purchasing active ingredients and raw materials, labor and other costs relating to our manufacturing activities, packaging materials, payments made under licensing agreements and distribution costs. We have license agreements under which we distribute products that are patented by other companies and license agreements under which other companies distribute products that we have patented. When we pay royalties, we record them in cost of sales, and when we receive royalties, we record them in "Other revenues" as discussed above.

*Operating Income.* Our operating income reflects our revenues, our cost of sales and the remainder of our operating expenses, the most significant of which are research and development expenses and selling and general expenses. For our business segments, we also measure our results of operations through an indicator referred to as "Business Operating Income," which we describe below under " Segment Information Business Operating Income of Segments."

## Segment Information

### *Operating Segments*

In accordance with IFRS 8 "Operating Segments," we have defined our segments as "Pharmaceuticals", "Human Vaccines" (Vaccines) and "Animal Health". Our other identified segments are categorized as "Other".

The Pharmaceuticals segment covers research, development, production and marketing of medicines, including activities acquired with Genzyme. Sanofi's pharmaceuticals portfolio consists of flagship products, plus a broad range of prescription medicines, generic medicines, and consumer health products. This segment also includes all associates and joint ventures whose activities are related to pharmaceuticals, in particular the entities majority owned by BMS. See "Financial Presentation of Alliances" below.

The Vaccines segment is wholly dedicated to vaccines, including research, development, production and marketing. This segment includes our Sanofi Pasteur MSD joint venture with Merck & Co., Inc. in Europe.

The Animal Health segment comprises the research, development, production and marketing activities of Merial, which offers a complete range of medicines and vaccines for a wide variety of animal species.

The Other segment includes all activities that do not qualify as reportable segments under IFRS 8 "Operating Segments". In particular, this segment included our interest in the Yves Rocher group until the date of loss of significant influence (November 2011) (see note D.6. to our consolidated financial statements included at Item 18 of this annual report); it also includes the effects of retained commitments in respect of divested businesses.

Inter-segment transactions are not material.

### *Business Operating Income of Segments*

We report segment results on the basis of "Business Operating Income". This indicator, adopted in compliance with IFRS 8, is used internally to measure operational performance and to allocate resources.

"Business Operating Income" is derived from "Operating income", adjusted as follows:

the amounts reported in the line items "Fair value remeasurement of contingent consideration liabilities", "Restructuring costs" and "Other gains and losses, and litigation" are eliminated;

amortization and impairment losses charged against intangible assets (other than software) are eliminated;

the share of profits/losses of associates and joint ventures is added;

the share attributable to non-controlling interests is deducted;

other acquisition-related effects (primarily, the workdown of acquired inventories remeasured at fair value at the acquisition date, and the impact of acquisitions on investments in associates and joint ventures) are eliminated; and

restructuring costs relating to associates and joint ventures are eliminated.

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The following table presents our Business Operating Income for the year ended December 31, 2012.

<i>(€ million)</i>	Pharmaceuticals	Vaccines	Animal Health	Other	Total
<b>Net sales</b>	<b>28,871</b>	<b>3,897</b>	<b>2,179</b>		<b>34,947</b>
Other revenues	933	44	33		1,010
Cost of sales	(8,759)	(1,635)	(701)		(11,095)
Research and development expenses	(4,219)	(539)	(164)		(4,922)
Selling and general expenses	(7,666)	(611)	(669)	(1)	(8,947)
Other operating income and expenses	98	(7)	3	14	108
Share of profit/(loss) of associates and joint ventures	432	(1)	(7)		424
Net income attributable to non-controlling interests	(171)		(1)		(172)
<b>Business operating income</b>	<b>9,519</b>	<b>1,148</b>	<b>673</b>	<b>13</b>	<b>11,353</b>

The following table presents our Business Operating Income for the year ended December 31, 2011.

<i>(€ million)</i>	Pharmaceuticals	Vaccines	Animal Health	Other	Total
<b>Net sales</b>	<b>27,890</b>	<b>3,469</b>	<b>2,030</b>		<b>33,389</b>
Other revenues	1,622	25	22		1,669
Cost of sales	(8,368)	(1,404)	(654)		(10,426)
Research and development expenses	(4,101)	(564)	(146)		(4,811)
Selling and general expenses	(7,376)	(542)	(617)	(1)	(8,536)
Other operating income and expenses	(13)		(7)	24	4
Share of profit/(loss) of associates and joint ventures	1,088	1		13	1,102
Net income attributable to non-controlling interests	(246)		(1)		(247)
<b>Business operating income</b>	<b>10,496</b>	<b>985</b>	<b>627</b>	<b>36</b>	<b>12,144</b>

The following table presents our Business Operating Income for the year ended December 31, 2010.

<i>(€ million)</i>	Pharmaceuticals	Vaccines	Animal Health	Other	Total
<b>Net sales</b>	<b>26,576</b>	<b>3,808</b>	<b>1,983</b>		<b>32,367</b>
Other revenues	1,623	28	18		1,669
Cost of sales	(7,316)	(1,371)	(615)		(9,302)
Research and development expenses	(3,884)	(517)	(155)		(4,556)
Selling and general expenses	(6,962)	(603)	(604)	(2)	(8,171)
Other operating income and expenses	177	14	(6)	(108)	77
Share of profit/(loss) of associates and joint ventures	1,009	19		8	1,036
Net income attributable to non-controlling interests	(258)	1			(257)
<b>Business operating income</b>	<b>10,965</b>	<b>1,379</b>	<b>621</b>	<b>(102)</b>	<b>12,863</b>

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The following table (in accordance with paragraph 28 of IFRS 8) reconciles our Business Operating Income to our Income before tax and associates and joint ventures for the years ended December 31, 2012, 2011 and 2010:

<i>(€million)</i>	Year Ended December 31, 2012	Year Ended December 31, 2011	Year Ended December 31, 2010
<b>Business Operating Income</b>	<b>11,353</b>	<b>12,144</b>	<b>12,863</b>
Share of profit/(loss) of associates and joint ventures <sup>(1)</sup>	(424)	(1,102)	(1,036)
Net income attributable to non-controlling interests <sup>(2)</sup>	172	247	257
Amortization of intangible assets	(3,291)	(3,314)	(3,529)
Impairment of intangible assets	(117)	(142)	(433)
Fair value remeasurement of contingent consideration liabilities	(192)	15	
Expenses arising from the impact of acquisitions on inventories <sup>(3)</sup>	(23)	(476)	(142)
Restructuring costs	(1,141)	(1,314)	(1,384)
Other gains and losses and litigation <sup>(4)</sup>		(327)	(138)
Impact of the non-depreciation of property, plant and equipment of Merial (in accordance with IFRS 5)			77
<b>Operating Income</b>	<b>6,337</b>	<b>5,731</b>	<b>6,535</b>
Financial expense	(553)	(552)	(468)
Financial income	93	140	106
<b>Income before tax and associates and joint ventures</b>	<b>5,877</b>	<b>5,319</b>	<b>6,173</b>

<sup>(1)</sup> *Excluding restructuring costs of associates and joint ventures and expenses arising from the impact of acquisitions on associates and joint ventures.*

<sup>(2)</sup> *Excluding the share of restructuring and other adjusting items attributable to non-controlling interests.*

<sup>(3)</sup> *This line comprises the workdown of inventories remeasured at fair value at the acquisition date.*

<sup>(4)</sup> *See Note D.28. to our consolidated financial statements included at Item 18 of this annual report.*

### Business Net Income

In addition to net income, we use a non-GAAP financial measure that we refer to as "business net income" to evaluate our Group's performance. Business net income, which is defined below, represents the aggregate business operating income of all of our operating segments, less net financial expenses and the relevant income tax effects. We believe that this non-GAAP financial measure allows investors to understand the performance of our Group because it segregates the results of operations of our current business activities, as opposed to reflecting the impact of past transactions such as acquisitions.

Our management uses business net income to manage and to evaluate our performance, and we believe it is appropriate to disclose this non-GAAP financial measure, as a supplement to our IFRS reporting, in order to assist investors in analyzing the factors and trends affecting our business performance. Our management also intends to use business net income as the basis for proposing the dividend policy for the Group. Accordingly, management believes that an investor's understanding of trends in our dividend policy is enhanced by disclosing business net income.

We have also decided to report "business earnings per share". Business earnings per share is a specific non-GAAP financial measure, which we define as business net income divided by the weighted average number of shares outstanding. Our management intends to give earnings guidance based on business earnings per share. We also present business earnings per share on a diluted basis.

Business net income is defined as "Net income attributable to equity holders of Sanofi", determined under IFRS, excluding (i) amortization of intangible assets; (ii) impairment of intangible assets; (iii) fair value



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remeasurement of contingent consideration liabilities; (iv) other impacts associated with acquisitions (including impacts of acquisitions on associates and joint ventures); (v) restructuring costs (including restructuring costs relating to associates and joint ventures); (vi) other gains and losses, and litigation; (vii) the impact of the non-depreciation of the property, plant and equipment of Merial starting September 18, 2009 and continuing through 2010 (in accordance with IFRS 5); (viii) the tax effect related to the items listed in (i) through (vii); as well as (ix) effects of major tax disputes and, as an exception for 2011, the retroactive effect (2006-2010) on the tax liability resulting from the agreement signed on December 22, 2011 by France and the United States on transfer prices (APA-Advance Pricing Agreement), for which the amount is deemed to be significant, and (x) the share of non-controlling interests in items (i) through (ix). Items (i), (ii), (iii), (v) and (vi) correspond to those reported in the income statement line items "Amortization of intangible assets", "Impairment of intangible assets", "Fair value remeasurement of contingent consideration liabilities", "Restructuring costs" and "Other gains and losses, and litigation", as defined in Notes B.19. and B.20. to our consolidated financial statements.

The following table reconciles our business net income to our Net income attributable to equity holders of Sanofi for the years ended December 31, 2012, 2011 and 2010:

<i>(€ million)</i>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Business net income</b>	<b>8,179</b>	<b>8,795</b>	<b>9,215</b>
(i) Amortization of intangible assets	(3,291)	(3,314)	(3,529)
(ii) Impairment of intangible assets	(117)	(142)	(433)
(iii) Fair value remeasurement of contingent consideration liabilities	(192)	15	
(iv) Expenses arising from the impact of acquisitions on inventories <sup>(1)</sup>	(23)	(476)	(142)
(v) Restructuring costs	(1,141)	(1,314)	(1,384)
(vi) Other gains and losses, and litigation <sup>(2)</sup>		(327)	(138)
(vii) Impact of the non-depreciation of the property, plant and equipment of Merial (IFRS 5)			77
(viii) Tax effects on the items listed above, comprising:	1,580	1,905	1,856
<i>amortization of intangible assets</i>	<i>1,159</i>	<i>1,178</i>	<i>1,183</i>
<i>impairment of intangible assets</i>	<i>42</i>	<i>37</i>	<i>143</i>
<i>fair value remeasurement of contingent consideration liabilities</i>	<i>2</i>	<i>34</i>	
<i>expenses arising from the impact of acquisitions on inventories</i>	<i>7</i>	<i>143</i>	<i>44</i>
<i>restructuring costs</i>	<i>370</i>	<i>399</i>	<i>466</i>
<i>other gains and losses, and litigation</i>		<i>114</i>	<i>46</i>
<i>non-depreciation of property, plant and equipment of Merial (IFRS 5)</i>			<i>(26)</i>
(iv)/(ix) Other tax items <sup>(3)</sup>		577	
(x) Share of items listed above attributable to non-controlling interests	3	6	3
(iv)/(v) Restructuring costs and expenses arising from the impact of acquisitions on associates and joint ventures <sup>(4)</sup>	(31)	(32)	(58)
<b>Net income attributable to equity holders of Sanofi</b>	<b>4,967</b>	<b>5,693</b>	<b>5,467</b>

<sup>(1)</sup> This line comprises the workdown of inventories remeasured at fair value at the acquisition date.

<sup>(2)</sup> See Note D.28. to our consolidated financial statements included at Item 18 of this annual report.

<sup>(3)</sup> In 2011, this line item includes €349 million relating to the effect of the Franco-American Advance Pricing Agreement (APA), and a €228 million reduction in deferred tax liabilities on remeasurements of intangible assets of Merial as a result of changes in tax legislation in the United Kingdom.

<sup>(4)</sup> This line shows the portion of major restructuring costs incurred by associates and joint ventures, and expenses arising from the impact of acquisitions on associates and joint ventures (workdown of acquired inventories, amortization and impairment of intangible assets, and impairment of goodwill).

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The following table sets forth the calculation of our business net income for the years ended December 31, 2012, 2011 and 2010:

<i>(€ million)</i>	2012	2011	2010
<b>Business operating income</b>	<b>11,353</b>	<b>12,144</b>	<b>12,863</b>
Financial income and expenses	(460)	(412)	(362)
Income tax expense	(2,714)	(2,937)	(3,286)
<b>Business net income</b>	<b>8,179</b>	<b>8,795</b>	<b>9,215</b>

The most significant reconciliation items in the table above relate to the purchase accounting effect of our acquisitions, particularly the amortization and impairment of intangible assets. We believe that excluding these non-cash charges enhances an investor's understanding of our underlying economic performance because we do not consider that the excluded charges reflect the combined entity's ongoing operating performance. Rather, we believe that each of the excluded charges reflects the decision to acquire the businesses concerned.

The purchase-accounting effects on net income primarily relate to:

charges to cost of sales resulting from the workdown of acquired inventories remeasured at fair value, net of tax;

charges related to the impairment of goodwill; and

charges related to the amortization and impairment of intangible assets, net of tax and non-controlling interests.

We believe (subject to the limitations described below) that disclosing business net income enhances the comparability of our operating performance, for the following reasons:

the elimination of charges related to the purchase accounting effect of our acquisitions (particularly amortization and impairment of finite-lived intangible assets) enhances the comparability of our ongoing operating performance relative to our peers in the pharmaceutical industry that carry these intangible assets (principally patents and trademarks) at low book values either because they are the result of in-house research and development that has already been expensed in prior periods or because they were acquired through business combinations that were accounted for as poolings-of-interest;

the elimination of selected items, such as the increase in cost of sales arising from the workdown of inventories remeasured at fair value, gains and losses on disposals of non-current assets and costs and provisions associated with major litigation, improves comparability from one period to the next; and

the elimination of restructuring costs relating to the implementation of our transformation strategy enhances comparability because these costs are directly, and only, incurred in connection with transformation processes such as the rationalization of our research and development structures.

We remind investors, however, that business net income should not be considered in isolation from, or as a substitute for, net income attributable to equity holders of Sanofi reported in accordance with IFRS. In addition, we strongly encourage investors and potential investors not to rely on any single financial measure but to review our financial statements, including the notes thereto, and our other publicly filed reports, carefully and in their entirety.

There are material limitations associated with the use of business net income as compared to the use of IFRS net income attributable to equity holders of Sanofi in evaluating our performance, as described below:

The results presented by business net income cannot be achieved without incurring the following costs that the measure excludes:

*Amortization of intangible assets.* Business net income excludes the amortization charges related to intangible assets. Most of these amortization charges relate to intangible assets that we have acquired. Although amortization is a non-cash charge, it is important for investors to consider it because it represents an allocation in each reporting period of a portion of the purchase price that we

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paid for certain intangible assets that we have acquired through acquisitions. For example, in connection with our acquisition of Aventis in 2004, we paid an aggregate of €31,279 million for these amortizable intangible assets (which, in general, were to be amortized over their useful lives, representing an average amortization period of eight years) and €5,007 million for in-progress research & development. More recently, in connection with our acquisition of Genzyme in April 2011, we paid an aggregate of €7,877 million for amortizable intangible assets (average amortization period of eight and a half years) and €2,148 million for in-progress research & development. A large part of our revenues could not be generated without owning acquired intangible assets.

*Restructuring costs.* Business net income does not reflect restructuring costs even though it does reflect the benefits of the optimization of our activities, such as our research and development activities, much of which we could not achieve in the absence of restructuring costs.

In addition, the results presented by business net income are intended to represent the Group's underlying performance, but items such as gains and losses on disposals and provisions associated with major litigation may recur in future years.

We compensate for the above-described material limitations by using business net income only to supplement our IFRS financial reporting and by ensuring that our disclosures provide sufficient information for a full understanding of all adjustments included in business net income. In addition, subject to applicable law, we may in the future decide to report additional non-GAAP financial measures which, in combination with business net income, may compensate further for some of the material limitations described above.

In determining the level of future dividend payments, and in analyzing dividend policy on the basis of business net income, our management intends to take into account the fact that many of the adjustments reflected in business net income have no effect on the underlying amount of cash available to pay dividends. However, although the adjustments relating to the elimination of the effect of the purchase accounting treatment of the Aventis acquisition and other acquisitions represent non-cash charges, the adjustments relating to restructuring costs represent significant cash charges in the periods following the closing of the acquisition.

This Item 5 contains a discussion and analysis of business net income on the basis of consolidated financial data. Because our business net income is not a standardized measure, it may not be comparable with the non-GAAP financial measures of other companies using the same or a similar non-GAAP financial measure.

### **Presentation of Net Sales**

In the discussion below, we present our consolidated net sales for 2012, 2011 and 2010. We break down our net sales among various categories, including by business segment, product and geographic region. We refer to our consolidated net sales as "reported" sales.

In addition to reported sales, we analyze non-GAAP financial measures designed to isolate the impact on our net sales of currency exchange rates and changes in group structure.

When we refer to changes in our net sales "at constant exchange rates", we exclude the effect of exchange rates by recalculating net sales for the relevant period using the exchange rates that were used for the previous period. See Note B.2 to our consolidated financial statements for further information relating to the manner in which we translate into euros transactions recorded in other currencies.

When we refer to our net sales on a "constant structure basis", we eliminate the effect of changes in structure by restating the net sales for the previous period as follows:

by including sales from an entity or with respect to product rights acquired in the current period for a portion of the previous period equal to the portion of the current period during which we owned them, based on sales information we receive from the party from whom we made the acquisition;

similarly, by excluding sales for a portion of the previous period when we have sold an entity or rights to a product in the current period; and

for a change in consolidation method, by recalculating the previous period on the basis of the method used for the current period.

A reconciliation of our reported net sales to our net sales at constant exchange rates is provided at " Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011 Net Sales" and at " Results of Operations Year Ended December 31, 2011 Compared with Year Ended December 31, 2010 Net Sales" below.

### **Financial Presentation of Alliances**

We have entered into a number of alliances for the development, co-promotion and/or co-marketing of our products. We believe that a presentation of our two principal alliances is useful to an understanding of our financial statements.

The financial impact of the alliances on the Company's income statement is described in " Results of Operations Year Ended December 31, 2012 Compared with Year Ended December 31, 2011" and " Year Ended December 31, 2011 Compared with Year Ended December 31, 2010", in particular in " Net sales", " Other Revenues", " Share of Profit/Loss of Associates and Joint Ventures" and " Net Income Attributable to Non-Controlling Interests".

#### ***Alliance Arrangements with Bristol-Myers Squibb***

Our revenues, expenses and operating income are affected significantly by the presentation of our alliance with Bristol-Myers Squibb (BMS) in our consolidated financial statements.

On September 27, 2012 Sanofi and BMS restructured their alliance following the loss of exclusivity of Plavix® and Avapro®/Avalide® in many major markets. Under the terms of the revised agreement, which came into effect on January 1, 2013, BMS has returned to Sanofi its rights to Plavix® and Avapro®/Avalide® in all markets worldwide with the exception of Plavix® in the U.S. and Puerto Rico, giving Sanofi sole control and freedom to operate commercially. In exchange, starting January 1, 2013 BMS will receive royalty payments on Sanofi's sales of branded and unbranded Plavix® worldwide, excluding the U.S. and Puerto Rico, and on sales of branded and unbranded Avapro®/Avalide® worldwide, in each case through 2018; BMS will also receive a terminal payment of \$200 million from Sanofi in December 2018. Plavix® rights in the U.S. and Puerto Rico will continue unchanged under the terms of the existing agreement through December 2019.

In addition, under the terms of this new agreement ongoing disputes between the companies related to the alliance have been resolved. The resolution of these disputes includes various commitments by both companies, including a one-time payment of \$80 million by BMS to Sanofi in relation to the Avalide® supply disruption in the U.S. in 2011.

As of December 31, 2012, there are three principal marketing arrangements that are used:

*Co-marketing.* Under the co-marketing system, each company markets the products independently under its own brand names. We record our own sales and related costs in our consolidated financial statements.

*Exclusive Marketing.* Under the exclusive marketing system, one company has the exclusive right to market the products. We record our own sales and related costs in our consolidated financial statements.

*Co-promotion.* Under the co-promotion system, the products are marketed through the alliance arrangements (either by contractual arrangements or by separate entities) under a single brand name. The accounting treatment of the co-promotion agreement depends upon who has majority ownership and operational management in that territory, as discussed below.

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The alliance arrangements as of December 31, 2012 include two royalty streams that are applied on a worldwide basis (excluding Japan and other opt out countries), regardless of the marketing system and regardless of which company has majority ownership and operational management:

*Discovery Royalty.* As inventor of the two molecules, we earn an adjustable discovery royalty on part of Aprovel®/Avapro®/Karvea®/Karvezide® and Plavix®/Iscover® sold in alliance countries regardless of the marketing system. The discovery royalty earned in territories under operational management of BMS is reflected in our consolidated income statement in "Other revenues."

*Development Royalty.* In addition to the discovery royalty, we and BMS are each entitled to a development royalty related to certain know-how and other intellectual property in connection with sales of Aprovel®/Avapro®/Karvea®/Karvezide® and Plavix®/Iscover®.

We record development royalties paid to BMS in our consolidated income statement as an increase to our cost of sales in countries where we consolidate sales of the products. We record development royalties that we receive as "other revenues" in countries where BMS consolidates sales of the products.

Under the alliance arrangements as of December 31, 2012, there are two territories, one under our operational management and the other under the operational management of BMS. The territory under our operational management consists of Europe and most of Africa and Asia, while the territory under the operational management of BMS consists of the rest of the world (excluding Japan). In Japan, Aprovel® has been marketed jointly by Shionogi Pharmaceuticals and Daiippon Sumitomo Pharma Co. Ltd since June 2008. Our alliance with BMS does not cover distribution rights to Plavix® in Japan, which is marketed by Sanofi.

*Territory under our operational management.* In the territory under our operational management, the marketing arrangements and recognition of operations by the Group are as follows:

we use the co-promotion system for most of the countries in Western Europe for Aprovel®/Avapro®/Karvea®/Karvezide® and Plavix®/Iscover® and for certain Asian countries for Plavix®/Iscover®. We record 100% of all alliance revenues and expenses in our consolidated financial statements. We also record, as selling and general expenses, payments to BMS for the cost of BMS's personnel involved in the promotion of the products. BMS's share of the operating income of the alliances is recorded as "non-controlling interests";

we use the co-marketing system in Germany, Spain and Greece for both Aprovel®/Avapro®/Karvea®/Karvezide® and Plavix®/Iscover® and in Italy for Aprovel®/Avapro®/Karvea®/Karvezide®; and

we have the exclusive right to market Aprovel®/Avapro®/Karvea®/Karvezide® and Plavix®/Iscover® in Eastern Europe, Africa, the Middle East, and certain Asian countries (excluding Japan); we have the exclusive right to market Aprovel® in Scandinavia and Ireland, and Plavix® in Malaysia.

*Territory under BMS operational management.* In the territory under BMS operational management, the marketing arrangements and recognition of operations by the Group are as follows:

we use the co-promotion system in the United States, Canada and Puerto Rico, where the products are sold through the alliances under the operational management of BMS. With respect to Avapro® (the brand name used in the United States for Aprovel®) and Plavix®, we record our share of the alliance's operating income under "share of profit/loss of associates and joint ventures". We also record payments from BMS for the cost of our personnel in connection with the promotion of the product as a deduction from our selling and general expenses;

we use the co-marketing system in Brazil, Mexico, Argentina and Australia for Plavix®/Iscover® and Aprovel®/Avapro®/Karvea®/Karvezide® and in Colombia for Plavix®/Iscover®; and

we have the exclusive right to market the products in certain other countries of Latin America.

In countries where the products are marketed by BMS on a co-marketing basis, or through alliances under the operational management of BMS, we also earn revenues from the sale of the active ingredients for the products to BMS or such entities, which we record as "Net sales" in our consolidated income statement.

***Alliance Arrangements with Regeneron***

Our relationship with Regeneron began in 2003 with an agreement for the co-development of the anti-angiogenic agent Zaltrap®. We expanded our relationship in 2007 and created a strategic R&D collaboration on fully human monoclonal antibodies.

***Collaboration agreement on Zaltrap® (aflibercept)***

Zaltrap® (aflibercept) is a solution administered by intravenous perfusion, used in association with 5-fluorouracil, leucovorin and irinotecan (FOLFIRI) as a treatment for metastatic colorectal cancer that is resistant to or has progressed following an oxaliplatin-containing regimen.

In September 2003, Sanofi and Regeneron signed an agreement to collaborate on the development and commercialization of Zaltrap®. Under the terms of this agreement (as amended in 2005), Sanofi is responsible for funding 100% of the development costs, co-promotion rights are shared between Sanofi and Regeneron, and the profits generated from sales of Zaltrap® worldwide (except Japan) are shared equally. Sales of Zaltrap® made by subsidiaries under the control of Sanofi are recognized in consolidated net sales, and the associated costs incurred by those subsidiaries are recognized as operating expenses in the consolidated income statement. Regeneron's share of the profits is recognized in the line item "Other operating expenses", a component of operating income.

Under the terms of the same agreement, Regeneron agreed to repay 50% of the development costs initially funded by Sanofi. Contractually, this amount represents 5% of the residual repayment obligation per quarter, but may not exceed Regeneron's profit share for the quarter unless Regeneron voluntarily decides to make a larger payment in a given quarter.

The agreement also stipulates milestone payments to be made by Sanofi on receipt of specified marketing approvals for Zaltrap® in the United States, within the European Union and in Japan.

In the United States, Zaltrap® is a registered trademark of Regeneron Pharmaceuticals, Inc. The product was approved by the U.S. Food and Drug Administration ("FDA") in August 2012, and has been marketed in the United States since that date. On February 5, 2013, the European Commission granted marketing authorization in the European Union for Zaltrap®. Regeneron has not elected to co-promote Zaltrap® at launch in the major market countries defined as United States, France, Italy, Spain, United Kingdom, Germany and Canada.

In Japan, Sanofi will develop and commercialize Zaltrap®, with Regeneron entitled to receive a royalty.

***Collaboration agreement on the discovery, development and commercialization of human therapeutic antibodies***

In November 2007, Sanofi and Regeneron signed additional agreements under which Sanofi committed to funding the development costs of Regeneron's human monoclonal antibody research program until 2017, up to a maximum of \$160 million a year (see Note D.21. to our consolidated financial statements included at Item 18 of this annual report). Sanofi has an option to license for further development any antibodies discovered by Regeneron that attain Investigational New Drug (IND) status.

If such an option is exercised, Sanofi is primarily responsible for funding, and co-develops the antibody with Regeneron. Sanofi and Regeneron would share co-promotion rights and profits on sales of the co-developed antibodies. Development costs for the drug candidate are shared between the companies, with Sanofi generally funding these costs up front, except that following receipt of the first positive Phase III trial results for a co-developed drug candidate, subsequent Phase III trial-related costs for that drug candidate are shared 80% by Sanofi and 20% by Regeneron. Once a product begins to be marketed, Regeneron will progressively repay out of its profits 50% of the development costs borne by Sanofi for all antibodies licensed by Sanofi. However, Regeneron are not required to apply more than 10% of its share of the profits from collaboration products in any calendar quarter towards reimbursing Sanofi for these development costs. Under the terms of the collaboration agreement, Sanofi may also be required to make milestone payments based on aggregate sales of antibodies. In 2012, six antibodies were in clinical development; two of which were in Phase III.



If Sanofi does not exercise its licensing option for an antibody under development, Sanofi will be entitled to receive a royalty once the antibody begins to be marketed.

***Alliance arrangements with Warner Chilcott (previously with Procter & Gamble Pharmaceuticals)***

Our agreement with Warner Chilcott ("the Alliance Partner") covers the worldwide development and marketing arrangements of Actonel®, except Japan for which we hold no rights. Until October 30, 2009, this agreement was between Sanofi and Procter & Gamble Pharmaceuticals (P&G). Since the sale by P&G of its pharmaceutical business to Warner Chilcott on October 30, 2009, Actonel® has been marketed in collaboration with Warner Chilcott. The local marketing arrangements may take various forms.

*Co-promotion*, whereby sales resources are pooled but only one of the two parties to the alliance agreement (Sanofi or the Alliance Partner) invoices product sales. Co-promotion is carried out under contractual agreements and is not based on any specific legal entity. The Alliance Partner sells the product and incurs all of the related costs in France and Canada. This co-promotion scheme formerly included Germany, Belgium and Luxembourg until December 31, 2007, the Netherlands until March 31, 2008, and the United States and Puerto Rico until March 31, 2010. We recognize our share of revenues under the agreement in our income statement as a component of operating income in the line item "Other operating income". Since April 1, 2010, we have received royalties from the Alliance Partner on sales made by the Alliance Partner in the United States and Puerto Rico. In the secondary co-promotion territories (the United Kingdom until December 31, 2008, Ireland, Sweden, Finland, Greece, Switzerland, Austria, Portugal and Australia), we sell the product and recognize all the revenues from sales of the product along with the corresponding expenses. The share due to the Alliance Partner is recognized in "Cost of sales";

*Co-marketing*, which applies in Italy, whereby each party to the alliance agreement sells the product in the country under its own brand name, and recognizes all revenues and expenses from its own operations in its respective income statement. Each company also markets the product independently under its own brand name in Spain, although Spain is not included in the co-marketing territory;

*Warner Chilcott only territories*: the product has been marketed by the Alliance Partner independently in Germany, Belgium and Luxembourg since January 1, 2008, in the Netherlands since April 1, 2008 and in the United Kingdom since January 1, 2009. We recognize our share of revenues under the alliance agreement in "Other operating income"; and

*Sanofi only territories*: we have exclusive rights to sell the product in all other territories. We recognize all revenues and expenses from our own operations in our income statement, but in return for these exclusive rights we pay the Alliance Partner a royalty based on actual sales. This royalty is recognized in "Cost of sales".

In 2010, Sanofi and Warner Chilcott began negotiations on the future of their alliance arrangements. In an arbitration proceeding, an arbitration panel decided on July 14, 2011 that the termination by Warner Chilcott of an ancillary agreement did not lead to the termination of the Actonel® Alliance. Pursuant to this decision, the alliance will remain in effect until January 1, 2015.

**Impact of Exchange Rates**

We report our consolidated financial statements in euros. Because we earn a significant portion of our revenues in countries where the euro is not the local currency, our results of operations can be significantly affected by exchange rate movements between the euro and other currencies, primarily the U.S. dollar and, to a lesser extent, the Japanese yen, and currencies in emerging countries. We experience these effects even though certain of these countries do not account for a large portion of our net sales. In 2012, we earned 31.1% of our net sales in the United States. A decrease in the value of the U.S. dollar against the euro has a negative impact on our revenues, which is not offset by an equal reduction in our costs and therefore negatively affects our operating income. A decrease in the value of the U.S. dollar has a particularly significant impact on our operating income, which is higher in the United States than elsewhere, and on the contribution to net income of our alliance with BMS in the United States, which is

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under the operational management of BMS, as described at " Financial Presentation of Alliances Alliance arrangements with Bristol-Myers Squibb" above.

For a description of positions entered into to manage operational foreign exchange risks as well as our hedging policy, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk", and "Item 3. Key Information D. Risk Factors Risks Related to Financial Markets Fluctuations in currency exchange rates could adversely affect our results of operations and financial condition".

### Divestments

In August 2012, Sanofi sold its 39.1% interest in Société Financière des Laboratoires de Cosmétologie Yves Rocher, in line with the Group's desire to focus on strategic activities.

In December 2011 Sanofi sold the Dermik dermatology business to Valeant Pharmaceuticals International Inc., for €321 million (see Note D.1.3. to our consolidated financial statements included at Item 18 of this annual report).

There were no material divestments in 2010.

### Acquisitions

The principal acquisitions during 2012 are described below:

In April 2012, Sanofi strengthened its presence in biosurgery by acquiring a 100% equity interest in Pluomed, Inc. (Pluomed), an American medical devices company. Pluomed has developed a proprietary polymer technology Rapid Transition Polymers (RTP ) pioneering the use of plugs that can be injected into blood vessels to improve the safety, efficacy and economics of medical interventions.

In March 2012, Merial (Sanofi's Animal Health division) completed the acquisition of Newport Laboratories, a privately held company based in Worthington, Minnesota (United States), which is a leader in autogenous vaccines for the bovine and swine markets.

The impact of these two acquisitions on our consolidated financial statements is not material.

In October 2012, Sanofi signed an agreement to acquire Genfar S.A. (Genfar), a Colombian pharmaceutical company that is a major player in Colombia and other countries in Latin America. Genfar is the second-largest generics manufacturer in Colombia by sales, and the leader by volumes sold. Closing of the deal is subject to certain conditions, and is expected to take place in the first quarter of 2013.

In December 2012, Sanofi announced that an agreement had been reached to acquire the animal health division of Dosch Pharmaceuticals Pvt Ltd, an Indian company, allowing Merial to enter this strategic animal health market. Closing of the deal is subject to regulatory approval, and is expected to take place during the first half of 2013.

The principal acquisitions during 2011 are described below:

In February 2011, Sanofi completed the acquisition of 100% of the share capital of BMP Sunstone Corporation (BMP Sunstone), a pharmaceutical company that develops a portfolio of branded pharmaceutical and healthcare products in China. See Note D.1.2. to our consolidated financial statements included at Item 18 of this annual report.

In April 2011, Sanofi acquired Genzyme Corporation (Genzyme), a major biotechnology company headquartered in Cambridge, Massachusetts (United States), with primary areas of focus in rare diseases, renal endocrinology, oncology and biosurgery. The transaction was completed in accordance with the terms of the public exchange offer at a price of \$74 in cash plus the issuance to Genzyme shareholders of one contingent value right (CVR) per share. The total purchase price amounted to €14.8 billion. The purchase price allocation is disclosed in Note D.1.2. to our consolidated financial statements included at Item 18 of this annual report.

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In October 2011, Sanofi acquired Topaz Pharmaceuticals Inc. (Topaz), a U.S. pharmaceutical research company that developed an innovative anti-parasitic product for treating head lice. An upfront payment of \$35 million was made on completion of the transaction. According to the agreement, future milestone payments may be made upon market approval and depending on the achievement of sales targets. See Note D.1.2. to our consolidated financial statements included at Item 18 of this annual report. The total amount of payments (including the upfront payment) could reach \$207.5 million.

In November 2011, Sanofi acquired the business of Universal Medicare Private Limited (Universal), a major producer of nutraceuticals in India. An upfront payment of €83 million was made on completion of the transaction. See Note D.1.2. to our consolidated financial statements included at Item 18 of this annual report.

In December 2011, Sanofi co-invested in Warp Drive Bio, an innovative start-up biotechnology company, along with two venture capital firms, Third Rock Ventures (TRV) and Greylock Partners. Warp Drive Bio is an innovative biotechnology company, focusing on proprietary genomic technology to discover drugs of natural origin. Sanofi and TRV / Greylock have invested in Warp Drive Bio at parity. Total program funding over the first five years could amount to up to \$125 million, including an equity investment of up to \$75 million.

The principal acquisitions during 2010 are described below:

In February 2010, Sanofi acquired the U.S.-based company Chattem, Inc. (Chattem) by successfully completing a cash tender offer leading to the acquisition of 100% of the share capital. Chattem is a major consumer health player in the United States, producing and distributing branded consumer health products, toiletries and dietary supplements across various market segments. Chattem manages the Allegra® brand, and acts as the platform for Sanofi over-the-counter and consumer healthcare products in the United States. See Note D.1.4. to our consolidated financial statements included at Item 18 of this annual report.

In April 2010, Sanofi acquired a controlling interest in the capital of Bioton Vostok, a Russian insulin manufacturer. Under the terms of the agreement, put options were granted to non-controlling interests. See Note D.18. to our consolidated financial statements included at Item 18 of this annual report.

In May 2010, Sanofi formed a new joint venture with Nichi-Iko Pharmaceuticals Co., Ltd (Nichi-Iko), a leading generics company in Japan, to expand generics activities in the country. In addition to forming this joint venture, Sanofi took a 4.66% equity interest in the capital of Nichi-Iko.

In June 2010, Sanofi acquired 100% of the share capital of Canderm Pharma Inc. (Canderm), a privately-held leading Canadian skincare company distributing cosmeceuticals and dermatological products. Canderm generated net sales of 24 million Canadian dollars in 2009.

In July 2010, Sanofi acquired 100% of the share capital of TargeGen, Inc. (TargeGen), a U.S. biopharmaceutical company developing small molecule kinase inhibitors for the treatment of certain forms of leukemia, lymphoma and other hematological malignancies and blood disorders. An upfront payment of \$75 million was made on completion of the transaction. Future milestone payments may be made at various stages in the development of TG 101348, TargeGen's principal product candidate. The total amount of payments (including the upfront payment) could reach \$560 million. See Note D.1.4. and Note D.18. to our consolidated financial statements included at Item 18 of this annual report.

In August 2010, Sanofi acquired 100% of the share capital of Nepentes S.A. (Nepentes), a Polish manufacturer of pharmaceuticals and dermocosmetics, for a consideration of PLN 425 million (€106 million).

In October 2010, Sanofi Pasteur acquired 100% of the share capital of VaxDesign Corporation (VaxDesign), a privately-held U.S. biotechnology company which has developed a technology reproducing in vitro models of the human immune system, that can be used to select the best candidate vaccines at the pre-clinical stage. Under the terms of the agreement, an upfront payment of \$55 million was made upon closing of the transaction, and a further \$5 million will be payable upon completion of a specified development milestone.

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In October 2010, Sanofi acquired a 60% equity interest in the Chinese consumer healthcare company Hangzhou Sanofi Minsheng Consumer Healthcare Co. Ltd, in partnership with Minsheng Pharmaceutical Co., Ltd ("Minsheng"). Minsheng was also granted a put option over the remaining shares not held by Sanofi. See Note D.18. to our consolidated financial statements included at Item 18 of this annual report.

### Results of Operations

#### *Year Ended December 31, 2012 Compared with Year Ended December 31, 2011*

The consolidated income statements for the years ended December 31, 2012 and December 31, 2011 break down as follows:

(under IFRS) (€ million)	2012	as % of net sales	2011	as % of net sales
<b>Net sales</b>	<b>34,947</b>	<b>100.0%</b>	<b>33,389</b>	<b>100.0%</b>
Other revenues	1,010	2.9%	1,669	5.0%
Cost of sales	(11,118)	(31.8%)	(10,902)	(32.7%)
<b>Gross profit</b>	<b>24,839</b>	<b>71.1%</b>	<b>24,156</b>	<b>72.3%</b>
Research & development expenses	(4,922)	(14.1%)	(4,811)	(14.4%)
Selling & general expenses	(8,947)	(25.6%)	(8,536)	(25.6%)
Other operating income	562		319	
Other operating expenses	(454)		(315)	
Amortization of intangible assets	(3,291)		(3,314)	
Impairment of intangible assets	(117)		(142)	
Fair value remeasurement of contingent consideration liabilities	(192)		15	
Restructuring costs	(1,141)		(1,314)	
Other gains and losses, and litigation <sup>(1)</sup>			(327)	
<b>Operating income</b>	<b>6,337</b>	<b>18.1%</b>	<b>5,731</b>	<b>17.2%</b>
Financial expenses	(553)		(552)	
Financial income	93		140	
<b>Income before tax and associates and joint ventures</b>	<b>5,877</b>	<b>16.8%</b>	<b>5,319</b>	<b>15.9%</b>
Income tax expense	(1,134)		(455)	
Share of profit/(loss) of associates and joint ventures	393		1,070	
<b>Net income</b>	<b>5,136</b>	<b>14.7%</b>	<b>5,934</b>	<b>17.8%</b>
Net income attributable to non-controlling interests	169		241	
<b>Net income attributable to equity holders of Sanofi</b>	<b>4,967</b>	<b>14.2%</b>	<b>5,693</b>	<b>17.1%</b>
Average number of shares outstanding (million)	1,319.5		1,321.7	
Average number of shares outstanding after dilution (million)	1,329.6		1,326.7	
Basic earnings per share (in euros)	3.76		4.31	
Diluted earnings per share (in euros)	3.74		4.29	

(1)

See Note B.20.2. to our consolidated financial statements included at Item 18 of this annual report.

Our consolidated income statements include the results of the operations of Genzyme from April 2011. In order to help investors gain a better understanding of our performances, in the narrative discussion of certain income statement line items ("net sales", "research & development expenses", and "selling & general expenses"), we include non-consolidated 2011 first-quarter data for Genzyme in additional analyses.

*Net Sales*

Net sales for the year ended December 31, 2012 amounted to €34,947 million, up 4.7% on 2011. Exchange rate movements had a favorable effect of 4.2 points, mainly reflecting the appreciation of the U.S. dollar against the euro, and to a lesser extent the appreciation of the yen and the yuan. At constant exchange rates and after taking account of changes in structure (mainly the consolidation of Genzyme from April 2011), net sales rose by 0.5% year-on-year.

The following table sets forth a reconciliation of our reported net sales for the years ended December 31, 2012 and December 31, 2011 to our net sales at constant exchange rates:

<i>(€ million)</i>	2012	2011	Change (%)
<b>Net sales</b>	<b>34,947</b>	<b>33,389</b>	<b>+4.7%</b>
Effect of exchange rates	(1,400)		
<b>Net sales at constant exchange rates</b>	<b>33,547</b>	<b>33,389</b>	<b>+0.5%</b>

Our net sales comprise the net sales generated by our Pharmaceuticals, Human Vaccines (Vaccines) and Animal Health segments.

The following table breaks down our 2012 and 2011 net sales by business segment:

<i>(€ million)</i>	2012 Reported	2011 Reported	Change on a reported basis (%)	Change at constant exchange rates (%)
Pharmaceuticals	28,871	27,890	+3.5%	-0.4%
Vaccines	3,897	3,469	+12.3%	+5.7%
Animal Health	2,179	2,030	+7.3%	+3.1%
<b>Total</b>	<b>34,947</b>	<b>33,389</b>	<b>+4.7%</b>	<b>+0.5%</b>

*Net Sales by Product - Pharmaceuticals segment*

Net sales generated by our Pharmaceuticals segment were €28,871 million in 2012, up 3.5% on a reported basis but down 0.4% at constant exchange rates. The year-on-year change reflects the positive impact of consolidating Genzyme from April 2011 and the performance of growth platforms, but also the negative effects of generic competition (mainly on sales of Lovenox®, Taxotere® and Eloxatine® in the United States, and of Taxotere®, Plavix® and Aprovel® in Western Europe), the ending of the co-promotion agreement with Teva on Copaxone®, the divestiture of the Dermik business in July 2011, and austerity measures in the European Union.

On a constant structure basis and at constant exchange rates (which primarily means including the non-consolidated sales of Genzyme for the first quarter of 2011 and excluding sales of Copaxone® for the whole of 2011), net sales for the Pharmaceuticals segment fell by 0.6% in 2012.

Our flagship products (Lantus® and Apidra®, Lovenox®, Plavix®, Aprovel®/CoAprovel®, Taxotere®, Eloxatine®, Cerezyme®, Myozyme®/Lumizyme®, Fabrazyme®, Renagel®/Renvela®, Synvisc®/Synvisc-One®, Multaq®, Jevtana®, Aubagio® and Zaltrap®) are discussed below. Sales of Plavix® and Aprovel® are discussed further below under " Worldwide Presence of Plavix® and Aprovel®".

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The following table breaks down our 2012 and 2011 net sales for the Pharmaceuticals segment by product:

(€ million)		2012	2011	Change on a reported	Change at constant
Product	Indication	Reported	Reported	basis (%)	exchange rates (%)
Lantus®	Diabetes	4,960	3,916	+26.7%	+19.3%
Apidra®	Diabetes	230	190	+21.1%	+16.8%
Amaryl®	Diabetes	421	436	-3.4%	-8.0%
Insuman®	Diabetes	135	132	+2.3%	+3.0%
Other diabetes products	Diabetes	36	10	+260.0%	+250.0%
<b>Total: Diabetes</b>	<b>Diabetes</b>	<b>5,782</b>	<b>4,684</b>	<b>+23.4%</b>	<b>+16.7%</b>
Eloxatin®	Colorectal cancer	956	1,071	-10.7%	-17.3%
Taxotere®	Breast, lung, prostate, stomach, and head & neck cancer	563	922	-38.9%	-41.9%
Jevtana®	Prostate cancer	235	188	+25.0%	+20.2%
Zaltrap®	Colorectal cancer	25			
Mozobil® <sup>(1)</sup>	Hematologic malignancies	96	59		
Other oncology products <sup>(1)</sup>		519	389		
<b>Total: Oncology</b>		<b>2,394</b>	<b>2,629</b>	<b>-8.9%</b>	<b>-14.3%</b>
Lovenox®	Thrombosis	1,893	2,111	-10.3%	-12.0%
Plavix®	Atherothrombosis	2,066	2,040	+1.3%	-4.6%
Aprovel®/CoAprovel®	Hypertension	1,151	1,291	-10.8%	-13.3%
Allegra®	Allergic rhinitis, urticaria	553	580	-4.7%	-9.5%
Stilnox®/Ambien®/Myslee®	Sleep disorders	497	490	+1.4%	-4.5%
Copaxone®	Multiple sclerosis	24	436	-94.5%	-94.7%
Depakine®	Epilepsy	410	388	+5.7%	+3.1%
Tritace®	Hypertension	345	375	-8.0%	-8.3%
Multaq®	Atrial fibrillation	255	261	-2.3%	-8.0%
Xatral®	Benign prostatic hypertrophy	130	200	-35.0%	-37.0%
Actonel®	Osteoporosis, Paget's disease	134	167	-19.8%	-21.6%
Nasacort®	Allergic rhinitis	71	106	-33.0%	-35.8%
Renagel®/Renvela® <sup>(1)</sup>	Hyperphosphatemia	653	415		
Synvisc®/Synvisc-One® <sup>(1)</sup>	Arthritis	363	256		
Aubagio®	Multiple sclerosis	7			
<i>Sub-total Multiple sclerosis</i>		7			
Cerezyme® <sup>(1)</sup>	Gaucher disease	633	441		
Myozyme®/Lumizyme® <sup>(1)</sup>	Pompe disease	462	308		
Fabrazyme® <sup>(1)</sup>	Fabry disease	292	109		
Other rare disease products <sup>(1)</sup>		391	264		
<i>Sub-total Rare diseases <sup>(1)</sup></i>		<i>1,778</i>	<i>1,122</i>		
<b>Total: New Genzyme <sup>(1)</sup></b>		<b>1,785</b>	<b>1,122</b>		
Other prescription products		5,513	5,927	-7.0%	-9.1%
Consumer Health Care		3,008	2,666	+12.8%	+9.9%
Generics		1,844	1,746	+5.6%	+5.0%
<b>Total Pharmaceuticals</b>		<b>28,871</b>	<b>27,890</b>	<b>+3.5%</b>	<b>-0.4%</b>

(1)

In 2011, net sales of Genzyme products were recognized from the acquisition date (April 2011).



*Diabetes*

Net sales for the **Diabetes** business amounted to €5,782 million, up 16.7% at constant exchange rates, driven by strong growth for Lantus®.

**Lantus®** posted a 19.3% increase in net sales at constant exchange rates in 2012 to €4,960 million, driven by very strong growth in the United States (up 22.0% at €3,087 million); in Emerging Markets (up 25.4% at €793 million), especially in China (up 35.9%) and Latin America (up 32.3%); and in Japan (up 22.0%). In Western Europe, growth was a more modest 5.3% at constant exchange rates.

Net sales of the rapid-acting insulin analog **Apidra®** advanced by 16.8% (at constant exchange rates) to €230 million in 2012, buoyed by the product's performance in Emerging Markets (up 37.8%).

**Amaryl®** saw net sales fall by 8.0% at constant exchange rates to €421 million, mainly as a result of competition from generics in Japan (down 31.7%, at €125 million), and in spite of 11.4% growth in Emerging Markets to €263 million.

*Oncology*

Net sales for the **Oncology** business were €2,394 million, down 14.3% at constant exchange rates.

Net sales of **Eloxatine®** fell by 17.3% at constant exchange rates to 956 million in 2012, reflecting the loss of exclusivity in the United States on August 9, 2012, which had been expected.

**Taxotere®** reported a fall in net sales of 41.9% at constant exchange rates, to €563 million. The product is facing competition from generics in Western Europe (down 72.5%) and the United States (down 80.2%). Emerging Markets sales amounted to €270 million, down 11.2% at constant exchange rates.

**Jevtana®** posted net sales of €235 million in 2012, up 20.2% at constant exchange rates, boosted by product launches in various countries in Western Europe (€91 million, up 104.5% at constant exchange rates) and in Emerging Markets.

**Zaltrap®**, launched in the United States and Puerto Rico at the end of August 2012, generated net sales of €25 million for the year.

**Mozobil®** reported net sales of €96 million, up 19.7% on a constant structure basis and at constant exchange rates (i.e., including non-consolidated sales generated by Genzyme in the first quarter of 2011).

Jevtana®, Zaltrap® and Mozobil®, along with Multaq® (see "Other pharmaceutical products" below), form the "Other Innovative Products" growth platform. This platform generated net sales of €611 million in 2012.

*Other pharmaceutical products*

**Lovenox®** recorded a fall in net sales of 12.0% at constant exchange rates to €1,893 million in 2012, as a result of competition from generics in the United States, where sales slipped by 53.1% (at constant exchange rates) to €319 million. Sales generated outside the United States accounted for 83.1% of worldwide net sales and rose by 5.5% at constant exchange rates to €1,574 million, driven by Emerging Markets (up 11.6% at constant exchange rates at €615 million). Sanofi also launched its own generic version of Lovenox® in the United States, sales of which are recognized in the Generics business.

Net sales of **Renagel®/Renvela®** rose by 13.0% on a constant structure basis and at constant exchange rates (i.e. including non-consolidated sales generated by Genzyme in the first quarter of 2011) to €653 million, on a fine performance in the United States (up 19.2% on a constant structure basis and at constant exchange rates).

**Synvisc®/Synvisc-One®** reported sales growth of 4.0% on a constant structure basis and at constant exchange rates (including non-consolidated sales generated by Genzyme in the first quarter of 2011) to €363 million, driven mainly by the Synvisc-One® franchise in the United States (€302 million, up 5.7% on a constant structure basis and at constant exchange rates).



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Net sales of the **Ambien®** range fell by 4.5% at constant exchange rates to €497 million, reflecting competition from generics of Ambien® CR in the United States and Western Europe and the introduction of generic versions of Myslee® in Japan during the second half of 2012.

**Allegra®** reported a decline in net sales as a prescription medicine (down 9.5% at constant exchange rates) to €553 million, reflecting lower prices in Japan (down 15.2% at constant exchange rates, at €423 million). This product is sold over the counter in the United States, and has also been available over the counter in Japan since November 2012. Sales over the counter are recognized in the Consumer Health Care business. In August 2012 three generic versions of Allegra® were approved by the regulatory authorities in Japan; since February 2013, Allegra® as a prescription medicine has been subject to generic competition in this country.

Net sales of **Multaq®** fell by 8.0% at constant exchange rates to €255 million, due to the effect of restrictions placed on the product's indication during the second half of 2011.

Net sales of **Copaxone®** amounted to €24 million, versus €436 million in 2011, down 94.7% (at constant exchange rates), reflecting the ending of the co-promotion agreement with Teva in all territories in the first quarter of 2012. Since the transfer of Copaxone® to Teva, we no longer recognize net sales of the product. Instead, for the two years following the transfer we are entitled to receive a payment representing 6% of net sales, which we recognize under the income statement line item "Other revenues".

### *New Genzyme business*

The **new Genzyme** business consists of products used to treat rare diseases, and products for the treatment of multiple sclerosis (Aubagio® and the experimental agent Lemtrada ).

Because Genzyme's net sales have been consolidated from the acquisition date (i.e. the start of April 2011), the 2011 consolidated net sales of the new Genzyme business do not include sales for the first quarter of 2011. On a constant structure basis and at constant exchange rates, i.e. after including non-consolidated net sales for the first quarter of 2011, the net sales of the new Genzyme business rose by 16.9% in 2012 to €1,785 million.

The following table breaks down our 2012 and 2011 net sales for the new Genzyme business by product:

<i>(€ million)</i>		2012	2011	Change on a constant structure basis and at constant exchange rates (%)
Product	Indication	Reported	Reported	
Aubagio®	Multiple sclerosis	7		
<i>Sub-total Multiple sclerosis</i>		7		
Cerezyme® <sup>(1)</sup>	Gaucher disease	633	441	+6.0%
Myozyme®/Lumizyme® <sup>(1)</sup>	Pompe disease	462	308	+11.4%
Fabrazyme® <sup>(1)</sup>	Fabry disease	292	109	+96.4%
Other rare disease products <sup>(1)</sup>		391	264	+7.5%
<i>Sub-total Rare diseases <sup>(1)</sup></i>		1,778	1,122	+16.4%
<b>Total: New Genzyme <sup>(1)</sup></b>		<b>1,785</b>	<b>1,122</b>	<b>+16.9%</b>

<sup>(1)</sup>

*In 2011, net sales of Genzyme products were recognized from the acquisition date (April 2011).*

**Cerezyme®** recorded net sales growth of 6.0% on a constant structure basis and at constant exchange rates, to €633 million (+0.9% in Western Europe, at €215 million; +6.3% in the United States, at €166 million). Production continued to improve during the year, enabling normal doses to be delivered to patients in the product's principal markets

Net sales of **Myozyme®/Lumizyme®** were up 11.4% on a constant structure basis and at constant exchange rates at €462 million (+10.4% in Western Europe, at €257 million; +6.9% in the United States, at €117 million).

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**Fabrazyme**® reported a 96.4% surge in net sales on a constant structure basis and at constant exchange rates, to €292 million. This increase was due mainly to the resumption of production at the new facility at Framingham (United States) in March 2012, enabling full doses to be supplied in all markets where the product is approved for sale.

For more information regarding the manufacturing issues related to Cerezyme® and Fabrazyme® see "Item 4 Information on the Company Production and Raw Materials."

In multiple sclerosis, **Aubagio**® was launched in the United States in October 2012, and recorded fourth-quarter net sales of €7 million.

### *Consumer Health Care business*

Net sales for the **Consumer Health Care** business rose by 9.9% at constant exchange rates in 2012, to €3,008 million. This figure includes revenues generated from the acquisitions made in 2011 (primarily BMP Sunstone in China, and the nutraceuticals business of Universal Medicare in India).

In Emerging Markets, net sales advanced by 19.9% at constant exchange rates to €1,478 million. In the United States, sales growth was modest (up 2.2% at constant exchange rates, at €606 million) compared with 2011; this reflects the fact that in the early part of 2011, distributors were building up inventories of the over-the-counter (OTC) version of Allegra®, launched in March 2011. Excluding Allegra® OTC, growth in the United States reached 6.2% at constant exchange rates. Allegra® OTC was also launched in Japan in November 2012.

### *Generics business*

The **Generics** business reported net sales of €1,844 million in 2012, a rise of 5.0% at constant exchange rates. The business was boosted by sales growth in the United States (up 42.4% at constant exchange rates, at €272 million), where we launched our own authorized generic versions of Lovenox® and Aprovel®. In Emerging Markets, net sales fell slightly (down 2.7% at constant exchange rates) to €1,045 million, due to the impact of tougher competition and disruptions in the Brazilian market.

Net sales of the **other prescription products** in the portfolio were down 9.1% at constant exchange rates, to €5,513 million. For a description of our other pharmaceutical products, see "Item 4. Information on the Company B. Business Overview Pharmaceutical Products."

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The following table breaks down net sales of our Pharmaceutical segment products by geographical region in 2012:

(€ million) Product	Western Europe <sup>(1)</sup>	Change at constant exchange rates	United States	Change at constant exchange rates	Emerging Markets <sup>(2)</sup>	Change at constant exchange rates	Other countries <sup>(3)</sup>	Change at constant exchange rates
Lantus®	778	+5.3%	3,087	+22.0%	793	+25.4%	302	+20.6%
Apidra®	78	+14.7%	73	+3.1%	51	+37.8%	28	+30.0%
Amaryl®	28	-12.5%	3	-25.0%	263	+11.4%	127	-32.6%
Insuman®	98	-4.9%	1		37	+27.6%	(1)	
Other diabetes products	30	+190.0%	3				3	
<b>Total: Diabetes</b>	<b>1,012</b>	<b>+4.3%</b>	<b>3,167</b>	<b>+21.5%</b>	<b>1,144</b>	<b>+22.5%</b>	<b>459</b>	<b>+0.2%</b>
Eloxatine®	13	-65.8%	718	-18.0%	153	-10.5%	72	+3.1%
Taxotere®	53	-72.5%	53	-80.2%	270	-11.2%	187	-10.7%
Jevtana®	91	+104.5%	109	-23.7%	33	+153.8%	2	
Zaltrap®			24				1	
Mozobil® <sup>(4)</sup>	30		56		7		3	
Other oncology products <sup>(4)</sup>	104		281		95		39	
<b>Total: Oncology</b>	<b>291</b>	<b>-23.7%</b>	<b>1,241</b>	<b>-19.8%</b>	<b>558</b>	<b>0.0%</b>	<b>304</b>	<b>-1.7%</b>
Lovenox®	854	+1.9%	319	-53.1%	615	+11.6%	105	+2.1%
Plavix®	307	-25.8%	76*	-62.2%	799	+5.5%	884	+13.4%
Aprovel®/CoAprovel®	557	-26.4%	45*	-8.2%	395	+2.5%	154	+17.5%
Allegra®	11	-15.4%	(1)	-133.3%	120	+21.2%	423	-15.1%
Stilnox®/Ambien®/Myslee®	46	-13.2%	85	-4.9%	70	+7.7%	296	-5.5%
Copaxone®	19	-95.4%					5	-81.0%
Depakine®	143	-3.4%			251	+7.9%	16	-6.3%
Tritace®	150	-11.8%			180	-1.1%	15	-37.5%
Multaq®	46	-31.8%	200	+0.5%	8	0.0%	1	-25.0%
Xatral®	45	-24.1%	20	-74.7%	62	-6.3%	3	0.0%
Actonel®	33	-38.9%			66	-16.7%	35	-5.7%
Nasacort®	20	-20.0%	21	-63.0%	26	+8.7%	4	-25.0%
Renagel®/Renvela® <sup>(4)</sup>	128		451		53		21	
Synvisc®/Synvisc-One® <sup>(4)</sup>	20		302		24		17	
Aubagio®			7					
Sub-total Multiple sclerosis			7					
Cerezyme® <sup>(4)</sup>	215		166		190		62	
Myozyme®/Lumizyme® <sup>(4)</sup>	257		117		55		33	
Fabrazyme® <sup>(4)</sup>	52		152		41		47	
Other rare disease products <sup>(4)</sup>	92		122		83		94	
Sub-total Rare diseases <sup>(4)</sup>	616		557		369		236	
<b>Total: New Genzyme <sup>(4)</sup></b>	<b>616</b>		<b>564</b>		<b>369</b>		<b>236</b>	
Other prescription products	2,105	-12.9%	567	-16.7%	2,062	-2.8%	779	-8.4%
Consumer Health Care	666	+2.2%	606	+2.2%	1,478	+19.9%	258	-2.1%
Generics	500	+11.5%	272	+42.4%	1,045	-2.7%	27	-29.4%
<b>Total pharmaceuticals</b>	<b>7,569</b>	<b>-9.9%</b>	<b>7,935</b>	<b>+0.9%</b>	<b>9,325</b>	<b>+7.8%</b>	<b>4,042</b>	<b>-0.3%</b>

(1)

France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.

(2)

World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) *Japan, Canada, Australia and New Zealand.*

(4) *In 2011, net sales of Genzyme products were recognized from the acquisition date (April 2011).*

\* *Sales of active ingredient to the entity majority-owned by BMS in the United States.*

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### Net Sales Human Vaccines (Vaccines) segment

Net sales for the Vaccines segment amounted to €3,897 million in 2012, up 12.3% on a reported basis and 5.7% at constant exchange rates.

The following table presents the 2012 and 2011 sales of our Vaccines segment by range of products:

(€ million)	2012 Reported	2011 Reported	Change on a reported basis (%)	Change at constant exchange rates (%)
Polio/Pertussis/Hib Vaccines (including Pentacel® and Pentaxim®)	1,184	1,075	+10.1%	+5.0%
Influenza Vaccines (including Vaxigrip® and Fluzone®)	884	826	+7.0%	-0.2%
of which seasonal influenza vaccines	882	826	+6.8%	-0.6%
of which pandemic influenza vaccines	2			
Meningitis/Pneumonia Vaccines (including Menactra®)	650	510	+27.5%	+18.0%
Adult Booster Vaccines (including Adacel®)	496	465	+6.7%	0.0%
Travel and Other Endemics Vaccines	364	370	-1.6%	-4.9%
Other Vaccines	319	223	+43.0%	+31.8%
<b>Total Vaccines</b>	<b>3,897</b>	<b>3,469</b>	<b>+12.3%</b>	<b>+5.7%</b>

**Polio/Pertussis/Hib** vaccines saw net sales increase by 5.0% at constant exchange rates to €1,184 million. This rise reflects a strong performance in Japan (€239 million, up 140.9% at constant exchange rates, mainly due to the successful launch of Imovax® in September 2012) and a good performance in Emerging Markets (€495 million, up 5.7% at constant exchange rates), but also a drop in net sales in the United States (down 25.1% at constant exchange rates, at €374 million) due to order restrictions on Pentacel® following a temporary shutdown in production at Sanofi Pasteur.

Net sales of **influenza** vaccines were flat (down 0.2% at constant exchange rates), at €884 million. In the United States, net sales fell by 5.5% at constant exchange rates, to €466 million; in Emerging Markets, net sales rose by 5.1% at constant exchange rates, to €317 million.

**Meningitis/Pneumonia** vaccines posted net sales of €650 million, up 18.0% at constant exchange rates, driven by a strong performance from Menactra® (€564 million, up 21.8% at constant exchange rates). Growth was especially strong in Emerging Markets (up 52.9% at constant exchange rates, at €165 million) and in the United States (up 10.5% at constant exchange rates, at €473 million).

Net sales of **adult booster** vaccines were unchanged year-on-year (at constant exchange rates), at €496 million.

Net sales of **travel and other endemics** vaccines fell by 4.9% (at constant exchange rates) to €364 million, hit by a temporary shutdown in production of the Theracys®/Immucyst® and BCG vaccines.

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The following table presents the 2012 sales of our Vaccines segment by range of products and by region:

(€million)	Western Europe <sup>(1)</sup> Reported	Change at constant exchange rates	United States Reported	Change at constant exchange rates	Emerging Markets <sup>(2)</sup> Reported	Change at constant exchange rates	Other countries <sup>(3)</sup> Reported	Change at constant exchange rates
Polio/Pertussis/Hib Vaccines (inc. Pentacel® and Pentaxim®)	55	+52.8%	374	-25.1%	495	+5.7%	260	+105.0%
Influenza Vaccines <sup>(4)</sup> (inc. Vaxigrip® and Fluzone®)	79	+2.6%	466	-5.1%	317	+5.1%	22	+16.7%
Meningitis/Pneumonia Vaccines (inc. Menactra®)	4	+33.3%	473	+10.5%	165	+52.9%	8	-38.5%
Adult Booster Vaccines (inc. Adacel®)	59	-22.4%	372	+0.9%	45	+50.0%	20	-5.0%
Travel and Other Endemics Vaccines	21	-12.5%	96	-1.1%	201	-4.8%	46	-8.5%
Other Vaccines	9	-46.7%	277	+46.6%	18	0.0%	15	-25.0%
<b>Total Vaccines</b>	<b>227</b>	<b>-2.2%</b>	<b>2,058</b>	<b>-0.7%</b>	<b>1,241</b>	<b>+9.1%</b>	<b>371</b>	<b>+48.9%</b>

(1) France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark. Net sales in Europe generated by Sanofi Pasteur MSD (the joint venture between Sanofi and Merck & Co., Inc.) are not consolidated.

(2) World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) Japan, Canada, Australia and New Zealand.

(4) Seasonal and pandemic influenza vaccines.

In Western Europe and the United States, net sales fell slightly (by 2.2% and 0.7% at constant exchange rates, respectively). In Emerging Markets, most of the rise in sales (9.1% at constant exchange rates) was generated in Latin America and China. The Other Countries region reported strong growth (48.9% at constant exchange rates), due mainly to the performance of Imovax® in Japan.

In addition to the Vaccines activity reflected in our consolidated net sales, sales of Sanofi Pasteur MSD, our joint venture with Merck & Co., Inc. in Europe, amounted to €845 million in 2012, up 6.8% on a reported basis. Sales generated by Sanofi Pasteur MSD are not included in our consolidated net sales. The main growth drivers were the performance of Gardasil® (up 13.6% on a reported basis, at €206 million) and sales of the travel and endemics vaccines franchise.

### Net Sales Animal Health segment

The Animal Health segment achieved net sales of €2,179 million in 2012, up 3.1% at constant exchange rates (7.3% on a reported basis), driven by the performance in Emerging Markets and the first-time consolidation of the net sales of Newport Laboratories ("Newport").

The following table presents the 2012 and 2011 sales of our Animal Health segment by range of products:

(€million)	2012 Reported	2011 Reported	Change on a reported basis	Change at constant exchange rates
Frontline® and other fipronil-based products	775	764	+1.4%	-3.4%
Vaccines	730	662	+10.3%	+7.6%
Avermectin	423	372	+13.7%	+7.8%
Other products	251	232	+8.2%	+3.9%

<b>Total Animal Health</b>	<b>2,179</b>	<b>2,030</b>	<b>+7.3%</b>	<b>+3.1%</b>
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Net sales for the **companion animals** franchise rose by 1.8% at constant exchange rates to €1,372 million. Erosion in sales of the **Frontline®/fipronil** range of products was limited to 3.4% at constant exchange rates

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(€775 million) despite competitive pressure in the United States (down 7.8% at constant exchange rates, at €411 million), thanks to good performances in Emerging Markets (up 10.5%, at €93 million).

Net sales for the **production animals** franchise were 5.1% higher at constant exchange rates, at €807 million. These figures include the contribution from Newport from April 2012 onwards.

The following table breaks down net sales of our Animal Health segment by product and by geographical region in 2012:

(€million) Product	Western Europe <sup>(1)</sup>	Change at constant exchange rates	United States	Change at constant exchange rates	Emerging Markets <sup>(2)</sup>	Change at constant exchange rates	Other countries <sup>(3)</sup>	Change at constant exchange rates
Frontline® and other fipronil-based products	208	-0.5%	411	-7.8%	93	+10.5%	63	-3.3%
Vaccines	181	-7.7%	152	+11.1%	375	+14.2%	22	+31.3%
Avermectin	62	-4.7%	223	+15.8%	65	+10.0%	73	-2.8%
Other products	88	-2.2%	94	+1.1%	46	+27.8%	23	0.0%
<b>Total Animal Health</b>	<b>539</b>	<b>-3.8%</b>	<b>880</b>	<b>+1.4%</b>	<b>579</b>	<b>+14.0%</b>	<b>181</b>	<b>+0.6%</b>

(1) France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.

(2) World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) Japan, Canada, Australia and New Zealand.

### Net Sales by Geographical Region

We divide our sales geographically into four regions: Western Europe, the United States, Emerging Markets and other countries. The following table breaks down our 2012 and 2011 net sales by region:

(€million)	2012 Reported	2011 Reported	Change on a reported basis	Change at constant exchange rates
Western Europe <sup>(1)</sup>	8,335	9,130	-8.7%	-9.3%
United States	10,873	9,957	+9.2%	+0.7%
Emerging Markets <sup>(2)</sup>	11,145	10,133	+10.0%	+8.3%
<i>Of which Eastern Europe and Turkey</i>	2,721	2,666	+2.1%	+2.1%
<i>Of which Asia (excl. Pacific region)<sup>(3)</sup></i>	2,841	2,416	+17.6%	+10.1%
<i>Of which Latin America</i>	3,435	3,111	+10.4%	+11.3%
<i>Of which Africa</i>	1,018	949	+7.3%	+8.3%
<i>Of which Middle East</i>	1,001	872	+14.8%	+12.2%
Other Countries <sup>(4)</sup>	4,594	4,169	+10.2%	+2.5%
<i>Of which Japan</i>	3,274	2,865	+14.3%	+6.6%
<b>Total</b>	<b>34,947</b>	<b>33,389</b>	<b>+4.7%</b>	<b>+0.5%</b>

(1) France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.

(2) World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) Japan, Australia and New Zealand.

(4)



*Japan, Canada, Australia and New Zealand.*

Net sales in Western Europe fell by 9.3% at constant exchange rates to €8,335 million, hampered by the transfer of the Copaxone® business to Teva; by competition from generics of Taxotere® (down 72.5% at constant exchange rates), Aprovel® (down 26.4% at constant exchange rates) and Plavix® (down 25.8% at constant exchange

rates); and by the impact of austerity measures implemented by European governments. After including Genzyme for the first quarter of 2011 and excluding Copaxone®, net sales fell by 7.5% at constant exchange rates.

In the United States, net sales were up 0.7% at constant exchange rates (but fell by 2.8% after including Genzyme in the first quarter of 2011) to €10,873 million. The year-on-year change reflected strong performances from Lantus® and from the new Genzyme and Generics businesses (including our own generic version of Lovenox®), but also the impact of generics of Taxotere®, Lovenox® and Eloxatine®.

In Emerging Markets, net sales reached €11,145 million, up 8.3% at constant exchange rates (or 7.2% after including Genzyme for the first quarter of 2011). In China, net sales were €1,249 million, up 15.0% at constant exchange rates, on a strong performance from Plavix® and Lantus®. In Brazil, net sales increased by 7.7% at constant exchange rates to €1,530 million, boosted by the Consumer Health Care business and the contribution from Genzyme, although growth was hampered by a slowdown in sales of generics. The Africa and Middle East zones topped the billion-euro mark for the first time (€1,018 million and €1,001 million, respectively). Sales in Russia reached €851 million, up 13.6% at constant exchange rates, driven by the Consumer Health Care and Generics businesses and also by Lantus®, Plavix® and Lovenox®.

In the Other Countries region, net sales totaled €4,594 million, up 2.5% at constant exchange rates (or 0.8% after including Genzyme sales for the first quarter of 2011). In Japan, net sales were €3,274 million (up 6.6% at constant exchange rates, or 4.7% after including Genzyme sales for the first quarter of 2011); positive factors included strong performances from Plavix® (up 16.0% at constant exchange rates, at €837 million) and from the Polio/Pertussis/Hib vaccines franchise (up 140.9% at constant exchange rates at €239 million, driven by the successful launch of Imovax®), while negative factors included erosion in sales of Allegra® (down 15.2% at constant exchange rates, at €423 million) and the impact of bi-annual price cuts.

#### *Worldwide Presence of Plavix® and Aprovel®*

Two of our leading products Plavix® and Aprovel® were discovered by Sanofi and jointly developed with Bristol-Myers Squibb ("BMS") under an alliance agreement. In all territories except Japan, these products are sold either by Sanofi or by BMS in accordance with the terms of this alliance agreement applicable in 2012 and 2011 (see "Financial Presentation of Alliances Alliance arrangements with Bristol-Myers Squibb" above).

Worldwide sales of these two products are an important indicator because they facilitate a financial statement user's understanding and analysis of our consolidated income statement, particularly in terms of understanding our overall profitability in relation to consolidated revenues, and also facilitate a user's ability to understand and assess the effectiveness of our research and development efforts.

Also, disclosing sales made by BMS of these two products enables the users to have a clearer understanding of trends in different lines of our income statement, in particular the lines "Other revenues", where we record royalties received on those sales (see "Other Revenues"); "Share of profit/loss of associates and joint ventures" (see "Share of Profit/Loss of Associates and Joint Ventures"), where we record our share of the profit/loss of entities included in the BMS Alliance and under BMS operational management; and "Net income attributable to non-controlling interests" (see "Net Income Attributable to Non-Controlling Interests"), where we record the BMS share of the profit/loss of entities included in the BMS Alliance and under our operational management.

On October 3, 2012, Sanofi and BMS announced the restructuring of their alliance with effect from January 1, 2013 (see "Financial Presentation of Alliances Alliance arrangements with Bristol-Myers Squibb" above).

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The table below sets forth the worldwide sales of Plavix® and Aprovel® in 2012 and 2011, by geographic region:

<i>(€ million)</i>	2012			2011			Change on a reported basis	Change at constant exchange rates
	Sanofi <sup>(2)</sup>	BMS <sup>(3)</sup>	Total	Sanofi <sup>(2)</sup>	BMS <sup>(3)</sup>	Total		
<b>Plavix®/Iscover® <sup>(1)</sup></b>								
Europe	424	29	<b>453</b>	530	44	<b>574</b>	-21.1%	-21.2%
United States		1,829	<b>1,829</b>		4,759	<b>4,759</b>	-61.6%	-63.7%
Other countries	1,613	89	<b>1,702</b>	1,370	286	<b>1,656</b>	+2.8%	-4.6%
<b>Total</b>	<b>2,037</b>	<b>1,947</b>	<b>3,984</b>	<b>1,900</b>	<b>5,089</b>	<b>6,989</b>	<b>-43.0%</b>	<b>-46.2%</b>
<b>Aprovel®/Avapro®/Karvea®/Avalide® <sup>(4)</sup></b>								
Europe	527	99	<b>626</b>	694	130	<b>824</b>	-24.0%	-24.3%
United States	24	110	<b>134</b>		374	<b>374</b>	-64.2%	-66.5%
Other countries	521	91	<b>612</b>	451	156	<b>607</b>	+0.8%	-5.1%
<b>Total</b>	<b>1,072</b>	<b>300</b>	<b>1,372</b>	<b>1,145</b>	<b>660</b>	<b>1,805</b>	<b>-24.0%</b>	<b>-26.6%</b>

(1) *Plavix® is marketed under the trademarks Plavix® and Iscover®.*

(2) *Net sales of Plavix® consolidated by Sanofi, excluding sales to BMS (€86 million in 2012 and €208 million in 2011). Net sales of Aprovel® consolidated by Sanofi, excluding sales to BMS (€111 million in 2012 and €150 million in 2011).*

(3) *Translated into euros by Sanofi using the method described in Note B.2. "Foreign currency translation" to our consolidated financial statements included at Item 18 in this annual report.*

(4) *Aprovel® is marketed under the trademarks Aprovel®, Avapro®, Karvea® and Avalide®.*

Worldwide sales of Plavix®/Iscover® fell by 46.2% at constant exchange rates in 2012 to €3,984 million, under the impact of competition from generics in the United States and Europe. In the United States, where the product lost exclusivity on May 17, 2012, sales (consolidated by BMS) were down 63.7% at constant exchange rates, at €1,829 million. In Europe, net sales of Plavix® fell by 21.2% at constant exchange rates, to €453 million. In the Other Countries region, net sales were down 4.6% at constant exchange rates; this reflected the entry of generics into the Canadian market (where sales, consolidated by BMS, dipped by 76.1% at constant exchange rates to €50 million), but also the continuing success of the product in Japan and China where net sales (consolidated by Sanofi) reached €837 million (up 16.0% at constant exchange rates) and €371 million (up 20.6% at constant exchange rates), respectively.

Worldwide sales of Aprovel®/Avapro®/Karvea®/Avalide® in 2012 amounted to €1,372 million, a decline of 26.6% at constant exchange rates, reflecting loss of exclusivity in the United States on March 30, 2012 and competition from generics in most Western European countries. In Japan and China, net sales (consolidated by Sanofi) came to €101 million (up 47.0% at constant exchange rates) and €138 million (up 17.3% at constant exchange rates), respectively.

### Other Revenues

Other revenues, which mainly comprise royalty income under licensing agreements contracted in connection with ongoing operations, fell by 39.5% to €1,010 million (versus €1,669 million in 2011).

The decrease was mainly due to lower licensing revenue under the worldwide alliance with BMS on Plavix® and Aprovel®, which totaled €532 million in 2012 versus €1,275 million in 2011 (down 58.1% on a reported basis), due largely to the loss of exclusivity in the United States for Aprovel® (on March 30, 2012) and Plavix® (on May 17, 2012). However, the appreciation of the U.S. dollar against the euro had a favorable impact on other revenues, as did the recognition in 2012 of a €45 million payment from BMS relating to the Avalide® supply disruption in the United States during 2011.

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This line also includes royalty income of €171 million from Amgen relating to a worldwide license contracted on the product Enbrel®. Royalties received on U.S. sales represented a significant portion of this income in 2012 and will contractually end in February 2013.

### *Gross Profit*

Gross profit amounted to €24,839 million in 2012 (71.1% of net sales), versus €24,156 million in 2011 (72.3% of net sales). This represents an increase of 2.8% in gross profit, but a fall of 1.2 points in the gross margin ratio.

The gross margin ratio for the Pharmaceuticals segment slipped by 2.9 points to 72.9%, reflecting a lower level of royalty income (-2.6 points) and a deterioration in the ratio of cost of sales to net sales (-0.3 of a point); this latter trend was mainly attributable to the adverse impact of generics (mainly of Taxotere® in the United States), partially offset by productivity gains and lower raw materials prices for heparins.

The gross margin ratio for the Vaccines segment fell by 1.0 point to 59.2%.

The gross margin ratio for the Animal Health segment improved by 0.4 of a point to 69.3%.

In addition, consolidated gross profit for 2012 was adversely affected by a €23 million expense (0.1 of a point) arising from the workdown of acquired inventories remeasured at fair value in connection with the acquisition of Genzyme. In 2011, this expense was €476 million (1.4 points), out of which €473 million were related to the acquisition of Genzyme.

### *Research and Development Expenses*

Research and development (R&D) expenses totaled €4,922 million (versus €4,811 million in 2011), representing 14.1% of net sales (versus 14.4% in 2011). Overall, R&D expenses rose by €111 million, or 2.3% on a reported basis. After including Genzyme's costs for the first quarter of 2011, R&D expenses fell by 0.4% year-on-year. In addition, the amount of R&D expenses reported for 2012 was adversely affected by the appreciation of the U.S. dollar against the euro.

R&D expenses for the Pharmaceuticals segment increased by €118 million, up 2.9% on a reported basis. After including Genzyme's costs for the first quarter of 2011, R&D expenses fell by €15 million (or 0.4%) year-on-year, reflecting our ongoing transformation initiatives and the rationalization of the project portfolio.

R&D expenses for the Vaccines segment fell by €25 million to €539 million (down 4.4% on a reported basis), due mainly to trends in the cost of clinical trials on the dengue fever vaccine and various influenza-related projects.

In the Animal Health segment, R&D expenses rose by €18 million (up 12.3% on a reported basis) versus 2011.

### *Selling and General Expenses*

Selling and general expenses amounted to €8,947 million, compared with €8,536 million in 2011, an increase of €411 million or 4.8% on a reported basis. The ratio of selling and general expenses to net sales was unchanged year-on-year at 25.6%. After including Genzyme's costs for the first quarter of 2011, selling and general expenses were up 1.8% year-on-year. In addition, the amount reported for 2012 was adversely affected by the appreciation of the U.S. dollar against the euro.

In the Pharmaceuticals segment, selling and general expenses increased by €290 million, or 3.9% on a reported basis. After including Genzyme's costs for the first quarter of 2011, selling and general expenses for the segment fell by €37 million (or 0.5%) year-on-year. This trend reflects tight cost control (especially in mature regions) and the effect of synergies unlocked by the integration of Genzyme, and was achieved in spite of ongoing investment in our growth platforms and the launch costs incurred on Zaltrap® and Aubagio®.

Selling and general expenses for the Vaccines segment rose by €69 million (up 12.7% on a reported basis), due partly to adverse trends in the U.S. dollar/euro exchange rate and partly to increased promotional investments.

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In the Animal Health segment, selling and general expenses increased by €52 million (up 8.4% on a reported basis), reflecting adverse trends in the U.S. dollar/euro exchange rate and higher promotional costs on the companion animals franchise.

*Other Operating Income and Expenses*

In 2012, other operating income amounted to €562 million (versus €319 million in 2011), and other operating expenses to €454 million (versus €315 million in 2011).

Overall, other operating income and expenses represented net income of €108 million in 2012, compared with €4 million in 2011. This increase was mainly due to the favorable outcome of litigation relating to a license.

This line item also includes a net operational foreign exchange loss of €41 million, against €5 million in 2011.

*Amortization of Intangible Assets*

Amortization charged against intangible assets amounted to €3,291 million in 2012, versus €3,314 million in 2011. The year-on-year reduction of €23 million was mainly due to:

Reductions: a fall in amortization charged against intangible assets recognized on the acquisition of Aventis (€1,489 million in 2012, versus €1,788 million in 2011), as some products reached the end of their life cycles in the face of competition from generics;

Increases: amortization charges generated by intangible assets recognized on the acquisition of Genzyme in the second quarter of 2011 (€981 million over 12 months in 2012, versus €709 million over 9 months in 2011).

*Impairment of Intangible Assets*

This line showed impairment losses of €117 million against intangible assets in 2012, compared with €142 million in 2011. The impairment losses recognized in 2012 relate mainly to the discontinuation of R&D projects in the Pharmaceuticals segment, in particular some development programs in oncology.

In 2011, the impairment losses related mainly to (i) the discontinuation of a Genzyme research project; (ii) certain Zentiva generics, following a downward revision of sales projections; and (iii) the discontinuation of a joint project with Metabolex in diabetes. This line also included a reversal of impairment losses on Actonel®, recognized following confirmation of the terms of the collaboration agreement with Warner Chilcott (see Note C.3. to our consolidated financial statements included at Item 18 of this annual report).

*Fair Value Remeasurement of Contingent Consideration Liabilities*

Fair value remeasurements of contingent consideration liabilities recognized on acquisitions in accordance with the revised IFRS 3 represented an expense of €192 million in 2012, compared with a net gain of €15 million in 2011. This item mainly relates to the contingent value rights (CVRs) issued in connection with the Genzyme acquisition, and to contingent consideration payable to Bayer as a result of an acquisition made by Genzyme prior to the latter's acquisition by Sanofi (see Note D.18. to our consolidated financial statements included at Item 18 of this annual report).

*Restructuring Costs*

Restructuring costs amounted to €1,141 million in 2012, versus €1,314 million in 2011, and relate primarily to measures announced in connection with the major transformation program that we initiated in 2009 to adapt our structures to the challenges of the future.

In 2012, these costs mainly related to measures taken to adapt our resources in France, transform our industrial facilities in Europe and make adjustments to our sales forces worldwide, along with the integration of Genzyme and impairment losses against property, plant and equipment in France.



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In 2011, these costs reflected the transformation and reorganization of our R&D operations, measures taken to adapt our industrial facilities in Europe, adjustments to our sales forces in the United States and Europe, the implementation of multi-country organizations in Europe, and the integration of Genzyme entities worldwide.

*Other Gains and Losses, and Litigation*

Nothing was recognized on this line in 2012.

In 2011, this line item included a net expense of €327 million, mainly comprising (i) a €519 million backlog of depreciation and amortization expense that was not charged against the property, plant and equipment and intangible assets of Merial from September 18, 2009 through December 31, 2010 because these assets were classified as held for sale or exchange during that period in accordance with IFRS 5 (see Note D.8.2. to the consolidated financial statements included at Item 18 of this annual report), (ii) a gain of €210 million arising from damages received in connection with a Plavix® patent; and (iii) the impact of the divestiture of the Dermik dermatology business (see Note D.28. to our consolidated financial statements).

*Operating Income*

Operating income totaled €6,337 million for 2012, versus €5,731 million for 2011, an increase of 10.6%.

*Financial Income and Expenses*

Net financial expense for 2012 was €460 million, compared with €412 million for 2011, an increase of €48 million.

Financial expenses directly related to our debt, net of cash and cash equivalents (see definition at "Liquidity and Capital Resources" below) were €349 million in 2012 compared to €325 million in 2011. This increase was due to a reduction in financial income resulting from a lower average rate of return on cash.

Because the average level of debt and the average rate of interest on debt were relatively stable year-on-year, financial expenses were virtually unchanged in 2012.

Impairment losses on investments and financial assets amounted to €30 million in 2012 (versus €58 million in 2011). In 2012, these losses related primarily to available-for-sale financial assets; in 2011, they related mainly to Greek government bonds (€49 million, versus €6 million in 2012).

Gains on disposals of non-current financial assets amounted to €37 million in 2012, compared with €25 million in 2011. The 2011 figure included the effect of the change in consolidation method for the investment in the Société Financière des Laboratoires de Cosmétologie Yves Rocher following loss of significant influence (see Note D.6. to our consolidated financial statements). In August 2012, Sanofi sold this investment.

The effect of the unwinding of discount on provisions was €87 million in 2012 (versus €83 million in 2011), and the net financial foreign exchange loss was €17 million in 2012 (versus a net gain of €10 million in 2011).

*Income before Tax and Associates and Joint Ventures*

Income before tax and associates and joint ventures for 2012 was €5,877 million in 2011, versus €5,319 million in 2011, an increase of 10.5%.

*Income Tax Expense*

Income tax expense amounted to €1,134 million in 2012, versus €455 million in 2011 and €1,430 million in 2010.

The fall in income tax expense in 2011 relative to 2010 was mainly attributable to a reduction in the deferred tax liability relating to the remeasurement of the intangible assets of Merial in response to changes in tax rates and





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legislation (primarily in the United Kingdom) and the effect of the Franco-American Advance Pricing Agreement (APA) for the period from 2006 through 2011 (see Note D.30. to our consolidated financial statements).

These effects did not impact income tax expense for 2012. However, the rise in income tax expense during the year was limited by the favorable effects of differential income tax rates applicable to our foreign subsidiaries (including the impact of an Advance Pricing Agreement (APA) with the Japanese authorities covering the period from 2012 through 2014), and also by the settlement of tax inspections and the effects of time-barring.

This item includes tax gains arising from (i) the amortization of intangible assets, totaling €1,159 million in 2012 (versus €1,178 million in 2011, including the impact of the Meril backlog, see " Other Gains and Losses, and Litigation" above) and (ii) restructuring costs (€370 million in 2012, versus €399 million in 2011).

The effective tax rate is calculated on the basis of business operating income minus net financial expenses and before the share of profit/loss of associates and joint ventures and net income attributable to non-controlling interests. The effective tax rate was 25.5% in 2012, versus 27.0% in 2011. The difference relative to the standard corporate income tax rate applicable in France (34.4%) was mainly due to royalty income being taxed at a reduced rate in France, and to the differential in tax rates applied to profits of our foreign subsidiaries.

*Share of Profit/Loss of Associates and Joint Ventures*

The share of profit/loss of associates and joint ventures in 2012 was €393 million, versus €1,070 million in 2011. This line mainly includes our share of after-tax profits from territories managed by BMS under the Plavix® and Avapro® alliance, which fell by 60.7% to €420 million (versus €1,070 million in 2011). The decline in our share was mainly attributable to a 61.6% drop in sales of Plavix® in the United States due to the loss of exclusivity and competition from generics.

*Net Income*

Net income amounted to €5,136 million in 2012, compared with €5,934 million in 2011.

*Net Income Attributable to Non-Controlling Interests*

Net income attributable to non-controlling interests totaled €169 million in 2012, against €241 million in 2011. This line mainly comprises the share of pre-tax profits paid to BMS from territories managed by Sanofi (€149 million, versus €225 million in 2011); this year-on-year fall was directly related to increased competition from generics of clopidogrel (Plavix®) in Europe.

*Net Income Attributable to Equity Holders of Sanofi*

Net income attributable to equity holders of Sanofi was €4,967 million in 2012, versus €5,693 million in 2011.

Basic earnings per share for 2012 was €3.76, 12.8% lower than the 2011 figure of €4.31, based on an average number of shares outstanding of 1,319.5 million in 2012 (1,321.7 million in 2011). Diluted earnings per share for 2012 was €3.74, compared to €4.29 for 2011, based on an average number of shares outstanding after dilution of 1,329.6 million in 2012 and 1,326.7 million in 2011.

*Business Operating Income*

Sanofi reports segment results on the basis of "Business Operating Income". This indicator, adopted in compliance with IFRS 8, is used internally to measure operational performance and to allocate resources. See "Item 5. Operating and Financial Review and Prospects Segment information" above for the definition of business operating income and reconciliation to our Income before tax and associates and joint ventures.

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Business operating income for 2012 was €11,353 million, compared to €12,144 million in 2011 (down 6.5%). The table below shows trends in business operating income by business segment for 2012 and 2011:

<i>(€ million)</i>	<b>2012</b>	<b>2011</b>	<b>Change</b>
Pharmaceuticals	9,519	10,496	-9.3%
Vaccines	1,148	985	+16.5%
Animal Health	673	627	+7.3%
Other	13	36	-63.9%
<b>Business operating income</b>	<b>11,353</b>	<b>12,144</b>	<b>-6.5%</b>

*Business Net Income*

Business net income is a non-GAAP financial measure that we use to evaluate our Group's performance. See "Item 5. Operating and Financial Review and Prospects – Business Net Income" above for the definition of business net income and reconciliation to our Net income attributable to equity holders of Sanofi.

Business net income totaled €8,179 million in 2012 versus €8,795 million in 2011 (down 7.0%), and represented 23.4% of net sales compared with 26.3% in 2011.

*Business Earnings Per Share*

We also report business earnings per share, a non-GAAP financial measure which we define as business net income divided by the weighted average number of shares outstanding (see "Business Net Income" above).

Business earnings per share for 2012 were €6.20 versus €6.65 in 2011, down 6.8%, based on an average number of shares outstanding of 1,319.5 million in 2012 (1,321.7 million in 2011). Diluted business earnings per share for 2012 were €6.15 versus €6.63 in 2011, down 7.2%, based on an average number of shares outstanding of 1,329.6 million in 2012 and 1,326.7 million in 2011.

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Our consolidated income statements for the years ended December 31, 2011 and December 31, 2010 break down as follows:

<b>(under IFRS)</b> <b>(€ million)</b>	<b>2011</b>	<b>as % of</b> <b>net sales</b>	<b>2010</b>	<b>as % of</b> <b>net sales</b>
<b>Net sales</b>	<b>33,389</b>	<b>100.0%</b>	<b>32,367</b>	<b>100.0%</b>
Other revenues	1,669	5.0%	1,669	5.2%
Cost of sales	(10,902)	(32.7%)	(9,398)	(29.0%)
<b>Gross profit</b>	<b>24,156</b>	<b>72.3%</b>	<b>24,638</b>	<b>76.1%</b>
Research & development expenses	(4,811)	(14.4%)	(4,547)	(14.0%)
Selling & general expenses	(8,536)	(25.6%)	(8,149)	(25.2%)
Other operating income	319		369	
Other operating expenses	(315)		(292)	
Amortization of intangible assets	(3,314)		(3,529)	
Impairment of intangible assets	(142)		(433)	
Fair value remeasurement of contingent consideration liabilities	15			
Restructuring costs	(1,314)		(1,384)	
Other gains and losses, and litigation <sup>(1)</sup>	(327)		(138)	
<b>Operating income</b>	<b>5,731</b>	<b>17.2%</b>	<b>6,535</b>	<b>20.2%</b>
Financial expenses	(552)		(468)	
Financial income	140		106	
<b>Income before tax and associates and joint ventures</b>	<b>5,319</b>	<b>15.9%</b>	<b>6,173</b>	<b>19.1%</b>
Income tax expense	(455)		(1,430)	
Share of profit/(loss) of associates and joint ventures	1,070		978	
<b>Net income</b>	<b>5,934</b>	<b>17.8%</b>	<b>5,721</b>	<b>17.7%</b>
Net income attributable to non-controlling interests	241		254	
<b>Net income attributable to equity holders of Sanofi</b>	<b>5,693</b>	<b>17.1%</b>	<b>5,467</b>	<b>16.9%</b>
Average number of shares outstanding (million)	1,321.7		1,305.3	
Average number of shares outstanding after dilution (million)	1,326.7		1,308.2	
Basic earnings per share (in euros)	4.31		4.19	
Diluted earnings per share (in euros)	4.29		4.18	

(1)

See Note B.20.2. to our consolidated financial statements included at Item 18 of this annual report.

Our consolidated income statements include the results of the operations of Genzyme from April 2011. In order to help investors gain a better understanding of our performance, in the narrative discussion of certain income statement line items ("research & development expenses", and "selling & general expenses") we exclude 2011 data for Genzyme in the analyses. In the narrative discussion of Genzyme's products net sales, we used non-consolidated 2010 net sales in additional analyses.

*Net Sales*

Net sales for the year ended December 31, 2011 totaled €33,389 million, up 3.2% on 2010. Exchange rate fluctuations had an unfavorable effect of 2.1 points, primarily as a result of the depreciation of the U.S. dollar against the euro. At constant exchange rates, and after taking account of changes in structure (mainly the consolidation of Genzyme from April 2011), net sales were up 5.3% year-on-year.



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Excluding Genzyme, net sales were down 2.6% in 2011 at constant exchange rates, reflecting the loss in sales associated with competition from generics and the impacts of austerity measures in the European Union. Excluding Genzyme and sales of A/H1N1 vaccines, net sales were down 1.2% at constant exchange rates.

The following table sets forth a reconciliation of our reported net sales for the years ended December 31, 2011 and December 31, 2010 to our net sales at constant exchange rates:

<i>(€ million)</i>	2011	2010	Change (%)
<b>Net sales</b>	<b>33,389</b>	<b>32,367</b>	<b>+3.2%</b>
Effect of exchange rates	704		
<b>Net sales at constant exchange rates</b>	<b>34,093</b>	<b>32,367</b>	<b>+5.3%</b>

Our net sales comprise the net sales generated by our Pharmaceuticals, Human Vaccines (Vaccines) and Animal Health segments.

The following table breaks down our 2011 and 2010 net sales by business segment:

<i>(€ million)</i>	2011 Reported	2010 Reported	Change on a reported basis (%)	Change at constant exchange rates (%)
Pharmaceuticals	27,890	26,576	+4.9%	+6.7%
Vaccines	3,469	3,808	-8.9%	-5.5%
Animal Health	2,030	1,983	+2.4%	+4.3%
<b>Total</b>	<b>33,389</b>	<b>32,367</b>	<b>+3.2%</b>	<b>+5.3%</b>

*Net Sales by Product    Pharmaceuticals segment*

Net sales generated by our Pharmaceuticals segment were €27,890 million in 2011, up 4.9% on a reported basis and 6.7% at constant exchange rates. This change reflects the positive impact of the first-time consolidation of Genzyme; the negative impacts of competition from generics on sales of Lovenox®, Ambien® CR and Taxotere® in the United States and Plavix® and Taxotere® in the European Union; and the effects of healthcare reform in the United States and austerity measures in Europe. Excluding Genzyme, our Pharmaceuticals segment posted net sales of €25,495 million, down 4.1% on a reported basis and 2.7% at constant exchange rates.

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The following table breaks down our 2011 and 2010 net sales for the Pharmaceuticals segment by product:

(€ million)		2011	2010	Change on	Change at
Product	Indication	Reported	Reported	a reported	constant
				basis (%)	exchange
					rates (%)
Lantus®	Diabetes	3,916	3,510	+11.6%	+15.0%
Apidra®	Diabetes	190	177	+7.3%	+9.6%
Insuman®	Diabetes	132	133	-0.8%	-0.8%
Amaryl®	Diabetes	436	478	-8.8%	-7.9%
Other diabetes products	Diabetes	10			
<b>Total: Diabetes</b>	<b>Diabetes</b>	<b>4,684</b>	<b>4,298</b>	<b>+9.0%</b>	<b>+12.0%</b>
Taxotere®	Breast, lung, prostate, stomach, and head & neck cancer	922	2,122	-56.6%	-57.0%
Eloxatine®	Colorectal cancer	1,071	427	+150.8%	+160.9%
Jevtana®	Prostate cancer	188	82	+129.3%	+135.4%
Mozobil®	Hematologic malignancies	59			
Other oncology products <sup>(1)</sup>		389	59	+559.3%	
<b>Total: Oncology</b>		<b>2,629</b>	<b>2,690</b>	<b>-2.3%</b>	
Lovenox®	Thrombosis	2,111	2,806	-24.8%	-23.4%
Plavix®	Atherothrombosis	2,040	2,083	-2.1%	-2.9%
Aprovel®/CoAprovel®	Hypertension	1,291	1,327	-2.7%	-2.4%
Allegra®	Allergic rhinitis, urticaria	580	607	-4.4%	-8.6%
Stilnox®/Ambien®/Myslee®	Sleep disorders	490	819	-40.2%	-41.4%
Copaxone®	Multiple sclerosis	436	513	-15.0%	-15.4%
Tritace®	Hypertension	375	410	-8.5%	-6.3%
Depakine®	Epilepsy	388	372	+4.3%	+5.4%
Multaq®	Atrial fibrillation	261	172	+51.7%	+56.4%
Xatral®	Benign prostatic hypertrophy	200	296	-32.4%	-30.7%
Actonel®	Osteoporosis, Paget's disease	167	238	-29.8%	-29.8%
Nasacort®	Allergic rhinitis	106	189	-43.9%	-41.8%
Renagel®/Renvela® <sup>(1)</sup>	Hyperphosphatemia	415			
Synvisc®/Synvisc-One® <sup>(1)</sup>	Arthritis	256			
Cerezyme® <sup>(1)</sup>	Gaucher disease	441			
Myozyme®/Lumizyme® <sup>(1)</sup>	Pompe disease	308			
Fabrazyme® <sup>(1)</sup>	Fabry disease	109			
Other rare disease products <sup>(1)</sup>		264			
<b>Total: New Genzyme <sup>(1)</sup></b>		<b>1,122</b>			
Other prescription products		5,927	6,005	-1.3%	-0.9%
Consumer Health Care		2,666	2,217	+20.3%	+22.8%
Generics		1,746	1,534	+13.8%	+16.2%
<b>Total pharmaceuticals</b>		<b>27,890</b>	<b>26,576</b>	<b>+4.9%</b>	<b>+6.7%</b>

(1)

*In 2011, net sales of Genzyme products were recognized from the acquisition date (April 2011).*

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*Diabetes*

Net sales for the Diabetes business were €4,684 million, up 12.0% at constant exchange rates, driven by Lantus®.

**Lantus®** posted a 15.0% increase in net sales at constant exchange rates in 2011 to €3,916 million. This change reflected sharp growth in Emerging Markets (26.0% at constant exchange rates), especially in China (61.7%) and Brazil (29%), as well as solid performances in the United States (14.6%) and Japan (19.5%). In Western Europe, growth was more moderate (6.4%), reflecting pricing pressures (especially in Germany).

Net sales of the rapid-acting insulin analog **Apidra®** advanced by 9.6% at constant exchange rates in 2011 to €190 million, led by solid performances in Japan (87.9% growth) and the United States (11.3% growth). At year-end, sales were impacted negatively by a temporary shortage of Apidra® 3ml cartridges.

**Amaryl®** saw net sales decrease by 7.9% at constant exchange rates in 2011 to €436 million, due principally to competition from generics in Japan, and despite an 8.6% increase (at constant exchange rates) in Emerging Markets.

*Oncology*

**Taxotere®** reported net sales of €922 million, down 57.0% at constant exchange rates. This product faced competition from generics in Western Europe (down 73.6%) and the United States (down 69.2%), although the decline was much less pronounced in Emerging Markets (down 24.6%).

**Eloxatine®** net sales rebounded sharply in 2011 by 160.9% at constant exchange rates to €1,071 million, as sales recovered in the United States (€806 million in 2011, versus €172 million in 2010) following a court ruling barring manufacturers of generics in the United States from selling their unapproved generic versions of oxaliplatin from June 30, 2010.

**Jevtana®**, which has been available in the U.S. market since July 2010 and has become gradually available throughout most of the countries of Western Europe since April 2011, registered net sales of €188 million in 2011, €131 million of which were generated in the United States.

Other oncology products (net sales of €448 million in 2011) are essentially new products acquired with Genzyme; net sales for these Genzyme products have been consolidated since the acquisition date (April 2011).

*Other pharmaceutical products*

**Lovenox®** saw net sales decrease by 23.4% at constant exchange rates in 2011 to €2,111 million, as a result of competition from generics in the United States where net sales declined by 54.3% to €633 million. Outside the United States, net sales were up 9.0% at constant exchange rates at €1,478 million (representing 70.0% of worldwide 2011 sales of Lovenox®), with good performances in Western Europe (up 6.4%) and Emerging Markets (up 14.0%).

Net sales of the hypnotic **Stilnox®/Ambien®/Myslee®** fell by 41.4% at constant exchange rates to €490 million, reflecting competition from Ambien® CR generics in the United States. In Japan, Myslee® continued to post a solid performance with net sales up 9.2% at constant exchange rates at €284 million.

**Allegra®** prescription sales were down 8.6% (at constant exchange rates) at €580 million. In Japan, which represents 80.2% of worldwide sales of Allegra®, net sales totaled €465 million (up 22.1% at constant exchange rates) due to a sharp increase in seasonal allergies. The slump in prescription sales in the United States (down 98.6% at constant exchange rates) was mainly due to the approval of Allegra® as an over-the-counter (OTC) product in the U.S. market effective March 2011. Since this approval, U.S. sales of Allegra® have been recognized in our Consumer Health Care business.



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**Copaxone®** net sales, generated primarily in Western Europe, fell by 15.4% at constant exchange rates to €436 million. This reflected the ending of the co-promotion agreement with Teva in certain countries, in particular the United Kingdom (from the end of 2010) and Germany (from the end of 2010).

**Multaq®** posted 56.4% growth in net sales to €261 million at constant exchange rates, primarily in the United States (€184 million) and Western Europe (€66 million).

**Renagel®/Renvela®** posted net sales of €415 million, up 10.2% on a constant structure basis and at constant exchange rates, due to increased market share in the United States. Net sales for this product are recognized as from the Genzyme acquisition date (April 2011) and comparisons are with the net sales reported by Genzyme in 2010 for the same period.

Net sales of **Synvisc®** totaled €256 million (up 14.7% on a constant structure basis and at constant exchange rates), supported by the solid performance of **Synvisc-One®** in the U.S. and Japan. Net sales for this product are recognized as from the Genzyme acquisition date and comparisons are with the net sales reported by Genzyme in 2010 for the same period.

*New Genzyme*

The "new Genzyme" business consists of products used to treat rare diseases and products for the treatment of multiple sclerosis. The latter did not generate any sales in 2011 and 2010, since **Aubagio®** was only launched in 2012 and **Copaxone®** is not included in the new Genzyme business. Net sales of Genzyme's rare diseases products are recognized as from the Genzyme acquisition date and comparisons are with the net sales reported by Genzyme in 2010 for the same period.

Net sales of **Cerezyme®** were up 11.1% (on a constant structure basis and at constant exchange rates) at €441 million, reflecting higher production volumes in 2011 following a reduction in availability of the product in 2010 due to manufacturing issues. **Myozyme®/Lumizyme®** posted strong growth (27.4% on a constant structure basis and at constant exchange rates, to €308 million), driven mainly by the performance of **Lumizyme®** in the United States and volume growth worldwide. Growth in **Fabrazyme®** sales (9.4% on a constant structure basis and at constant exchange rates, to €109 million) was sparked by the increase in the product's availability following partial resolution of manufacturing issues. For more information regarding the manufacturing issues related to **Cerezyme®** and **Fabrazyme®** see "Item 4 Information on the Company Production and Raw Materials."

*Consumer Health Care*

The **Consumer Health Care** business posted year-on-year growth of 22.8% at constant exchange rates to €2,666 million, supported by the successful launch of **Allegra®** as an over-the-counter product in the U.S. in the first quarter of 2011 (which generated €211 million in net sales for the year out of a worldwide total of €245 million), and by the performance of Emerging Markets where net sales increased by 20.8% at constant exchange rates to €1,225 million. These figures include the effect of the first-time consolidation of the consumer health products of **Chattem** in the United States from February 2010, and of **BMP Sunstone** in China from February 2011.

*Generics*

The **Generics** business reported net sales of €1,746 million in 2011, up 16.2% at constant exchange rates. This growth was underpinned by sales in Emerging Markets (€1,092 million, up 14.0% at constant exchange rates), especially in Latin America (up 21.4% at constant exchange rates), and in the United States (up 79.4% at constant exchange rates) where Sanofi launched its own approved generics of **Ambien® CR**, **Taxotere®** and **Lovenox®**.

*Other prescription products*

Net sales of the other prescription products in the portfolio were down 0.9% at constant exchange rates, at €5,928 million. For a description of our other pharmaceutical products, see "Item 4. Information on the Company B. Business Overview Pharmaceutical Products."

Sales of **Plavix®** and **Aprovel®** are discussed further below under " Worldwide Presence of **Plavix®** and **Aprovel®**".

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The following table breaks down net sales of our Pharmaceuticals segment by product and by geographical region in 2011:

(€ million) Product	Western Europe <sup>(1)</sup>	Change at constant exchange rates	United States	Change at constant exchange rates	Emerging Markets <sup>(2)</sup>	Change at constant exchange rates	Other countries <sup>(3)</sup>	Change at constant exchange rates
Lantus®	730	+6.4%	2,336	+14.6%	617	+26.0%	233	+22.3%
Apidra®	68	0.0%	65	+11.3%	37	+8.6%	20	+58.3%
Insuman®	103	-4.6%			29	+20.0%		
Amaryl®	32	-23.8%	4	-33.3%	228	+8.6%	172	-21.6%
Other diabetes products	10							
<b>Total: Diabetes</b>	<b>943</b>	<b>+4.3%</b>	<b>2,405</b>	<b>+14.4%</b>	<b>911</b>	<b>+20.1%</b>	<b>425</b>	<b>+0.5%</b>
Taxotere®	189	-73.6%	243	-69.2%	294	-24.6%	196	-20.2%
Eloxatine®	38	-19.6%	806	+393.0%	162	+9.3%	65	+10.2%
Jevtana®	44		131	+65.9%	13			
Other oncology products <sup>(4)</sup>	108		245		69		26	
<b>Total: Oncology</b>	<b>379</b>		<b>1,425</b>		<b>538</b>		<b>287</b>	
Lovenox®	833	+6.4%	633	-54.3%	551	+14.0%	94	+3.5%
Plavix®	414	-35.6%	196*	-8.0%	706	+11.9%	724	+18.6%
Aprovel®/CoAprovel®	753	-9.1%	49*	+25.6%	363	+6.7%	126	+8.6%
Allegra®	13	-18.8%	3	-98.6%	99	+19.3%	465	+22.2%
Stilnox®/Ambien®/Myslee®	53	-3.6%	82	-80.6%	65	-1.5%	290	+8.3%
Copaxone®	415	-14.1%				-100.0%	21	+11.1%
Tritace®	170	-10.1%			181	0.0%	24	-23.3%
Depakine®	145	-2.0%			227	+11.5%	16	-6.7%
Multaq®	66	+66.7%	184	+50.8%	7	+250.0%	4	+33.3%
Xatral®	58	-12.1%	75	-49.7%	63	-7.1%	4	-20.0%
Actonel®	54	-48.1%			78	-12.9%	35	-22.0%
Nasacort®	25	-10.7%	54	-57.7%	23	0.0%	4	-20.0%
Renagel®/Renvela® <sup>(4)</sup>	98		266		30		21	
Synvisc®/Synvisc-One® <sup>(4)</sup>	15		211		12		17	
Cerezyme® <sup>(4)</sup>	155		108		135		43	
Myozyme®/Lumizyme® <sup>(4)</sup>	175		79		33		21	
Fabrazyme® <sup>(4)</sup>	24		48		14		23	
Other rare disease products <sup>(4)</sup>	59		93		53		59	
<b>Total: New Genzyme <sup>(4)</sup></b>	<b>413</b>		<b>328</b>		<b>235</b>		<b>146</b>	
Other prescription products	2,404	-8.7%	627	+7.1%	2,107	+7.6%	790	+7.1%
Consumer Health Care	651	+3.2%	549	+80.0%	1,225	+20.8%	241	+5.1%
Generics	443	+9.4%	177	+79.4%	1,092	+14.0%	34	-20.0%
<b>Total pharmaceuticals</b>	<b>8,345</b>	<b>-3.9%</b>	<b>7,264</b>	<b>+8.5%</b>	<b>8,513</b>	<b>+15.0%</b>	<b>3,768</b>	<b>+14.0%</b>

(1) France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.

(2) World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) Japan, Canada, Australia and New Zealand.

(4) In 2011, net sales of Genzyme products were recognized from the acquisition date (April 2011).

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*Sales of active ingredient to the entity majority-owned by BMS in the United States.*

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### Net Sales Human Vaccines (Vaccines) segment

In 2011, the Vaccines segment reported net sales of €3,469 million, down 8.9% on a reported basis, and 5.5% at constant exchange rates. The business suffered in 2011 from the absence of sales of A/H1N1 pandemic influenza vaccines (€452 million in 2010). If we exclude these sales, growth for the Vaccines business reached 7.2% at constant exchange rates, driven primarily by Emerging Markets (up 10.7%).

The following table presents the 2011 and 2010 sales of our Vaccines segment by range of products:

(€million)	2011 Reported	2010 Reported	Change on a reported basis (%)	Change at constant exchange rates (%)
Polio/Pertussis/Hib Vaccines (including Pentacel® and Pentaxim®)	1,075	984	+9.3%	+12.0%
Influenza Vaccines (including Vaxigrip® and Fluzone®)	826	1,297	-36.3%	-33.2%
- of which seasonal influenza vaccines	826	845	-2.2%	+2.5%
- of which pandemic influenza vaccines		452	-100.0%	-100.0%
Meningitis/Pneumonia Vaccines (including Menactra®)	510	527	-3.2%	+2.3%
Adult Booster Vaccines (including Adacel®)	465	449	+3.6%	+7.3%
Travel and Other Endemics Vaccines	370	382	-3.1%	-1.6%
Other Vaccines	223	169	+32.0%	+37.8%
<b>Total Vaccines</b>	<b>3,469</b>	<b>3,808</b>	<b>-8.9%</b>	<b>-5.5%</b>

The drop in vaccines sales in 2011 in Western Europe (down 18.4% at constant exchange rates) and in Emerging Markets (down 18.1% at constant exchange rates) was primarily due to the lack of sales of pandemic influenza vaccines. Strong growth in the Other Countries region (up 24.2% at constant exchange rates) was driven by sales of Polio/Pertussis/Hib Vaccines in Japan.

**Polio/Pertussis/Hib** vaccines net sales were up 12.0% (at constant exchange rates) to €1,075 million, based on the solid performance of Pentaxim® (up 30.2% at constant exchange rates, at €238 million) related to product launches in Russia, India and China, and of *Haemophilus influenzae type b* (Hib) vaccines (up 20.7% at €178 million) primarily in Emerging Markets and Japan.

Net sales of **influenza vaccines** in 2011 were down 33.2% at constant exchange rates at €826 million, reflecting the non-recurrence in 2011 of the pandemic influenza vaccine sales generated in 2010, primarily in Latin America and Western Europe. Sales of seasonal influenza vaccines were up 2.5% at constant exchange rates, driven by the performance of Latin America.

**Meningitis/Pneumonia** vaccines generated net sales of €510 million, up 2.3% at constant exchange rates. Growth was limited by the temporary reduction in catch-up immunization programs for the Menactra® quadrivalent vaccine against meningococcal meningitis in the United States during the first half of 2011, but booster vaccinations at the end of the year had a positive impact.

Net sales of **adult booster** vaccines reached €465 million (up 7.3% at constant exchange rates), driven by Adacel® (€314 million, up 9.2% at constant exchange rates).

Net sales of **travel and other endemics** vaccines fell by 1.6% at constant exchange rates to €370 million.

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The following table presents the 2011 sales of our Vaccines segment by range of products and by region:

(€million)	Western Europe <sup>(1)</sup> Reported	Change at constant exchange rates	United States Reported	Change at constant exchange rates	Emerging Markets <sup>(2)</sup> Reported	Change at constant exchange rates	Other countries <sup>(3)</sup> Reported	Change at constant exchange rates
Polio/Pertussis/Hib Vaccines (inc. Pentacel® and Pentaxim®)	36	-41.0%	463	+2.8%	457	+21.9%	119	+66.7%
Influenza Vaccines <sup>(4)</sup> (inc. Vaxigrip® and Fluzone®)	77	-39.8%	435	-11.2%	296	-51.1%	18	-21.7%
Meningitis/Pneumonia Vaccines (inc. Menactra®)	3	-40.0%	390	+2.7%	104	+4.0%	13	-6.6%
Adult Booster Vaccines (inc. Adacel®)	76	+40.7%	339	+3.5%	30	-9.1%	20	+11.8%
Travel and Other Endemics Vaccines	24	+33.3%	89	+17.5%	210	-9.4%	47	-8.2%
Other Vaccines	15	-12.5%	176	+45.3%	16	+13.3%	16	+58.7%
<b>Total Vaccines</b>	<b>231</b>	<b>-18.4%</b>	<b>1,892</b>	<b>+2.5%</b>	<b>1,113</b>	<b>-18.1%</b>	<b>233</b>	<b>+24.2%</b>

<sup>(1)</sup> France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark. Net sales in Europe generated by Sanofi Pasteur MSD (the joint venture between Sanofi and Merck & Co., Inc.) are not consolidated.

<sup>(2)</sup> World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

<sup>(3)</sup> Japan, Canada, Australia and New Zealand.

<sup>(4)</sup> Seasonal and pandemic influenza vaccines.

Sales generated by Sanofi Pasteur MSD, our joint venture with Merck & Co., Inc. in Europe (not included in our consolidated net sales), amounted to €791 million in 2011, down 13.8% on a reported basis. The decrease in 2011 reflects lower sales of Gardasil® (down 31.1% on a reported basis, to €181 million), and a decline in sales of influenza vaccines (down 23.7% on a reported basis, to €129 million), primarily of seasonal influenza vaccines.

### Net Sales – Animal Health segment

The Animal Health business is carried on by Merial, which has been a wholly-owned subsidiary of Sanofi since September 18, 2009. On March 22, 2011 Merck and Sanofi announced that they had mutually terminated their agreement to form a new animal health joint venture and had decided to maintain Merial and Intervet/Schering-Plough as two separate entities, operating independently. This decision was mainly due to the increasing complexity of implementing the proposed transaction. Since January 1, 2011 Merial has no longer been presented separately in our consolidated balance sheet and income statement, and net income from Merial has been reclassified and included in income from continuing operations for all periods reported. Detailed information about the impact of Merial on our consolidated financial statements as of December 31, 2011 is provided in Note D.2. and Note D.8.2. to our consolidated financial statements included at Item 18 of this annual report.

Merial generated net sales of €2,030 million in 2011, up 4.3% at constant exchange rates and 2.4% on a reported basis, led by the performance in Emerging Markets.

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The following table presents the 2011 and 2010 sales of our Animal Health segment by range of products:

( <i>€ million</i> )	2011 Reported	2010 Reported	Change on a reported basis	Change at constant exchange rates
Frontline® and other fipronil-based products	764	774	-1.3%	+0.9%
Vaccines	662	627	+5.6%	+7.2%
Avermectin	372	355	+4.8%	+6.5%
Other products	232	227	+2.2%	+4.4%
<b>Total Animal Health</b>	<b>2,030</b>	<b>1,983</b>	<b>+2.4%</b>	<b>+4.3%</b>

Net sales for the companion animals franchise were marked by moderate growth in sales of the Frontline® product range (up 0.9% at constant exchange rates, to €764 million), reflecting the temporary impact from generic Frontline® Plus competitors in the United States and the arrival of competitor products in the United States and Western Europe. Sales of vaccines showed sustained growth (7.2% at constant exchange rates), especially in Emerging Markets (up 14.2%) with the success of the Vaxxitex® vaccine.

The following table breaks down net sales of our Animal Health segment by product and by geographical region in 2011:

( <i>€ million</i> ) Product	Western Europe <sup>(1)</sup>	Change at constant exchange rates	United States	Change at constant exchange rates	Emerging Markets <sup>(2)</sup>	Change at constant exchange rates	Other countries <sup>(3)</sup>	Change at constant exchange rates
Frontline® and other fipronil-based products	206	+4.5%	411	-2.1%	86	+8.8%	61	0.0%
Vaccines	195	+2.6%	126	+2.3%	325	+14.2%	16	-21.1%
Avermectin	64	+8.5%	177	+2.8%	60	+8.9%	71	+13.6%
Other products	89	-6.4%	87	+24.3%	36	+11.8%	20	-24.0%
<b>Total Animal Health</b>	<b>554</b>	<b>+2.4%</b>	<b>801</b>	<b>+2.1%</b>	<b>507</b>	<b>+12.4%</b>	<b>168</b>	<b>-1.2%</b>

(1) France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.

(2) World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.

(3) Japan, Canada, Australia and New Zealand.

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### *Net Sales by Geographical Region*

We divide our sales geographically into four regions: Western Europe, the United States, Emerging Markets and other countries. The following table breaks down our 2011 and 2010 net sales by region:

<i>(€ million)</i>	<b>2011 Reported</b>	<b>2010 Reported</b>	<b>Change on a reported basis</b>	<b>Change at constant exchange rates</b>
Western Europe <sup>(1)</sup>	9,130	9,539	-4.3%	-4.0%
United States	9,957	9,790	+1.7%	+6.8%
Emerging Markets <sup>(2)</sup>	10,133	9,533	+6.3%	+10.1%
<i>Of which Eastern Europe and Turkey</i>	2,666	2,659	+0.3%	+3.7%
<i>Of which Asia (excl. Pacific region) <sup>(3)</sup></i>	2,416	2,095	+15.3%	+16.5%
<i>Of which Latin America</i>	3,111	2,963	+5.0%	+11.8%
<i>Of which Africa</i>	949	880	+7.8%	+9.7%
<i>Of which Middle East</i>	872	825	+5.7%	+8.6%
Other Countries <sup>(4)</sup>	4,169	3,505	+18.9%	+13.8%
<i>Of which Japan</i>	2,865	2,275	+25.9%	+20.2%
<b>Total</b>	<b>33,389</b>	<b>32,367</b>	<b>+3.2%</b>	<b>+5.3%</b>

(1) *France, Germany, United Kingdom, Italy, Spain, Greece, Cyprus, Malta, Belgium, Luxembourg, Portugal, Netherlands, Austria, Switzerland, Sweden, Ireland, Finland, Norway, Iceland, Denmark.*

(2) *World excluding United States, Canada, Western Europe, Japan, Australia and New Zealand.*

(3) *Japan, Australia and New Zealand.*

(4) *Japan, Canada, Australia and New Zealand.*

Western Europe posted a 4% decrease in net sales at constant exchange rates to €9,130 million, hit by competition from generics of Taxotere® (down 73.6% at constant exchange rates) and Plavix® (down 35.6% at constant exchange rates), by the transfer of the Copaxone® business to Teva in certain countries, and by the impact of austerity measures. Excluding A/H1N1 vaccines and Genzyme, the decline was 10.5% at constant exchange rates.

The United States posted a 6.8% increase in net sales at constant exchange rates to €9,957 million, but a 5.7% decline after excluding A/H1N1 vaccines and Genzyme. Sales were affected by competition from generic versions of Lovenox®, Taxotere® and Ambien® CR, though the impact was partially offset by the performance of Lantus® and Eloxatine® and by the successful launch of Allegra® as an over-the-counter product.

In Emerging Markets, net sales totaled €10,133 million, up 10.1% at constant exchange rates. Excluding sales of A/H1N1 vaccines reported in 2010 (€361 million, primarily in Latin America) and Genzyme, growth at constant exchange rates reached 10.4%. In Brazil, net sales hit €1,522 million, up 4.9% at constant exchange rates (21.9% after excluding A/H1N1 vaccines), reflecting the solid performance of generics and the contribution made by Genzyme. In China, net sales totaled €981 million (up 40.4% at constant exchange rates), supported by the performance of Plavix® and Lantus®. In Eastern Europe and Turkey, growth (3.7% at constant exchange rates) suffered from lower prices and competition from Taxotere® generics in Turkey; Russia posted sales of €732 million, up 11.2% at constant exchange rates.

In the Other Countries region, net sales totaled €4,169 million, up 13.8% at constant exchange rates. Excluding A/H1N1 vaccines and Genzyme, net sales increased by 6.2%. Japan recorded net sales of €2,865 million (up 20.2% at constant exchange rates), buoyed by solid performances from Plavix® (up 22.9% to €671 million), Allegra® (up 22.2% to 465 million) and Hib vaccines, as well as by the contribution from Genzyme.

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### Worldwide Presence of Plavix® and Aprovel®

Two of our leading products Plavix® and Aprovel® were discovered by Sanofi and jointly developed with Bristol-Myers Squibb ("BMS") under an alliance agreement. In all territories except Japan, these products are sold either by Sanofi or by BMS in accordance with the terms of this alliance agreement applicable in 2010 and 2011 (see "Financial Presentation of Alliances - Alliance arrangements with Bristol-Myers Squibb" above).

Worldwide sales of these two products are an important indicator because they facilitate a financial statement user's understanding and analysis of our consolidated income statement, particularly in terms of understanding our overall profitability in relation to consolidated revenues, and also facilitate a user's ability to understand and assess the effectiveness of our research and development efforts.

Also, disclosing sales made by BMS of these two products enables the users to have a clearer understanding of trends in different lines of our income statement, in particular the line items "Other revenues", where we record royalties received on those sales (see "Other Revenues"); "Share of profit/loss of associates and joint ventures" (see "Share of Profit/Loss of Associates and Joint Ventures"), where we record our share of profit/loss of entities included in the BMS Alliance and under BMS operational management; and "Net income attributable to non-controlling interests" (see "Net Income Attributable to Non-Controlling Interests"), where we record the BMS share of profit/loss of entities included in the BMS Alliance and under our operational management.

The table below sets forth the worldwide sales of Plavix® and Aprovel® in 2011 and 2010, by geographic region:

(€ million)	2011			2010			Change on a reported basis	Change at constant exchange rates
	Sanofi <sup>(2)</sup>	BMS <sup>(3)</sup>	Total	Sanofi <sup>(2)</sup>	BMS <sup>(3)</sup>	Total		
<b>Plavix®/Iscover® <sup>(1)</sup></b>								
Europe	530	44	574	724	98	822	-30.2%	-29.8%
United States		4,759	4,759		4,626	4,626	+2.9%	+7.8%
Other countries	1,370	286	1,656	1,165	282	1,447	+14.4%	+13.8%
<b>Total</b>	<b>1,900</b>	<b>5,089</b>	<b>6,989</b>	<b>1,889</b>	<b>5,006</b>	<b>6,895</b>	<b>+1.4%</b>	<b>+4.5%</b>
<b>Aprovel®/Avapro®/Karvea®/Avalide® <sup>(4)</sup></b>								
Europe	694	130	824	789	158	947	-13.0%	-13.0%
United States		374	374		482	482	-22.4%	-18.8%
Other countries	451	156	607	411	216	627	-3.2%	-2.1%
<b>Total</b>	<b>1,145</b>	<b>660</b>	<b>1,805</b>	<b>1,200</b>	<b>856</b>	<b>2,056</b>	<b>-12.2%</b>	<b>-11.0%</b>

(1) Plavix® is marketed under the trademarks Plavix® and Iscover®.

(2) Net sales of Plavix® consolidated by Sanofi, excluding sales to BMS (€208 million in 2011 and €273 million in 2010). Net sales of Aprovel® consolidated by Sanofi, excluding sales to BMS (€150 million in 2011 and €129 million in 2010).

(3) Translated into euros by Sanofi using the method described in Note B.2. "Foreign currency translation" to our consolidated financial statements included at Item 18 in this annual report.

(4) Aprovel® is marketed under the trademarks Aprovel®, Avapro®, Karvea® and Avalide®.

Worldwide sales of Plavix®/Iscover® totaled €6,989 million in 2011, up 4.5% at constant exchange rates. Sales in the U.S. (consolidated by BMS) rose by a robust 7.8% at constant exchange rates, to €4,759 million. In Japan and China, Plavix® continued their success with sales of €671 million (+22.9% at constant exchange rates) and €277 million (+27.7% at constant exchange rates), respectively. These results more than offset the decline in sales of Plavix® in Europe caused by competition from generics (down 29.8% at constant exchange rates, at €574 million).

Worldwide sales of Aprovel®/Avapro®/Karvea®/Avalide® totaled €1,805 million in 2011, down 11.0% at constant exchange rates, reflecting the impact of increasing penetration of generic losartan on the market for anti-hypertensives.





*Other Revenues*

Other revenues, made up primarily of royalty income under licensing agreements contracted in connection with ongoing operations, remained stable at €1,669 million in 2011 and 2010.

Revenues from licensing under the worldwide alliance with BMS on Plavix® and Aprovel® represented €1,275 million in 2011 versus €1,303 million in 2010 (down 2.1% on a reported basis). These licensing revenues were adversely affected by the depreciation of the U.S. dollar against the euro, despite an increase in sales of Plavix® in the United States (up 7.8% at constant exchange rates).

*Gross Profit*

Gross profit for the year ended December 31, 2011 came to €24,156 million (72.3% of net sales), versus €24,638 million (76.1% of net sales) in 2012. This represents a year-on-year fall of 2.0% in gross profit, and a deterioration of 3.8 points in the gross margin ratio.

The gross margin ratio of the Pharmaceuticals segment was down 2.8 points at 75.8%, reflecting both a decrease in royalty income (-0.3 of a point) and an adverse trend in the ratio of cost of sales to net sales (-2.5 points). The latter was primarily due to the unfavorable impact of new generics (especially Lovenox®, Ambien® CR and Taxotere® in the United States, and Plavix® and Taxotere® in Europe).

The gross margin ratio of the Vaccines segment was down 4.5 points at 60.2%. This change was principally due to the absence in 2011 of the margin on pandemic influenza vaccines, which had a favorable impact in 2010.

The gross margin ratio of the Animal Health segment was down 1.0 point at 68.9%.

Our consolidated gross profit was also impacted in 2011 by an expense of €476 million (or 1.4 points) arising from the workdown of inventories remeasured at fair value in connection with acquisitions, principally Genzyme (€473 million). In 2010, this expense represented €142 million (0.4 of a point) and related mainly to the workdown of Merial inventories.

*Research and Development Expenses*

Research and development (R&D) expenses totaled €4,811 million in 2011 (14.4% of net sales), up 5.8% on the 2010 figure of €4,547 million (14.0% of net sales).

In the Pharmaceuticals segment, R&D expenses rose by €217 million (up 5.6%). Excluding Genzyme, R&D expenses showed a single-digit decrease as a result of reorganizations initiated in 2009, and of the streamlining of the project portfolio.

In the Vaccines segment, R&D expenses rose by €47 million year-on-year to €564 million (up 9.1%), due mainly to clinical trials on vaccines against dengue fever and Clostridium difficile.

In the Animal Health segment, R&D expenses fell by €9 million (5.8%) year-on-year.

*Selling and General Expenses*

Selling and general expenses amounted to €8,536 million (25.6% of net sales), an increase of 4.7% on the prior-year figure of €8,149 million (25.2% of net sales).

The Pharmaceuticals segment generated a €414 million increase (+5.9%), due primarily to the first-time consolidation of Genzyme. Excluding Genzyme, selling and general expenses showed a single-digit decrease, reflecting lower costs for genericized products in Europe and the United States and tight control over general expenses.

In the Vaccines segment, selling and general expenses were down €61 million or 10.1% due to lower selling expenses for pandemic influenza vaccines.

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In the Animal Health segment, selling and general expenses were up €13 million (+2.2%), in line with the increase in net sales.

### *Other Operating Income and Expenses*

Other operating income totaled €319 million in 2011 (versus €369 million in 2010), and other operating expenses amounted to €315 million (compared with €292 million in 2010).

Other operating income and expenses represented a net profit of €4 million in 2011, compared with €77 million in 2010. The year-on-year decrease of €73 million was essentially due to the discontinuation of royalty payments from Teva on North American sales of Copaxone® from the second quarter of 2010.

This line item also includes expenses incurred in connection with the 2011 acquisition of Genzyme (€65 million), as well as a net operational foreign exchange loss of €5 million (versus €138 million in 2010, a year of high volatility in the foreign exchange markets).

### *Amortization of Intangible Assets*

Amortization charged against intangible assets in the year ended December 31, 2011 amounted to €3,314 million, compared with €3,529 million in the previous year. The reduction of €215 million was mainly due to a decrease in amortization charged against intangible assets recognized on the acquisition of Aventis (€1,788 million in 2011, versus €3,070 million in 2010, as some products reached the end of their life cycles in the face of competition from generics). This positive impact was partially offset by new amortization charges in 2011 generated by intangible assets recognized on the acquisition of Genzyme in the second quarter of 2011 and on the first-time consolidation of Merial in the first quarter of 2011 (€709 million and €353 million, respectively).

### *Impairment of Intangible Assets*

This line recorded net impairment losses against intangible assets of €142 million in 2011, compared with €433 million in 2010. Impairment losses booked in 2011 were mainly associated with (i) discontinuing a Genzyme research project; (ii) certain Zentiva generics for which the sales outlook was adjusted downward; and (iii) discontinuing a joint development project with Metabolex in the field of diabetes. It also included an impairment reversal in connection with Actonel®, pursuant to confirmation of the terms of the collaboration agreement with Warner Chilcott (see Note C.3. to our consolidated financial statements included at Item 18 of this annual report).

In 2010, impairment losses related primarily to (i) Actonel®, due to proposed changes to the terms of the collaboration agreement with Warner Chilcott; (ii) the pentavalent vaccine Shan5®, for which sales projections were revised to factor in the need for another WHO pre-qualification following a flocculation problem encountered in some batches; (iii) the BSI-201 project, following a revision to the development plan in response to the announcement of the initial Phase III trial results in metastatic triple negative breast cancer; and (iv) certain generics and Zentiva consumer health products for which sales projections in Eastern Europe were revised downwards.

### *Fair Value Remeasurement of Contingent Consideration Liabilities*

This line item records fair value remeasurements of liabilities related to business combinations accounted for in accordance with the revised IFRS 3. These remeasurements generated a new gain of €15 million in 2011, mainly related to contingent purchase consideration on the acquisition of TargeGen, to the contingent value rights (CVRs) issued as part of the Genzyme acquisition, and to contingent consideration payable to Bayer on certain Genzyme products (see Note D.18. to the consolidated financial statements included at Item 18 of this annual report).

### *Restructuring Costs*

Restructuring costs amounted to €1,314 million in 2011, compared with €1,384 million in 2010.

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In 2011, these were mainly employee-related expenses incurred under plans to adjust headcount in support functions and sales forces in Europe and in R&D in Europe and the United States, and measures to adapt our manufacturing facilities in Europe.

In 2010, these costs related mainly to measures taken to adapt our industrial operations in France, and our sales and R&D functions in the United States and some European countries.

### *Other Gains and Losses, and Litigation*

This line item showed a net expense of €327 million, mainly comprising (i) the €519 million backlog of depreciation and amortization expense against the tangible and intangible assets of Merial, which was not recognized from September 18, 2009 through December 31, 2010 because these assets were classified as held for sale or exchange during that period in accordance with IFRS 5 (see Note D.8.2. to our consolidated financial statements included at Item 18 of this annual report), (ii) proceeds of €210 million in damages with regard to a Plavix® patent and (iii) the impact of the divestiture of the Dermik dermatology business (see Note D.28. to our consolidated financial statements).

In 2010, this line item showed a net expense of €138 million arising from an adjustment to vendor's guarantee provisions in connection with past business divestitures.

### *Operating Income*

Operating income totaled €5,731 million for 2011, versus €6,535 million for 2010 (down 12.3%); the year-on-year fall mainly reflected the competition from generics and the absence of A/H1N1 pandemic influenza vaccine sales in 2011.

### *Financial Income and Expenses*

Net financial expenses came to €412 million in 2011 versus €362 million in 2010, an increase of €50 million.

Financial expenses directly related to our debt, net of cash and cash equivalents (see definition at "Liquidity and Capital Resources" below) were €325 million in 2011, virtually unchanged from the 2010 figure of €324 million, as a result of contrasting factors:

a fall in the average interest rate on debt due to the significantly lower rate charged on the debt contracted to fund the acquisition of Genzyme in the first quarter of 2011, which meant that interest expense increased only slightly despite the sharp rise in average debt;

a rise in financial income, due to an increase in the average level of cash held during the year and a higher average rate of return.

Provisions against investments and financial assets totaled €58 million in 2011 (versus €6 million in 2010); in 2011, these provisions were primarily related to the impairment of Greek government bonds.

Gains on disposals of non-current financial assets came to €25 million versus €61 million in 2010. In 2011, the main item was the impact of the change in the consolidation method for the investment in Société Financière des Laboratoires de Cosmétologie Yves Rocher following loss of significant influence (see Note D.6. to our consolidated financial statements); in 2010, the main item was the disposal of the equity interest in Novexel.

This item also included net financial foreign exchange gains of €10 million in 2011 (versus a net loss of €20 million in 2010).

### *Income before Tax and Associates and Joint Ventures*

Income before tax and associates and joint ventures was €5,319 million in 2011, versus €6,173 million in 2010, a decrease of 13.9%.

*Income Tax Expense*

Income tax expense totaled €455 million in 2011, compared with €1,430 million in 2010. The decrease was mainly due to a reduction in deferred tax liabilities as a result of changes in tax rates and tax legislation (mainly in the United Kingdom), and to the effect of the Franco-American Advance Pricing Agreement (APA) for the period from 2006 through 2011 (see Note D.30. to our consolidated financial statements).

This line item also includes the tax effects of the amortization of intangible assets (€1,178 million in 2011 versus €1,183 million in 2010) and of restructuring costs (€399 million in 2011 versus €466 million in 2010).

The effective tax rate is calculated on the basis of business operating income minus net financial expenses, and before (i) the share of profit/loss of associates and joint ventures and (ii) net income attributable to non-controlling interests. The effective tax rate was 27.0% in 2011, versus 27.8% in 2010. The difference relative to the standard corporate income tax rate applicable in France (34.4%) was mainly due to lower taxes on patent royalties in France.

*Share of Profit/Loss of Associates and Joint Ventures*

The share of profit/loss of associates and joint ventures totaled €1,070 million in 2011, compared with €978 million in 2010. This line mainly includes our share of after-tax profits generated in territories managed by BMS under the Plavix® and Avapro® alliance, which advanced by 9.2% to €1,070 million compared with €980 million in 2010. The increase in this share in 2011 was partly related to growth in Plavix® sales in the United States (up 2.9%).

*Net Income*

Net income for the year was €5,934 million in 2011, compared with €5,721 million in 2010.

*Net Income Attributable to Non-Controlling Interests*

Net income attributable to non-controlling interests amounted to €241 million in 2011, compared with €254 million in 2010. This line mainly includes the share of pre-tax profits paid to BMS generated in territories managed by Sanofi (€225 million, versus €238 million in 2010); the year-on-year fall is directly related to increased competition from clopidogrel (Plavix®) generics in Europe.

*Net Income Attributable to Equity Holders of Sanofi*

Net income attributable to equity holders of Sanofi totaled €5,693 million in 2011, against €5,467 million in 2010.

Basic earnings per share for 2011 was €4.31, 2.9% higher than the 2010 figure of €4.19, based on an average number of shares outstanding of 1,321.7 million in 2011 and 1,305.3 million in 2010. Diluted earnings per share was €4.29 in 2011, versus €4.18 in 2010, based on an average number of shares outstanding after dilution of 1,326.7 million in 2011 and 1,308.2 million in 2010.

*Business Operating Income*

Sanofi reports segment results on the basis of "Business Operating Income". This indicator, adopted in compliance with IFRS 8, is used internally to measure operational performance and to allocate resources. See "Item 5. Operating and Financial Review and Prospects Segment information" above for the definition of business operating income and reconciliation to Income before tax and associates and joint ventures.

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Business operating income for 2011 was €12,144 million, compared to €12,863 million in 2010. The table below shows trends in business operating income by business segment for 2011 and 2010:

<i>(€ million)</i>	<b>2011</b>	<b>2010</b>
Pharmaceuticals	10,496	10,965
Vaccines	985	1,379
Animal Health	627	621
Other	36	(102)
<b>Business operating income</b>	<b>12,144</b>	<b>12,863</b>

### *Business Net Income*

Business net income is a non-GAAP financial measure that we use to evaluate our performance (see "Item 5. Operating and Financial Review and Prospects – Business Net Income" above for the definition of business net income and reconciliation to Net Income attributable to equity holders of Sanofi).

Business net income totaled €8,795 million in 2011 versus €9,215 million in 2010, a drop of 4.6%. It represented 26.3% of net sales compared with 28.5% in 2010.

### *Business Earnings Per Share*

We also report business earnings per share, a non-GAAP financial measure which we define as business net income divided by the weighted average number of shares outstanding (see "Business Net Income" above).

Business earnings per share for 2011 were €6.65, 5.8% lower than the 2010 figure of €7.06, based on a weighted average number of shares outstanding of 1,321.7 million in 2011 and 1,305.3 million in 2010. Diluted business earnings per share for 2011 were €6.63, 5.8% lower than the 2010 figure of €7.04, based on a weighted average number of shares outstanding of 1,326.7 million in 2011 and 1,308.2 million in 2010.

### **Liquidity and Capital Resources**

Our operations generate significant positive cash flows. We fund our day-to-day investments (with the exception of significant acquisitions) primarily with operating cash flow, and pay regular dividends on our shares. In addition, we reduced our net debt during 2012, whereas in 2011 our debt increased significantly to finance the acquisition of Genzyme.

We define "debt, net of cash and cash equivalents" as (i) the sum total of short-term debt, long-term debt and interest rate and currency derivatives used to hedge debt, minus (ii) the sum total of cash and cash equivalents and interest rate and currency derivatives used to hedge cash and cash equivalents. As of December 31, 2012, our debt, net of cash and cash equivalents stood at €7,719 million versus €10,859 million as of December 31, 2011 and €1,577 million as of December 31, 2010. See Note D.17. to our consolidated financial statements included at Item 18 of this annual report.

In order to assess the Company's financing risk, we also use the "gearing ratio", a non-GAAP financial measure. The gearing ratio is defined as the ratio of debt, net of cash and cash equivalents, to total equity. As of December 31, 2012, our gearing ratio stood at 13.4% of our net equity versus 19.3% as of December 31, 2011 and 3.0% as of December 31, 2010.

**Consolidated Statement of Cash Flows**

The table below shows our summarized cash flows for the years ended December 31, 2012, 2011 and 2010:

<i>(€million)</i>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Net cash provided by / (used in) operating activities	8,171	9,319	9,859
Net cash provided by / (used in) investing activities	(1,587)	(14,701)	(3,475)
Net cash provided by / (used in) financing activities	(4,351)	2,893	(4,646)
Impact of exchange rates on cash and cash equivalents	24	1	55
Impact of the cash and cash equivalents of Merial <sup>(1)</sup>		147	
<b>Net change in cash and cash equivalents (decrease) / increase</b>	<b>2,257</b>	<b>(2,341)</b>	<b>1,793</b>

(1)

See Note D.8.1. to our consolidated financial statements included at Item 18 of this annual report.

Generally, factors that affect our earnings – for example, pricing, volume, costs and exchange rates – flow through to cash from operations. The most significant source of cash from operations is sales of our branded pharmaceutical products and human vaccines. Receipts of royalty payments also contribute to cash from operations.

*Year Ended December 31, 2012 Compared with Year Ended December 31, 2011*

Net cash provided by operating activities amounted to €8,171 million in 2012, compared with €9,319 million in 2011. Operating cash flow before changes in working capital was €8,503 million, versus €9,834 million in 2011. This decrease was largely attributable to erosion in revenues from the territories managed by BMS under the alliance on Plavix® and Avapro®, due to competition from generics in the United States. This revenue erosion was reflected in a reduced share of after-tax profits from these territories (€420 million, versus €1,070 million in 2011) and lower license revenue from the worldwide alliance with BMS on Plavix® and Aprovel®/Avapro® (€532 million in 2012, versus €1,275 million in 2011).

Our operating cash flow before changes in working capital is generally affected by the same factors that affect "Operating income", which is discussed in detail above under "Results of Operations – Year Ended December 31, 2012 Compared with Year Ended December 31, 2011". The principal difference is that operating cash flow before changes in working capital reflects our share of the profits and losses of associates and joint ventures, net of dividend and similar income received.

Working capital requirements rose by €332 million in 2012, after an increase of €515 million in 2011. The increase during 2012 was mainly attributable to an increase in inventories (€445 million, including €315 million for reconstituting inventories at the Genzyme business).

Net cash used in investing activities amounted to €1,587 million in 2012, versus €14,701 million in 2011.

Acquisitions of property, plant and equipment and intangible assets totaled €1,612 million (2011: €1,782 million). The main items were investments in industrial and research facilities (€1,324 million, versus €1,394 million in 2011) and contractual payments for intangible rights under license and collaboration agreements (€293 million, versus €245 million in 2011).

Acquisitions of investments in the period amounted to €328 million, net of cash acquired and after including assumed liabilities and commitments. The main items were a payment of contingent consideration to Bayer arising from the acquisition of Genzyme, the repurchase of some of the CVRs issued in connection with that acquisition, the acquisitions of Pluromed and Newport, and the purchase of an equity interest in Merrimack. In 2011, acquisitions of investments amounted to €13,616 million; after including assumed liabilities and commitments, they totaled €14,079 million, and mainly comprised the acquisitions of Genzyme (€13,602 million) and BMP Sunstone (€374 million).

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After-tax proceeds from disposals (€358 million) related to divestitures of financial assets (in particular, our equity interests in Société Financière des Laboratoires de Cosmétologie Yves Rocher and Handok), and to disposals of various items of property, plant and equipment and intangible assets. In 2011, proceeds from disposals came to €359 million, mainly generated by the divestiture of the Dermik dermatology business (€321 million).

Financing activities generated a net cash outflow of €4,351 million in 2012, compared with a net cash inflow of €2,893 million in 2011. The 2012 figure includes €615 million of debt repayments (net change in short-term and long-term debt), as compared with net external debt raised of €5,283 million in 2011; it also includes the Sanofi dividend payout of €3,487 million (versus €1,372 million in 2011).

After the impact of exchange rates and of the cash and cash equivalents of Merial, the net change in cash and cash equivalents in 2012 was an increase of €2,257 million, compared with a decrease of €2,341 million in 2011.

### *Year Ended December 31, 2011 Compared with Year Ended December 31, 2010*

Net cash provided by operating activities totaled €9,319 million in 2011, compared with €9,859 million in 2010. In 2011, operating cash flow before changes in working capital was €9,834 million, versus €10,024 million in 2010.

Our operating cash flow before changes in working capital is generally affected by the same factors that affect "Operating income", which is discussed in detail above under "Results of Operations - Year Ended December 31, 2011 Compared with Year Ended December 31, 2010". The principal difference is that operating cash flow before changes in working capital reflects our share of the profits and losses of associates and joint ventures, net of dividend and similar income received.

Working capital requirements rose by €515 million in 2011, compared with a €165 million increase in 2010. The 2011 increase was related to increased inventories (€232 million) and trade receivables (€257 million), following the first-time consolidation of Genzyme and Merial.

Net cash used in investing activities totaled €14,701 million in 2011, versus €3,475 million in 2010.

Acquisitions of property, plant and equipment and intangible assets amounted to €1,782 million (compared with €1,662 million in 2010) and included Genzyme investments from April 2011. The main items were investments in industrial and research facilities (€1,394 million, compared with €1,261 million in 2010) and contractual payments for intangible rights under licensing or collaboration agreements (€182 million, versus €312 million in 2010).

Acquisitions of investments for 2011 totaled €13,616 million, net of cash from acquired companies. After including assumed liabilities and commitments, they amounted to €14,079 million. The main items were the acquisitions of Genzyme (€13,602 million) and BMP Sunstone (€374 million). In 2010, financial investments were €1,733 million, net of acquired cash; after including assumed liabilities and commitments, they amounted to €2,130 million, and mainly comprised the acquisition of equity interests in Chattem (€1,640 million) and Nepentes (€104 million).

After-tax proceeds from disposals amounted to €359 million, mainly from the divestiture of the Dermik dermatology business (€321 million). In 2010, after-tax proceeds from disposals were €136 million, mainly from the divestment of the equity interest in Novexel (€48 million) and the disposal of various items of property, plant and equipment (€55 million).

Financing activities generated a net cash inflow of €2,893 million in 2011, versus a net cash outflow of €4,646 million in 2010. In 2011, financing cash inflows included €5,283 million of external funding raised (net change in short-term and long-term debt), as opposed to 2010 which saw net debt repayments of €1,165 million. Cash outflows included the dividend payout of €1,372 million to Sanofi shareholders (versus €3,131 million in 2010), and the acquisition of 21.7 million of our own shares for €1,074 million.

After the impact of exchange rates and of the cash and cash equivalents of Merial, the net change in cash and cash equivalents during 2011 was a decline of €2,341 million, versus a €1,793 million increase in 2010.



**Consolidated Balance Sheet and Debt**

Total assets stood at €100,407 million as of December 31, 2012, versus €100,668 million as of December 31, 2011, a decrease of €261 million.

Debt, net of cash and cash equivalents (see definition above) amounted to €7,719 million as of December 31, 2012, compared with €10,859 million as of December 31, 2011. The table below shows our financial position for the years ended December 31, 2012, 2011 and 2010:

<i>(€ million)</i>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Long-term debt	10,719	12,499	6,695
Short-term debt and current portion of long-term debt	3,812	2,940	1,565
Cash and cash equivalents	(6,381)	(4,124)	(6,465)
Related interest rate and currency derivatives	(431)	(456)	(218)
<b>Debt, net of cash and cash equivalents</b>	<b>7,719</b>	<b>10,859</b>	<b>1,577</b>

Our gearing ratio (debt, net of cash and cash equivalents as a proportion of total equity) fell from 19.3% in 2011 to 13.4% in 2012. Analyses of debt as of December 31, 2012 and December 31, 2011, by type, maturity, interest rate and currency, are provided in Note D.17. to our consolidated financial statements.

The financing arrangements in place as of December 31, 2012 at Sanofi parent company level are not subject to covenants regarding financial ratios and do not contain any clauses linking credit spreads or fees to our credit rating.

Other key movements in balance sheet items are described below.

Total equity stood at €57,472 million as of December 31, 2012, versus €56,373 million as of December 31, 2011. The net year-on-year increase in equity was attributable primarily to:

increases: our net income for the year ended December 31, 2012 (€4,967 million); and

reductions: the dividend payout to our shareholders in respect of the 2011 financial year (€3,487 million), and the net change in currency translation differences (€532 million, mainly relating to the U.S. dollar).

As of December 31, 2012, we held 3.1 million of our own shares, recorded as a deduction from equity and representing 0.2% of the share capital.

Goodwill and other intangible assets (€58,265 million in total) decreased by €3,956 million, largely as a result of amortization and impairment losses recognized in the period (€3,516 million) and a decline in the equivalent value in euros of assets denominated in other currencies (€611 million, mainly relating to the U.S. dollar).

Provisions and other non-current liabilities (€11,036 million) rose by €690 million, due mainly to a net increase in provisions for pensions and other benefits of €874 million, primarily as a result of actuarial losses on defined-benefit plans.

Net deferred tax liabilities (€1,555 million) fell by €1,342 million year-on-year, primarily due to the reversal of deferred tax liabilities relating to the remeasurement of acquired intangible assets (€5,641 million in 2012 versus €6,815 million in 2011, a difference of €1,174 million).

Current and non-current liabilities related to business combinations and to non-controlling interests (€1,450 million) were €106 million lower. The main factors were the reversal of the contingent consideration relating to the Fovea acquisition, payments to Bayer (relating to contingent consideration arising from our acquisition of Genzyme), and the repurchase (for \$70 million) of some of the contingent value rights (CVRs) issued in connection with the Genzyme acquisition. These factors were partly offset by the effect of fair value remeasurements (see Note D.18. to our consolidated financial statements).

### *Liquidity*

We expect that our existing cash resources and cash from operations will be sufficient to finance our foreseeable working capital requirements. At year-end 2012, we held cash and cash equivalents amounting to €6,381 million, substantially all of which were held in euros (see Note D.13. to our consolidated financial statements). As at December 31, 2012, €507 million of our cash and cash equivalents were held by our captive insurance and reinsurance companies in accordance with insurance regulations.

Since 2010, some countries in Southern Europe have faced severe financial difficulties. Deteriorating credit and economic conditions and other factors in these countries have resulted in, and may continue to result in an increase in the average length of time taken to collect our accounts receivable in these countries and may require us to re-evaluate the collectability of these receivables in future periods. We carefully monitor sovereign debt issues and economic conditions and evaluate accounts receivable in these countries for potential collection risks. We are conducting an active recovery policy, adapted to each country and including intense communication with customers, negotiations of payments plans, charging of interest for late payments, and legal action. See "Item 3.D. Risk Factors Risks Relating to Our Business We are subject to the risk of non-payment by our customers" and " Impairment charges or write downs in our books and changes in accounting standards could have a significant adverse effect on the Group's results of operations and financial results". During 2012, the amount of our trade receivables in Europe decreased, primarily as a result of a reduction in the sums owed to us by public-sector customers in Spain due to payments received. The total consolidated amount of trade receivables overdue by more than 12 months which primarily consists of amounts due from public-sector customers fell from €276 million as of December 31, 2011 to €161 million as of December 31, 2012 due to payments received (see Note D.10. to our consolidated financial statements included at Item 18 of this annual report).

In November 2011, Sanofi obtained the necessary corporate authorizations to purchase any or all of the outstanding Contingent Value Rights ("CVR") and subsequently purchased CVRs in 2011. In 2012 following a tender offer initiated in September 2012 on the basis of the same corporate authorization, Sanofi purchased an additional 40,025,805 CVRs (for a total consideration of approximately \$70 million). As of December 31, 2012, 249,196,371 CVRs were outstanding out of 291,313,510 issued at the time of the Genzyme acquisition.

At year-end 2012, we had no commitments for capital expenditures that we consider to be material to our consolidated financial position. Undrawn confirmed credit facilities amounted to a total of €10.0 billion at December 31, 2012. For a discussion of our treasury policies, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

We expect that cash from our operations will be sufficient to repay our debt. For a discussion of our liquidity risks, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

### **Off-Balance Sheet Arrangements / Contractual Obligations and Other Commercial Commitments**

We have various contractual obligations and other commercial commitments arising from our operations. Our contractual obligations and our other commercial commitments as of December 31, 2012 are shown in Notes D.3., D.17., D.18. and D.21. to our consolidated financial statements included at Item 18 of this annual report. Note D.21. to our consolidated financial statements included at Item 18 discloses details of commitments under our principal research and development collaboration agreements. For a description of the principal contingencies arising from certain business divestitures, refer to Note D.22.e) to our 2012 consolidated financial statements.

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The Group's contractual obligations and other commercial commitments are set forth in the table below:

December 31, 2012  (€ million)	Payments due by period				
	Total	Under 1 year	From 1 to 3 years	From 3 to 5 years	Over 5 years
Future contractual cash-flows relating to debt and debt hedging instruments <sup>(1)</sup>	15,283	3,959	4,165	4,106	3,053
Operating lease obligations	1,296	250	367	220	459
Finance lease obligations <sup>(2)</sup>	100	20	36	31	13
Irrevocable purchase commitments <sup>(3)</sup>					
- given	2,913	1,513	651	368	381
- received	(209)	(106)	(67)	(14)	(22)
Research & development license agreements					
- Future service commitments <sup>(4)</sup>	767	181	286	276	24
- Potential milestone payments <sup>(5)</sup>	2,201	149	267	295	1,490
Obligations relating to business combination <sup>(6)</sup>	4,993	341	1,135	560	2,957
Firm commitment related to the BMS agreement <sup>(7)</sup>	82				82
Estimated benefit payments on unfunded pensions and post employment benefits <sup>(8)</sup>	1,741	60	115	133	1,433
<b>Total contractual obligations and other commitments</b>	<b>29,167</b>	<b>6,367</b>	<b>6,955</b>	<b>5,975</b>	<b>9,870</b>
<b>Undrawn general-purpose credit facilities</b>	<b>10,021</b>	<b>3,020</b>	<b>225</b>	<b>6,775</b>	<b>1</b>

(1) See Note D.17. to our consolidated financial statements included at Item 18 of this annual report.

(2) See Note D.3. to our consolidated financial statements included at Item 18 of this annual report.

(3) These comprise irrevocable commitments to suppliers of (i) property, plant and equipment, net of down payments (see Note D.3. to our consolidated financial statements included at Item 18 of this annual report) and (ii) goods and services.

(4) Future service commitments relating to research & development license agreements mainly comprise research financing commitments, but also include consideration for access to technologies.

(5) This line includes all potential milestone payments on projects regarded as reasonably possible, i.e., on projects in the development phase.

(6) See Note D.18. to our consolidated financial statements included at Item 18 of this annual report.

(7) See Note C.1. to our consolidated financial statements included at Item 18 of this annual report.

(8) See Note D.19.1. to our consolidated financial statements included at Item 18 of this annual report. The table above does not include the ongoing annual employer's contributions to plan assets, estimated at €268 million in 2013.

We may have payments due to our current or former research and development partners under collaborative agreements. These agreements typically cover multiple products, and give us the option to participate in development on a product-by-product basis. When we exercise our option with respect to a product, we pay our collaboration partner a fee and receive intellectual property rights to the product in exchange. We are also generally required to fund some or all of the development costs for the products that we select, and to make payments to our partners when those products reach development milestones.

We have entered into collaboration agreements under which we have rights to acquire products or technology from third parties through the acquisition of shares, loans, license agreements, joint development, co-marketing and other contractual arrangements. In addition to upfront payments on signature of the agreement, our contracts frequently require us to make payments contingent upon the completion of development milestones by our alliance partner or upon the granting of approvals or licenses.

Because of the uncertain nature of development work, it is impossible to predict (i) whether Sanofi will exercise further options for products, or (ii) whether the expected milestones will be achieved, or (iii) the number of compounds that will reach the relevant milestones. It is therefore impossible to estimate the maximum aggregate amount that Sanofi will actually pay in the future under existing collaboration agreements.

Given the nature of its business, it is highly unlikely that Sanofi will exercise all options for all products or that all milestones will be achieved.

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The main collaboration agreements relating to development projects in the Pharmaceuticals segment are described below. Milestone payments relating to development projects under these agreements amounted to €2.0 billion in 2012. These exclude projects in the research phase (€5.0 billion in 2012, €4.2 billion in 2011) and payments contingent upon the attainment of sales targets once a product is on the market (€4.7 billion in 2012, €4.4 billion in 2011).

Since acquiring Genzyme in April 2011, the Group has a commitment to Isis Pharmaceuticals Inc. under a collaboration agreement signed in January 2008. This agreement granted an exclusive license to develop and commercialize Mipomersen, a treatment in an advanced development phase for the treatment of severe familial hypercholesterolemia.

In May 2011, Sanofi signed a license agreement with Glenmark Pharmaceuticals S.A. (Glenmark), a wholly-owned subsidiary of Glenmark Pharmaceuticals Limited India, to develop and commercialize GBR500, a novel monoclonal antibody for the treatment of Crohn's disease and other chronic auto-immune diseases.

In June 2010, Sanofi signed an exclusive global collaboration and license agreement with Ascenta Therapeutics, a U.S. biopharmaceutical company, on a number of molecules that could restore apoptosis (cell death) in tumor cells.

At the end of April 2010, Sanofi signed a license agreement with Glenmark for the development and commercialization of novel agents to treat chronic pain. Those agents are vanilloid receptor (TRPV3) antagonist molecules, including a first-in-class clinical compound, GRC 15300, which is currently in Phase I clinical development.

In April 2010, Sanofi signed a global license agreement with CureDM Group Holdings, LLC for Pancreat , a novel human peptide which could restore a patient's ability to produce insulin and other pancreatic hormones in both type 1 and 2 diabetes.

In December 2009, Sanofi and the U.S. biotechnology company Alopexx Pharmaceuticals LLC simultaneously signed (i) a collaboration agreement, and (ii) an option for a license on an antibody for the prevention and treatment of infections originating in the bacterium that causes plague and other serious infections.

At end September 2009, Sanofi and Merrimack Pharmaceuticals Inc. signed an exclusive global licensing and collaboration agreement covering the MM-121 molecule for the management of solid malignancies.

In May 2009, Sanofi signed a global license agreement in oncology with the biotechnology company Exelixis, Inc. for XL147 and XL765. Simultaneously Sanofi signed an exclusive research collaboration agreement for the discovery of inhibitors of Phosphoinositide-3 Kinase (PI3K) for the management of malignant tumors, that was terminated on December 22, 2011.

May 2009: collaboration and licensing agreement with Kyowa Hakko Kirin Co., Ltd, under which Sanofi obtained the worldwide rights to the anti-LIGHT fully human monoclonal antibody. This anti-LIGHT antibody is presently at preclinical development stage, and is expected to be first-in-class in the treatment of ulcerative colitis and Crohn's disease.

In September 2003, Sanofi signed a collaboration agreement in oncology with Regeneron Pharmaceuticals Inc. (Regeneron) to develop the Vascular Endothelial Growth Factor (VEGF) Trap program. Under the terms of the agreement, Sanofi will pay 100% of the development costs of the VEGF Trap. Once a VEGF Trap product starts to be marketed, Regeneron will repay 50% of the development costs (originally paid by Sanofi) in accordance with a formula based on Regeneron's share of the profits.

In November 2007, Sanofi signed another collaboration agreement with Regeneron to discover, develop and commercialize fully-human therapeutic antibodies. This agreement was broadened, and its term extended, on November 10, 2009. Under the terms of the development agreement, Sanofi committed to fund 100% of the development costs of Regeneron's antibody

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research program until 2017. Once a product begins to be marketed, Regeneron will repay out of its profits (provided they are sufficient) half of the development costs borne by Sanofi.

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Sanofi has also entered into the following major agreements, which are currently in a less advanced research phase:

November 2012: collaboration agreement with Selecta Biosciences to identify and develop treatments against alimentary allergies using a nanoparticle-based technology.

June 2011: exclusive worldwide research collaboration agreement and license option with Rib-X Pharmaceuticals, Inc. (Rib-X) for novel classes of antibiotics resulting from Rib-X's RX-04 program for the treatment of resistant Gram-positive and resistant Gram-negative pathogens.

December 2010: a global licensing and patent transfer agreement with Ascendis Pharma (Ascendis) on the proprietary Transcon Linker and Hydrogel Carrier technology developed by Ascendis for precise, time-controlled release of therapeutic active ingredients into the body. The agreement will enable Sanofi to develop, manufacture and commercialize products combining this technology with active molecules for the treatment of diabetes and related disorders.

December 2010: alliance with Avila Therapeutics Inc. (Avila) to discover target covalent drugs for the treatment of cancers, directed towards six signaling proteins that are critical in tumor cells. Under the terms of the agreement, Sanofi will have access to Avila's proprietary Avilomics™ platform offering "protein silencing" for these pathogenic proteins.

December 2010: an exclusive global licensing option with Oxford BioTherapeutics for three existing antibodies, plus a research and collaboration agreement to discover and validate new targets in oncology.

September 2010: alliance with the Belfer Institute of Applied Cancer Science at the Dana-Farber Cancer Institute (DFCI) to identify novel targets in oncology for the development of new therapeutic agents directed towards these targets and their associated biomarkers. Under the terms of the agreement, Sanofi will have access to the Belfer Institute's anticancer target identification and validation platform and to its translational medicine resources. Sanofi also has an option over an exclusive license to develop, manufacture and commercialize novel molecules directed towards the targets identified and validated under this research collaboration.

June 2010: alliance with Regulus Therapeutics Inc. to discover, develop and commercialize novel micro-RNA therapeutics, initially in fibrosis. Sanofi also received an option, which if exercised, would provide access to the technology to develop and commercialize other micro-RNA based therapeutics, beyond the first four targets.

October 2009: agreement with Micromet, Inc. to develop a BiTE® antibody against a tumor antigen present at the surface of carcinoma cells. In June 2012, Sanofi decided to stop the BiTE® project and terminated the collaboration with Micromet.

In the Vaccines segment, Sanofi Pasteur has entered into a number of collaboration agreements. Milestone payments relating to development projects under those agreements amounted to €0.2 billion in 2012.

In December 2009, Sanofi Pasteur signed a donation letter to the World Health Organization (WHO). The terms of the agreement committed Sanofi Pasteur to donate 10% of its future output of vaccines against A(H1N1), A(H5N1) or any other influenza strain with pandemic potential, up to a maximum of 100 million doses. Since this agreement was put in place, Sanofi Pasteur has already donated to the WHO some of the doses covered by the commitment.

### **Critical accounting and reporting policies**

Our consolidated financial statements are affected by the accounting and reporting policies that we use. Certain of our accounting and reporting policies are critical to an understanding of our results of operations and financial condition, and in some cases the application of these critical policies can be significantly affected by the estimates, judgments and assumptions made by management during the preparation of our consolidated financial





statements. The accounting and reporting policies that we have identified as fundamental to a full understanding of our results of operations and financial condition are the following:

**Revenue recognition.** Our policies with respect to revenue recognition are discussed in Note B.14. to our consolidated financial statements included at Item 18 of this annual report. Revenue arising from the sale of goods is presented in the income statement under "Net sales". Net sales comprise revenue from sales of pharmaceutical products, vaccines, and active ingredients, net of sales returns, of customer incentives and discounts, and of certain sales-based payments paid or payable to the healthcare authorities. Revenue is recognized when all of the following conditions have been met: the risks and rewards of ownership have been transferred to the customer; the Group no longer has effective control over the goods sold; the amount of revenue and costs associated with the transaction can be measured reliably; and it is probable that the economic benefits associated with the transaction will flow to the Group.

We offer various types of price reductions on our products. In particular, products sold in the United States are covered by various programs (such as Medicare and Medicaid) under which products are sold at a discount. Rebates are granted to healthcare authorities, and under contractual arrangements with certain customers. Some wholesalers are entitled to chargeback incentives based on the selling price to the end customer, under specific contractual arrangements. Cash discounts may also be granted for prompt payment. The discounts, incentives and rebates described above are estimated on the basis of specific contractual arrangements with our customers or of specific terms of the relevant regulations and/or agreements applicable for transactions with healthcare authorities, and of assumptions about the attainment of sales targets. They are recognized in the period in which the underlying sales are recognized, as a reduction of sales revenue. We also estimate the amount of product returns, on the basis of contractual sales terms and reliable historical data; the same recognition principles apply to sales returns. For additional details regarding the financial impact of discounts, rebates and sales returns, see Note D.23. to our consolidated financial statements included at Item 18 of this annual report.

Non-product revenues, mainly comprising royalty income from license arrangements that constitute ongoing operations of the Group, are presented in "Other revenues".

**Business combinations.** As discussed in Note B.3. "Business combinations and transactions with non-controlling interests" to our consolidated financial statements included at Item 18 of this annual report, business combinations are accounted for by the acquisition method. The acquiree's identifiable assets, liabilities and contingent liabilities that satisfy the recognition criteria of IFRS 3 "Business combinations" are measured initially at their fair values as at the acquisition date, except for non-current assets classified as held for sale, which are measured at fair value less costs to sell. Business combinations completed on or after January 1, 2010 are accounted for in accordance with the revised IFRS 3 and the revised IAS 27, "Consolidated and individual financial statements". In particular, contingent consideration to former owners agreed in a business combination, e.g. in the form of payments upon the achievement of certain R&D milestones, is recognized as a liability at fair value as of the acquisition date. Any subsequent changes in amounts recorded as a liability are recognized in the consolidated income statement (see Note D.18. "Liabilities related to business combinations and non-controlling interests" to our consolidated financial statements included at Item 18 of this annual report).

**Goodwill impairment and intangible assets.** As discussed in Note B.6. "Impairment of property, plant and equipment, intangible assets, and investments in associates and joint ventures" and in Note D.5. "Impairment of intangible assets and property, plant and equipment" to our consolidated financial statements included at Item 18 of this annual report, we test our intangible assets periodically for impairment. We test for impairment on the basis of the same objective criteria that were used for the initial valuation. Our initial valuation and ongoing tests are based on the relationship of the value of our projected future cash flows associated with the asset to either the purchase price of the asset (for its initial valuation) or the carrying amount of the asset (for ongoing tests). The determination of the underlying assumptions relating to the recoverability of intangible assets is subjective and requires the exercise of considerable judgment. Key assumptions relating to goodwill impairment and intangible assets are the perpetual growth rate and the post-tax discount rate. Any changes in key assumptions could result in an impairment charge. A sensitivity analysis to the key assumptions is disclosed in Note D.5. "Impairment

of intangible assets and property, plant and equipment" to our consolidated financial statements included at Item 18 of this annual report.

**Pensions and post-retirement benefits.** As described in Note B.23. "Employee benefit obligations" to our consolidated financial statements included at Item 18 of this annual report, we recognize our pension and retirement benefit commitments as liabilities on the basis of an actuarial estimate of the potential rights vested in employees and retirees as of the balance sheet date, net of the valuation of funds to meet these obligations. We prepare this estimate at least on an annual basis, taking into account actuarial assumptions, including life expectancy, staff turnover, salary growth, long-term return on plan assets, retirement and discounting of amounts payable. The key assumptions for pensions and post-retirement benefits are the discount rate and the expected long term rate of return on plan assets.

Depending on the discount rate used, the pension and post-retirement benefit expense could vary within a range of outcomes and have a material effect on equity because in applying IAS 19 (Employee Benefits), we have elected to recognize all actuarial gains and losses (including the impact of a change in discount rate) immediately through equity. A sensitivity analysis to discount rate is set forth in Note D.19.1. "Provisions for pensions and other benefits" to our consolidated financial statements included at Item 18 of this annual report.

Depending on the expected long term rate of return on plan assets used, the pension and post-retirement benefit expense could vary within a range of outcomes and have a material effect on reported earnings. A sensitivity analysis to expected long term rate of return is set forth in Note D.19.1. "Provisions for pensions and other benefits" to our consolidated financial statements included at Item 18 of this annual report. As indicated in Note B.28.1. to our consolidated financial statements, the amended IAS 19 issued by the IASB in June 2011 will be applicable as from January 1, 2013 to our consolidated financial statements. The comparative periods presented in the 2013 financial statements will require retrospective application of the new standard. The application of this change would have reduced business net income by €47 million in 2011 and by €78 million in 2012. The impact of this change on shareholders' equity would have been negligible.

**Deferred taxes.** As discussed in Note B.22. "Income tax expense" to our consolidated financial statements included at Item 18 of this annual report, we account for deferred taxes using the liability method, whereby deferred income taxes are recognized on tax loss carry-forwards, and on the difference between the tax base and carrying amount of assets and liabilities. We calculate our deferred tax assets and liabilities using enacted tax rates applicable for the years during which we estimate that the temporary differences are expected to reverse. We do not recognize deferred tax assets when it is more likely than not that the deferred tax assets will not be realized. The estimates of recognized deferred tax assets are based on our assumptions regarding future profits and the timing of reversal of temporary differences. These assumptions are regularly reviewed; however, final deferred income tax could differ from those estimates.

**Provisions for risks.** Sanofi and its subsidiaries and affiliates may be involved in litigation, arbitration or other legal proceedings. These proceedings typically are related to product liability claims, intellectual property rights, compliance and trade practices, commercial claims, employment and wrongful discharge claims, tax assessment claims, waste disposal and pollution claims, and claims under warranties or indemnification arrangements relating to business divestitures. As discussed in Note B.12. "Provisions for risks" at Item 18 of this annual report, we record a provision where we have a present obligation, whether legal or constructive, as a result of a past event; when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and when a reliable estimate can be made of the amount of the outflow of resources. For additional details regarding the financial impact of provisions for risks see Notes D.19.3. "Other provisions" and D.22. "Legal and Arbitral Proceedings" to our consolidated financial statements included at Item 18 of this annual report.

Provisions are estimated on the basis of events and circumstances related to present obligations at the balance sheet date, of past experience, and to the best of management's knowledge at the date of preparation of the financial statements. The assessment of provisions can involve a series of complex judgments about future events and can rely heavily on estimates and assumptions. Given the inherent uncertainties related to these estimates and assumptions, the actual outflows resulting from the realization of those risks could differ from our estimates.

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**Item 6. Directors, Senior Management and Employees**

**A. Directors and Senior Management**

The offices of Chairman and Chief Executive Officer have been separated since January 1, 2007. The annual evaluations conducted since have indicated that this governance structure is appropriate to the Group's current configuration. This arrangement was therefore continued with the appointment of Serge Weinberg to the office of Chairman on May 17, 2010 and again with his reappointment on May 6, 2011. The Board of Directors considers that this governance structure is appropriate in the Group's current context.

The **Chairman** represents the Board of Directors, organizes and directs the work of the Board, and is responsible for ensuring the proper functioning of the corporate decision-making bodies in compliance with good governance practices. The Chairman coordinates the work of the Board of Directors with its Committees. The Chairman is accountable to the Shareholders' General Meeting, which he chairs.

When the offices of Chairman and Chief Executive Officer are separated, the Chairman may remain in office until the Ordinary Shareholders' General Meeting called to approve the financial statements held during the calendar year in which he reaches the age of 70.

The Board of Directors has not deemed it necessary to appoint a lead independent director, since this role has been broadly assumed by Serge Weinberg. No factor other than his role as Chairman is liable to undermine his independence, especially given that prior to joining the Board he had no links to Sanofi.

The **Chief Executive Officer** is responsible for the management of the Company, and represents the Company in dealings with third parties within the limit of the corporate purpose. The Chief Executive Officer has the broadest powers to act in all circumstances in the name of the Company, subject to the powers that are attributed by law to the Board of Directors and the Shareholders' General Meeting and within the limits set by the Board of Directors.

The Chief Executive Officer must be no more than 65 years old.

***Limitations on the powers of the Chief Executive Officer set by the Board***

The Board of Directors Meeting of July 28, 2009 set limits on the powers of the Chief Executive Officer. The prior authorization of the Board of Directors is required to commit Sanofi to investments, acquisitions and divestments in the following cases:

a €500 million cap for each undertaking pertaining to a previously approved strategy; and

a €150 million cap for each undertaking not pertaining to a previously approved strategy.

When the consideration payable to the contracting parties for such undertakings includes potential installment payments contingent upon the achievement of future results or objectives, such as the registration of one or more products, the caps are calculated by aggregating the various payments due from signature of the contract until (and including) filing of the first application for marketing authorization in the United States or in Europe.

***Board of Directors***

The Company is administered by a Board of Directors, currently comprising fifteen members.

Since May 14, 2008, the terms of office of the directors have been staggered, in order to ensure that the directors are progressively re-elected.

Each year, the Board of Directors conducts a review to ensure that there is an appropriate balance in its composition and the composition of its Committees. In particular, the Board seeks to ensure a balanced representation of men and women and diversity of background and country of

origin, since the business of the Group is both diversified and global. The Board investigates and evaluates potential candidates whenever individual directors are up for election. Above all, the Board seeks talented directors, who show independence of mind and who are competent, dedicated and committed.

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Under the terms of the AFEP-MEDEF corporate governance code (hereafter referred to as the "AFEP-MEDEF Code"), a director is deemed to be independent when the director has no relationship of any nature whatsoever with the Company, the group it belongs to or its senior management which could compromise the exercise of the director's freedom of decision. More specifically, independent directors are required:

not to be an employee or corporate officer of the Company, or a corporate officer of a related company;

not to be a customer, supplier, or investment banker or corporate banker of the Company;

not to have close family ties with any corporate officer of the Company;

not to have acted as auditor for the Company over the course of the last five years;

not to be representative of a significant shareholder or of a controlling interest of the Company.

The influence of other factors such as length of service on the Board, the ability to understand challenges and risks, and the courage to express ideas and form a judgment, is also evaluated before a director qualifies as independent.

In compliance with our Board Charter and pursuant to the AFEP-MEDEF Code, a discussion as to the independence of the current directors took place during the meeting of the Board of Directors of March 5, 2013. Of the fifteen directors, nine were deemed to be independent directors with reference to the independence criteria used by the Board of Directors pursuant to the AFEP-MEDEF Code: Uwe Bicker, Robert Castaigne, Lord Douro, Jean-René Fourtou, Claudie Haigueré, Suet-Fern Lee, Carole Piwnica, Klaus Pohle, and Gérard Van Kemmel.

In particular, it was determined that the situation of Robert Castaigne had changed. Until 2012, Robert Castaigne was not considered as an independent director due to his past links with the Total Group. Since April 2008, when the independence criteria of the AFEP-MEDEF Code were adopted, his situation has changed in two ways:

Robert Castaigne retired from the Total Group four years ago.

Total passed below the threshold of 5% of our voting rights (notification of February 16, 2012).

Consequently, the Board of Directors considered that the links with Total no longer created a presumption of non-independence.

Moreover, contrary to the independence criteria set by the AFEP-MEDEF Code, the Board of Directors has decided that belonging to the Board for more than 12 years would not of itself disqualify a director from being independent.

The length of service criterion is intended to address the concern that the passage of time may deprive a director of his ability to challenge senior management. This is a legitimate concern, which Sanofi takes very seriously.

However, it is not always appropriate to apply this criterion rigidly, since it does not take full account of the variety of situations that may exist. Robert Castaigne has always demonstrated a questioning approach, which is fundamentally what the APEF-MEDEF criteria are seeking to check.

Finally, there was no other reason to determine that Robert Castaigne is not independent.

Consequently, the Board determined on this basis, at its meeting of May 4, 2012, that Robert Castaigne qualified as an independent director.

In addition, the Total group has since that date effectively ceased to have any equity interest in the Company.

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In its examination of the independence of each Director, the Board of Directors took into account the various relationships that could exist between Directors and the Group and concluded that no such relationships were of a nature that might undermine their independence. The Board of Directors noted that the Company and its subsidiaries had, in the normal course of business, over the last three years, sold products and provided services to, and/or purchased products and received services from, companies in which certain of the Company's directors who

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are classified as independent or members of their close family were senior managers or employees during 2012. On each occasion, the amounts paid to or received from such companies over the past three years were determined on an arm's length basis and did not represent amounts that the Board regarded as undermining the independence of the Directors in question. Similarly, the Board of Directors did not find the office of trustee held by Uwe Bicker and Klaus Pohle with the Aventis Foundation (Germany) was of such a nature as to undermine their independence as members of the Sanofi Board of Directors.

No more than one-third of the serving members of our Board of Directors may be over 70 years of age.

Subject to the powers expressly attributed to the Shareholders' General Meeting and within the scope of the Company's corporate purpose, the Board of Directors' powers cover all issues relating to the proper management of the Company, and through its decisions the Board determines all matters falling within its authority.

**Composition of the Board of Directors as of December 31, 2012**

Positions held in listed companies are flagged by an asterisk.

<b>Serge Weinberg</b>	Date of birth:	February 10, 1951
1,636 shares	Nationality:	French
	First elected:	December 2009
	Last reappointment:	May 2011
	Term expires:	2015

Directorships and appointments of Serge Weinberg

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

Chairman of the Board of Sanofi\*

Member of the Supervisory Board of Schneider Electric\*

Chairman of the Appointments and Governance Committee of Sanofi

Chairman of Weinberg Capital Partners

Chairman of the Strategy Committee of Sanofi

Chairman of Financière Piasa and Piasa Holding

Director of VL Holding

Manager of Alret and Maremma

Member of the Supervisory Board of Financière BFSA

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Vice Chairman and Director of Financière Poincetta and Financière Sasa

Weinberg Capital Partners' representative on the Board of Alliance Industrie and Sasa Industrie

**In foreign companies**

None

Chairman of Corum (Switzerland)  
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Past directorships since 2008

None	<b>In French companies</b>
	Chairman of the Board of Accor* (until 2009)
	Director of Rasec (until 2010), of Fnac (until 2010), of Rothschild Concordia (until 2010) and of Team Partners Group (until 2011)
	Member of the Supervisory Board of Rothschild & Cie (until 2010)
	Member of the Board of Pharma Omnium International (until 2010)
	Vice Chairman of the Supervisory Board of Schneider Electric* (until 2010)
	Member of the Supervisory Board of Amplitude Group and of Alfina (until 2011)

None	<b>In foreign companies</b>
	Member of the Supervisory Board of Gucci Group (Netherlands, until 2010)

Education and business experience

Graduate in law, degree from the *Institut d'Etudes Politiques*

Graduate of ENA (*Ecole Nationale d'Administration*)

1976-1982	<i>Sous-préfet</i> and then Chief of Staff of the French Budget Minister (1981)
1982-1987	Deputy General Manager of FR3 (French Television Channel) and then Chief Executive Officer of Havas Tourisme
1987-1990	Chief Executive Officer of Pallas Finance
1990-2005	Various positions at PPR* group including Chairman of the Management Board for 10 years
Since 2005	Chairman of Weinberg Capital Partners

**Christopher Viehbacher**  
95,442 shares

Date of birth:	March 26, 1960
Nationality:	German and Canadian
First elected:	December 2008
Last reappointment:	May 2010

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Term expires: 2014  
Directorships and appointments of Christopher Viehbacher

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

None

Director and Chief Executive Officer of Sanofi\*

Chairman of the Executive Committee and Head of Global  
Leadership Team of Sanofi

Member of the Strategy Committee of Sanofi

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**In foreign companies**

Chairman of Genzyme (United States)

Vice Chairman of European Federation of Pharmaceutical Industries and Associations (EFPIA, Belgium)

Member of Visitors of Fuqua School of Business, Duke University (United States)

Member of the Board of Business Roundtable (United States)

Member of the International Business Council, World Economic Forum (Switzerland)

Chairman of the CEO Roundtable on Cancer (United States)

Member of PhRMA

Past directorships since 2008

**In French companies**

None

None

**In foreign companies**

Chairman and Chief Executive Officer of Genzyme (United States, until 2011)

Member of Advisory Council of Center for Healthcare Transformation (United States, until 2010)

Chairman and member of the Board of Directors of Research America and Burroughs Wellcome Fund (United States, until 2011)

Chairman of the Board of Directors of PhRMA (United States, until 2012)

Education and business experience

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B.A. in Commerce of Queens University (Ontario-Canada); certified public account

Began his career at PricewaterhouseCoopers Audit

1988-2008 Various positions at the GSK group, including President Pharmaceutical Operations for North America  
2004-2008 Member of the Cardinal Club (United States)

**Laurent Attal**  
500 shares

Date of birth:  
Nationality:  
First elected:  
Term expires:

February 11, 1958  
French  
May 2012  
2016

### Directorships and appointments of Laurent Attal

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

#### Current directorships and appointments

#### **In French companies**

Director of Sanofi\*

Director of *Fondation d'Entreprise L'Oréal*

Member of the Strategy Committee of Sanofi

#### **In foreign companies**

None

None

#### Past directorships held since 2008

#### **In French Companies**

None

None

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**In foreign companies**

None

President and Chief Executive Officer of L'Oréal USA (United States, until 2009)

Education and business experience

Doctor in medicine, dermatologist

MBA from INSEAD (*Institut Européen d'Administration des Affaires*)

Since 1986 Various positions within the L'Oréal\* Group notably within the active cosmetics division

Since 2002 Member of L'Oréal\* Executive Committee

Since 2010 Executive Vice-President Research and Innovation at L'Oréal\*

**Uwe Bicker**

600 shares

Date of birth:

June 14, 1945

Nationality:

German

First elected:

May 2008

Last reappointment:

May 2012

Term expires:

2016

Directorships and appointments of Uwe Bicker

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

None

Independent director of Sanofi\*

Member of the Strategy Committee of Sanofi

**In foreign companies**

None

Trustee of the Aventis Foundation <sup>(1)</sup> (not-for-profit, Germany)

Member of the Supervisory Board of Future Capital AG (Germany)

Chairman of the Board of Marburg University (Germany)

Member of the Advisory Board of Morgan Stanley (Germany)

Past directorships since 2008

**In French companies**

None

None

**In foreign companies**

None

Member of the Board of Trustees of Bertelsmann Stiftung  
(Bertelsmann Foundation, Germany, until 2011)

Chairman of the Supervisory Board of Siemens Healthcare  
Diagnostics Holding GmbH (Germany, until 2012)

Vice-Chairman of the Supervisory Board of Epigenomics AG  
(Germany) and of Definiens AG (Germany, until 2012)

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(1)

No compensation is paid for this office. The appointments to the Board of Trustees of the Foundation are performed independently from Sanofi.

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Education and business experience

Doctorate in chemistry and in medicine

Honorary Doctorate, Klausenburg University

Honorary Senator, Heidelberg University

Since 1983 Professor at the Medical Faculty of Heidelberg (Germany)

Since 2011 Dean at the Medical Faculty, Heidelberg University (Germany)

Managing Director at the University Clinic of Mannheim (Germany)

1975-1994 Various positions at Boehringer Mannheim GmbH (later Roche AG) (Germany)

1994-2004 Various positions at Hoechst group (Germany)

1997-2007 Chairman of the Supervisory Board of Dade Behring GmbH (Germany)

**Robert Castaigne**

1,000 shares

Date of birth:

April 27, 1946

Nationality:

French

First elected:

February 2000

Last reappointment:

May 2010

Term expires:

2014

Directorships and appointments of Robert Castaigne

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

Independent director of Sanofi\*

Société Générale\*:

Member of the Audit Committee of Sanofi

Director

Member of the Audit, Internal control and Risk Committee

Vinci\*:

Director

Member of the Audit Committee

Member of the Remuneration Committee

**In foreign companies**

None

None

Past directorships since 2008

**In French companies**

None

Member of the Remuneration Committee of Vinci\* (until 2009)

**In foreign companies**

None

Director and member of the Audit Committee of Compagnie Nationale à Portefeuille (Belgium, until 2011)

Education and business experience

Degree from *Ecole Centrale de Lille* and *Ecole Nationale Supérieure du Pétrole et des Moteurs*

Doctorate in economics

1972-2008 Various positions at the Total\* group, including Chief Financial Officer and member of the Executive Committee (1994-2008)  
1995-2008 Director of Hutchinson  
1996-2008 Director of Omnium Insurance & Reinsurance Company Ltd (Bermuda)



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<b>Thierry Desmarest</b> 1,017 shares	Date of birth: Nationality: First elected: Last reappointment: Term expires:	December 18, 1945 French February 2000 May 2011 2015
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### Directorships and appointments of Thierry Desmarest

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

### Current directorships and appointments

#### **In French companies**

Director of Sanofi*	Total SA*:
Member of the Compensation Committee of Sanofi	Director and Honorary President
Member of the Appointments and Governance Committee of Sanofi	Chairman of the Nominating and Governance Committee
Member of the Strategy Committee of Sanofi	Member of the Compensation Committee
	Member of the Strategy Committee
	Chairman of <i>Fondation Total</i>
	L'Air Liquide*:
	Director
	Member of the Appointments and Governance Committee

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Member of the Compensation Committee

Renault group:

Director of Renault SA\*

Director of Renault SAS

Chairman of the International Strategy Committee of Renault SA

Member of the Remuneration Committee of Renault SA

Member of the Industrial Strategy Committee of Renault SA

Member of the Board of Directors of *l'Ecole Polytechnique* and  
Chairman of *Fondation de l'Ecole Polytechnique*

Director of *Musée du Louvre*

**In foreign companies**

None

Bombardier Inc. (Canada):

Director

Member of the Appointments and Governance Committee

Member of the Human Resources and Compensation Committee

Past directorships since 2008

**In French companies**

None

Chairman of the Board of Directors of Total SA\* (until 2010)

Member of the Supervisory Board of Areva\* (until 2010)

**In foreign companies**

None

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None

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### Education and business experience

Degree from *Ecole Polytechnique* and *Ecole Nationale Supérieure des Mines de Paris*

2000-2007 CEO and Chairman of the Board of Elf Aquitaine  
Since 1981 Various positions at the Total\* group including Chairman and Chief Executive Officer (1995-2007)

<b>Lord Douro</b>	Date of birth:	August 19, 1945
2,000 shares	Nationality:	British
	First elected:	May 2002
	Last reappointment:	May 2010
	Term expires:	2014

### Directorships and appointments of Lord Douro

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

### Current directorships and appointments

#### **In French companies**

None

Independent Director of Sanofi\*

Member of the Appointments and Governance Committee of Sanofi

Member of the Strategy Committee of Sanofi

#### **In foreign companies**

None

Chairman of Richemont Holdings UK Ltd (United Kingdom) and  
Kings College London (United Kingdom)

Compagnie Financière Richemont AG\* (Switzerland):

Director

Member of the Appointments Committee and of the Compensation  
Committee

Director of GAM Worldwide (United Kingdom)

Member of the International Advisory Board of Abengoa SA\*  
(Spain)

RIT Capital\* (United Kingdom):

Director

Chairman of the Remuneration Committee and the Conflicts  
Committee

Member of the Nominations Committee

Past directorships since 2008

None

**In French companies**

Pernod Ricard\*:

Director (until 2011)

Member of the Compensation Committee and of the Appointments  
Committee (until 2010)

None

**In foreign companies**

Director of Abengoa Bioenergy (Spain, until 2011)

Advisor to Crédit Agricole CIB (United Kingdom, until 2012)

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Education and business experience

Master of Arts from Oxford University

1979-1989 Member of the European Parliament  
 1995-2000 Chairman of Sun Life & Provincial Holdings Plc\* (United Kingdom)  
 1993-2005 Chairman of Framlington Ltd (United Kingdom)  
 2003-2007 Commissioner of English Heritage (United Kingdom)

<b>Jean-René Fourtou</b>	Date of birth:	June 20, 1939
4,457 shares	Nationality:	French
	First elected:	August 2004
	Last reappointment:	May 2012
	Term expires:	2016

Directorships and appointments of Jean-René Fourtou

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

Independent director of Sanofi\*

Chairman of the Supervisory Board of Vivendi\*

Member of the Compensation Committee of Sanofi

Member of the Appointments and Governance Committee of Sanofi

Member of the Strategy Committee of Sanofi

**In foreign companies**

None

Member of the Supervisory Board of Maroc Telecom\* (Vivendi Group, Morocco)

Past directorships since 2008

**In French companies**

None

Chairman of the Supervisory Board of Group Canal+\* (until 2011)

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Axa\*:

Vice President, then member of the Supervisory Board (until 2009)

Member of the Ethics and Governance Committee (until 2009)

Director of AXA Millésimes SAS (until 2011)

Director of Cap Gemini SA\* (until 2009)

**In foreign companies**

None

Director of NBC Universal Inc. (United States, until 2010)

Director and member of the Compensation Committee of Nestlé\*  
(Switzerland, until 2012)

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#### Education and business experience

Degree from *École Polytechnique*

1963-1986 Various positions at the Bossard group, including Chairman and Chief Executive Officer (1977-1986)  
1986-1999 Chairman and Chief Executive Officer of Rhône-Poulenc\*  
1999-2004 Vice Chairman of the Management Board, then Vice Chairman of the Supervisory Board and member of the Strategy Committee of Aventis\*  
2002-2005 Chairman and Chief Executive Officer of Vivendi\*  
2002-2008 Vice Chairman, Chairman then Honorary Chairman of the International Chamber of Commerce

<b>Claudie Haigneré</b>	Date of birth:	May 13, 1957
500 shares	Nationality:	French
	First elected:	May 2008
	Last reappointment:	May 2012
	Term expires:	2016

#### Directorships and appointments of Claudie Haigneré

##### **Within the Sanofi Group**

##### **Outside the Sanofi Group**

#### Current directorships and appointments

##### **In French companies**

Independent director of Sanofi\*

France Telecom\*:

Member of the Appointments and Governance Committee of Sanofi

Director

Member of the Compensation Committee of Sanofi

Member of the Strategy Committee

Chairman of the Board of Directors of *La Géode*

Chairman of Universcience (*Cité des Sciences et de l'Industrie* and *Palais de la Découverte*)

Director of *Fondation de France*

Director of *Fondation CGénial*



Director of *Fondation d'Entreprise L'Oréal*

Director of *Fondation Lacoste*

Member of *Académie des Technologies*, of *Académie des Sports*, of *Académie Nationale de l'Air et de l'Espace*

Director of *Ecole Normale Supérieure (ENS)*, *Campus Condorcet*, and *PRES HESAM (Pôle de Recherche et d'Enseignement Supérieur Hautes-Etudes-Sorbonne-Arts-et-Métiers)*

**In foreign companies**

None

None

Past directorships since 2008

**In French companies**

None

Counselor at the European Space Agency (until 2009)

Director and Chairman of the *Cité des Sciences et de l'Industrie* (until 2009)

Chairman of *Palais de la Découverte* (until 2009)

Director of the Aéro Club de France (until 2011)

Vice President of the IAA (International Academy of Astronautics, until 2011)

**In foreign companies**

None

None

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#### Education and business experience

Rheumatologist, doctorate in sciences majoring in neurosciences

Selected in 1985 by the CNES (French National Space Center) as an astronaut candidate

1984-1992	Rheumatologist, Cochin Hospital (Paris)
1996	Scientific space mission to the MIR space station (Cassiopee, Franco-Russian mission)
2001	Scientific and technical space mission to the International Space Station (Andromède mission)
2002-2004	Deputy Minister for Research and New Technologies in French government
2004-2005	Deputy Minister for European Affairs
2005-2009	Counselor to at the European Space Agency (ESA)

#### **Igor Landau**

500 shares

Date of birth:	July 13, 1944
Nationality:	French
First elected:	August 2004
Last reappointment:	May 2011
Term expires:	2015

#### Directorships and appointments of Igor Landau

##### **Within the Sanofi Group**

##### **Outside the Sanofi Group**

#### Current directorships and appointments

##### **In French companies**

Director of Sanofi\*

Director of INSEAD (*Institut Européen d'Administration des Affaires*)

##### **In foreign companies**

None

Chairman of the Supervisory Board of Adidas\* (Germany)

Allianz AG\* (Germany):

Member of the Supervisory Board

Member of the Audit Committee

#### Past directorships since 2008

##### **In French companies**

None

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Director of HSBC France (until 2012)

### In foreign companies

None

Allianz AG\* (Germany, until 2012):

Member of the Steering Committee

Member of the General Committee

Member of the Mediation Committee

Member of the Nomination Committee

### Education and business experience

Degree from HEC (*Ecole des Hautes Etudes Commerciales*)

MBA from INSEAD (*Institut Européen d'Administration des Affaires*)

1968-1970 Chief Executive Officer of the German subsidiary of La Compagnie du Roneo (Germany)  
1971-1975 Management consultant at McKinsey (France)  
1975-2004 Various positions at the Rhône-Poulenc group, including member of the Management Board of Aventis (1999-2002) and Chairman of the Management Board of Aventis (2002-2004)  
2001-2005 Director of Essilor\*  
2002-2005 Director of Thomson\* (later Technicolor\*)  
2003-2006 Member of the Supervisory Board of Dresdner Bank (Germany)

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<b>Suet-Fern Lee</b> 500 shares	Date of birth: Nationality: First elected: Term expires:	May 16, 1958 Singaporean May 2011 2015
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### Directorships and appointments of Suet-Fern Lee

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

### Current directorships and appointments

#### **In French companies**

Independent director of Sanofi\*

Axa\*:

Director

Member of the Finance Committee

#### **In foreign companies**

None

Director of Macquarie International Infrastructure Fund Ltd\*  
(Bermuda)

Director of National Heritage Board (Singapore)

Director of Rickmers Trust Management Pte Ltd\* (Singapore)

Director of Stamford Corporate Services Pte Ltd (Singapore)

Chairman of the Board of directors of the Asian Civilizations  
Museum (Singapore)

### Past directorships since 2008

#### **In French companies**

None

None

**In foreign companies**

None

Director of Richina Pacific Limited\* (Bermuda, until 2009)

Director of Transcu Group Limited\* (Singapore, until 2010)

Director of Sembcorp Industries Ltd\* (Singapore, until 2011)

Education and business experience

Law degree from Cambridge University (1980)

Admitted to London (1981) and Singapore (1982) Bars

Senior Partner of Stamford Law Corporation (Singapore)

Since 2006 Member of the Board of Trustees of Nanyang Technological University (Singapore)

Member of the Accounting Advisory Board of National University of Singapore Business School (Singapore)

Since 2007 Member of the Advisory Committee of the Singapore Management University School of Law (Singapore)

2000-2007 Director of ECS Holdings Limited\* (Singapore)

2004-2007 Director of International Capital Investment Limited (Singapore)

Director of Media Asia Entertainment Group Limited (Hong Kong)

Director of Transpac Industrial Holdings Limited\* (Singapore)

2005-2008 Director of China Aviation Oil\* (Singapore)

2006-2008 Director of Sincere Watch\* (Hong Kong)

2010-2011 President of the Inter-Pacific Bar Association

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<b>Christian Mulliez</b> 1,423 shares	Date of birth: Nationality: First elected: Last reappointment: Term expires:	November 10, 1960 French June 2004 May 2010 2014
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### Directorships and appointments of Christian Mulliez

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

### Current directorships and appointments

#### **In French companies**

Director of Sanofi*	Vice President, General Manager Administration and Finance of L'Oréal*
Member of the Audit Committee of Sanofi	Chairman of the Board of Directors of Regefi
Member of the Compensation Committee of Sanofi	Director of DG 17 Invest

#### **In foreign companies**

None	Director of L'Oréal USA Inc. (United States)
	Director of Galderma Pharma (Switzerland)
	Director of The Body Shop International (United Kingdom)

### Past directorships since 2008

#### **In French companies**

None	None
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#### **In foreign companies**

None	None
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### Education and business experience

Degree from ESSEC (*Ecole Supérieure des Sciences Economiques et Commerciales*)

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Since 2003 Executive Vice President Administration and Finance at L'Oréal\*  
1984-2002 Various positions at Synthélabo and then at Sanofi-Synthélabo, including Vice President Finance

**Carole Piwnica**  
500 shares

Date of birth:  
Nationality:  
First elected:  
Last reappointment:  
Term expires:

February 12, 1958  
Belgian  
December 2010  
May 2012  
2016

### Directorships and appointments of Carole Piwnica

#### **Within the Sanofi Group**

#### **Outside the Sanofi Group**

### Current directorships and appointments

#### **In French companies**

Independent director of Sanofi\*

Eutelsat Communications\*:

Member of the Audit Committee of Sanofi

Director

Chairman of the Committee of Governance, Compensation and  
Appointment  
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	<b>In foreign companies</b>
None	
	Director of Naxos UK Ltd (United Kingdom)
	Director of Big Red (United States)
	Director of Elevance (United States)
	Director of Amyris Inc.* (United States)
	Director of Louis Delhaize* (Belgium)

Past directorships since 2008

	<b>In French companies</b>	
None		None
	<b>In foreign companies</b>	
None		
	Director of Toepfer GmbH (Germany, until 2010)	
	Director of Dairy Crest Plc.* (United Kingdom, until 2010)	
	Member of the Ethical Committee of Monsanto* (United States, until 2009)	
	Aviva Plc.* (United Kingdom, until 2011):	
	Director	



## Edgar Filing: Sanofi - Form 20-F

Chairman of the Corporate Responsibility Committee

Member of the Compensation Committee

### Education and business experience

Degree in law, *Université Libre de Bruxelles*

Masters in law, New York University

Admitted to Paris and New York Bars

1985-1991 Attorney at Proskauer, Rose (New York) and Shearman & Sterling (Paris) with practice in mergers and acquisitions  
1991-1994 General Counsel of Gardini & Associés  
1994-2000 Chief Executive Officer of Amylum France, then Chairman of Amylum Group  
1998-2004 Director of Spadel (Belgium)  
1996-2006 Director of Tate & Lyle Plc. (United Kingdom)  
2000-2006 Director and Vice-Chairman of Tate & Lyle Plc. for Governmental Affairs (United Kingdom)  
1996-2006 Chairman of the Liaison Committee and director of the *Confédération Européenne des Industries Agro-Alimentaires* (CIAA)  
2000-2006 Chairman of the Export Commission and director of the *Association Nationale des Industries Alimentaires* (ANIA)

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<b>Klaus Pohle</b>	Date of Birth:	November 3, 1937
2,500 shares	Nationality:	German
	First appointment:	August 2004
	Last reappointment:	May 2012
	Term expires:	2016

Directorships and appointments of Klaus Pohle

**Within the Sanofi Group**

**Outside the Sanofi Group**

Current directorships and appointments

**In French companies**

None

Independent director of Sanofi\*

Chairman of the Audit Committee of Sanofi

**In foreign companies**

None

Trustee of Aventis Foundation<sup>(2)</sup> (not-for-profit, Germany)

Past directorships since 2008

**In French companies**

None

None

**In foreign companies**

None

DWS Investment GmbH, Frankfurt (Germany, until 2009):

Member of the Supervisory Board

Chairman of the Audit Committee

Director of Labelux Group GmbH\* (Switzerland, until 2011)

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Coty Inc.\* New York (United States, until 2011):

Director

Chairman of the Audit Committee

Education and business experience

Doctorate in economics from Berlin University (Germany)

Doctorate in law from Frankfurt University (Germany)

LLM from Harvard University (United States)

Professor of Business Administration at the Berlin Institute of Technology (Germany)

1966-1980 Various positions at the BASF group (Germany)

1981-2003 Deputy Chief Executive Officer and Chief Financial Officer of Schering AG (Germany)

2003-2005 Chairman of the German Accounting Standards Board (Germany)

2004-2008 Various positions at Hypo Real Estate Holding AG\*, Munich, including Chairman of the Supervisory Board (Germany)

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(2)

No compensation is paid for this office. The appointments to the Board of Trustees of the Foundation are performed independently from Sanofi.

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<b>Gérard Van Kemmel</b> 1,005 shares	Date of birth: Nationality: First elected: Last reappointment: Term expires:	August 8, 1939 French May 2003 May 2011 2015
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### Directorships and appointments of Gérard Van Kemmel

#### Within the Sanofi Group

#### Outside the Sanofi Group

### Current directorships and appointments

#### In French companies

Independent director of Sanofi\*

Europacorp\*:

Chairman of the Compensation Committee of Sanofi

Director

Member of the Audit Committee of Sanofi

Member of the Audit Committee

Member of the Appointments and Governance Committee of Sanofi

#### In foreign companies

None

None

### Past directorships since 2008

#### In French companies

None

Director of Groupe Eurotunnel\* (until 2010)

#### In foreign companies

None

Director of Eurotunnel NRS Holders Company Limited (United Kingdom, until 2010)

### Education and business experience

Graduate of HEC (*Ecole des Hautes Etudes Commerciales*)

MBA from the Stanford Business School

1966-1995	Various positions including President of Arthur Andersen and Andersen Consulting in France (1976-1995) and Chairman of the Board of Arthur Andersen Worldwide (1989-1994)
1996-1997	Senior advisor to French Finance Minister

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1997-2006 Various positions at Cambridge Technology Partners including Chief Operating Officer

2004-2006 Various positions at Novell\* including President EMEA then Europe Chairman

The composition of the Board of Directors changed in 2012. The term of office of Lindsay Owen-Jones expired at the close of the Shareholders' General Meeting held on May 4, 2012. Laurent Attal was appointed as a Director of our Company at the Shareholders' General Meeting held on May 4, 2012.

### *Executive Committee*

The Executive Committee is chaired by the Chief Executive Officer.

The Committee meets once a month, and has the following permanent members:

**Christopher Viehbacher**, Chief Executive Officer;

**Olivier Charmeil**, Senior Vice President Vaccines;

**Jérôme Contamine**, Executive Vice President Chief Financial Officer;

**David-Alexandre Gros**, Senior Vice President Chief Strategy Officer;

**Karen Linehan**, Senior Vice President Legal Affairs and General Counsel;

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**Philippe Luscan**, Senior Vice President Industrial Affairs;

**Roberto Pucci**, Senior Vice President Human Resources;

**Hanspeter Spek**, President Global Operations; and

**Elias Zerhouni**, President, Global Research and Development.

The name, business address, present principal occupation or employment and material occupations, positions, offices or employment for the past five years of each of the executive officers of Sanofi are set forth below. The business address and phone number of each such executive officer is c/o Sanofi, 54 rue La Boétie, 75008 Paris, France, +33 1 53 77 40 00. Unless otherwise indicated, each executive officer is a citizen of France.

***Christopher Viehbacher***

**Chief Executive Officer**

**Chairman of the Executive Committee**

*Date of birth: March 26, 1960*

Christopher Viehbacher was appointed as Chief Executive Officer on December 1, 2008, and is also a member of the Strategy Committee.

For additional information regarding his professional education and business experience see "Composition of the Board of Directors as of December 31, 2012" in "A. Directors and Senior Management" on this Item 6.

Christopher Viehbacher is a citizen of Germany and Canada.

***Olivier Charmeil***

**Senior Vice President Vaccines**

*Date of birth: February 19, 1963*

Olivier Charmeil is a graduate of HEC (*Ecole des Hautes Etudes Commerciales*) and of the *Institut d'Etudes Politiques* in Paris. From 1989 to 1994, he worked in the Mergers & Acquisitions department of Banque de l'Union Européenne. He joined Sanofi Pharma in 1994 as head of Business Development. Subsequently, he held various posts within the Group, including Chief Financial Officer (Asia) for Sanofi-Synthélabo in 1999 and *Attaché* to the Chairman, Jean-François Dehecq, in 2000, before being appointed as Vice President, Development within the Sanofi-Synthélabo International Operations Directorate, where he was responsible for China and support functions. In 2003, Olivier Charmeil was appointed Chairman and Chief Executive Officer of Sanofi-Synthélabo France, before taking the post of Senior Vice President, Business Management and Support within the Pharmaceutical Operations Directorate. In this role, he piloted the operational integration of Sanofi-Synthélabo and Aventis. He was appointed Senior Vice President Asia/Pacific, Pharmaceutical Operations in February 2006 and since January 1, 2008, Operations Japan have reported to him as well as Asia/Pacific and Japan Vaccines since February 2009. Since January 1, 2011, Olivier Charmeil has served as Senior Vice President Vaccines and a member of the Executive Committee.

***Jérôme Contamine***

**Executive Vice President Chief Financial Officer**

*Date of birth: November 23, 1957*

Jérôme Contamine is a Graduate of *École Polytechnique (X)*, *ENSAE*, and *ENA (Ecole Nationale d'Administration)*. After four years at the "*Cour des Comptes*", as a Senior State General Auditor, he joined Elf Aquitaine in 1988, as advisor to the Chief Financial Officer, and became Group Finance and Treasury Director in 1991. He became the General Manager of Elf Petroleum Norway in 1995, after being named Deputy Vice President of Elf Upstream Division for Europe and the U.S. In 1999, he was appointed as a member of the taskforce for integration with Total, in charge of the reorganization of the merged entity, TotalFinaElf, and in 2000 became Vice President Europe and Central Asia, Upstream Division of Total. The same year, he joined Veolia Environnement as CFO and Deputy General Manager. In 2003, he was appointed Vice-President Senior Executive, Deputy Chief



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Executive Officer, Financial Director of Veolia Environnement. Jérôme Contamine joined Sanofi as Executive Vice President, Chief Financial Officer (CFO) of Sanofi in March 2009.

***David-Alexandre Gros***

**Chief Strategy Officer**

*Date of birth: July 23, 1972*

David-Alexandre Gros has a B.A. from Dartmouth College (1995), an M.D. from Johns Hopkins University School of Medicine (1999), and an M.B.A. from Harvard Business School (2002). He began his career in clinical research at the Department of Urology of the Johns Hopkins Hospital, from 1996 to 1999, and acquiring clinical experience as a Resident Physician at the University of Pennsylvania Health System from 1999 to 2000. He started his advisory career in 2002 at McKinsey & Company as an Associate, was promoted to Engagement Manager in 2004 and to Associate Principal in 2006. In late 2006, he was appointed Vice President at Merrill Lynch, serving healthcare clients on a wide range of strategic, corporate finance and merger & acquisition issues. In 2009, he joined Centerview Partners, in San Francisco, California, as an advisor to healthcare companies as a Principal and founding member of the Healthcare Investment Banking practice. David-Alexandre Gros joined Sanofi as Chief Strategy Officer in September 2011.

***Karen Linehan***

**Senior Vice President Legal Affairs and General Counsel**

*Date of birth: January 21, 1959*

Karen Linehan graduated from Georgetown University with Bachelor of Arts and Juris Doctorate degrees. Prior to practicing law, Ms. Linehan served on the congressional staff of the Speaker of the U.S. House of Representatives from September 1977 to August 1986. Until December 1990, she was an Associate in a mid-size law firm in New York. In January 1991, she joined Sanofi as Assistant General Counsel of its U.S. subsidiary. In July 1996, Ms. Linehan moved to Paris to work on international matters within the Group and she has held a number of positions within the Legal Department, most recently as Vice President Deputy Head of Legal Operations. She was appointed to her current position in March 2007.

Karen Linehan is a citizen of the United States of America and Ireland.

***Philippe Luscan***

**Senior Vice President Industrial Affairs**

*Date of birth: April 3, 1962*

Philippe Luscan is a graduate of the *École Polytechnique* and the *École des Mines* in Biotechnology in Paris. He began his career in 1987 as a Production Manager at Danone. In 1990, he joined the Group as Director of the Sanofi Chimie plant at Sisteron, France, and subsequently served as Industrial Director of Sanofi in the United States, as Vice President Supply Chain and as Vice President Chemistry in September 2006. He was appointed to his present position in September 2008.

***Roberto Pucci***

**Senior Vice President Human Resources**

*Date of birth: December 19, 1963*

Roberto Pucci has a law degree from the University of Lausanne, Switzerland. He started his career in 1985 at Coopers & Lybrand in Geneva, Switzerland as an external auditor. He then joined Hewlett-Packard (HP) in 1987, where he held various positions in Human Resources in Switzerland and Italy including HR Manager for the European Headquarters and Human Resources Director in Italy. In 1999, he became Director, Compensation & Benefits for Agilent Technologies, a spin off from HP, and was appointed Vice President Human Resources Europe in 2003. In 2005 he moved to the United States to join Case New Holland, a subsidiary of the Fiat Group, as Senior Vice President, Human Resources, and was appointed, in 2007, Executive Vice President, Human Resources for the Fiat Group in Torino, Italy. Roberto Pucci joined Sanofi as Senior Vice President Human Resources in October 2009.



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Roberto Pucci is a citizen of Italy and Switzerland.

***Hanspeter Spek***

**President Global Operations**

*Date of birth: November 5, 1949*

Hanspeter Spek graduated from business school in Germany. In 1974, he completed a management training program at Pfizer International, and then joined Pfizer RFA as a junior product manager. He served in various positions at Pfizer RFA, including as manager of the marketing division. Mr. Spek joined Sanofi Pharma GmbH, a German subsidiary of Sanofi, in 1985 as Marketing Director, and served in various positions in Germany and then at Sanofi in France, before being named Senior Vice President Europe following the merger with Synthelabo in 1999. He served as Executive Vice President, International Operations from October 2000, to January 2003, when he was named in charge of worldwide operations of Sanofi-Synthelabo. He was appointed Executive Vice President, Pharmaceutical Operations in August 2004. Since November 2009, he has been President, Global Operations.

Hanspeter Spek has announced his intention to retire by mid-2013.

Hanspeter Spek is a citizen of Germany.

***Elias Zerhouni***

**President, Global Research and Development**

*Date of birth: April 12, 1951*

Born in Algeria where he completed his initial medical training, Dr. Zerhouni continued his academic career at the Johns Hopkins University and Hospital (United States) in 1975 where he rose to the rank of professor of Radiology and Biomedical engineering. He served as Chair of the Russell H. Morgan Department of Radiology and Radiological Sciences, Vice Dean for Research and Executive Vice Dean of the School of Medicine from 1996 to 2002 before his appointment as Director of the National Institutes of Health of the United States of America from 2002 to 2008. Dr. Zerhouni was received as member of the U.S. National Academy of Sciences' Institute of Medicine in 2000. He was appointed as Chair of Innovation at the College de France, elected member of the French Academy of Medicine in 2010 and received the Transatlantic Innovation Leadership award in December 2011. He is the author of over 200 scientific publications and 8 patents. In February 2009, Sanofi named Dr. Zerhouni Scientific Advisor to the Chief Executive Officer and to the Senior Vice-President Research & Development. He was appointed President Global Research & Development and has served on the Executive Committee of Sanofi, since January 2011. He has just been received as member of the U.S. National Academy of Engineering.

Dr. Zerhouni is a citizen of the United States of America.

As of December 31, 2012, none of the members of the Executive Committee had their principal business activities outside of Sanofi.

The Executive Committee is assisted by the Global Leadership Team, which represents the principal functions of the Group. The Global Leadership Team is made up of the members of the Executive Committee and 38 additional senior managers.

**B. Compensation**

**Compensation and pension arrangements for corporate officers**

Christopher Viehbacher has held the office of Chief Executive Officer of Sanofi since December 1, 2008. He was an outside appointment and has never had an employment contract with Sanofi distinct from his current office. The compensation of the Chief Executive Officer is determined by the Board of Directors upon the recommendation of the Compensation Committee with reference to compensation paid to the chief executive officers of major global pharmaceutical companies and of major companies in the CAC 40 stock market index. The Chief Executive Officer receives fixed compensation, benefits in kind, and variable compensation. In addition, he may be granted stock options and performance shares. Since 2009, in accordance with the AFEP-MEDEF

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corporate governance code, stock options and, when applicable, performance shares granted to the Chief Executive Officer have been subject to performance conditions.

Serge Weinberg has held the office of Chairman of the Board of Directors since May 17, 2010. He was an outside appointment and has never had an employment contract with Sanofi distinct from his current office. The Chairman of the Board also chairs the Strategy Committee and the Appointments and Governance Committee. In accordance with our Board Charter and in close collaboration with the Senior Management, he represents the Company in high-level dealings with governmental bodies and with the Group's key partners, both nationally and internationally, and participates in the defining of the major strategic choices of the Group especially as regards mergers, acquisitions and alliances. The Chairman and the Chief Executive Officer keep each other fully informed of their actions. The compensation of the Chairman of the Board of Directors consists solely of fixed compensation and benefits in kind and excludes any variable compensation, any awards of stock options and performance shares and any directors' attendance fees.

The compensation policy for the corporate officers is established by the Board of Directors upon the recommendation of the Compensation Committee.

The corporate officers do not receive directors' attendance fees in their capacity as directors. Consequently, Christopher Viehbacher does not receive directors' attendance fees in his capacity as a member of the Strategy Committee. Similarly, Serge Weinberg does not receive directors' attendance fees in his capacity as chairman of the Appointments and Governance Committee or as chairman of the Strategy Committee.

The AFEP-MEDEF corporate governance code (hereafter referred to as the "AFEP-MEDEF Code") and the recommendations of the *Autorité des marchés financiers* (the French market regulator, hereafter referred to as "AMF"), require precise disclosures about the implementation of the recommendations and, if applicable, explanations of the reasons why any of them may not have been implemented. Currently, as reported " C. Board practices ", there is no divergence from the AFEP-MEDEF Code related to compensation.

**Serge Weinberg**

**Compensation awarded to Serge Weinberg**

<i>(in euros)</i>	2012	2011	2010
Compensation payable for the year (details provided in the table below)	708,115	709,463	480,158
Value of stock subscription options awarded during the year	N/A	N/A	N/A
Value of performance shares awarded during the year	N/A	N/A	N/A
<b>Total</b>	<b>708,115</b>	<b>709,463</b>	<b>480,158</b>

**Compensation payable and paid to Serge Weinberg**

<i>(in euros)</i>	2012		2011		2010	
	Payable	Paid	Payable	Paid	Payable	Paid
Fixed compensation <sup>(1)</sup>	700,000	700,000	700,000	700,000	439,748	439,748
Variable compensation	N/A	N/A	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A	N/A	N/A
Attendance fees <sup>(2)</sup>	N/A	N/A	N/A	35,625	35,625	6,125
Benefits in kind	8,115	8,115	9,463	9,463	4,785	4,785
<b>Total</b>	<b>708,115</b>	<b>708,115</b>	<b>709,463</b>	<b>745,088</b>	<b>480,158</b>	<b>450,748</b>

*The amounts reported are gross amounts before taxes.*

(1)

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(2) *Fixed compensation payable in respect of a given year is paid during that year.*

*Attendance fees paid to Serge Weinberg were owed to him from December 15, 2009 until May 17, 2010, i.e. until he became Chairman of the Board. Pursuant to the compensation policy applicable to corporate officers, he has not received directors' attendance fees since his appointment as Chairman of the Board of our Company.*

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Serge Weinberg took office as Chairman of the Board of Directors on May 17, 2010.

On March 5, 2012, upon the recommendation of the Compensation Committee, the Board of Directors set the terms of the compensation of Serge Weinberg.

For 2012, his fixed compensation was maintained at an annual rate of €700,000.

He did not receive any variable compensation, stock options, or performance shares. He did not receive attendance fees.

The amount reported for benefits in kind relates principally to a company car.

Serge Weinberg does not benefit from the Sanofi top-up pension plan.

On March 5, 2013, upon the recommendation of the Compensation Committee, the Board of Directors set the terms of the compensation of Serge Weinberg. For 2013, his fixed compensation is maintained at an annual rate of €700,000. He will not receive any variable compensation, stock options, or performance shares. He will not receive attendance fees.

**Christopher Viehbacher**

Christopher Viehbacher took office as Chief Executive Officer on December 1, 2008.

**Compensation, options and shares awarded to Christopher Viehbacher**

<i>(in euros)</i>	2012	2011	2010
Compensation payable for the year (details provided in the table below)	3,522,051	3,488,287	3,605,729
Value of stock subscription options awarded during the year <sup>(1)</sup>	2,020,800	2,364,000	2,499,750
Value of performance shares awarded during the year <sup>(2)</sup>	1,938,300	1,282,500	887
<b>Total</b>	<b>7,481,151</b>	<b>7,134,787</b>	<b>6,106,366</b>

<sup>(1)</sup> Valued at date of grant using the Black & Scholes method assuming fulfillment of the performance conditions.

<sup>(2)</sup> Valued at date of grant assuming fulfillment of the performance conditions. The value is the difference between the quoted market price of the share on the date of grant and the dividends to be paid over the next three years. Christopher Viehbacher waived the 2010 allocation.

**Compensation payable and paid to Christopher Viehbacher**

<i>(in euros)</i>	2012		2011		2010	
	Payable	Paid	Payable	Paid	Payable	Paid
Fixed compensation <sup>(1)</sup>	1,250,000	1,250,000	1,200,000	1,200,000	1,200,000	1,200,000
Variable compensation <sup>(2)</sup>	2,268,000	2,280,000	2,280,000	2,400,000	2,400,000	2,400,000
Exceptional compensation <sup>(3)</sup>	0	0	0	0	0	0
Attendance fees	0	0	0	0	0	0
Benefits in kind	4,051	4,051	8,287	8,287	5,729	5,729
<b>Total</b>	<b>3,522,051</b>	<b>3,534,051</b>	<b>3,488,287</b>	<b>3,608,287</b>	<b>3,605,729</b>	<b>3,605,729</b>

The amounts reported are gross amounts before taxes.

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- (1) *Fixed compensation payable in respect of a given year is paid during that year.*
- (2) *Variable compensation in respect of a given year is determined and paid at the start of the following year*
- (3) *Exceptional compensation corresponds to a benefit payable upon his starting to hold office.*

At its meeting on March 5, 2012, upon the recommendation of the Compensation Committee, the Board of Directors established the terms of the compensation package for Christopher Viehbacher for the financial year 2012. His fixed annual compensation was set at €1,260,000 as from March 5, 2012 i.e. the total fixed compensation

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for 2012 amounted to €1,250,000. This represents an increase of 5% compared to the level of fixed compensation set by the Board in 2008 at the time Christopher Viehbacher was recruited.

The variable compensation of Christopher Viehbacher could have represented between 0% and 200% of his fixed compensation. In the event of exceptional performance, it could have exceeded 200% of his fixed compensation.

His variable compensation with respect to 2012 has been established on the basis of quantitative and qualitative criteria. Such criteria include:

achievement of financial targets compared to our budget;

research and development results;

development of the Group strategic plan for 2015-2020;

organizational structure of the Group and succession planning for key posts in the Group;

workforce motivation and Group image.

The variable compensation structure acts as an incentive for the attainment of financial targets, while also taking into account sustainable growth centered on continuing operations and increasingly on developing countries, and at the same time fostering human capital and encouraging a specific focus on employment policies.

In general, the performance criteria apply not only to variable compensation but also to the vesting of stock options and performance shares in compliance with our targets, which are ambitious.

For reasons of confidentiality, the precise targets set for the quantitative and qualitative criteria, even though they have been properly established in a precise manner, cannot be publicly disclosed. In evaluating these criteria, the performance of the major global pharmaceutical companies was taken into account.

The Board of Directors, pursuant to the above mentioned criteria and taking into account the performance of the Company and the contribution of Christopher Viehbacher during 2012, fixed his variable compensation for 2012 at 2,268,000 euros, i.e., 180% of the fixed portion of his compensation. Christopher Viehbacher's 2012 variable compensation is to be paid in 2013.

The amount reported for benefits in kind relates to a company car.

At its meeting on March 5, 2013, upon the recommendation of the Compensation Committee, the Board of Directors established the terms of the compensation package for Christopher Viehbacher for 2013. His fixed compensation for 2013 is maintained at €1,260,000.

His variable compensation with respect to 2013 has been established on the basis of quantitative and qualitative criteria. These criteria include:

achievement of financial targets relative to our budget;

improved performance in research and development;

organizational structure of the Group and succession planning for key posts in the Group;

corporate social responsibility.

Table of Contents**Stock options awarded to Christopher Viehbacher in 2012**

Origin	Date of Board grant	Nature of options	Value (in €)	Number of options awarded in 2012	Exercise price (in €)	Exercise period
Sanofi	03/05/2012	Subscription options	2,020,800	240,000	56,44	03/06/2016 03/05/2022

On March 5, 2012, 240,000 share subscription options were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based upon Business Net Income and Return on Assets ("ROA"), and external criteria based on Total Shareholder Return ("TSR") in comparison to a reference set of pharmaceutical companies. These criteria were selected because they align medium-term equity-based compensation on the strategy adopted by the Company.

This award is broken down as follows:

- The performance criterion based on Business Net Income covers 40% of the award and refers to the ratio, at constant exchange rates, between actual Business Net Income and the Business Net Income specified in the budget. The targets have been revised upwards. If the ratio is less than 95%, the corresponding options will lapse.
- The ROA-based criterion covers 40% of the award. The schedule includes a target ROA, below which the performance will be penalized by the lapsing of some or all of the options.
- The TSR-based criterion covers 20% of the award. The overall return to shareholders is evaluated both on the value of Sanofi shares (the increase in the share price) and the value distributed to shareholders (dividends), i.e. the two sources of a return on investment in Sanofi shares. Our TSR is compared with a reference set comprised of 12 companies, i.e. Sanofi, Abbott, Astra Zeneca, BMS, Eli Lilly, GSK, Johnson & Johnson, Merck, Novartis, Pfizer, Roche, and Bayer. The number of options exercisable depends upon our position in comparison to the TSR for the other companies of this panel.
- In addition to the three conditions set forth above, an implicit condition exists in the form of the exercise price, as well as the condition of continuing employment.
- In order to reinforce the medium-term aspects of equity-based compensation, performance will henceforth be measured over three financial years.

Although for reasons of confidentiality the quantitative measures for the internal criteria cannot be publicly disclosed, even though they have been properly established in a precise manner, the targets and the level of achievement for the internal criteria will be publicly disclosed at the end of the performance measurement period.

Using the Black & Scholes method, each option awarded on March 5, 2012 was valued at €8.42, valuing the total benefit at €2,020,800.

The Board of Directors has decided to limit the number of options that could be awarded to Christopher Viehbacher to 10% of the total limit approved by the Shareholders' General Meeting held on May 6, 2011 (1% of our share capital). The number of options awarded to Christopher Viehbacher in 2012 represents 1.81% of the total limit approved by the Shareholders' General Meeting held on May 6, 2011 (1% of our share capital) and 29.48% of the total award to all beneficiaries on March 5, 2012.



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<b>Origin</b>	<b>Date of Board grant</b>	<b>Nature of options</b>	<b>Value (in €)</b>	<b>Number of options awarded</b>	<b>Exercise price (in €)</b>	<b>Exercise period</b>
sanofi-aventis	03/02/09	Subscription options	1,237,500	250,000	45.09	03/04/2013 03/01/2019
sanofi-aventis	03/01/10	Subscription options	2,499,750	275,000	54.12	03/03/2014 02/28/2020
sanofi-aventis	03/09/11	Subscription options	2,364,000	300,000	50.48	03/10/2015 03/09/2021
Sanofi	03/05/12	Subscription options	2,020,800	240,000	56.44	03/06/2016 03/05/2022

In 2011, as part of its commitment to transparency, Sanofi undertook to publish in its annual report the level of attainment determined by the Board of Directors for performance conditions applicable to future equity-based compensation plans awarded to Christopher Viehbacher and the other members of the Executive Committee. The Board considers that disclosing the level of attainment allows our shareholders to better understand the demanding nature of the performance conditions. The 2011 stock option plan and the 2011 performance share plan are the first plans for which the Board of Directors determined the level of fulfillment of the performance conditions.

On March 2, 2009, in accordance with what had been intended on the announcement of his joining the Group, 250,000 subscription options were awarded to Christopher Viehbacher. All of these options were subject to a performance condition. The performance condition, which had to be fulfilled each financial year preceding the vesting of the shares (i.e. 2009, 2010, 2011 and 2012), was based on a ratio of adjusted net income excluding selected items (which was a non-GAAP financial measure used until the end of 2009) to net sales of at least 18%.

On February 6, 2013, the Board of Directors determined that the conditions had been met and that the 250,000 options would be exercisable subject to meeting the condition of continuing employment.

On March 9, 2011, 300,000 subscription options were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based on Business Net Income and Return on Assets ("ROA"), and external criteria based on Total Shareholder Return ("TSR") in comparison to a reference set of twelve pharmaceutical companies.

For the first period (consisting of fiscal years 2011 and 2012) which related to 50% of the March 9, 2011 grant, the performance was as follows:

- The performance criterion based on Business Net Income (which covered 40% of the award) was fulfilled, reaching 106% of the target;
- The ROA-based criterion (which covered 40% of the award) was fulfilled, being 1.7 basis points above the target;
- The TSR-based criterion (which covered 20% of the award) was fulfilled, Sanofi ranking 5<sup>th</sup> among the panel of 12 peers.

The Board of Directors, in its meeting of February 6, 2013, determined that the global performance rate for the first period was greater than 100% and therefore, since the performance condition had been fulfilled, 50% of the stock subscription options granted would be exercisable at the end of the four-year vesting period subject to meeting the condition of continuing employment.

On March 5, 2013, 240,000 share subscription options were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based on Business Net Income and Return on Assets ("ROA"), and external criteria based on Total Shareholder Return ("TSR") in comparison to a reference set of eleven pharmaceutical companies. These criteria were maintained because they align medium-term equity-based compensation with the strategy adopted by the Company.

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This award is broken down as follows:

- The performance criterion based on Business Net Income covers 40% of the award and refers to the ratio, at constant exchange rates, between actual Business Net Income and the Business Net Income specified in the budget. If the ratio is less than 95%, the corresponding options will lapse.
- The ROA-based criterion covers 40% of the award. The schedule includes a target ROA, below which the performance will be penalized by the lapsing of some or all of the options.
- The TSR-based criterion covers 20% of the award. The overall return to shareholders is evaluated both on the value of Sanofi shares (the increase in the share price) and the value distributed to shareholders (dividends), i.e. the two sources of return on investment in Sanofi shares. Our TSR is compared with a reference set comprised of eleven companies, i.e. Sanofi, Astra Zeneca, BMS, Eli Lilly, GSK, Johnson & Johnson, Merck, Novartis, Pfizer, Roche, and Bayer. The number of options exercisable depends upon our position in comparison to the TSR for the other companies of this panel.
- In addition to the three conditions set forth above, an implicit condition exists in the form of the exercise price, as well as the condition of continuing employment.
- Performance will be measured over three financial years.

The targets and the level of achievement for the internal criteria will be disclosed publicly at the end of the performance measurement period.

Christopher Viehbacher did not exercise any stock options in 2012.

As of the date of publication of this document, the total number of unexercised options held by Christopher Viehbacher represented 0.098% of the share capital as at December 31, 2012.

**Performance shares awarded to Christopher Viehbacher in 2012**

Origin	Date of Board award	Value (in €)	Number of performance shares awarded in 2012	Acquisition date	Availability date
Sanofi	03/05/12	1,938,300	42,000	03/06/2015	03/06/2017

On March 5, 2012, 42,000 performance shares were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based on Business Net Income and Return on Assets ("ROA"), and external criteria based upon Total Shareholder Return ("TSR") in comparison to a reference set of pharmaceutical companies. These criteria were selected because they align medium-term equity-based compensation with the strategy adopted by the Company. Each performance share awarded on March 5, 2012, was valued at €46.15, valuing the total benefit at € 1,938,300.

This award is broken down as follows:

- The performance criterion based on Business Net Income covers 40% of the award and refers to the ratio, at constant exchange rates, between actual Business Net Income and the Business Net Income specified in the budget. The targets have been revised upwards and if the ratio is less than 95%, the corresponding performance shares will lapse.

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The ROA-based criterion covers 40% of the award. The schedule includes a target ROA, below which the performance will be penalized by the lapsing of part or all of the performance shares.

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The TSR-based criterion covers 20% of the award. The overall return to shareholders is evaluated both on the value of Sanofi shares (the increase in the share price) and the value distributed to shareholders (dividends), i.e. the two sources of return on investment in Sanofi shares. Our TSR is compared with a reference set comprised of twelve companies, i.e. Sanofi, Abbott, Astra Zeneca, BMS, Eli Lilly, GSK, Johnson & Johnson, Merck, Novartis, Pfizer, Roche, and Bayer. The number of options exercisable depends upon our position in comparison to the TSR for the other companies of this panel.

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In order to reinforce the medium-term aspects of the equity-based compensation, performance will henceforth be measured over three financial years.

Although for reasons of confidentiality, the quantitative measures for the internal criteria cannot be publicly disclosed, even though they have been properly established in a precise manner, the targets and the level of achievement for the internal criteria will be publicly disclosed at the end of the performance measurement period.

The number of shares awarded to Christopher Viehbacher in 2012 represents 0.31% of the total limit approved by the Shareholders' General Meeting held on April 17, 2009 (1% of our share capital) and 0.89% of the total award to all beneficiaries on March 5, 2012. The Board of Directors has decided to limit the number of performance shares that could be awarded to Christopher Viehbacher to 5% of the total limit approved by Shareholders' General Meeting held on May 4, 2012 (1.2% of our share capital).

**Performance shares awarded to Christopher Viehbacher**

Origin	Date of Board award	Value (in €)	Number of performance shares awarded	Acquisition date	Availability date
sanofi-aventis	03/02/09	2,221,700	65,000	03/03/2011	03/04/2013
sanofi-aventis	03/09/11	1,282,500	30,000	03/10/2013	03/10/2015
Sanofi	03/05/12	1,938,300	42,000	03/06/2015	03/06/2017

On March 9, 2011, 30,000 performance shares were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based on Business Net Income and Return on Assets ("ROA"), and external criteria based on Total Shareholder Return ("TSR") in comparison to a reference set of twelve pharmaceutical companies.

The performance measure covered fiscal years 2011 and 2012, and the performance was as follows:

The performance criterion based on Business Net Income (which covered 40% of the award) was fulfilled, reaching 106% of the target;

The ROA-based criterion (which covered 40% of the award) was fulfilled, being 1.7 basis points above the target;

The TSR-based criterion (which covered 20% of the award) has been fulfilled, Sanofi ranking 5<sup>th</sup> among the panel of 12 peers.

The Board of Directors, in its meeting of February 6, 2013, determined that the global performance rate was greater than 100% and therefore, since the performance condition had been fulfilled, 100% of the performance shares granted would vest subject to meeting the condition of continuing employment.

Taking into account the number of shares acquired at the outset of his mandate as well as the lock-up obligations applicable to shares obtained on exercise of stock options, or disposition of performance shares, the Board of Directors has decided not to require Christopher Viehbacher to acquire any further shares at his own expense.

Under Share 2010, the Group's global restricted share plan benefiting each Group employee with at least three months' service, 20 restricted shares were awarded to Christopher Viehbacher on October 27, 2010. This award is not included in the schedule above as Christopher Viehbacher subsequently renounced this award.

On March 5, 2013, 45,000 performance shares were awarded to Christopher Viehbacher. In compliance with the AFEP-MEDEF Code, the entire award is contingent upon both internal criteria based on Business Net Income and Return on Assets ("ROA"), and external criteria based on Total Shareholder Return ("TSR") in comparison to a reference set of eleven pharmaceutical companies. These criteria were maintained

because they align medium-term equity-based compensation with the strategy adopted by the Company.

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This award is broken down as follows:

- The performance criterion based on Business Net Income covers 40% of the award and refers to the ratio, at constant exchange rates, between actual Business Net Income and the Business Net Income specified in the budget. If the ratio is less than 95%, the corresponding performance shares will lapse.
- The ROA-based criterion covers 40% of the award. The schedule includes a target ROA, below which the performance will be penalized by the lapsing of part or all of the performance shares.
- The TSR-based criterion covers 20% of the award. The overall return to shareholders is evaluated both on the value of Sanofi shares (the increase in the share price) and the value distributed to shareholders (dividends), i.e. the two sources of return on investment in Sanofi shares. Our TSR is compared with a reference set comprised of eleven companies, i.e. Sanofi, Astra Zeneca, BMS, Eli Lilly, GSK, Johnson & Johnson, Merck, Novartis, Pfizer, Roche, and Bayer. The number of options exercisable depends upon our position in comparison to the TSR for the other companies of this panel.
- Performance will be measured over three financial years.

The targets and the level of achievement of the internal criteria will be disclosed publicly at the end of the performance measurement period.

In making the 2013 award, the Board of Directors had to determine whether to make these awards contingent upon future share purchases. Taking into account the number of shares acquired at the outset of his mandate and the lock-up obligations applicable to shares obtained on exercise of stock options or disposition of performance shares as well as share purchases made spontaneously by Christopher Viehbacher, the Board of Directors decided not to require him to acquire any further shares at his own expense.

As of the date of this annual report, the total number of performance shares awarded to Christopher Viehbacher represents 0.009% of our share capital as of December 31, 2012.

**Performance shares awarded to Christopher Viehbacher which became available in 2012**

No performance shares awarded to Christopher Viehbacher became available in 2012.

**Pension arrangements for Christopher Viehbacher**

Christopher Viehbacher is covered by the Sanofi top-up defined benefit pension plan (which has been called the Sanofi plan since the Company changed its name). The plan is offered to all employees of Sanofi and its French subsidiaries who meet the eligibility criteria specified in the plan rules. This plan was set up on October 1, 2008 as the final stage in the process of harmonizing the status of personnel across the French subsidiaries.

The rules of this plan were reviewed on January 1, 2012 in order to apply the 2010 French pension reforms and the French Social Security Financing Act for 2012 (which *inter alia* reflected the increase in the statutory retirement age for a full pension). This plan also includes the Merial SAS, Genzyme SAS and Gensyme Polyclonals SAS subsidiaries, for which the eligibility criteria and pension rights calculation take into account length of service from January 1, 2012 at the earliest.

This top-up defined-benefit pension plan is offered to executives (within the meaning of the AGIRC regime *Association Générale des Institutions de Retraite des Cadres*, a confederation of executive pension funds) of Sanofi and its French subsidiaries who meet the eligibility criteria specified in the plan rules; the benefit is contingent upon the plan member ending his or her career within the Group. The plan is reserved for executives with at least ten years' service whose annual base compensation has for ten years exceeded four times the French social security ceiling, and is wholly funded by the Company.

Based on the assumptions used in the actuarial valuation of this plan, approximately 550 executives are potentially eligible for this plan, almost all of them active employees.



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The top-up pension, which may not exceed 37.50% of final salary, is in the form of a life annuity, and is transferable as a survivor's pension. The annuity is based on the arithmetical average of the three highest years' average annual gross compensation (fixed plus variable) paid during the five years (not necessarily consecutive) preceding final cessation of employment. This reference compensation is capped at 60 times the French social security ceiling ("PASS") applicable in the year in which the rights vest. The annuity varies according to length of service (capped at 25 years) and supplements the compulsory industry schemes, subject to a cap on the total pension from all sources equal to 52% of the final level of compensation.

The admission of Christopher Viehbacher to this plan was approved by the Shareholders' General Meeting of April 17, 2009.

The decision to admit Christopher Viehbacher to the top-up defined benefit pension plan and to award him ten years' service at the outset of his mandate, must be seen within the historical context. These commitments were part of the conditions for the hiring of Christopher Viehbacher negotiated before he accepted the position of Chief Executive Officer of Sanofi, and hence before there could be any conflict of interest. These commitments were intended to replace the pension plan which he had to renounce in order to join the Group. Having conducted his career in different countries, Christopher Viehbacher was unable to meet the requirements of the compulsory industry schemes that exist in France.

**Commitments in favor of the Chairman and the Chief Executive Officer in office as of December 31, 2012**

Executive director	Contract of employment	Top-up pension plan	Compensation or benefits payable or potentially payable on termination of office	Compensation payable under non-competition clause
Serge Weinberg	No	No	No	No
Christopher Viehbacher	No	Yes	Yes	No

In the event of his removal from office as Chief Executive Officer, Christopher Viehbacher would receive a termination benefit equivalent to 24 months of total compensation on the basis of his fixed compensation effective on the date he ceases to hold office and the last variable compensation received prior to that date, subject to the performance criteria described below.

In accordance with article L. 225-42-1 of the French Commercial Code, payment of the termination benefit would be contingent upon fulfillment of two of the three performance criteria, assessed over the three financial years preceding his ceasing to hold office.

The three criteria are:

the average of the ratios of adjusted net income excluding selected items (which was a non-GAAP financial measure used until the end of 2009) to net sales for each financial year must be at least 15%;

the average of the ratios of operating cash flow before changes in working capital to net sales for each financial year must be at least 18%;

the average of the growth rates for the Group's activities, measured for each financial year in terms of net sales on a comparable basis, must be at least equal to the average of the growth rates of the Pharmaceutical and Vaccines activities of the top 12 global pharmaceutical companies, measured for each financial year in terms of net sales adjusted for the principal effects of exchange rates and changes in scope of consolidation.

The terms for the termination benefit entitlement of Christopher Viehbacher were approved by the Shareholders' Annual General Meeting of April 17, 2009.

Any activation of this termination benefit will be carried out in compliance with the AFEP-MEDEF Code, *i.e.* only if the departure is non-voluntary and linked to a change in control or strategy.





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This termination benefit was negotiated at the time of the recruitment of Christopher Viehbacher, and hence at a time when there was no conflict of interest. Moreover, the terms and conditions of this termination benefit comply with the AFEP-MEDEF Code.

**Lock-up obligation for shares obtained on exercise of stock options or disposition of performance shares by the Chief Executive Officer**

Until he ceases to hold office, the Chief Executive Officer will be required to retain, in the form of Sanofi shares, 50% of any capital gains (net of taxes and social contributions) obtained by the exercise of stock options or upon disposition of performance shares awarded by Sanofi. He must hold these shares in registered form.

In compliance with the AFEP-MEDEF Code and our Board Charter, Christopher Viehbacher has undertaken to refrain from entering into speculative or hedging transactions, and, so far as Sanofi is aware, no such instruments have been contracted.

**Compensation and pension payments for Directors other than the Chairman and the Chief Executive Officer**

**Attendance fees**

The table below shows amounts paid to each member of the Sanofi Board of Directors in respect of 2011 and 2012, including those whose term of office ended during these years.

Attendance fees in respect of 2011, the amount of which was set by the Board meeting of March 5, 2012, were paid in 2012.

Attendance fees in respect of 2012, the amount of which was set by the Board meeting of March 5, 2013, will be paid in 2013.

For 2012, the basic annual attendance fee was set at €15,000, apportioned on a time basis for Directors who assumed or left office during the year.

The variable portion of the fee is linked to actual attendance by Directors in accordance with the principles described below:

Directors resident in France receive €5,000 per Board or Committee meeting attended, except for Audit Committee meetings for which the fee is €7,500 per meeting;

Directors resident outside France receive €7,000 per Board meeting attended, and €7,500 per Committee meeting attended;

the chairman of the Compensation Committee receives €7,500 per Committee meeting;

the chairman of the Audit Committee, who is resident outside France, receives €10,000 per Committee meeting.

The attendance fee payable to a Director who participates by conference call or by videoconference is equivalent to half of the attendance fee received by a French Director who attends in person.

As an exception, some dual meetings give entitlement to a single attendance fee:

if on the day of a Shareholders' General Meeting, the Board of Directors meets both before and after the Meeting, only one attendance fee is paid for both;

if a Director participates in a meeting of the Compensation Committee and in a meeting of the Appointments and Governance Committee the same day, only one attendance fee is paid for both.



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The Shareholders' Annual General Meeting of May 6, 2011 approved a proposal to increase the maximum amount of annual attendance fees to €1,500,000.

<i>(in euro)</i>  Name	2012				2011			
	Attendance fees in respect of 2012 to be paid in 2013		Pensions paid in 2012	Total compensation	Attendance fees in respect of 2011 to be paid in 2012		Pensions paid in 2011	Total compensation
	fixed	variable			fixed	variable		
Laurent Attal <sup>(1)</sup>	10,000	40,000		50,000	0	0		0
Uwe Bicker	15,000	89,000		104,000	15,000	71,000		86,000
Robert Castaigne	15,000	90,000		105,000	15,000	103,750		118,750
Thierry Desmarest	15,000	75,000		90,000	15,000	75,000		90,000
Lord Douro	15,000	104,000		119,000	15,000	86,500		101,500
Jean-René Fourtou	15,000	85,000	1,676,787	1,776,787	15,000	75,000	1,640,304	1,730,304
Claudie Haigneré	15,000	65,000		80,000	15,000	65,000		80,000
Igor Landau	15,000	35,000	2,295,672	2,345,672	15,000	37,500	2,245,724	2,298,224
Suet-Fern Lee <sup>(2)</sup>	15,000	64,000		79,000	10,000	35,500		45,500
Christian Mulliez	15,000	77,500		92,500	15,000	55,000		70,000
Lindsay Owen-Jones <sup>(3)</sup>	6,250	20,000		26,250	15,000	42,500		57,500
Carole Piwnica	15,000	93,750		108,750	15,000	55,000		70,000
Klaus Pohle	15,000	131,500		146,500	15,000	135,250		150,250
Gérard Van Kemmel	15,000	125,000		140,000	15,000	138,750		153,750
<b>Total</b>	<b>196,250</b>	<b>1,094,750</b>	<b>3,972,459</b>	<b>5,263,459</b>	<b>190,000</b>	<b>975,750</b>	<b>3,886,028</b>	<b>5,051,778</b>
<b>Total attendance fees</b>	<b>1,291,000</b>				<b>1,165,750</b>			

(1) Assumed office May 4, 2012.

(2) Assumed office May 6, 2011.

(3) Left office May 4, 2012.

### **Pensions**

The amount recognized in 2012 in respect of corporate pension plans for directors with current or past executive responsibilities at Sanofi (or companies whose obligations have been assumed by Sanofi) was €4.3 million.

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As retirees, Jean-René Fourtou and Igor Landau are covered by the "GRCD" top-up pension plan instituted in 1977 for senior executives of Rhône-Poulenc. This plan was amended in 1994, 1996, 1999 and 2003, and currently applies to 3 early retirees and 28 retired executives (including one survivor's pension). At its meeting of February 11, 2008, the Board of Directors decided to close this plan to new entrants. Christopher Viehbacher does not benefit from this top-up pension plan.

### **Compensation of Senior Management**

The compensation of the other Executive Committee members is established upon the recommendation of the Compensation Committee taking into consideration the practices of major global pharmaceutical companies.

In addition to fixed compensation, they receive variable compensation, which is determined as a function of trends in the business areas for which they are responsible. Variable compensation generally represents 60% to 110% of their fixed compensation.

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In addition to cash compensation, Executive Committee members may be awarded share subscription or purchase options and/or performance shares (see "Item 6. Directors, Senior Management and Employees – E. Share Ownership" for details of the related plans).

With respect to 2012, the total gross compensation paid and accrued in respect of members of the Executive Committee (including the Chief Executive Officer) amounted to €14.9 million, including €6.3 million in fixed compensation.

In 2011, the Board of Directors made significant changes to its equity compensation policy. In order to limit the dilutive effect on shareholders, the Board of Directors determined to primarily award performance shares, except for a limited group of senior managers who may continue to receive options. The members of the Executive Committee are included in this limited group. Furthermore, whoever the beneficiary is, any award of options or performance shares will henceforth be fully contingent upon the performance targets being achieved over several financial years, as well as a condition of still being an employee when the option is exercised or the performance share is delivered.

On March 5, 2012, 445,500 share subscription options were awarded to members of the Executive Committee (including 240,000 options awarded to Christopher Viehbacher). The entire award was contingent upon the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of the two criteria is different, with each representing 50% of the grant.

The quantitative measures of performance are the same as for the award of Christopher Viehbacher. Although for reasons of confidentiality, the quantitative measures for the internal criteria cannot be publicly disclosed, even though they have been properly established in a precise manner, the targets and the level of achievement for the internal criteria will be publicly disclosed at the end of the performance measurement period.

As of December 31, 2012 a total of 2,998,000 options had been awarded to members of the Executive Committee (existing plans or plans ending in 2012). As of the same date, members of the Executive Committee held 2,898,000 unexercised options. These figures include the unexercised options awarded to Christopher Viehbacher, who is also a member of the Executive Committee.

The table below summarizes the options awarded to individuals who were members of the Executive Committee at the time of the award. For more information on the characteristics of such options see the table " E. Share Ownership – Existing Options Plans as of December 31, 2012" below.

Origin	Date of shareholder authorization	Date of Board grant	Grant to Executive Committee Members <sup>(1)</sup>	Start date of exercise period	Expiration date	Exercise price (in €)	Number exercised as of 12/31/2012	Number canceled as of 12/31/2012	Number outstanding
sanofi-aventis	05/31/07	12/13/07	520,000	12/14/11	12/13/17	62.33	0	0	520,000
sanofi-aventis	05/31/07	03/02/09	650,000	03/04/13	03/01/19	45.09	0	50,000	600,000
sanofi-aventis	04/17/09	03/01/10	805,000	03/03/14	02/28/20	54.12	0	50,000	755,000
sanofi-aventis	04/17/09	03/09/11	577,500	03/10/15	03/09/21	50.48	0	0	577,500
Sanofi	05/06/11	03/05/12	445,500	03/06/16	03/05/22	56.44	0	0	445,500

(1) Includes the Chief Executive Officer as of the date of grant. The number is subject to performance conditions

During 2012, 70,000 share subscription options were exercised by members of the Executive Committee (Sanofi-Synthélabo subscription option plan of December 10, 2003, i.e. before the creation of the Executive Committee, with an exercise price of €55.74).

On March 5, 2012, 137,900 performance shares (including 42,000 performance shares awarded to Christopher Viehbacher) were awarded to members of the Executive Committee. The entire award was contingent upon the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but

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excluding the TSR-based criterion. Consequently, the weighting of each criterion is different, with each criterion representing 50% of the grant.

The quantitative measures of performance are the same as for the award of Christopher Viehbacher. Although for reasons of confidentiality, the quantitative measures for the internal criteria cannot be publicly disclosed, even though they have been properly established in a precise manner, the targets and the level of achievement for the internal criteria will be publicly disclosed at the end of the performance measurement period.

As of December 31, 2012, a total of 287,900 performance shares had been awarded to members of the Executive Committee (existing plans or plans ending in 2012). As of the same date, 223,400 performance shares were in the process of vesting. These figures include the performance shares awarded to Christopher Viehbacher, who is also a member of the Executive Committee.

The table below summarizes the performance shares awarded to individuals who were members of the Executive Committee at the time of the award. For more information on the characteristics of such performance shares see the table " E. Share Ownership Existing Restricted Shares Plans as of December 31, 2012" below.

Origin	Date of shareholder authorization	Date of Board Decision	Grant to Executive Committee Members <sup>(1)</sup>	Date of award	Vesting date	Availability date	Number of rights transferred/canceled		Number outstanding
							as of 12/31/2011	as of 12/31/2012	
sanofi-aventis	5/31/07	03/02/09	65,000	03/02/09	03/03/11	03/04/13	65,000	0	0
sanofi-aventis	4/17/09	03/09/11	85,500	03/09/11	03/10/13	03/10/15	0	0	85,500
Sanofi	4/17/09	03/05/12	137,900	03/05/12	03/06/15	03/06/17	0	0	137,900

<sup>(1)</sup> Includes the Chief Executive Officer as of the date of grant. The number is subject to performance conditions

On March 5, 2013, 402,000 share subscription options and 120,600 performance shares were awarded to members of the Executive Committee (including 240,000 options and 45,000 performance shares awarded to Christopher Viehbacher). The entire award is contingent upon the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of the two criteria is different, with each representing 50% of the grant.

The quantitative measures of performance are the same as for the award of Christopher Viehbacher. Although for reasons of confidentiality, the quantitative measures for the internal criteria cannot be publicly disclosed, even though they have been properly established in a precise manner, the targets and the level of achievement for the internal criteria will be publicly disclosed at the end of the performance measurement period.

As part of its commitment to transparency, Sanofi has undertaken to publish in its annual report the level of attainment determined by the Board of Directors for performance conditions applicable to future equity-based compensation plans awarded to Christopher Viehbacher and the other members of the Executive Committee. The Board considers that disclosing the level of attainment allows our shareholders to better understand the demanding nature of the performance conditions. For disclosures about the level of attainment of the various equity-based compensation plans, see " B. Compensation Compensation and pension arrangements for corporate officers Christopher Viehbacher", bearing in mind that the TSR-based criterion only applies to the Chief Executive Officer and that the criteria based on Business Net Income and the ROA each apply to 50% of the grant.

Under French law, Directors may not receive options solely as compensation for service on our Board, and thus our Company may grant options only to those Directors who are also our officers.

Because some of our non-executive Directors were formerly officers or executive officers of our Company or its predecessor companies, some of our non-executive Directors hold Sanofi stock options.

We do not have separate profit-sharing plans for key executives. As employees, they are able to participate in our voluntary and statutory profit-sharing schemes on the same terms as our other employees. These plans are described below under " Employees Profit-sharing schemes."





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The total amount accrued as of December 31, 2012 in respect of corporate pension plans for (i) directors with current or past executive responsibilities at Sanofi or at companies whose obligations have been assumed by Sanofi and (ii) members of the Executive Committee was €162.0 million, including €9.1 million recognized in the income statement for the year ended December 31, 2012.

This total amount accrued as of December 31, 2012 included €83.5 million for members of the Executive Committee collectively of which €6.0 million were recognized in the income statement for the year ended December 31, 2012.

**C. Board Practices**

Neither we nor our subsidiaries have entered into service contracts with members of our Board of Directors providing for benefits upon termination of employment. With respect to Christopher Viehbacher, see also " B. Compensation Christopher Viehbacher" above.

The AFEP-MEDEF Code requires us to specifically report on the application of its recommendations and, if applicable, explain why any of them have not been applied. Sanofi follows the guidelines contained in the AFEP-MEDEF Code as amended. Currently our departures from this Code are as follows:

The limitations on the powers of the Chief Executive Officer are not contained in our Board Charter but in a decision of our Board dated July 28, 2009 (see " A. Directors and senior management Limitations on the powers of the Chief Executive Officer set by the Board"). Because the publication and decision-making processes are the same, this departure is technical and has no practical repercussions.

The Committees do not each have their own charter separate from the Board Charter. The Board Charter, which has been adopted by the Board of Directors, gives a global vision of the functioning of the Board and of its committees. Indeed, combining the rules that apply to the Board of Directors and those that apply to its committees creates a single, coherent governing document validated by the entire Board.

The Board of Directors does not consider that being a Board member for more than 12 consecutive years is of itself sufficient to disqualify a director from being regarded as independent. This is only one of a number of criteria that must be evaluated on a case by case basis, and not once for all. It is only after reviewing all the factors that a director can be determined as being independent or non-independent. While length of service may in certain circumstances be associated with a loss of independence, in other circumstances it may enhance the capacity of a director to question senior management and give greater independence of mind.

The annual assessment of the Board of Directors and of its committees covers their functioning as collective bodies and does not evaluate each director individually. The issue of competency and individual contribution to the activities of the Board and its committees is addressed when a director is up for reappointment as a board or committee member. The Board of Directors does not intend to further formalize this individual assessment, since this could undermine the climate of confidence. Indeed, the rule of collective responsibility is the cornerstone of the French corporate legal system and does not prejudice the rights of our shareholders.

During 2012, the Board of Directors met eight times, with an overall attendance rate among Board members of over 95%. This attendance rate includes participation by conference call, though only a limited number of Directors participated in this way. The individual attendance rates varied between 71% and 100%.

The following persons attended meetings of the Board of Directors in 2012:

the Directors;

the Secretary to the Board;

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five employee representatives who attend Board meetings without voting rights, pursuant to the agreement implemented with the European Works Council signed on February 24, 2005;

and frequent attendance of: the Executive Vice President Chief Financial Officer, the President Global Operations, and the Chief Strategy Officer.

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The agenda for each meeting of the Board is prepared by the Secretary after consultation with the Chairman, taking account of the agendas for the meetings of the specialist Committees and the suggestions of the directors.

Approximately one week prior to each meeting of the Board of Directors, the Directors each receive a file containing the agenda, the minutes for the prior meeting, and documentation relating to the agenda.

The minutes for each meeting are expressly approved at the next meeting of the Board of Directors.

In compliance with our Board Charter, certain issues, are examined in advance by the various Committees according to their areas of competence; these issues are then submitted for a decision by the Board of Directors.

In 2012, the main activities of the Board of Directors related to the following issues:

the review of the individual company and consolidated financial statements for the financial year 2011, the review of the individual company and consolidated financial statements for the first half and the consolidated financial statements for the first three quarters of 2012, as well as the review of the draft press releases and presentations to analysts with respect to the publication of such financial statements;

an update as to the financing of the acquisition of Genzyme;

the examination of documents relating to management forecasts and the financial arrangements adopted with respect to Group subsidiaries over the financial year 2011, the forecasts for the full year 2012 and the budget for 2013;

regulated agreements;

the delegation of authority to the Chief Executive Officer to issue bonds, and the renewal of the share repurchase program;

reviews of the Board of Directors' Management Report, the Chairman's Report and the reports of the statutory auditors;

the recording of the amount of the share capital, the reduction in the share capital through the cancellation of treasury shares and the corresponding amendments to the Articles of Association;

the determination of the 2011 variable compensation for the Chief Executive Officer, the determination of the 2012 fixed and variable compensation for the Chief Executive Officer, an update of the 2011 and 2012 fixed and variable compensation of the members of the Executive Committee and the determination of the 2012 fixed compensation of the Chairman of the Board. During the presentation of the report of the Compensation Committee on the compensation of corporate officers, the Board of Directors deliberated in their absence: the Board of Directors in the first place discussed the compensation of the Chairman in his absence, and then discussed the compensation of the Chief Executive Officer with the Chairman present but with the Chief Executive Officer still absent;

the allocation of Directors' attendance fees for the year 2011;

the adoption of equity-based compensation plans, consisting of share subscription option plans and restricted share awards, in respect of 2012;

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the composition of the Board, the recording of the non-renewal of the mandate of a Director, the proposed renewal of the mandate of Directors at the Shareholders' General Meeting in 2012, the independence of the Directors, the appointment of a new Director, the appointment of a new member of the Audit Committee, the renewal of the chairmanship of the Audit Committee following the renewal of his mandate as a Director, and the review of the composition of the Committees in view of the new composition of the Board;

a presentation on Corporate Social Responsibility, on the USA region, on the Consumer Health Care strategy and on industrial affairs;

Company policy on equal pay and opportunities;

the notice of meeting for the General Meeting of Shareholders and of Holders of Participating Shares (Series issued in 1983, 1984 and 1987 and Series A participating shares issued in 1989), the adoption of

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the draft resolutions, the report of the Board of Directors on the resolutions, and the special reports on the share subscription options and on the restricted shares awarded;

the evaluation of the Board and its Committees.

**Board Committees**

Since 1999, our Board of Directors has been assisted in its deliberations and decisions by specialist committees. Members of these committees are chosen by the Board from among its members, based on their experience.

The members of these Committees are selected from among the Directors based on their experience and are appointed by the Board of Directors.

The Committees are responsible for the preparation of certain items on the agenda of the Board of Directors. The decisions of the Committees are adopted by a simple majority with the chairman of the Committee having a casting vote. Minutes are established and approved by the Committee members.

The chairmen of the Audit Committee, the Compensation Committee and the Appointments and Governance Committee are appointed by the Board of Directors.

The chairman of each specialist Committee reports to the Board as to the work of the Committee in question, so that the Board is fully informed whenever it adopts a decision.

The Board of Directors works in close collaboration with the specialist Committees, with a view to ensuring that it carries on its work with maximum transparency and efficiency at all times.

**Audit Committee**

At December 31, 2012, this Committee was composed of:

**Klaus Pohle**, Chairman;

**Robert Castaigne**;

**Christian Mulliez** (since May 4, 2012);

**Carole Piwnica**;

**Gérard Van Kemmel**.

Christian Mulliez was appointed as a member of the Audit Committee by the Board of Directors during its meeting of May 4, 2012, following the Shareholders' General Meeting held on the same day.

Before this appointment, during its meeting of March 5, 2012, the Audit Committee examined the experience of Christian Mulliez as Vice President, General Manager Administration and Finance of L'Oréal and graduate of the *Ecole Supérieure des Sciences Economiques et Commerciales* (ESSEC). The Audit Committee concluded that Christian Mulliez has the necessary knowledge and experience in finance and accounting, in particular with respect to IFRS standards and internal controls, to be a financial expert. On February 23, 2012 the Appointments and Governance Committee examined the independence of its members and concluded that Christian Mulliez was not an independent Director under the AFEP-MEDEF Code.

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Four members of the Audit Committee are classified as independent pursuant to the criteria adopted by the Board of Directors, i.e. Robert Castaigne, Carole Piwnica, Klaus Pohle and Gérard Van Kemmel. In addition, all of the members, including Christian Mulliez, fulfill the conditions required to be classified as independent under the Sarbanes-Oxley Act.

All five members of the Committee have financial or accounting expertise as a consequence of their education and professional experience. Furthermore, Robert Castaigne, Christian Mulliez, Klaus Pohle and Gérard Van

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Kemmel are deemed to be financial experts pursuant to the definition in the Sarbanes-Oxley Act and the definition in Article L. 823-19 of the French Commercial Code. See "Item 16A. Audit Committee Financial Expert".

The Audit Committee met eight times in 2012, including prior to the meetings of the Board of Directors during which the financial statements were approved. In addition to the statutory auditors, the principal financial officers, the Senior Vice President Audit and Evaluation of Internal Control and other members of senior management of the Group attended meetings of the Audit Committee.

The meetings of the Audit Committee take place at least two days prior to any meetings of the Board of Directors during which the annual or interim financial statements are to be examined.

The members of the Audit Committee have a very good attendance record for meetings, with an overall attendance rate among members of 94%. Individual attendance rates varied between 75% and 100%.

The statutory auditors attended all of the meetings of the Audit Committee; they presented their views as to the annual and half yearly financial statements at the Committee meetings of February 3, and July 23, 2012, respectively.

In 2012, the main activities of the Audit Committee related to:

the preliminary review of the individual company and consolidated financial statements for the financial year 2011, the review of the individual company and consolidated financial statements for the first half and of the consolidated financial statements for the first three quarters of 2012, as well as a review of the press releases and analysts presentations relating to the publication of such financial statements;

the financial position of the Group, its indebtedness and liquidity;

investigation and evaluation of internal control for 2011, as certified by the statutory auditors pursuant to Section 404 of the Sarbanes-Oxley Act, and an examination of the 2011 Annual Report on Form 20-F;

reporting on guarantees;

the review of the draft resolution to the May 4, 2012 Shareholders' General Meeting on the dividend;

the principal risks facing the Company, including audit and evaluation of internal control, financial monitoring of research and development, implementation of shared services in Europe, update on the compliance program, risk management (quality and consent decree), impairment testing of goodwill, pharmacovigilance, update on retirement funds and actuarial assumptions, review of tax litigation and other litigation (meetings of January 25, April 24, May 25, July 23, October 22, and December 13, 2012);

the conclusions of Group management as to internal control procedures, the 2011 Board of Directors' Management Report and Chairman's Report, including the description of risk factors contained in the French *Document de Référence*;

the purchase price allocation and restructuring of Genzyme;

reporting on capital expenditures, reporting on internal audit activities, review of business profitability;

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the budget for audit-related services and non-audit services, the 2012 audit plan, and statutory auditors' fees, the renewal of the mandate of one of the statutory auditors and of its deputy;

the expertise in financial and accounting matters of Christian Mulliez with a view to his appointment to the Audit Committee.

The Committee did not have recourse to external consultants in 2012.

### **Compensation Committee**

At December 31, 2012, this Committee was composed of:

**Gérard Van Kemmel**, Chairman;

**Thierry Desmarest**;



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**Jean-René Fourtou;**

**Claudie Haignéré;**

**Christian Mulliez** (since May 4, 2012).

Lindsay Owen-Jones, whose mandate as Director expired at the close of the May 4, 2012 Shareholders' General Meeting, also left the Compensation Committee. At the end of the Board meeting which followed the Shareholders' General Meeting, Christian Mulliez joined the Compensation Committee.

Of the five members of the Compensation Committee, three are deemed to be independent.

The Compensation Committee met three times in 2012.

The members of the Compensation Committee have an excellent attendance record for meetings, with an overall attendance rate among members of 100%.

In 2012, the main activities of the Compensation Committee related to:

the fixed and variable compensation of corporate officers and senior management, and the establishment of the amount of Directors' attendance fees;

the governance chapter of the 2011 *Document de Référence*, which contains disclosures about compensation;

the policy for equity-based compensation, including both share subscription options and performance shares, which was discussed at several meetings;

the review of the draft resolution to be presented to the shareholders in 2012 requesting renewal of the delegation of authority granted to the Board to award performance shares;

an update on the 2011 and 2012 fixed and variable compensation of the members of the Executive Committee;

the expenses of Directors and corporate officers;

presentation on Say on Pay;

employee share ownership policy;

long-term variable compensation policy;

short-term compensation policy for the Chief Executive Officer.

The Committee did not have recourse to external consultants in 2012.

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When the Committee discusses the compensation policy for members of senior management who are not corporate officers, i.e. the members of the Executive Committee, the Committee invites the members of senior management who are corporate officers to attend.

### **Appointments and Governance Committee**

At December 31, 2012, this Committee was composed of:

**Serge Weinberg**, Chairman;

**Thierry Desmarest**;

**Lord Douro**;

**Jean-René Fourtou**;

**Claudie Haignéré**;

**Gérard Van Kemmel**.

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Lindsay Owen-Jones, whose mandate as Director expired at the close of the May 4, 2012 Shareholders' General Meeting, also left the Appointments and Governance Committee.

Of the six members of the Appointments and Governance Committee, four are deemed to be independent.

The Appointments and Governance Committee met twice in 2012.

The members of the Appointments and Governance Committee have an excellent attendance record for meetings, with an overall attendance rate among members of 100%.

In 2012, the main activities of the Appointments and Governance Committee related to:

the review of the Board of Directors Management Report, Chairman's Report, and the chapter of the 2011 *Document de Référence* containing disclosures about governance;

the independence of the Directors;

proposals about re-election and appointment of Directors;

the review of the independence of the proposed new Director, the appointment of a fifth member of the Audit Committee, update on the composition of the Committees after the May 4, 2012 Shareholders' General Meeting;

update on the composition of the Board of Directors;

the organization of the Group.

The Committee did not have recourse to external consultants in 2012.

**Strategy Committee**

At December 31, 2012, this Committee was composed of:

**Serge Weinberg**, Chairman;

**Christopher Viehbacher**;

**Laurent Attal** (since May 4, 2012);

**Uwe Bicker**;

**Thierry Desmarest**;

**Lord Douro;**

**Jean-René Fourtou.**

Lindsay Owen-Jones, whose mandate as Director expired at the close of the May 4, 2012 Shareholders' General Meeting, also left the Strategy Committee. At the end of the Board meeting which followed the Shareholders' General Meeting, Laurent Attal joined the Strategy Committee.

Of the seven members of the Strategy Committee, three are deemed to be independent.

In 2012, the Strategy Committee met six times, four times in restrictive sessions and twice in expanded sessions.

The members of the Strategy Committee have an excellent attendance record for meetings, with an overall attendance rate among members of 100%.

As in 2011, the work of the Committee covered, in particular, research and development and proposed acquisitions. Several meetings also covered the development of a strategic plan for 2015-2020, analysis of the risk from generics, macro trends in the market, and the outlook for each of the growth platforms.

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The Committee did not have recourse to external consultants in 2012.

**D. Employees**

**Number of Employees**

In 2012, Sanofi employed 111,974 people worldwide, 1,745 fewer than in 2011. The tables below give a breakdown of employees by geographic area and function as of December 31, 2012.

**Employees by geographic area**

	As of December 31,					
	2012	%	2011	%	2010	%
Europe	56,265	50.2%	58,339	51.3%	54,815	54.0%
North America	18,994	17.0%	20,233	17.8%	15,106	14.9%
Other countries	36,715	32.8%	35,147	30.9%	31,654	31.1%
<b>Total</b>	<b>111,974</b>	<b>100%</b>	<b>113,719</b>	<b>100%</b>	<b>101,575</b>	<b>100%</b>

**Employees by function**

	As of December 31,					
	2012	%	2011	%	2010	%
Sales	32,270	28.8%	32,874	28.9%	32,686	32.2%
Research and Development	17,066	15.2%	18,823	16.6%	16,983	16.7%
Production	45,035	40.2%	44,415	39.0%	37,504	36.9%
Marketing and Support Functions	17,603	15.7%	17,607	15.5%	14,402	14.2%
<b>Total</b>	<b>111,974</b>	<b>100%</b>	<b>113,719</b>	<b>100%</b>	<b>101,575</b>	<b>100%</b>

**Industrial Relations**

In all countries where Sanofi operates, we strive to combine economic and social performance which we believe are inseparable.

Sanofi's social responsibility is based on the basic principles of the Group's Social Charter, which outlines the rights and duties of all Group employees. The Social Charter addresses Sanofi's key commitments towards its workforce: equal opportunity for all people without discrimination, the right to health and safety, respect for privacy, the right to information and professional training, social protection for employees and their families, freedom of association and the right to collective bargaining, and respect for the principles contained in the Global Compact on labor relations and ILO treaties governing the physical and emotional well-being and safety of children.

The Group's social relations are based on respect and dialogue. In this spirit, the Company's management and employee representatives meet regularly to exchange views, negotiate, sign agreements and ensure that agreements are being implemented.

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Social dialogue takes place in different ways from one country to the next, as necessitated by specific local circumstances. Depending on the case, social dialogue relating to information, consultation and negotiation processes may take place at the national, regional or company level. It may be organized on an interprofessional or sectorial basis, or both. Social dialogue may be informal or it may be implemented through a specific formal body, or a combination of both methods. Whatever the situation, Sanofi encourages employees to voice their opinions, help create a stimulating work environment and take part in decisions aiming to improve the way we work. These efforts reflect one of the principles of the Social Charter whereby the improvement of working conditions and the Group's necessary adaptation to its environment go hand-in-hand.

***Profit-sharing Schemes, Employee Savings Schemes and Employee Share Ownership***

**Profit-sharing Schemes**

All employees of our French companies belong to voluntary and statutory profit-sharing schemes.

**Voluntary Scheme (*Intéressement des salariés*)**

These are collective schemes that are optional for the employer and contingent upon performance. The aim is to give employees an interest in the growth of the business and improvements in its performance.

The amount distributed by our French companies during 2012 in respect of voluntary profit-sharing for the year ended December 31, 2011 represented 5.2% of total payroll.

In June 2011, Sanofi entered into a three-year Group-wide agreement, effective from the 2011 financial year, and applicable to all French companies more than 50% owned by Sanofi. Under the agreement, payments under the Group voluntary profit-sharing scheme depend on the most favorable criterion between growth of growth platforms turnover compared to the previous year's turnover (with constant exchange rate and perimeter) and the level of business net income. For each criterion, a schedule allows to determine the percentage of total payroll to be distributed.

**Statutory Scheme (*Participation des salariés aux résultats de l'entreprise*)**

The scheme is a French legal obligation for companies with more than 50 employees that made a profit in the previous financial year.

The amount distributed by our French companies during 2012 in respect of the statutory scheme for the year ended December 31, 2011 represented 5.7% of total payroll.

In November 2007, Sanofi entered into a new Group-wide agreement for an indefinite period, covering all the employees of our French companies.

An amendment to this agreement was signed in April 2009, primarily to align the agreement on a change in French legislation (Law 2008-1258 of December 3, 2008) in order to protect against erosion in purchasing power, under which each qualifying employee can elect to receive some or all of his or her profit-sharing bonus without regard to the normally applicable mandatory lock-up period.

**Distribution Formula**

In order to favor lower-paid employees, the voluntary and statutory profit-sharing agreements entered into since 2005 split the benefit between those entitled as follows:

60% on the basis of presence during the year; and

40% on the basis of annual salary, up to a limit of three times the Social Security ceiling.

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**Employee Savings Schemes and Collective Retirement Savings Plan**

The employee savings arrangements operated by Sanofi are based on a Group savings scheme (*Plan Epargne Groupe*) and a collective retirement savings plan (*Plan Epargne pour la Retraite Collectif*). These schemes reinvest the sums derived from the statutory and voluntary profit-sharing schemes (compulsory investments), and voluntary contributions by employees.

In June 2012, 77% of the employees who benefited from the profit-sharing schemes had opted to invest in the collective retirement savings plan.

In 2012, €122.9 million and €57.6 million were invested in the Group savings scheme and the collective retirement savings plan respectively through the voluntary and statutory schemes for 2010, and through top-up contributions.

**Employee Share Ownership**

At December 31, 2012, shares held by employees of Sanofi and of related companies and by former employees under Group employee savings schemes amounted to 1.31% of the share capital.

**E. Share Ownership**

**Senior Management**

Members of the Executive Committee hold shares of our Company amounting in the aggregate to less than 1% of our share capital.

At December 31, 2011, a total of 2,998,000 options had been granted to the members of the Executive Committee (plans existing or closed in 2012) and 2,898,000 unexercised options to subscribe for or to purchase Sanofi shares were held by the members of the Executive Committee.

In 2012, 70,000 options were exercised by members of the Executive Committee (December 10, 2003 Sanofi-Synthélabo subscription option plan, i.e. before the creation of the Executive Committee, with an exercise price of €55.74).

At December 31, 2012, a total of 287,900 performance shares had been awarded to the members of the Executive Committee (plans existing or closed in 2012) and 223,400 unvested performance shares were held by the members of the Executive Committee.

These figures include the options granted to Christopher Viehbacher, who is a member of the Executive Committee. The terms of these options and performance shares are summarized in the tables below.

**Existing Option Plans as of December 31, 2012**

As of December 31, 2012, a total of 51,022,011 options were outstanding, including 291,537 options to purchase Sanofi shares and 50,730,474 options to subscribe for Sanofi shares. Out of this total, 34,622,756 were immediately exercisable, including 291,537 options to purchase shares and 34,331,219 options to subscribe for shares.

Equity-based compensation, consisting of share subscription option plans and performance share plans, aims to align the employees' objectives on those of the shareholders and to reinforce the link between employees and the Group. Under French law, this falls within the powers of the Board of Directors. Stock options (which may be options to subscribe for shares or options to purchase shares) are granted to employees and the Chief Executive Officer by the Board of Directors on the basis of recommendations from the Compensation Committee.

Granting options is a way of recognizing the beneficiary's contribution to the Group's development, and also of securing his or her future commitment to the Group.

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For each plan, the Compensation Committee and the Board of Directors assess whether it should take the form of options to subscribe for shares or options to purchase shares, based on criteria that are primarily financial.

A list of beneficiaries is proposed by the Senior Management to the Compensation Committee, which reviews the list and then submits it to the Board of Directors, which grants the options. The Board of Directors also sets the terms for the exercise of the options (including the exercise price) and the lock-up period. The exercise price never incorporates a discount, and must be at least equal to the average of the quoted market prices on the 20 trading days preceding the date of grant by the Board. Stock option plans generally specify a vesting period of four years and a total duration of ten years.

In 2011, the Board of Directors made significant changes to its equity-based compensation policy. In order to limit the dilutive effect on shareholders, the Board of Directors determined to primarily award performance shares, except for a limited group of senior managers who may continue to receive options. Furthermore, whoever the beneficiary is, any award of options or performance shares will henceforth be fully contingent upon the performance targets being met over several financial years.

On March 5, 2012, 574,050 share subscription options were awarded to 55 beneficiaries (excluding 240,000 options awarded to Christopher Viehbacher). Each option entitles the grantee to the subscription of one share, in the aggregate representing 0.04% of our share capital before dilution.

The entire award was contingent upon two of the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of each criterion is different, each representing 50% of the grant. The quantitative measures of performance are the same as for the award of Christopher Viehbacher.

The percentage of options awarded to Christopher Viehbacher in 2012 represents 1.81% of the total limit approved by the Shareholders' General Meeting held on May 6, 2011 (1% of our share capital) and 29.48% of the total award to all beneficiaries on March 5, 2012.

Not all employees are able to benefit from awards of performance shares, but a new agreement on the voluntary scheme (*intéressement des salariés*) was concluded in June 2011 to ensure that all employees have an interest in the performance of the business.

In addition, pursuant to the French Law of July 28, 2011, all employees in France of the French subsidiaries of the Group benefited from a profit-sharing bonus amounting to €620 gross in July 2012. In total, Sanofi paid out €18.3 million in this regard (including social contributions).

On March 5, 2013, the Board of Directors awarded 548,725 share subscription options to 57 beneficiaries (excluding 240,000 options awarded to Christopher Viehbacher). Each option entitles the grantee to the subscription of one share, in the aggregate representing 0.04% of our share capital before dilution.

The entire award was contingent upon two of the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of each criterion is different, each representing 50% of the grant.

As part of its commitment to transparency, Sanofi has undertaken to publish in its annual report the level of attainment determined by the Board of Directors for the performance conditions applicable to future equity-based compensation plans awarded to Christopher Viehbacher and the other members of the Executive Committee. The Board considers that disclosing the level of attainment allows our shareholders to better understand the demanding nature of the performance conditions. For disclosures about the level of attainment of the various equity-based compensation plans, see " B. Compensation Compensation and pension arrangements for corporate officers Christopher Viehbacher", bearing in mind that the TSR-based criterion only applies to the Chief Executive Officer and that the criteria based on Business Net Income and the ROA each apply to 50% of the grant.



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**Share Purchase Option Plans**

Origin	Date of shareholder authorization	Date of Board grant	Number of options initially granted	- to the 10 employees - to granted the most		Start date of exercise period	Expiration date	Purchase price (in €)	Number exercised as of 12/31/2012	Number canceled as of 12/31/2012	Number outstanding
				officers <sup>(1)</sup>	options <sup>(2)</sup>						
Synthélabo	6/28/1990	10/18/1994	330,200	0	200,200	10/18/1999	10/18/2014	6.01	325,000	0	5,200
Synthélabo	6/28/1990	1/12/1996	208,000	0	52,000	1/12/2001	1/12/2016	8.56	199,130	0	8,870
Synthélabo	6/28/1990	4/05/1996	228,800	0	67,600	4/05/2001	4/05/2016	10.85	210,300	0	18,500
Synthélabo	6/28/1990	10/14/1997	262,080	0	165,360	10/14/2002	10/14/2017	19.73	233,438	5,200	23,442
Synthélabo	6/28/1990	6/25/1998	296,400	148,200	117,000	6/26/2003	6/25/2018	28.38	292,900	0	3,500
Synthélabo	6/23/1998	3/30/1999	716,040	0	176,800	3/31/2004	3/30/2019	38.08	478,295	5,720	232,025
Sanofi-Synthélabo	5/18/1999	5/22/2002	3,111,850	145,000	268,000	5/23/2006	5/22/2012	69.94	61,000	3,050,850	0

(1) Comprises the Chairman and Chief Executive Officer, the Chief Executive Officer or equivalent officers as of the date of grant.

(2) Employed as of the date of grant.

**Share Subscription Option Plans**

Origin	Date of shareholder authorization	Date of grant	Number of options initially granted	- to the 10 employees - to granted the most		Start date of exercise period	Subscription price (in €)	Expiration date	Number exercised as of 12/31/2012	Number canceled as of 12/31/2012	Number outstanding
				officers <sup>(1)</sup>	options <sup>(2)</sup>						
Aventis	5/24/2000	3/06/2002	1,173,913	1,173,913	0	3/07/2005	3/06/2012	69.82	0	1,173,913	0
Aventis	5/14/2002	11/12/2002	11,775,414	352,174	741,100	11/13/2005	11/12/2012	51.34	8,844,395	2,931,019	0
Aventis	5/14/2002	12/02/2003	12,012,414	352,174	715,000	12/03/2006	12/02/2013	40.48	8,379,556	1,782,670	1,850,188
Sanofi-Synthélabo	5/18/1999	12/10/2003	4,217,700	240,000	393,000	12/11/2007	12/10/2013	55.74	2,630,340	227,500	1,359,860
sanofi-aventis	5/31/2005	5/31/2005	15,228,505	400,000	550,000	6/01/2009	5/31/2015	70.38	201,864	2,129,105	12,897,536
sanofi-aventis	5/31/2005	12/14/2006	11,772,050	450,000	585,000	12/15/2010	12/14/2016	66.91	1,031,435	1,149,310	9,591,305
sanofi-aventis	5/31/2007	12/13/2007	11,988,975	325,000	625,000	12/14/2011	12/13/2017	62.33	2,318,000	1,038,645	8,632,330
sanofi-aventis	5/31/2007	3/02/2009	7,736,480	250,000	655,000	03/04/2013	3/01/2019	45.09	18,755	574,265	7,143,460
sanofi-aventis	4/17/2009	3/01/2010	7,316,355	0	665,000	3/03/2014	02/28/2020	54.12	440	473,670	6,842,245
sanofi-aventis	4/17/2009	3/01/2010	805,000	275,000	805,000	3/03/2014	02/28/2020	54.12	0	50,000	755,000
sanofi-aventis	4/17/2009	3/09/2011	574,500	0	395,000	3/10/2015	3/09/2021	50.48	0	30,000	544,500
sanofi-aventis	4/17/2009	3/09/2011	300,000	300,000	0	3/10/2015	3/09/2021	50.48	0	0	300,000
Sanofi	5/06/2011	3/05/2012	574,050	0	274,500	3/06/2016	3/05/2022	56.44	0	0	574,050
Sanofi	5/06/2011	3/05/2012	240,000	240,000	0	3/06/2016	3/05/2022	56.44	0	0	240,000

(1) Comprises the Chairman and Chief Executive Officer, the Chief Executive Officer, or equivalent officers as of the date of grant.

(2) Employed as of the date of grant.

The main characteristics of our stock options are also described in Note D.15.8 to our consolidated financial statements, included in Item 18 of this annual report.

**Existing Restricted Share Plans as of December 31, 2012**

Since 2009, the Board of Directors has awarded restricted shares to certain employees in order to give them a direct stake in the Company's future and performances via trends in the share price, as a partial substitute for the granting of stock options.

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Restricted shares are awarded to employees on the basis of a list submitted to the Compensation Committee. This Committee then submits this list to the Board of Directors, which awards the shares. The Board of Directors sets the vesting conditions for the award, and any lock-up conditions for the shares.

In 2011, the Board of Directors made significant changes to its equity-based compensation policy. In order to limit the dilutive effect on shareholders, the Board of Directors determined to primarily award performance shares, except for a limited group of senior managers who may continue to receive options. Furthermore, whoever the beneficiary is, any award of options or performance shares will henceforth be fully contingent upon the performance targets being achieved over several financial years.

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On March 5, 2012, the Board of Directors set up two plans in addition to the award made to the Chief Executive Officer:

a French plan awarding 1,525,100 performance shares to 2,545 beneficiaries, subject to a vesting period of three years followed by a lock-up period of two years; and

an international plan awarding 3,127,160 restricted shares to 5,042 beneficiaries, subject to a vesting period of four years.

The entire award was contingent upon two of the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of each criterion is different, each representing 50% of the grant. The quantitative measures of performance are the same as for the award of Christopher Viehbacher.

The 2012 awards represent a dilution of 0.35% of our share capital before dilution as of December 31, 2012.

Not all employees are able to benefit from awards of performance shares, but a new agreement on the voluntary scheme (*intéressement des salariés*) was concluded in June 2011 to ensure that all employees have an interest in the performance of the business.

In addition, pursuant to the French Act of July 28, 2011, all employees in France of the French subsidiaries of the Group benefited from a profit-sharing bonus amounting to €620 gross in July 2012. In total, Sanofi paid out €18.3 million in this regard (including social contributions).

On March 5, 2013, the Board of Directors set up two plans:

a French plan awarding 1,411,910 performance shares to 2,542 beneficiaries, subject to a vesting period of three years followed by a lock-up period of two years; and

an international plan awarding 2,838,795 restricted shares to 5,119 beneficiaries, subject to a vesting period of four years.

The entire award was subject to two of the same internal criteria based on Business Net Income and Return on Assets (ROA) as Christopher Viehbacher, but excluding the TSR-based criterion. Consequently, the weighting of each criterion is different, each representing 50% of the grant.

As part of its commitment to transparency, Sanofi has undertaken to publish in its annual report the level of attainment determined by the Board of Directors for the performance conditions applicable to future equity-based compensation plans awarded to Christopher Viehbacher and the other members of the Executive Committee. The Board considers that disclosing the level of attainment allows our shareholders to better understand the demanding nature of the performance conditions. For disclosures about the level of attainment of the various equity-based compensation plans, see " B. Compensation Compensation and pension arrangements for corporate officers Christopher Viehbacher", bearing in mind that the TSR-based criterion only applies to the Chief Executive Officer and that the criteria based on Business Net Income and the ROA apply to 50% of the grant each.

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#### Restricted Share Plans

Origin	Date of shareholder authorization	Date of award	Number of shares initially awarded	- to the 10 employees - to awarded the most shares		Date of award <sup>(3)</sup>	Vesting date	Availability date	Number transferred as of 12/31/2012	Number of rights canceled as of 12/31/2012	Number outstanding
				to officers <sup>(1)</sup>	to employees <sup>(2)</sup>						
sanofi-aventis	5/31/07	3/02/09	590,060	65,000	13,900	3/02/09	3/03/11	3/04/13	585,782	4,278	0
sanofi-aventis	5/31/07	3/02/09	604,004	0	13,200	3/02/09	3/04/13	3/04/13	2,564	59,071	542,369
sanofi-aventis	4/17/09	3/01/10	531,725	0	12,600	3/01/10	3/02/12	3/03/14	523,767	7,958	0
sanofi-aventis	4/17/09	3/01/10	699,524	0	16,530	3/01/10	3/02/14	3/03/14	2,686	65,294	631,544
sanofi-aventis	4/17/09	10/27/10	556,480	20	200	10/27/10	10/27/12	10/28/14	533,200	23,280	0
sanofi-aventis	4/17/09	10/27/10	1,544,860	0	200	10/27/10	10/27/14	10/28/14	1,080	72,800	1,470,980
sanofi-aventis	4/17/09	3/09/11	1,366,040	0	71,000	3/09/11	3/10/13	3/10/15	200	18,050	1,347,790
sanofi-aventis	4/17/09	3/09/11	1,934,610	0	103,300	3/09/11	3/10/15	3/10/15	12,000	116,160	1,806,450
sanofi-aventis	4/17/09	3/09/11	30,000	30,000	0	3/09/11	3/10/13	3/10/15	0	0	30,000
Sanofi	4/17/09	3/05/12	1,525,100	0	126,700	3/05/2012	3/06/15	3/06/17	100	4,980	1,520,020
Sanofi	4/17/09	3/05/12	3,127,160	0	96,300	3/05/2012	3/06/16	3/06/16	0	104,260	3,022,900
Sanofi	4/17/09	3/05/12	42,000	42,000	0	3/05/2012	3/06/15	3/06/17	0	0	42,000

(1) *Comprises the Chief Executive Officer as of the date of grant.*

(2) *Employed as of the date of grant.*

(3) *Subject to vesting conditions.*

As of December 31, 2012, a total of 10,414,053 restricted shares were outstanding, as the vesting period of the plans had not yet expired.

#### Shares Owned by Members of the Board of Directors

As of December 31, 2012, members of our Board of Directors held in the aggregate 113,080 shares, or under 1% of the share capital and of the voting rights, excluding the beneficial ownership of 118,227,307 shares held by L'Oréal as of such date which may be attributed to Laurent Attal or Christian Mulliez (who disclaim beneficial ownership of such shares).

#### Transactions in Shares by Members of the Board of Directors and comparable persons in 2012

On February 23, 2012, Suet-Fern Lee, Director, acquired 500 shares at a price of €56.42 per share;

On March 2, 2012, Lord Douro, Director, acquired 1,000 shares at a price of €57.35 per share;

On May 21, 2012, Christian Mulliez, Director, acquired 32 shares at a price of €54.05 per share by electing to receive his dividend in shares for the units he holds in the Sanofi Group Employee Savings Plan (FCPE Actions Sanofi);

On May 29, 2012, Serge Weinberg, Chairman of the Board of Directors, acquired 70 shares at a price of €54.65 per share;

On June 25, 2012, Laurent Attal, Director, acquired 500 shares at a price of €57.87 per share;

On July 27, 2012, Hanspeter Spek, President Global Operations, exercised 63,000 options to subscribe for shares at a price of €55.74 and sold the resulting 63,000 shares at a price of €64.3265;

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On July 27, 2012, Karen Linehan, Senior Vice-President Legal Affairs and General Counsel, exercised 7,000 options to subscribe for shares at a price of €55.74 and sold the resulting 7,000 shares at a price of €64.16 per share; and

On November 13, 2012, Thierry Desmarest, Director, bought 500 shares at a price of €67.42 per share.

Table of Contents**Item 7. Major Shareholders and Related Party Transactions****A. Major Shareholders**

The table below shows the ownership of our shares as of January 31, 2013, indicating the beneficial owners of our shares. To the best of our knowledge and on the basis of the notifications received as disclosed below, except for L'Oréal, no other shareholder currently holds more than 5% of our share capital or voting rights.

	Total number of issued shares		Number of actual voting rights (excluding own shares) <sup>(3)</sup>		Theoretical number of voting rights (including own shares) <sup>(4)</sup>	
	Number	%	Number	%	Number	%
<b>L'Oréal</b>	118,227,307	8.91	236,454,614	16.13	236,454,614	16.10
<b>Treasury shares <sup>(1)</sup></b>	3,193,787	0.24			3,193,787	0.22
<b>Employees <sup>(2)</sup></b>	17,191,116	1.30	34,062,116	2.32	34,062,116	2.32
<b>Public</b>	1,187,958,233	89.55	1,195,268,262	81.55	1,195,268,262	81.36
<b>Total</b>	<b>1,326,570,443</b>	<b>100</b>	<b>1,465,784,992</b>	<b>100</b>	<b>1,468,978,779</b>	<b>100</b>

(1) Includes net position of share repurchases under the Group's liquidity contract which amounted to 46,000 as of January 31, 2013. Amounts held under this contract vary over time.

(2) Shares held via the Sanofi Group Employee Savings Plan.

(3) Based on the total number of voting rights as of January 31, 2013.

(4) Based on the total number of voting rights as of January 31, 2013 as published in accordance with article 223-11 and seq. of the General Regulations of the Autorité des Marchés Financiers (i.e., calculated before suspension of the voting rights of treasury shares).

Our *statuts* (Articles of Association) provide for double voting rights for shares held in registered form for at least two years. All of our shareholders may benefit from double voting rights if these conditions are met, and no shareholder benefits from specific voting rights. For more information relating to our shares, see "Item 10. Additional Information B. Memorandum and Articles of Association."

L'Oréal is the only entity known to hold more than 5% of the outstanding Sanofi ordinary shares. L'Oréal reduced its holding from 2007 to 2011 after no significant changes in 2006 and 2005. At year-end 2007, its holding was 8.66% of our share capital compared to 8.91% on December 31, 2012.

On February 16, 2012, Total declared, following a loss of double voting rights resulting from the conversion of its shares into bearer shares, that it had passed below the legal threshold of 5% of our voting rights.

Total also declared that, following sales of shares on the stock market and conversion of shares into bearer shares with a view to selling them, it had passed below the thresholds of 3%, 2%, 1% of our share capital (declarations of January 19, 2012, May 10, 2012, and July 30, 2012), and of 5%, 3%, 2% and 1% of our voting rights (declarations of February 16, 2012, June 11, 2012, July 2, 2012, and August 7, 2012) and as of its last declaration held 0.56% of our share capital and 0.5% of our voting rights (declaration of August 7, 2012). Total subsequently announced that it had sold the remainder of its shareholding in Sanofi during September 2012.

In accordance with our *statuts*, shareholders are required to notify us once they have passed the threshold of 1% of our share capital or our voting rights and each time they cross an incremental 1% threshold (see "Item 10. Additional Information B. Memorandum and Articles of Association Requirements for Holdings Exceeding Certain Percentages").

For the year ended December 31, 2012, we were informed that the following share ownership declaration thresholds had been passed:

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Amundi declared that, through its mutual funds, it had passed above the threshold of 3% of the share capital (declaration of February 8, 2012), then passed successively above (declaration of July 19, 2012) and below the threshold of 3% of our voting rights, and as of its last declaration held 3.16% of our share capital and 2.98% of our voting rights (declaration of December 21, 2012).

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BNP Paribas declared that, through its mutual funds, it had successively passed above (declaration of April 27, 2012) and below (declaration of May 22, 2012) the threshold of 1% of our share capital and as of its last declaration held 0.95% of our share capital and 0.80% of our voting rights (declaration of May 22, 2012).

The Caisse des dépôts et consignations declared that it had passed below the threshold of 2% of our share capital and as of its last declaration held 1.99% of our share capital and 1.74% of our voting rights (declaration of January 20, 2012).

Crédit Suisse declared that the Crédit Suisse Group had passed above the threshold of 1% of our share capital (declaration of January 5, 2012), then successively above and below the thresholds of 2% and 1% of our share capital and as of its last declaration held 1.34% of our capital (declaration of July 24, 2012).

Franklin Resources, Inc. declared that it had successively passed below (declaration of January 6, 2012), above (declaration of April 24, 2012) and again below (declaration of November 13, 2012) the threshold of 2% of our share capital, then above (declaration of May 9, 2012) and below (declaration of August 24, 2012) the threshold of 2% of our voting rights and as of its last declaration held 1.98% of our share capital and 1.79% of our voting rights (declaration of November 13, 2012).

L'Oréal declared that, due to the reduction of the number of our voting rights, it had passively passed above the threshold of 16% of our voting rights and as of its last declaration held 16.01% of our voting rights (declaration of July 16, 2012).

Natixis Asset Management declared that on several occasions it had passed below the threshold of 2% of our share capital (declaration of February 21, 2012) and as of its last declaration held 1.98% of our share capital (declaration of December 4, 2012).

Individual shareholders (including employees of Sanofi and its subsidiaries, as well as retired employees holding shares via the sanofi-aventis Group Employee Savings Plan), hold approximately 8.7% of our share capital. Institutional shareholders (excluding L'Oréal) hold approximately 78.3% of our share capital. Such shareholders are primarily American (27.9%), French (16.3%) and British (14.1%). German institutions hold 3.0% of our share capital, Swiss institutions hold 2.2%, institutions from other European countries hold 8.5% and Canadian institutions hold 1.4% of our share capital. Other international institutional investors (excluding those from Europe and the United States) hold approximately 4.9% of our share capital. In France, our home country, we have 14,887 identified shareholders of record. In the United States, our host country, we have 62 identified shareholders of record and 11,322 identified ADS holders of record.

(source: a survey conducted by Euroclear France as of December 31, 2012, and internal information).

***Shareholders' Agreement***

We are unaware of any shareholders' agreement currently in force.

**B. Related Party Transactions**

In the ordinary course of business, we purchase or provide materials, supplies and services from or to numerous companies throughout the world. Members of our Board of Directors are affiliated with some of these companies. We conduct our transactions with such companies on an arm's-length basis and do not consider the amounts involved in such transactions to be material.

On September 17, 2009, Sanofi acquired the interest held by Merck & Co., Inc. (Merck) in Merial Limited (Merial) and Merial has been a wholly-owned subsidiary of Sanofi since that date. As per the terms of the agreement signed on July 29, 2009, Sanofi also had an option, following the closing of the Merck/Schering-Plough merger, to combine the Intervet/Schering-Plough Animal Health business with Merial to form an animal health joint venture that would be equally owned by the new Merck and Sanofi. On March 8, 2010, Sanofi exercised its contractual right to combine the Intervet/Schering-Plough Animal Health business with Merial. On March 22, 2011, Merck and Sanofi jointly announced the mutual termination of their agreement to form a new animal health joint venture. As a result, Merial and Intervet/Schering-Plough continue to operate as separate businesses.



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Consequently, the assets and liabilities of Merial, which previously were classified in Sanofi's balance sheet as assets or liabilities held for sale or exchange, have been reclassified to the relevant balance sheet line items with no restatement of comparative periods. At the same time, results from the Merial business were included in continuing operations for all the periods reported (for more information on these and other impacts of the termination of the agreement on Sanofi's financial statements, see Notes D.2 and D.8.2 to our consolidated financial statements included at Item 18 of this annual report).

On October 2, 2010, in order to fund a significant part of its proposed acquisition of Genzyme Corporation, Sanofi executed a Facilities Agreement (the "Facilities Agreement", described at "Item 10. Additional Information C. Material Contracts" herein) with J.P. Morgan plc, Société Générale Corporate & Investment Banking and BNP Paribas for unsecured term loan facilities of up to \$15,000,000,000. Because Robert Castaigne serves on the boards of both Société Générale and Sanofi, Sanofi submitted the Facilities Agreement and certain non-material ancillary agreements, as well as a subsequent amendment, to the prior approval of its Board of Directors with Robert Castaigne abstaining from the vote. In April 2011, \$4,000,000,000 were borrowed by Sanofi under the Facilities Agreement to partially fund the acquisition of Genzyme; these amounts were fully reimbursed during the course of 2011. The Facilities Agreement expired as a consequence of such reimbursement.

On February 21, 2012, Sanofi European Treasury Center (SETC), a 100% subsidiary of the Sanofi Group, was incorporated under the laws of Belgium, with the purpose of providing financing and some financial services to Group subsidiaries. In addition, cash management agreements exist between Sanofi and certain of its subsidiaries.

The Sanofi parent company transferred the Genzyme Corporation shares acquired in April 2011 to Aventis, Inc. on June 28, 2012. This transfer consisted of two principal operations:

recapitalization by the Sanofi parent company of its subsidiary Genzyme Corporation by incorporation of two loans totaling \$16.1 billion into share capital;

sale of Genzyme Corporation to a wholly owned subsidiary, Aventis, Inc., for a total price of \$19.2 billion. Aventis, Inc. financed this acquisition mainly by using its available cash resources, by increasing its share capital and by long-term intragroup financing (\$15.6 billion).

**C. Interests of Experts and Counsel**

N/A

Table of Contents**Item 8. Financial Information*****A. Consolidated Financial Statements and Other Financial Information***

Our consolidated financial statements as of and for the years ended December 31, 2012, 2011, and 2010 are included in this annual report at "Item 18. Financial Statements."

**Dividends on Ordinary Shares**

We paid annual dividends for the years ended December 31, 2007, 2008, 2009, 2010 and 2011 and our shareholders will be asked to approve the payment of an annual dividend of €2.77 per share for the 2012 fiscal year at our next annual shareholders' meeting. If approved, this dividend will be paid on May 14, 2013.

We expect that we will continue to pay regular dividends based on our financial condition and results of operations. The proposed 2012 dividend equates to a distribution of 45% of our business earnings per share. For information on the non-GAAP financial measure, "business earnings per share", see "Item 5. Operating and Financial Review and Prospects – Business Net Income." The proposed dividend distribution will subject Sanofi to a 3% additional corporate tax charge on the amount distributed.

The following table sets forth information with respect to the dividends paid by our Company in respect of the 2008, 2009, 2010 and 2011 fiscal years and the dividend that will be proposed for approval by our shareholders in respect of the 2012 fiscal year at our May 3, 2013 shareholders' meeting.

	2012 <sup>(1)</sup>	2011	2010	2009	2008
Net Dividend per Share (in €)	2.77	2.65	2.50	2.40	2.20
Net Dividend per Share (in \$) <sup>(2)</sup>	3.65	3.43	3.34	3.46	3.06

(1) *Proposal, subject to shareholder approval.*

(2) *Based on the relevant year-end exchange rate.*

The declaration, amount and payment of any future dividends will be determined by majority vote of the holders of our shares at an ordinary general meeting, following the recommendation of our Board of Directors. Any declaration will depend on our results of operations, financial condition, cash requirements, future prospects and other factors deemed relevant by our shareholders. Accordingly, we cannot assure you that we will pay dividends in the future on a continuous and regular basis. Under French law, we are required to pay dividends approved by an ordinary general meeting of shareholders within nine months following the meeting at which they are approved.

**Disclosure pursuant to Section 219 of the Iran Threat Reduction & Syria Human Rights Act (ITRA)**

Sanofi conducts limited business relating to human and animal health products with Iran contributing well under 1% of the Group's consolidated net sales in 2012. Although these activities are compliant with applicable law and not financially material to the Group, the Iran Threat Reduction and Syria Human Rights Act of 2012 (the "Act") requires us to include the following disclosures in this report. Sales consisted of bulk and branded pharmaceuticals, vaccines, and animal health supplies. U.S. affiliates, or foreign affiliates controlled by U.S. affiliates, are either not involved in these activities or operate under humanitarian licenses issued by the U.S. Treasury Department's Office of Foreign Assets Control, and the Group has not knowingly conducted a transaction or dealing with a person or entity designated in U.S. Executive Orders No. 13224 and 13382. Limited business not exceeding €10.2 million in gross revenues has been conducted by foreign subsidiaries not requiring an OFAC license with entities such as public hospitals or distributors tied to the Ministry of Health or Ministry of Agriculture. It is estimated that this activity contributed no more than €3.7 million to net profits. A representative office in Tehran incurs incidental expenses from state-owned utilities. Otherwise, no business has been transacted with the Government of Iran as defined in the Act. The Group does not believe any of its activities to be sanctionable under the Iran Sanctions Act or the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010. In light of the nature of the products concerned, Sanofi does not currently intend to cease its commercial operations in Iran.

Table of Contents**Information on Legal or Arbitration Proceedings**

This Item 8 incorporates by reference the disclosures found at Note D.22 to the consolidated financial statements found at Item 18 of this annual report; material updates thereto as of the date of this annual report are found below under the heading " Updates to Note D.22".

Sanofi and its affiliates are involved in litigation, arbitration and other legal proceedings. These proceedings typically are related to product liability claims, intellectual property rights (particularly claims against generic companies seeking to limit the patent protection of Sanofi products), competition law and trade practices, commercial claims, employment and wrongful discharge claims, tax assessment claims, waste disposal and pollution claims, and claims under warranties or indemnification arrangements relating to business divestitures. As a result, the Group may become subject to substantial liabilities that may not be covered by insurance and could affect our business and reputation. While we do not currently believe that any of these legal proceedings will have a material adverse effect on our financial position, litigation is inherently unpredictable. As a consequence, we may in the future incur judgments or enter into settlements of claims that could have a material adverse effect on results of operations, cash flows and/or our reputation.

**Patents***Plavix® Patent Litigation*

*United States.* Sanofi and Bristol-Myers Squibb sought damages from Apotex, in reparation of harm caused by that company's "at risk" marketing and sale of an infringing generic version of Plavix® in 2006. In October 2010, the U.S. District Court awarded Sanofi and Bristol-Myers Squibb damages in the amount of U.S.\$442,209,362, plus U.S.\$107,930,857 in pre-judgment interest, as well as costs and post-judgment interests as set by statute. Apotex secured the amount of the award by cash deposit and filed a notice of appeal. On October 18, 2011, the U.S. Court of Appeals for the Federal Circuit upheld the U.S. District Court ruling regarding the amount of damages but did not uphold the District Court decision regarding the pre-judgment interest. Sanofi's and Bristol-Myers Squibb's petition for rehearing en banc with respect to the Court of Appeals decision concerning pre-judgment interest was denied on January 13, 2012. The order of payment of the damages was issued in February 2012. On February 7, 2012 Sanofi collected its share of the Plavix® patent infringement damage award, post-judgment interest and awarded litigation costs (totaling U.S.\$272,828,073.10).

*Canada.* On April 22, 2009, Apotex filed an impeachment action against Sanofi in the Federal Court of Canada alleging the invalidity of Sanofi's Canadian Patent No. 1,336,777 (the '777 Patent) claiming clopidogrel bisulfate. On June 8, 2009, Sanofi filed its defense to the impeachment action and filed a suit against Apotex for infringement of the '777 Patent. The actions were combined and the trial was completed in June 2011. In December 2011, the Federal Court issued a decision that the '777 Patent is invalid, and subsequently generic companies entered the market with generic clopidogrel products. Sanofi filed an appeal with the Federal Court of Appeal in 2012, which is still pending.

*Apotex Settlement Claim*

On November 13, 2008, Apotex filed a complaint before a state court in New Jersey against Sanofi and Bristol-Myers Squibb claiming the payment of a U.S.\$60 million break-up fee, pursuant to the terms of the initial settlement agreement of March 2006 relating to the U.S. Plavix® patent litigation. On April 8, 2011, the New Jersey state court granted Sanofi and Bristol-Myers Squibb a motion for summary judgment that was reversed in November 2012.

In January 2011, Apotex filed a lawsuit in Florida State Court, Broward County, alleging breach of contract relating to the parties' March 2006 proposed settlement agreement. Sanofi was granted a motion for summary judgment in 2012, removing Sanofi from the case. BMS's summary judgment motion was denied. Apotex appealed the summary judgment as to Sanofi in December 2012.

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*Allegra® Patent Litigation*

*Japan.* In late 2010, Takata Seiyaku Co. Ltd. ("Takata") and Sawai Pharmaceutical Co. Ltd. ("Sawai") filed patent invalidation actions at the Japan Patent Office ("JPO") against two fexofenadine hydrochloride (the active ingredient in Allegra®) method of treatment patents. In December 2011, the JPO found all claims in both patents invalid and Sanofi appealed. In July 2012, during the appeal process, Sanofi entered into settlement agreements with Takata and Sawai. As a result of the settlement agreements, Takata and Sawai withdrew their legal challenges to the validity of the '954 and '697 patents. This caused the validity of these two patents to be reinstated by the JPO.

In August 2012, Elmed Eisai Co., Ltd. ("Eisai"), Kobayashi Kako Co., Ltd. ("Kobayashi"), and Taisho Pharm. Ind., Ltd. ("Taisho") obtained approvals to manufacture and market generic fexofenadine hydrochloride products in Japan, despite the existence and validity of the two fexofenadine hydrochloride patents. In August and September 2012, patent invalidation actions against those two patents were filed at the JPO by Eisai, Daiko Pharmaceutical Co. Ltd., Kyorin Rimedia Co. Ltd., Nihon Generic Co., Ltd., Nihon Pharmaceutical Industry Co. Ltd., Nippon Chemipharm Co., Ltd., Nissin Pharmaceutical Co., Ltd., Shiono Chemical Co. Ltd., Teva Pharma Japan Inc., and Yoshindo Inc. The invalidation actions are in preliminary stages.

In October 2012, Sanofi filed patent infringement lawsuits against Eisai, Taisho and Kobayashi. Those lawsuits are in an early stage. In December 2012, the previously approved generic fexofenadine hydrochloride products of Eisai and Kobayashi were added to Japan's National Health Insurance (NHI) price list. Since February 2013, Allegra® as a prescription medicine has been subject to generic competition in this country.

*Eloxatin® (oxaliplatin) Patent Litigation*

*United States.* In February 2011, the U.S. District Court for the District of New Jersey granted Sanofi's request for a preliminary injunction prohibiting Sun Pharmaceuticals from launching an unauthorized generic product of oxaliplatin. On September 16, 2011, the U.S. District Court for the District of New Jersey ruled in favor of Sanofi, requiring that Sun's unauthorized generic oxaliplatin remain off the U.S. market until August 9, 2012. Sun's appeal of the District Court's ruling was dismissed in September 2012.

*Synvisc-One® Patent Litigation*

In April 2011, Genzyme filed suit in the U.S. District Court for the District of Massachusetts against generic manufacturers Seikagaku Corporation (Seikagaku), Zimmer Holdings, Inc., Zimmer, Inc. and Zimmer U.S., Inc. (collectively, "Zimmer") for the infringement of U.S. Patent No. 5,399,351 (the '351 patent) and U.S. Patent No. 7,931,030 (the '030 patent), upon Seikagaku's and Zimmer's launch of generic versions of Synvisc-One® in the United States.

On December 30, 2011, the U.S. District Court granted, in part, Genzyme's Motion for a preliminary injunction, enjoining Seikagaku and Zimmer from selling generic versions of Synvisc-One®, pending a decision in the infringement action, except on limited and specific pricing conditions. In August 2012, a federal jury in Massachusetts found that Seikagaku Corp's recently approved product Gel-One®, distributed in the US by Zimmer, did not infringe the '030 patent. The jury also found that the '030 patent claims were invalid due to obviousness. A motion for judgment as a matter of law and a motion for new trial were filed in September 2012.

*Co-Aprovel® Patent Infringement Actions in Europe*

Sanofi has been involved since early 2012 in a number of legal proceedings involving generic companies that attempted to launch or launched generic versions of Sanofi's Co-Aprovel® in several European countries including, United Kingdom, Belgium, France, Germany, Netherlands, Italy and Norway. Sanofi filed for and was granted preliminary injunctions (PI) against several generic companies based on Sanofi's Supplemental Protection Certificate (SPC) covering Co-Aprovel®. However, Sanofi was not granted PIs against three generic companies, Sandoz, Mylan and Arrow, in France. Sanofi appealed this decision in August 2012. Sanofi followed its PI actions with main infringement suits against some of the generic companies. A few of the generic companies have filed revocation actions seeking to revoke Sanofi's Co-Aprovel® SPC. Some of these revocation actions were denied

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(Italy), others have been suspended (United Kingdom, Belgium), in France, the *Tribunal de Grande Instance* of Paris held the SPC and the patent invalid at the end of February 2013. Sanofi and BMS have appealed that decision.

**Regulatory Claims**

*Lovenox® Regulatory Litigation*

In July 2010, Sanofi learned that the Food and Drug Administration (FDA) had approved a generic enoxaparin ANDA filed by Sandoz. Sanofi subsequently filed suit against the FDA in the U.S. District Court for the District of Columbia and requested preliminary injunctive relief against the FDA. In August 2010, the U.S. District Court denied this request. As a result of this ruling, the generic version of enoxaparin can continue to be marketed in the United States. On February 7, 2012, the Court ruled in favor of the FDA regarding the approval of the Sandoz enoxaparin ANDA.

**Government Investigations**

From time to time, subsidiaries of Sanofi are subject to governmental investigations and information requests from regulatory authorities inquiring as to the practices of Sanofi with respect to the sales, marketing, and promotion of its products.

For example, Sanofi is cooperating with the U.S. Department of Justice in its respective investigations into the promotion of Septrafilm® and Sculptra®, and settled in December 2012 all claims arising out of an investigation into sampling of its former product Hyalgan®. In that respect, Sanofi U.S. paid U.S.\$109 million to the settling parties and expects to enter into a Corporate Integrity Agreement with the Office of the Inspector General of the United States Department of Health and Human Services.

In June 2012, Sanofi U.S. became aware that the U.S. Department of Justice is investigating disclosures to the FDA regarding the variability of response to Plavix®. Sanofi U.S. is cooperating with the U.S. Department of Justice in this matter.

In France, Sanofi is involved in a claim before the French Antitrust Authority (*Autorité de la Concurrence*) concerning allegations brought by Teva Santé that Sanofi's communications and promotional practices inhibited the entry on the market of Plavix® generics.

In Germany, following a criminal complaint filed by Sanofi against one of its distributors, a criminal investigation was initiated against three current and two retired Sanofi employees in connection with the alleged sale in Germany of medications originally destined for humanitarian aid outside of the European Union. The criminal proceedings are ongoing.

Sanofi has received information that improper payments may have been made in connection with the sale of pharmaceutical products in two small markets within the Emerging Markets region. Sanofi currently is assessing whether these payments were made and, if so, whether they fall within the U.S. Foreign Corrupt Practices Act. In connection with its review, Sanofi has provided information to the U.S. Department of Justice and the U.S. Securities and Exchange Commission and is cooperating with these agencies.

**Glossary of Terminology**

A number of technical terms which may be used above in Item 8 are defined below for the convenience of the reader.

*ANDA or Abbreviated New Drug Application (United States):* An application by a drug manufacturer to receive authority from the U.S. FDA to market a generic version of another company's approved product, by demonstrating that the purportedly generic version has the same properties (bioequivalence) as the original approved product. As a result of data exclusivity, the ANDA may be filed only several years after the initial market authorization of the original product.

*Summary judgment:* A judgment granted on a claim or defense about which there is no genuine issue of material fact and upon which the movant is entitled to prevail as a matter of law. This procedural device allows the speedy disposition of a controversy without the need for trial.

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*Updates to Note D.22*

*Rhodia Retained Liabilities*

On February 5, 2013, Rhodia's motion for reconsideration of the Sao Paulo's Court of Appeal's decision (of September 2011) was rejected by an *en banc* decision of the same Court. Rhodia may still initiate some recourse against this decision to the Brazilian Supreme Court.

***B. Significant Changes***

N/A

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We have one class of shares. Each American Depositary Share, or ADS, represents one-half of one share. The ADSs are evidenced by American Depositary Receipts, or ADRs, which are issued by JPMorgan Chase Bank, N.A..

Our shares trade on Compartment A of NYSE Euronext Paris, or Euronext Paris, and our ADSs trade on the New York Stock Exchange, or NYSE.

In April 2011, in connection with our acquisition of Genzyme, we issued contingent value rights ("CVRs") under a CVR agreement entered into by and between us and the American Stock Transfer & Trust Company, LLC, as trustee (see Item 10.C. Material Contracts - The Contingent Value Rights Agreement). Our CVRs trade on the NASDAQ Global Market.

**Trading History**

The table below sets forth, for the periods indicated, the reported high and low market prices of our shares on Euronext Paris and our ADSs on the NYSE (source: Bloomberg).

Calendar period	Shares, as traded on Euronext Paris		ADSs, as traded on the NYSE	
	High	Low	High	Low
	(price per share in €)		(price per ADS in \$)	
<b>Monthly</b>				
February 2013	74.20	65.91	49.70	44.50
January 2013	74.29	71.50	49.56	47.43
December 2012	72.38	68.43	47.97	44.82
November 2012	69.95	66.46	45.26	42.20
October 2012	69.86	65.63	45.72	42.52
September 2012	69.46	64.52	44.97	40.52
<b>2012</b>				
First quarter	59.56	54.86	39.19	34.92
Second quarter	59.74	53.20	39.33	33.03
Third quarter	69.46	59.45	44.97	36.53
Fourth quarter	72.38	65.63	47.97	42.20
Full Year	72.38	53.20	47.97	33.03
<b>2011</b>				
First quarter	52.23	46.04	36.29	31.45
Second quarter	56.50	49.64	40.75	35.34
Third quarter	56.82	42.85	40.58	30.98
Fourth quarter	56.75	47.00	37.66	31.61
Full Year	56.82	42.85	40.75	30.98

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Calendar period	Shares, as traded on Euronext		ADSs, as traded on the NYSE	
	Paris		High	Low
	High	Low		
	(price per share in €)		(price per ADS in \$)	
<b>2010</b>				
Full Year	58.90	44.01	41.59	28.01
<b>2009</b>				
Full Year	56.78	38.43	40.80	24.59
<b>2008</b>				
Full Year	66.90	36.055	49.04	23.95

Fluctuations in the exchange rate between the euro and the U.S. dollar will affect any comparisons of euro share prices and U.S. ADS prices.

**B. Plan of Distribution**

N/A

**C. Markets**

**Shares and ADSs**

Our shares are listed on Euronext Paris under the symbol "SAN" and our ADSs are listed on the NYSE under the symbol "SNY".

As of the date of this annual report, our shares are included in a large number of indices, including the "CAC 40 Index", the principal French index published by Euronext Paris. This index contains 40 stocks selected among the top 100 companies based on free-float capitalization and the most active stocks listed on the Euronext Paris market. The CAC 40 Index indicates trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. Our shares are also included in the S&P Global 100 Index, the Dow Jones EuroSTOXX 50, the Dow Jones STOXX 50, the FTS Eurofirst 100, the FTS Eurofirst 80 and the MSCI Pan-Euro Index, among other indices.

**CVRs**

Our CVRs trade on the NASDAQ Global Market under the symbol "GCVRZ".

**Trading by Sanofi in our own Shares**

Under French law, a company may not issue shares to itself, but it may purchase its own shares in the limited cases described at "Item 10. Additional Information B. Memorandum and Articles of Association Trading in Our Own Shares."

**D. Selling Shareholders**

N/A

**E. Dilution**



N/A

***F. Expenses of the Issue***

N/A

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**Item 10. Additional Information**

**A. Share Capital**

N/A

**B. Memorandum and Articles of Association**

**General**

Our Company is a *société anonyme*, a form of limited liability company, organized under the laws of France.

In this section, we summarize material information concerning our share capital, together with material provisions of applicable French law and our *statuts*, an English translation of which has been filed as an exhibit to this annual report. For a description of certain provisions of our *statuts* relating to our Board of Directors and statutory auditors, see "Item 6. Directors, Senior Management and Employees." You may obtain copies of our *statuts* in French from the *greffe* (Clerk) of the *Registre du Commerce et des Sociétés de Paris* (Registry of Commerce and Companies of Paris, France, registration number: 395 030 844). Please refer to that full document for additional details.

Our *statuts* specify that our corporate affairs are governed by:

applicable laws and regulations (in particular, Title II of the French Commercial Code); and

the *statuts* themselves.

Article 3 of our *statuts* specifies that the Company's corporate purpose, in France and abroad, is:

acquiring interests and holdings, in any form whatsoever, in any company or enterprise, in existence or to be created, connected directly or indirectly with the health and fine chemistry sectors, human and animal therapeutics, nutrition and bio-industry;

in the following areas:

purchase and sale of all raw materials and products necessary for these activities;

research, study and development of new products, techniques and processes;

manufacture and sale of all chemical, biological, dietary and hygiene products;

obtaining or acquiring all intellectual property rights related to results obtained and, in particular, filing all patents, trademarks and models, processes or inventions;

operating directly or indirectly, purchasing, and transferring for free or for consideration pledging or securing all intellectual property rights, particularly all patents, trademarks and models, processes or inventions;

obtaining, operating, holding and granting all licenses;

within the framework of a group-wide policy and subject to compliance with the relevant legislation, participating in treasury management transactions, whether as lead company or otherwise, in the form of centralized currency risk management or intra-group netting, or any other form permitted under the relevant laws and regulations;

and, more generally:

all commercial, industrial, real or personal property, financial or other transactions, connected directly or indirectly, totally or partially, with the activities described above and with all similar or related activities or having any other purposes likely to encourage or develop the Company's activities.

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**Directors**

***Transactions in Which Directors Are Materially Interested***

Under French law, any agreement entered into (directly or through an intermediary) between our Company and any one of the members of the Board of Directors that is not entered into (i) in the ordinary course of our business and (ii) under normal conditions is subject to the prior authorization of the disinterested members of the Board of Directors. The same provision applies to agreements between our Company and another company if one of the members of the Board of Directors is the owner, general partner, manager, director, general manager or member of the executive or supervisory board of the other company, as well as to agreements in which one of the members of the Board of Directors has an indirect interest.

The Board of Directors must also authorize any undertaking taken by our Company for the benefit of our Chairman, Chief Executive Officer (*directeur général*) or his delegates (*directeurs généraux délégués*) pursuant to which such persons will or may be granted compensation, benefit or any other advantage as a result of the termination of or a change in their offices or following such termination or change.

In addition, except with respect to any non-compete indemnity or certain pension benefits, any such termination package: (i) must be authorized by our shareholders through the adoption of a separate general shareholders meeting resolution for each such beneficiary, which authorization must be renewed at each renewal of such beneficiary's mandate, and (ii) cannot be paid to such beneficiary unless (a) the Board of Directors decides that such beneficiary has satisfied certain conditions, linked to such beneficiary's performance measured by our Company's performance, that must have been defined by the Board of Directors when granting such package, and (b) such decision is publicly disclosed.

***Directors' Compensation***

The aggregate amount of attendance fees (*jetons de présence*) of the Board of Directors is determined at the Shareholders' Ordinary General Meeting. The Board of Directors then divides this aggregate amount among its members by a simple majority vote. In addition, the Board of Directors may grant exceptional compensation (*rémunérations exceptionnelles*) to individual directors on a case-by-case basis for special assignments following the procedures described above at " Transactions in Which Directors Are Materially Interested." The Board of Directors may also authorize the reimbursement of travel and accommodation expenses, as well as other expenses incurred by Directors in the corporate interest. See also "Item 6. Directors, Senior Management and Employees."

***Board of Directors' Borrowing Powers***

All loans or borrowings on behalf of the Company may be decided by the Board of Directors within the limits, if any, imposed by the Shareholders' General Meeting. There are currently no limits imposed on the amounts of loans or borrowings that the Board of Directors may approve.

***Directors' Age Limits***

For a description of the provisions of our *statuts* relating to age limits applicable to our Directors, see "Item 6. Directors, Senior Management and Employees."

***Directors' Share Ownership Requirements***

Pursuant to the Board Charter, our Directors are required to hold at least 1,000 shares during the term of their appointment.

**Share Capital**

As of December 31, 2012, our share capital amounted to €2,652,685,918, divided into 1,326,342,959 outstanding shares with a par value of €2 per share. All of our outstanding shares are of the same class and are fully paid. Of these shares, we or entities controlled by us held 3,150,287 shares (or 0.24% of our outstanding share



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capital), as treasury shares as of such date. As of December 31, 2012, the carrying amount of such shares was €207 million.

At an extraordinary general meeting held on May 6, 2011, our shareholders authorized our Board of Directors to increase our share capital, through the issuance of shares or other securities giving access to the share capital with or without preemptive rights, by an aggregate maximum nominal amount of €1.3 billion. See " Changes in Share Capital Increases in Share Capital," below.

The maximum total number of authorized but unissued shares as of December 31, 2012 was 321 million, reflecting the unused part of the May 6, 2011 and May 4, 2012 shareholder authorizations to issue shares without preemptive rights, outstanding options to subscribe for shares, and awards of shares.

**Stock Options**

*Types of Stock Options*

We have two types of stock options outstanding: options to subscribe for shares (*options de souscription d'actions*) and options to purchase shares (*options d'achat d'actions*). Upon exercise of an option to subscribe for shares, we issue new shares, whereas upon exercise of an option to purchase shares, the option holder receives existing shares. We purchase our shares on the market prior to the vesting of the options to purchase in order to provide the option holder with shares upon exercise.

Because the exercise of options to purchase shares will be satisfied with existing shares repurchased on the market or held in treasury, the exercise of options to purchase shares has no impact on the amount of our share capital.

*Stock Option Plans*

Our combined general meeting held on May 6, 2011 authorized our Board of Directors for a period of 26 months to grant, on one or more occasions, options to subscribe for shares and options to purchase shares in favor of persons to be chosen by the Board of Directors from among the salaried employees and corporate officers of our Company or of companies or groupings of economic interest of the Group in accordance with Article L. 225-180 of the French Commercial Code.

The aggregate number of options to subscribe for shares and options to purchase shares that may be granted under this authorization may not give entitlement to a total number of shares exceeding 1% of the share capital as of the date of the decision by the Board of Directors to grant such options.

The Board of Directors sets the exercise price of options to subscribe for shares and options to purchase shares. However, the exercise price never incorporates a discount and must be at least equal to the average of the quoted market prices on the 20 trading sessions preceding the date of grant by the Board of Directors.

Stock option plans generally provide for a lock-up period of four years and have a duration of ten years.

Under such authorization the shareholders expressly waive, in favor of the grantees of options to subscribe for shares, their preemptive rights in respect of shares that are to be issued as and when options are exercised.

The Board of Directors is granted full power to implement this authorization and to set the terms and conditions on which options are granted and the arrangements with respect to the dividend entitlement of the shares.

See "Item 6. Directors, Senior Management and Employees E. Share Ownership" for a description of our option plans currently in force.

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**Awards of Shares**

Our combined general meeting held on May 4, 2012 authorized our Board of Directors for a period of 38 months to allot, on one or more occasions, existing or new restricted shares in favor of persons to be chosen by the Board of Directors from among the salaried employees and corporate officers of our Company or of companies or economic interest groupings of the Group in accordance with Articles L. 225-197-1 *et seq.* of the French Commercial Code.

The existing or new shares allotted under this authorization may not represent more than 1.2% of the share capital as of the date of the decision by the Board of Directors to allot such shares.

The authorization provides that allotment of shares to the allottees will become irrevocable either (i) at the end of a minimum vesting period of three years, in which case the allottees will also be required to retain their shares for a minimum period of two years from the irrevocable allotment thereof, or (ii) after a minimum vesting period of four years, in which case allottees may not be subject to any minimum retention period.

In the case of newly issued shares, the authorization entails the express waiver by the shareholders, in favor of the allottees of restricted shares, of their preemptive rights in respect of shares that are to be issued as and when restricted shares vest.

The Board of Directors sets the terms on which restricted shares are granted and the arrangements with respect to the dividend entitlement of the shares.

See "Item 6. Directors, Senior Management and Employees E. Share Ownership" for a description of our restricted shares plans currently in force.

**Changes in Share Capital in 2012**

See Note D.15.1. to our consolidated financial statements included at Item 18 of this annual report.

**Voting Rights**

In general, each shareholder is entitled to one vote per share at any shareholders' general meeting. Our *statuts* do not provide for cumulative voting rights. However, our *statuts* provide that any fully paid-up shares that have been held in registered form under the name of the same shareholder for at least two years acquire double voting rights. The double voting rights cease automatically for any share converted into bearer form or transferred from one owner to another, subject to certain exceptions permitted by law.

As of December 31, 2012, there were 142,585,235 shares that were entitled to double voting rights, representing 10.75% of our total share capital, approximately 9.73% of our voting rights held by holders other than us and our subsidiaries, and 9.71% of our total voting rights.

Double voting rights are not taken into account in determining whether a quorum exists.

Under the French Commercial Code, treasury shares or shares held by entities controlled by that company are not entitled to voting rights and do not count for quorum purposes.

Our *statuts* allow us to obtain from Euroclear France the name, nationality, address and number of shares held by holders of our securities that have, or may in the future have, voting rights. If we have reason to believe that a person on any list provided by Euroclear France holds securities on behalf of another person, our *statuts* allow us to request information regarding beneficial ownership directly from such person. See " B. Memorandum and Articles of Association Form, Holding and Transfer of Shares," below.

Our *statuts* provide that Board members are elected on a rolling basis for a maximum tenure of four years.

**Shareholders' Agreement**

We are not aware of any shareholder's agreement currently in force concerning our shares.





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**Shareholders' Meetings**

*General*

In accordance with the provisions of the French Commercial Code, there are three types of shareholders' meetings: ordinary, extraordinary and special.

Ordinary general meetings of shareholders are required for matters such as:

electing, replacing and removing directors;

appointing independent auditors;

approving the annual financial statements;

declaring dividends or authorizing dividends to be paid in shares, provided the *statuts* contain a provision to that effect; and

approving share repurchase programs.

Extraordinary general meetings of shareholders are required for approval of matters such as amendments to our *statuts*, including any amendment required in connection with extraordinary corporate actions. Extraordinary corporate actions include:

changing our Company's name or corporate purpose;

increasing or decreasing our share capital;

creating a new class of equity securities;

authorizing the issuance of securities giving access to our share capital or giving the right to receive debt instruments;

establishing any other rights to equity securities;

selling or transferring substantially all of our assets; and

the voluntary liquidation of our Company.

Special meetings of shareholders of a certain category of shares or shares with certain specific rights (such as shares with double voting rights) are required for any modification of the rights derived from that category of shares. The resolutions of the shareholders' general meeting affecting these rights are effective only after approval by the relevant special meeting.

***Annual Ordinary Meetings***

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The French Commercial Code requires the Board of Directors to convene an annual ordinary general shareholders' meeting to approve the annual financial statements. This meeting must be held within six months of the end of each fiscal year. This period may be extended by an order of the President of the Commercial Court. The Board of Directors may also convene an ordinary or extraordinary general shareholders' meeting upon proper notice at any time during the year. If the Board of Directors fails to convene a shareholders' meeting, our independent auditors may call the meeting. In case of bankruptcy, the liquidator or court-appointed agent may also call a shareholders' meeting in some instances. In addition, any of the following may request the court to appoint an agent for the purpose of calling a shareholders' meeting:

one or several shareholders holding at least 5% of our share capital;

duly qualified associations of shareholders who have held their shares in registered form for at least two years and who together hold at least 1% of our voting rights;

the works council in cases of urgency; or

any interested party in cases of urgency.

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***Notice of Shareholders' Meetings***

All prior notice periods provided for below are minimum periods required by French law and cannot be shortened, except in case of a public offer for our shares.

We must announce general meetings at least thirty-five days in advance by means of a preliminary notice (*avis de réunion*), which is published in the *Bulletin des Annonces Légales Obligatoires*, or *BALO*. The preliminary notice must first be sent to the French Financial markets authority (*Autorité des marchés financiers*, the "AMF"), with an indication of the date on which it will be published in the *BALO*. It must be published on our website at least twenty-one days prior to the general meeting. The preliminary notice must contain, among other things, the agenda, a draft of the resolutions to be submitted to the shareholders for consideration at the general meeting and a detailed description of the voting procedures (proxy voting, electronic voting or voting by mail), the procedures permitting shareholders to submit additional resolutions or items to the agenda and to ask written questions to the Board of Directors. The AMF also recommends that, prior to or simultaneously with the publication of the preliminary notice, we publish a summary of the notice indicating the date, time and place of the meeting in a newspaper of national circulation in France and on our website.

At least fifteen days prior to the date set for a first convening, and at least ten days prior to any second convening, we must send a final notice (*avis de convocation*) containing the final agenda, the date, time and place of the meeting and other information related to the meeting. Such final notice must be sent by mail to all registered shareholders who have held shares in registered form for more than one month prior to the date of the final notice and by registered mail, if shareholders have asked for it and paid the corresponding charges. The final notice must also be published in a newspaper authorized to publish legal announcements in the local administrative department (*département*) in which our Company is registered as well as in the *BALO*, with prior notice having been given to the AMF for informational purposes. Even if there are no proposals for new resolutions or items to be submitted to the shareholders at the meeting, we must publish a final notice in a newspaper authorized to publish legal announcements in the local administrative department (*département*) in which our Company is registered as well as in the *BALO*.

***Other issues***

In general, shareholders can only take action at shareholders' meetings on matters listed on the agenda. As an exception to this rule, shareholders may take action with respect to the appointment and dismissal of directors even if this action has not been included on the agenda.

Additional resolutions to be submitted for approval by the shareholders at the shareholders' meeting may be proposed to the Board of Directors, for recommendation to the shareholders at any time from the publication of the preliminary notice in the *BALO* until twenty-five days prior to the general meeting and in any case no later than twenty days following the publication of the preliminary notice in the *BALO* by:

one or several shareholders together holding a specified percentage of shares;

a duly qualified association of shareholders who have held their shares in registered form for at least two years and who together hold at least 1% of our voting rights; or

the works council.

Within the same period, the shareholders may also propose additional items (*points*) to be submitted and discussed during the shareholders' meeting, without a shareholders' vote. The shareholders must substantiate the reasons for proposing their proposals of additional items.

The resolutions and the list of items added to the agenda of the shareholders' meeting must be promptly published on our website.

The Board of Directors must submit the resolutions to a vote of the shareholders after having made a recommendation thereon. The Board of Directors may also comment on the items that are submitted to the shareholders' meeting.



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Following the date on which documents must be made available to the shareholders (including documents to be submitted to the shareholders' meeting and resolutions proposed by the Board of Directors, which must be published on our website at least twenty-one days prior to the general meeting), shareholders may submit written questions to the Board of Directors relating to the agenda for the meeting until the fourth business day prior to the general meeting. The Board of Directors must respond to these questions during the meeting or may refer to a Q&A section located on our website in which the question submitted by a shareholder has already been answered.

**Attendance at Shareholders' Meetings; Proxies and Votes by Mail**

In general, all shareholders may participate in general meetings either in person or by proxy. Shareholders may vote in person, by proxy or by mail.

The right of shareholders to participate in general meetings is subject to the recording (*enregistrement comptable*) of their shares on the third business day, zero hour (Paris time), preceding the general meeting:

for holders of registered shares: in the registered shareholder account held by the Company or on its behalf by an agent appointed by it; and

for holders of bearer shares: in the bearer shareholder account held by the accredited financial intermediary with whom such holders have deposited their shares; such financial intermediaries shall deliver to holders of bearer shares a shareholding certificate (*attestation de participation*) enabling them to participate in the general meeting.

***Attendance in Person***

Any shareholder may attend ordinary general meetings and extraordinary general meetings and exercise its voting rights subject to the conditions specified in the French Commercial Code and our *statuts*.

***Proxies and Votes by Mail***

Proxies are sent to any shareholder upon a request received between the publication of the final notice of meeting and six days before the general meeting and must be made available on our website at least twenty-one days before the general meeting. In order to be counted, such proxies must be received at our registered office, or at any other address indicated on the notice of the meeting or by any electronic mail indicated on the notice of the meeting, prior to the date of the meeting (in practice, we request that shareholders return proxies at least three business days prior to the meeting; electronic proxies must be returned before 3 p.m. Paris time, on the day prior to the general meeting). A shareholder may grant proxies to any natural person or legal entity. The agent may be required to disclose certain information to the shareholder or to the public.

Alternatively, the shareholder may send us a blank proxy without nominating any representative. In this case, the chairman of the meeting will vote the blank proxies in favor of all resolutions proposed or approved by the Board of Directors and against all others.

With respect to votes by mail, we must send shareholders a voting form upon request or must make available a voting form on our website at least twenty-one days before the general meeting. The completed form must be returned to us at least three days prior to the date of the shareholders' meeting. For holders of registered shares, in addition to traditional voting by mail, instructions may also be given via the internet.

**Quorum**

The French Commercial Code requires that shareholders holding in the aggregate at least 20% of the shares entitled to vote must be present in person, or vote by mail or by proxy, in order to fulfill the quorum requirement for:

an ordinary general meeting; and

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an extraordinary general meeting where the only resolutions pertain to either (a) a proposed increase in our share capital through incorporation of reserves, profits or share premium, or (b) the potential issuance

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of free share warrants in the event of a public offer for our shares (article L. 233-32 of the French Commercial Code).

For any other extraordinary general meeting the quorum requirement is at least 25% of the shares entitled to vote, held by shareholders present in person, voting by mail or by proxy.

For a special meeting of holders of a certain category of shares, the quorum requirement is one third of the shares entitled to vote in that category, held by shareholders present in person, voting by mail or by proxy.

If a quorum is not present at a meeting, the meeting is adjourned. However, only questions that were on the agenda of the adjourned meeting may be discussed and voted upon once the meeting resumes.

When an adjourned meeting is resumed, there is no quorum requirement for meetings cited in the first paragraph of this "*Quorum*" section. In the case of any other reconvened extraordinary general meeting or special meeting, the quorum requirement is 20% of the shares entitled to vote (or voting shares belonging to the relevant category for special meetings of holders of shares of such specific category), held by shareholders present in person or voting by mail or by proxy. If a quorum is not met, the reconvened meeting may be adjourned for a maximum of two months with the same quorum requirement. No deliberation or action by the shareholders may take place without a quorum.

**Votes Required for Shareholder Action**

The affirmative vote of a simple majority of the votes cast may pass a resolution at either an ordinary general meeting or an extraordinary general meeting where the only resolution(s) pertain to either (a) a proposed increase in our share capital through incorporation of reserves, profits or share premium, or (b) the potential issuance of free share warrants in the event of a public offer for our shares (article L. 233-32 of the French Commercial Code). At any other extraordinary general shareholders' meeting and at any special meeting of holders of a specific category of shares, the affirmative vote of two-thirds of the votes cast is required.

Abstention from voting by those present or those represented by proxy or voting by mail is counted as a vote against the resolution submitted to a shareholder vote.

**Changes to Shareholders' Rights**

Under French law, the affirmative vote of two-thirds of the votes cast at an extraordinary shareholders' meeting is required to change our *statuts*, which set out the rights attached to our shares, except for capital increases through incorporation of reserves, profits or share premium, or through the issuance of free share warrants in the event of a public offer for our shares (article L. 233-32 of the French Commercial Code).

The rights of a class of shareholders can be amended only after a special meeting of the class of shareholders affected has taken place. The voting requirements applicable to this type of special meeting are the same as those applicable to an extraordinary general shareholders' meeting. The quorum requirements for a special meeting are one-third of the voting shares, or 20% upon resumption of an adjourned meeting.

A unanimous shareholders' vote is required to increase the liabilities of shareholders.

**Financial Statements and Other Communications with Shareholders**

In connection with any shareholders' meeting, we must provide a set of documents including our annual report and a summary of the financial results of the five previous fiscal years to any shareholder who so requests.

We must also provide on our website at least twenty-one days before a shareholders' meeting certain information and a set of documents that includes the preliminary notice, the proxies and voting forms, the resolutions proposed by the Board of Directors, and the documents to be submitted to the shareholders' meeting pursuant to articles L. 225-15 and R. 225-83 of the French Commercial Code, etc. The resolutions and the list of items added to the agenda of the shareholders' meeting must be promptly published on our website.

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**Dividends**

We may only distribute dividends out of our "distributable profits," plus any amounts held in our reserves that the shareholders decide to make available for distribution, other than those reserves that are specifically required by law or our *statuts*. "Distributable profits" consist of our unconsolidated net profit in each fiscal year, as increased or reduced by any profit or loss carried forward from prior years, less any contributions to the reserve accounts pursuant to law or our *statuts*.

***Legal Reserve***

The French Commercial Code requires us to allocate 5% of our unconsolidated net profit for each year to our legal reserve fund before dividends may be paid with respect to that year. Funds must be allocated until the amount in the legal reserve is equal to 10% of the aggregate par value of the issued and outstanding share capital. This restriction on the payment of dividends also applies to each of our French subsidiaries on an unconsolidated basis. At December 31, 2012, our legal reserve amounted to €282,280,863, representing 10.64% of the aggregate par value of our issued and outstanding share capital as of that date. The legal reserve of any company subject to this requirement may serve to allocate losses that may not be allocated to other reserves, or may be distributed to shareholders upon liquidation of the company.

***Approval of Dividends***

According to the French Commercial Code, our Board of Directors may propose a dividend for approval by shareholders at the annual general shareholders' meeting. If we have earned distributable profits since the end of the preceding fiscal year, as reflected in an interim income statement certified by our independent auditors, our Board of Directors may distribute interim dividends to the extent of the distributable profits for the period covered by the interim income statement. Our Board of Directors exercises this authority subject to French law and regulations and may do so without obtaining shareholder approval.

***Distribution of Dividends***

Dividends are distributed to shareholders *pro rata* according to their respective holdings of shares. In the case of interim dividends, distributions are made to shareholders on the date set by our Board of Directors during the meeting in which the distribution of interim dividends is approved. The actual dividend payment date is decided by the shareholders at an ordinary general shareholders' meeting or by our Board of Directors in the absence of such a decision by the shareholders. Shareholders that own shares on the actual payment date are entitled to the dividend.

Dividends may be paid in cash or, if the shareholders' meeting so decides, in kind, provided that all shareholders receive a whole number of assets of the same nature paid in lieu of cash. Our *statuts* provide that, subject to a decision of the shareholders' meeting taken by ordinary resolution, each shareholder may be given the choice to receive his dividend in cash or in shares.

***Timing of Payment***

According to the French Commercial Code, we must pay any existing dividends within nine months of the end of our fiscal year, unless otherwise authorized by court order. Dividends on shares that are not claimed within five years of the date of declared payment revert to the French State.

**Changes in Share Capital**

***Increases in Share Capital***

As provided for by the French Commercial Code, our share capital may be increased only with shareholders' approval at an extraordinary general shareholders' meeting following the recommendation of our Board of Directors. The shareholders may delegate to our Board of Directors either the authority (*délégation de compétence*) or the power (*délégation de pouvoir*) to carry out any increase in share capital. Our Board of Directors may further delegate this power to our Chief Executive Officer or, subject to our Chief Executive Officer's approval, to his delegates (*directeurs généraux délégués*).





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Increases in our share capital may be effected by:

issuing additional shares;

increasing the par value of existing shares;

creating a new class of equity securities; or

exercising the rights attached to securities giving access to the share capital.

Increases in share capital by issuing additional securities may be effected through one or a combination of the following:

in consideration for cash;

in consideration for assets contributed in kind;

through an exchange offer;

by conversion of previously issued debt instruments;

by capitalization of profits, reserves or share premium; or

subject to various conditions, in satisfaction of debt incurred by our Company.

Decisions to increase the share capital through the capitalization of reserves, profits and/or share premium or through the issuance of free share warrants in the event of a public offer for our shares (article L. 233-32 of the French Commercial Code) require shareholders' approval at an extraordinary general shareholders' meeting, acting under the quorum and majority requirements applicable to ordinary shareholders' meetings. Increases effected by an increase in the par value of shares require unanimous approval of the shareholders, unless effected by capitalization of reserves, profits or share premium. All other capital increases require shareholders' approval at an extraordinary general shareholders' meeting acting under the regular quorum and majority requirements for such meetings. See " Quorum" and " Votes Required for Shareholder Action" above.

On May 6, 2011, our shareholders approved various resolutions delegating to the Board of Directors the authority to increase our share capital through the issuance of shares or securities giving access to the share capital, subject to an overall cap set at €1.3 billion. This cap applies to all the resolutions whereby the extraordinary shareholders' meeting delegated to the Board of Directors the authority to increase the share capital, it being also specified that:

the maximum aggregate par value of capital increases that may be carried out with preemptive rights maintained was set at €1.3 billion;

the maximum aggregate par value of capital increases that may be carried out by public offering without preemptive rights was set at €520 million;

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the maximum aggregate par value of capital increases that may be carried out by capitalization of share premium, reserves, profits or other items was set at €500 million; and

capital increases resulting in the issuance of securities to members of employee savings plans are limited to 1% of the share capital as computed on the date of the Board of Directors' decision to issue such securities, and such issuances may be made at a discount of 20% (or 30% if certain French law restrictions on resales were to apply).

On May 6, 2011, our shareholders also approved resolutions delegating to the Board of Directors the authority to increase the share capital by granting options to our employees and/or corporate officers, subject to the overall cap mentioned above and under the following terms and conditions:

the authorization is valid for a period of 26 months, and any options granted may not give entitlement to a total number of shares exceeding 1% of the share capital as computed on the date of the decision of the Board of Directors to grant such options; see " Stock Options" above;

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On May 4, 2012, our shareholders approved resolutions delegating to the Board of Directors the authority to increase the share capital by granting existing or new restricted shares to our employees and/or corporate officers, subject to the overall cap mentioned above and under the following terms and conditions:

the authorization is valid for a period of 38 months, and is subject to a limit of 1.2% of the share capital as computed on the date of the decision of the Board of Directors to allot such shares; see " Awards of Shares" above.

See also "Item 6. Directors, Senior Management and Employees E. Share Ownership".

***Decreases in Share Capital***

In accordance with the provisions of the French Commercial Code, any decrease in our share capital requires approval by the shareholders entitled to vote at an extraordinary general meeting. The share capital may be reduced either by decreasing the par value of the outstanding shares or by reducing the number of outstanding shares. The number of outstanding shares may be reduced either by an exchange of shares or by the repurchase and cancellation of shares. Holders of each class of shares must be treated equally unless each affected shareholder agrees otherwise.

In addition, specific rules exist to permit the cancellation of treasury shares, by which the shareholders' meeting may authorize the cancellation of up to a maximum of 10% of a company's share capital within any 24-month period. On May 6, 2011, our shareholders delegated to our Board of Directors for 26 months the right to reduce our share capital by canceling our own shares.

**Preemptive Rights**

According to the French Commercial Code, if we issue additional securities to be paid in cash, current shareholders will have preemptive rights to these securities on a *pro rata* basis. These preemptive rights require us to give priority treatment to current shareholders. The rights entitle the individual or entity that holds them to subscribe to the issuance of any securities that may increase the share capital of our Company by means of a cash payment or a set-off of cash debts. Preemptive rights are transferable during the subscription period relating to a particular offering. These rights may also be listed on Euronext Paris Stock Exchange.

Preemptive rights with respect to any particular offering may be waived by the affirmative vote of shareholders holding two-thirds of the shares entitled to vote at an extraordinary general meeting. Our Board of Directors and our independent auditors are required by French law to present reports that specifically address any proposal to waive preemptive rights. In the event of a waiver, the issue of securities must be completed within the period prescribed by law. Shareholders may also notify us that they wish to waive their own preemptive rights with respect to any particular offering if they so choose.

The shareholders may decide at extraordinary general meetings to give the existing shareholders a non-transferable priority right to subscribe to the new securities, for a limited period of time.

In the event of a capital increase without preemptive rights to existing shareholders, French law requires that the capital increase be made at a price equal to or exceeding the weighted average market prices of the shares for the last three trading days on Euronext Paris Stock Exchange prior to the determination of the subscription price of the capital increase less 5%.

**Form, Holding and Transfer of Shares**

***Form of Shares***

Our *statuts* provide that the shares may be held in either bearer form or registered form at the option of the holder.

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***Holding of Shares***

In accordance with French law relating to the dematerialization of securities, shareholders' ownership rights are represented by book entries instead of share certificates. We maintain a share account with Euroclear France (a French clearing system, which holds securities for its participants) for all shares in registered form, which is administered by BNP Paribas Securities Services. In addition, we maintain separate accounts in the name of each shareholder either directly or, at a shareholder's request, through the shareholder's accredited intermediary. Each shareholder account shows the name of the holder and the number of shares held. BNP Paribas Securities Services issues confirmations (*attestations d'inscription en compte*) to each registered shareholder as to shares registered in the shareholder's account, but these confirmations are not documents of title.

Shares of a listed company may also be issued in bearer form. Shares held in bearer form are held and registered on the shareholder's behalf in an account maintained by an accredited financial intermediary and are credited to an account at Euroclear France maintained by such intermediary. Each accredited financial intermediary maintains a record of shares held through it and provides the account holder with a securities account statement. Transfers of shares held in bearer form may only be made through accredited financial intermediaries and Euroclear France.

Shares held by persons who are not domiciled in France may be registered in the name of intermediaries who act on behalf of one or more investors. When shares are so held, we are entitled to request from such intermediaries the names of the investors. Also, we may request any legal entity (*personne morale*) which holds more than 2.5% of our shares or voting rights to disclose the name of any person who owns, directly or indirectly, more than one-third of its share capital or of its voting rights. A person not providing the complete requested information in time, or who provides incomplete or false information, will be deprived of its voting rights at shareholders' meetings and will have its payment of dividends withheld until it has provided the requested information in strict compliance with French law. If such person acted willfully, the person may be deprived by a French court of either its voting rights or its dividends or both for a period of up to five years.

***Transfer of Shares***

Our *statuts* do not contain any restrictions relating to the transfer of shares.

Registered shares must be converted into bearer form before being transferred on the Euronext Paris Stock Exchange on the shareholders' behalf and, accordingly, must be registered in an account maintained by an accredited financial intermediary on the shareholders' behalf. A shareholder may initiate a transfer by giving instructions to the relevant accredited financial intermediary.

A fee or commission is payable to the broker involved in the transaction, regardless of whether the transaction occurs within or outside France. Registration duty is currently payable in France if a written deed of sale and purchase (*acte*) is executed in France or outside France with respect to the shares of the Company.

**Redemption of Shares**

Under French law, our Board of Directors is entitled to redeem a set number of shares as authorized by the extraordinary shareholders' meeting. In the case of such an authorization, the shares redeemed must be cancelled within one month after the end of the offer to purchase such shares from shareholders. However, shares redeemed on the open market do not need to be cancelled if the company redeeming the shares grants options on or awards those shares to its employees within one year following the acquisition. See also " Trading in Our Own Shares" below.

**Sinking Fund Provisions**

Our *statuts* do not provide for any sinking fund provisions.

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**Liability to Further Capital Calls**

Shareholders are liable for corporate liabilities only up to the par value of the shares they hold; they are not liable to further capital calls.

**Liquidation Rights**

If we are liquidated, any assets remaining after payment of our debts, liquidation expenses and all of our remaining obligations will first be distributed to repay in full the par value of our shares. Any surplus will be distributed *pro rata* among shareholders in proportion to the par value of their shareholdings.

**Requirements for Holdings Exceeding Certain Percentages**

The French Commercial Code provides that any individual or entity, acting alone or in concert with others, that becomes the owner, directly or indirectly, of more than 5%, 10%, 15%, 20%, 25%, 30%, 33 $\frac{1}{3}$ %, 50%, 66 $\frac{2}{3}$ %, 90% or 95% of the outstanding shares or voting rights of a listed company in France, such as our Company, or that increases or decreases its shareholding or voting rights above or below any of those percentages, must notify the company, before the end of the fourth trading day following the date it crosses the threshold, of the number of shares it holds and their voting rights. The individual or entity must also notify the AMF before the end of the fourth trading day following the date it crosses any such threshold. The AMF makes the notice public.

Pursuant to the French Commercial Code and the AMF General Regulation, the participation thresholds shall be calculated on the basis of the shares and voting rights owned, and shall take into account the shares and voting rights which are deemed to be shares and voting rights owned, even if the individual or entity does not itself hold shares or voting rights. In accordance with this deemed ownership principle, the individual or entity must take into account specific situations where shares and voting rights are deemed to be shares and voting rights owned when calculating the number of shares owned to be disclosed in the notifications to the Company and to the AMF. It includes among others situations where an individual or entity is entitled to acquire issued shares at its own initiative, immediately or at the end of a maturity period, under an agreement or a financial instrument, without set-off against the number of shares that this individual or entity is entitled to sell under another agreement or financial instrument. The individual or entity required to make such notification shall also take into account issued shares covered by an agreement or cash-settled financial instrument and having an economic effect for said individual or entity that is equivalent to owning such shares. In the cases of deemed ownership described above, the notification shall mention the type of deemed ownership and include a description of the main characteristics of the financial instrument or agreement with specific details required by the AMF General Regulation.

The AMF General Regulation provides that shares and voting rights subject to multiple cases of deemed ownership shall only be counted once.

When an individual or entity modifies the allocation between the shares it owns and its financial instruments or agreements deemed to be owned shares, it must disclose that change in a new notification. However, the change must only be disclosed if the acquisition of owned shares due to the settlement of the financial instruments or agreements causes the investor to cross a threshold.

Subject to certain limited exceptions, French law and AMF regulations impose additional reporting requirements on persons who acquire more than 10%, 15%, 20% or 25% of the outstanding shares or voting rights of a company listed in France. These persons must file a report with the company and the AMF before the end of the fifth trading day following the date they cross any such threshold.

In the report, the acquirer will have to specify its intentions for the following six months including:

whether it acts alone or in concert with others;

the means of financing of the acquisition (the notifier shall indicate in particular whether the acquisition is being financed with equity or debt, the main features of that debt, and, where applicable, the main guarantees given or received by the notifier. The notifier shall also indicate what portion of its holding, if any, it obtained through securities loans);

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whether or not it intends to continue its purchases;

whether or not it intends to acquire control of the company in question;

the strategy it contemplates *vis-à-vis* the issuer;

the way it intends to implement its strategy, including: (i) any plans for a merger, reorganization, liquidation, or partial transfer of a substantial part of the assets of the issuer or of any other entity it controls within the meaning of article L. 233-3 of the French Commercial Code, (ii) any plans to modify the business of the issuer, (iii) any plans to modify the memorandum and articles of association of the issuer, (iv) any plans to delist a category of the issuer's financial instruments, and (v) any plans to issue the issuer's financial instruments;

any agreement for the temporary transfer of shares or voting rights;

the way it intends to settle its agreements or instruments on the shares or voting rights of the issuer mentioned in Article L. 233-9,4° and 4° bis of the French Commercial Code; and

whether it seeks representation on the Board of Directors.

The AMF makes the report public. Upon any change of intention within the six-month period following the filing of the report, it will have to file a new report for the following six-month period.

In order to enable shareholders to give the required notice, we must each month publish on our website and send the AMF a written notice setting forth the total number of our shares and voting rights (including treasury shares) whenever they vary from the figures previously published.

If any shareholder fails to comply with an applicable legal notification requirement, the shares in excess of the relevant threshold will be deprived of voting rights for all shareholders' meetings until the end of a two-year period following the date on which the owner complies with the notification requirements. In addition, any shareholder who fails to comply with these requirements may have all or part of its voting rights suspended for up to five years by the Commercial Court at the request of our Chairman, any shareholder or the AMF, and may be subject to criminal fines.

Under AMF regulations, and subject to limited exemptions granted by the AMF, any person or entity, acting alone or in concert, that crosses the threshold of 30% of the share capital or voting rights of a French listed company must initiate a public tender offer for the balance of the shares and securities giving access to the share capital or voting rights of such company. Cash-settled derivative instruments or agreements mentioned in Article L. 233-9, 4° bis of the French Commercial Code are not included in the calculation of the number of shares related to the mandatory public tender offer.

In addition, our *statuts* provide that any person or entity, acting alone or in concert with others, who becomes the owner of 1%, or any multiple of 1% of our share capital or our voting rights, even beyond the minimum declaration limits permitted by the legal and regulatory provisions, must notify us by certified mail, return receipt requested, within five trading days, of the total number of shares and securities giving access to our share capital and voting rights that such person then owns. The same provisions of our *statuts* apply whenever such owner increases or decreases its ownership of our share capital or our voting rights to such extent that it goes above or below one of the thresholds described in the preceding sentence. Any person or entity that fails to comply with such notification requirement will, upon the request of one or more shareholders holding at least 5% of our share capital or of our voting rights made at the general shareholders' meeting, be deprived of voting rights with respect to the shares in excess of the relevant threshold for all shareholders' meetings until the end of a two-year period following the date on which such person or entity complies with the notification requirements.

**Change in Control/Anti-takeover**

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There are no provisions in our *statuts* that would have the effect of delaying, deferring or preventing a change in control of our Company or that would operate only with respect to a merger, acquisition or corporate restructuring involving our Company or any of our subsidiaries. Further, there are no provisions in our *statuts* that



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allow the issuance of preferred stock upon the occurrence of a takeover attempt or the addition of other "anti-takeover" measures without a shareholder vote.

Our *statuts* do not include any provisions discriminating against any existing or prospective holder of our securities as a result of such shareholder owning a substantial number of shares.

**Trading in Our Own Shares**

Under French law, Sanofi may not issue shares to itself. However, we may, either directly or through a financial intermediary acting on our behalf, acquire up to 10% of our issued share capital within a maximum period of 18 months, provided our shares are listed on a regulated market. Prior to acquiring our shares, we must publish a description of the share repurchase program (*descriptif du programme de rachat d'actions*).

We may not cancel more than 10% of our issued share capital over any 24-month period. Our repurchase of shares must not result in our Company holding, directly or through a person acting on our behalf, more than 10% of our issued share capital. We must hold any shares that we repurchase in registered form. These shares must be fully paid up. Shares repurchased by us continue to be deemed "issued" under French law but are not entitled to dividends or voting rights so long as we hold them directly or indirectly, and we may not exercise the preemptive rights attached to them.

The shareholders, at an extraordinary general shareholders meeting, may decide not to take these shares into account in determining the preemptive rights attached to the other shares. However, if the shareholders decide to take them into account, we must either sell the rights attached to the shares we hold on the market before the end of the subscription period or distribute them to the other shareholders on a *pro rata* basis.

On May 4, 2012, our shareholders approved a resolution authorizing us to repurchase up to 10% of our shares over an 18-month period. Under this authorization, the purchase price for each Sanofi ordinary share may not be greater than €80.00 and the maximum amount that Sanofi may pay for the repurchases is €10,727,350,480. This authorization was granted for a period of 18 months from May 4, 2012 and cancelled and replaced the authorization granted to the Board of Directors by the general meeting held on May 6, 2011. A description of this share repurchase program as adopted by the Board of Directors on May 4, 2012, (*descriptif du programme de rachat d'actions*) was published on March 5, 2012.

***Purposes of Share Repurchase Programs***

Under the European regulation 2273/2003, dated December 22, 2003 (which we refer to in this section as the "Regulation"), in application of European directive 2003/6/EC, dated January 28, 2003, known as the "Market Abuse Directive", an issuer will benefit from a safe harbor for share transactions that comply with certain conditions relating in particular to the pricing, volume and timing of transactions (see below) and that are made in connection with a share repurchase program the purpose of which is:

to reduce the share capital through the cancellation of treasury shares; and/or

to meet obligations arising from debt instruments exchangeable into equity instruments and/or the implementation of employee share option programs or other employee share allocation plans.

Safe harbor transactions will by definition not be considered market abuses under the Regulation. Transactions that are carried out for other purposes than those mentioned above do not qualify for the safe harbor. However, as permitted by the Directive, which provides for the continuation of existing practices that do not constitute market manipulation and that conform with certain criteria set forth in European directive 2004/72, dated April 29, 2004, the AMF published exceptions on March 22, 2005, October 1, 2008, March 21, 2011 and March 10, 2012 to permit the following existing market practices:

transactions pursuant to a liquidity agreement entered into with a financial services intermediary that complies with the ethical code (*charte de déontologie*) approved by the AMF; and

the purchase of shares that are subsequently used as acquisition currency in a business combination transaction.

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The AMF confirmed that all transactions directed at maintaining the liquidity of an issuer's shares must be conducted pursuant to a liquidity agreement with a financial services intermediary acting independently.

***Pricing, Volume and Other Restrictions***

In order to qualify for the safe harbor, the issuer must generally comply with the following pricing and volume restrictions:

a share purchase must not be made at a price higher than the higher of the price of the last independent trade and the highest current independent bid on the trading venues where the purchase is carried out;

subject to certain exceptions for illiquid securities, the issuer must not purchase more than 25% of the average daily volume of the shares in any one day on the regulated market on which the purchase is carried out. The average daily volume figure must be based on the average daily volume traded in the month preceding the month of public disclosure of the share repurchase program and fixed on that basis for the authorized period of that program. If the program does not make reference to this volume, the average daily volume figure must be based on the average daily volume traded in the 20 trading days preceding the date of purchase.

In addition, an issuer must not:

sell treasury shares during the period of the repurchase program (without prejudice to the right of the issuer to meet its obligations under employee share option programs or other employee share allocation plans or to use shares as acquisition currency as mentioned above); it being further specified that such prohibition is not applicable in the event of off-market block trades or if the share repurchase program is implemented by a financial services intermediary pursuant to a liquidity agreement as mentioned above; and

effect any transaction during a "blackout period" imposed by the applicable law of the Member State in which the transaction occurs (*i.e.*, under French law, during the period between the date on which the company has knowledge of insider information and the date on which such information is made public and during the 30-day period preceding the date of publication of annual and half-year financial statements and the 15-day period preceding the date of publication of quarterly financial information), without prejudice to transactions carried out pursuant to a liquidity agreement as mentioned above; or

effect any transaction in securities with respect to which the issuer has decided to defer disclosure of any material, non-public information.

***Use of Share Repurchase Programs***

Pursuant to the AMF rules, issuers must immediately allocate the repurchased shares to one of the purposes provided for in the Regulation and must not subsequently use the shares for a different purpose. As an exception to the foregoing, shares repurchased with a view to covering stock option plans may, if no longer needed for this purpose, be re-allocated for cancellation or sold in compliance with AMF requirements relating in particular to blackout periods. Shares repurchased in connection with one of the market practices authorized by the AMF (see above) may also be re-allocated to one of the purposes contemplated by the Regulation or sold in compliance with AMF requirements. Shares repurchased with a view to their cancellation must be cancelled within 24 months following their acquisition.

During the year ended December 31, 2012, we used the authority delegated by our shareholders to repurchase our shares on the stock market.

Pursuant to our share repurchase programs authorized by our shareholders on May 3, 2011 and on May 4, 2012, we repurchased 13,573,643 of our shares for a weighted average price of €60.59, *i.e.* a total cost of €823 million, €596,000 of which were incurred on brokerage fees and financial transaction taxes (net of income taxes).



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On April, 26, 2012, the Board of Directors cancelled 21,159,445 treasury shares, as follows:

18,597,406 shares repurchased between October 1, 2011 and March 31, 2012 pursuant to the share repurchase program of the Company;

2,562,039 shares previously allocated to expired stock option programs, which had been reallocated to the purpose of cancellation.

On October 24, 2012, the Board of Directors cancelled 6,435,924 treasury shares repurchased between April 1, and September 30, 2012 pursuant to the share repurchase program of the Company.

During 2012, pursuant to the liquidity contract, Exane BNP Paribas purchased 6,254,868 of our shares at an average weighted price of €61.36 for a total amount of €383,803,530 and sold 6,254,868 of our shares at an average weighted price of €61.48 for a total amount of €384,536,260.

In 2012, of the 5,766,116 shares allocated to stock purchase option plans outstanding at December 31, 2011, 53,790 shares were transferred to grantees of options.

As a result, as of December 31, 2012, the 3,150,287 treasury shares, representing 0.24% of our share capital, were all allocated to outstanding stock purchase option plans. At the same date, none of the shares was allocated to the liquidity account, even though the liquidity contract was outstanding.

As of December 31, 2012, we directly owned 3,150,287 Sanofi shares with a par value of €2 representing around 0.24% of our share capital and with an estimated value of €213,000,157, based on the share price at the time of purchase.

***Reporting Obligations***

Pursuant to the AMF Regulation and the French Commercial Code, issuers trading in their own shares are subject to the following reporting obligations:

issuers must report all transactions in their own shares on their web site within seven trading days of the transaction in a prescribed format, unless such transactions are carried out pursuant to a liquidity agreement that complies with the ethical code approved by the AMF; and

issuers must declare to the AMF on a monthly basis all transactions completed under the share repurchase program unless they provide the same information on a weekly basis.

**Ownership of Shares by Non-French Persons**

The French Commercial Code and our *statuts* currently do not limit the right of non-residents of France or non-French persons to own or, where applicable, to vote our securities. However, non-residents of France must file an administrative notice with the French authorities in connection with the acquisition of a controlling interest in our Company. Under existing administrative rulings, ownership of 33<sup>1</sup>/<sub>3</sub>% or more of our share capital or voting rights is regarded as a controlling interest, but a lower percentage might be held to be a controlling interest in certain circumstances depending upon factors such as:

the acquiring party's intentions;

the acquiring party's ability to elect directors; or

financial reliance by the company on the acquiring party.

**Enforceability of Civil Liabilities**

We are a limited liability company (*société anonyme*) organized under the laws of France, and most of our officers and directors reside outside the United States. In addition, a substantial portion of our assets is located in France.

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As a result, it may be difficult for investors to effect service of process within the United States upon or obtain jurisdiction over our Company or our officers and directors in U.S. courts in actions predicated on the civil liability provisions of U.S. securities law. It may also be difficult to enforce against them, either inside or outside the United States, judgments obtained against them in U.S. courts, or to enforce in U.S. courts, judgments obtained against them in courts in jurisdictions outside the United States, in any action based on civil liabilities under the U.S. federal securities laws. There is doubt as to the enforceability against such persons in France, whether in original actions or in actions to enforce judgments of U.S. courts, of liabilities based solely on the U.S. federal securities laws. Actions for enforcement of foreign judgments against such persons would require such persons who are of French nationality to waive their right under Article 15 of the French Civil Code to be sued only in France. We believe that no such French persons have waived such right with respect to actions predicated solely upon U.S. federal securities laws. In addition, actions in the United States under the U.S. federal securities laws could be affected under certain circumstances by the French law No. 80-538 of July 16, 1980, which may preclude or restrict the obtaining of evidence in France or from French persons in connection with such actions. Additionally, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in France.

**C. Material Contracts**

*The Facilities Agreement*

In connection with the launch of its public tender offer for Genzyme, Sanofi executed on October 2, 2010 a Term Facilities Agreement (the "Facilities Agreement") with J.P. Morgan plc, Société Générale Corporate & Investment Banking and BNP Paribas (the "Initial Mandated Lead Arrangers") which was further syndicated by the Initial Mandated Lead Arrangers among other financial institutions, for two unsecured term loan facilities available for drawdowns of up to \$15,000,000,000 in the aggregate for the purpose of financing part of the acquisition of Genzyme Corporation, composed of:

A \$10,000,000,000 term facility ("Facility A") expiring 18 months from October 2, 2010, the date of execution of the Facilities Agreement, with an optional six-month extension.

A \$5,000,000,000 term facility ("Facility B") with final expiry 42 months from the date of execution of the Facilities Agreement.

The interest rate on each facility was equal to the London Inter-Bank Overnight Rate (or Libor), plus an applicable margin.

On March 29, 2011, available commitments under Facility A were reduced by an amount equivalent to the proceeds of an SEC-registered U.S. bond issue (approximately \$7 billion). The remaining unused commitments of this facility were cancelled on April 1, 2011. On April 5, 2011, Sanofi drew down \$4 billion under Facility B, and cancelled the remaining balance of \$1 billion. On June 28, August 5 and November 3, 2011 Sanofi made early repayments of respectively \$1 billion, \$1 billion, \$2 billion of the Facility B drawdown.

As a result, the Facility B drawdown was fully repaid as of November 3, 2011 and as a consequence, the entire Facilities Agreement expired.

A copy of the Facilities Agreement and an amendment dated February 15, 2011 are on file with the SEC as exhibits 4.1 and 4.2 hereto. Reference should be made to such exhibits for a more complete description of the terms and conditions of the Acquisition Facility as amended, and the foregoing summary of such terms and conditions is qualified in its entirety by such exhibits.

*The Agreement and Plan of Merger*

On February 16, 2011, Sanofi and its wholly owned subsidiary GC Merger Corp. signed an Agreement and Plan of Merger governed by the laws of the Commonwealth of Massachusetts, and subject to the jurisdiction of the courts of the Commonwealth of Massachusetts (the "Merger Agreement"), with Genzyme Corporation ("Genzyme"). Pursuant to the Merger Agreement, among other things, Sanofi and GC Merger Corp. agreed to amend the outstanding tender offer to acquire all of the outstanding shares of common stock of Genzyme (the "Genzyme Shares") in order to increase the price per share from \$69 to \$74 in cash (the "Cash Consideration")

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plus one contingent value right (a "CVR") to be issued by Sanofi subject to and in accordance with a CVR Agreement described below (collectively, the "Merger Consideration") per Genzyme Share. The Merger Agreement also provided that, subject to the satisfaction or waiver of certain conditions, following consummation of the Amended Offer, GC Merger Corp. would be merged with and into Genzyme, with Genzyme surviving the Merger as a wholly-owned subsidiary of Sanofi (the "Merger").

The transaction was completed on April 8, 2011 in accordance with the terms of the Merger Agreement and the public exchange offer at a price of \$74 in cash plus the issuance to Genzyme shareholders of one contingent value right ("CVR") per Genzyme share. The CVRs are listed on the NASDAQ Global Market and Genzyme is now a wholly-owned subsidiary of Sanofi.

*The Contingent Value Rights Agreement.*

In connection with its acquisition of Genzyme Corporation, now a wholly-owned subsidiary of Sanofi, Sanofi issued one CVR per Genzyme share. On March 30, 2011, Sanofi and the American Stock Transfer & Trust Company, LLC, as trustee entered into a Contingent Value Rights agreement governed by the laws of the State of New York and subject to the jurisdiction of the courts of the State of New York ("CVR Agreement") governing the terms of the CVRs.

Pursuant to the terms of the CVR Agreement, a holder of a CVR is entitled to cash payments upon the achievement of contractually defined milestones. The first milestone related to manufacturing of Cerezyme® and Fabrazyme® had to be met by December 31, 2011 in order for the payment to be triggered. This milestone was not met and therefore lapsed. The remaining milestone payments are triggered by timely U.S. regulatory approval of alemtuzumab for treatment of multiple sclerosis ("Lemtrada"), and on achievement of certain aggregate Lemtrada sales thresholds within defined periods ("Product Sales Milestones"), as summarized below:

*Approval Milestone Payment.* \$1 per CVR upon receipt by Genzyme or any of its affiliates, on or before March 31, 2014, of the approval by the U.S. Food and Drug Administration of Lemtrada for treatment of multiple sclerosis.

*Product Sales Milestone #1 Payment.* \$2 per CVR if Lemtrada net sales post launch exceeds an aggregate of \$400 million within specified periods and territories.

*Product Sales Milestone #2 Payment.* \$3 per CVR upon the first instance in which global Lemtrada net sales for a four calendar quarter period are equal to or in excess of \$1.8 billion. If Product Sales Milestone #2 is achieved but the Approval Milestone was not achieved prior to March 31, 2014, the milestone payment amount will be \$4 per CVR (however, in such event the Approval Milestone shall not also be payable).

*Product Sales Milestone #3 Payment.* \$4 per CVR upon the first instance in which global Lemtrada net sales for a four calendar quarter period are equal to or in excess of \$2.3 billion (no quarter in which global Lemtrada net sales were used to determine the achievement of Product Sales Milestone #1 or #2 shall be included in the calculation of sales for determining whether Product Sales Milestone #3 has been achieved).

*Product Sales Milestone #4 Payment.* \$3 per CVR upon the first instance in which global Lemtrada net sales for a four calendar quarter period are equal to or in excess of \$2.8 billion (no quarter in which global Lemtrada net sales were used to determine the achievement of Product Sales Milestone #1, #2 or #3 shall be included in the calculation of sales for determining whether Product Sales Milestone #4 has been achieved).

The CVRs will expire and no payments will be due under the CVR agreement on the earlier of (a) December 31, 2020 and (b) the date that Product Sales Milestone #4 is paid.

Sanofi has agreed to use diligent efforts (as defined in the CVR Agreement) to achieve each of the remaining milestones. For more information on Lemtrada see "Item 4.B Business Overview Pharmaceutical Products Multiple Sclerosis".



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Sanofi has also agreed to use its commercially reasonable efforts to maintain a listing for trading of the CVRs on the NASDAQ market.

The CVR Agreement does not prohibit Sanofi or any of its subsidiaries or affiliates from acquiring the CVRs, whether in open market transactions, private transactions or otherwise; Sanofi has certain disclosure obligations in connection with such acquisitions under the CVR Agreement. On or after the third anniversary of the launch of Lemtrada, Sanofi may also, subject to certain terms and conditions as set forth in the CVR Agreement, optionally purchase and cancel all (but not less than all) of the outstanding CVRs at the average trading price of the CVRs if the volume-weighted average CVR trading price is less than fifty cents over forty-five trading days and Lemtrada sales in the prior four quarter period were less than one billion U.S. dollars in the aggregate.

A copy of the Merger Agreement and the form of CVR Agreement are on file with the SEC as exhibits 4.3 and 4.4 hereto, respectively. Reference is made to such exhibits for a more complete description of the terms and conditions of the Merger Agreement and the CVR Agreement, and the foregoing summary of such terms and conditions is qualified in its entirety by such exhibits.

**D. Exchange Controls**

French exchange control regulations currently do not limit the amount of payments that we may remit to non-residents of France. Laws and regulations concerning foreign exchange controls do require, however, that all payments or transfers of funds made by a French resident to a non-resident be handled by an accredited intermediary.

**E. Taxation**

**General**

The following generally summarizes the material French and U.S. federal income tax consequences to U.S. holders (as defined below) of purchasing, owning and disposing of our ADSs and ordinary shares (collectively the "Securities"). This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects of the purchase, ownership or disposition of our Securities. All of the following is subject to change. Such changes could apply retroactively and could affect the consequences described below.

*This summary does not constitute a legal opinion or tax advice. Holders are urged to consult their own tax advisers regarding the tax consequences of the purchase, ownership and disposition of Securities in light of their particular circumstances, including the effect of any U.S. federal, state, local or other national tax laws.*

France has recently introduced a comprehensive set of new tax rules applicable to French assets that are held by or in foreign trusts. These rules provide *inter alia* for the inclusion of trust assets in the settlor's net assets for purpose of applying the French wealth tax, for the application of French gift and death duties to French assets held in trust, for a specific tax on capital on the French assets of foreign trusts not already subject to the French wealth tax and for a number of French tax reporting and disclosure obligations. The following discussion does not address the French tax consequences applicable to Securities held in trusts. *If Securities are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of Securities.*

The description of the French and U.S. federal income tax consequences set forth below is based on the laws (including, for U.S. federal income tax purposes, the Internal Revenue Code of 1986, as amended (the "Code"), final, temporary and proposed U.S. Treasury Regulations promulgated thereunder and administrative and judicial interpretations thereof) in force as of the date of this annual report, the Convention Between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital of August 31, 1994 (the "Treaty"), which entered into force on December 30, 1995 (as amended by any subsequent protocols, including the protocol of January 13, 2009), and the tax regulations issued by the French tax authorities (the "Regulations") in force as of the date of this report. *U.S. holders are advised to consult their own tax advisers regarding their eligibility for Treaty*

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*benefits, especially with regard to the "Limitations on Benefits" provision, in light of their own particular circumstances.*

For the purposes of this discussion, a U.S. holder is a beneficial owner of Securities that is (i) an individual who is a U.S. citizen or resident for U.S. federal income tax purposes, (ii) a U.S. domestic corporation or certain other entities created or organized in or under the laws of the United States or any state thereof, including the District of Columbia, or (iii) otherwise subject to U.S. federal income taxation on a net income basis in respect of Securities. A non-U.S. holder is a person other than a U.S. holder.

If a partnership holds Securities, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. *If a U.S. holder is a partner in a partnership that holds Securities, the holder is urged to consult its own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of Securities.*

This discussion is intended only as a general summary and does not purport to be a complete analysis or listing of all potential tax effects of the acquisition, ownership or disposition of the Securities to any particular investor, and does not discuss tax considerations that arise from rules of general application or that are generally assumed to be known by investors. The discussion applies only to investors that hold our Securities as capital assets that have the U.S. dollar as their functional currency, that are entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty, and whose ownership of the Securities is not effectively connected to a permanent establishment or a fixed base in France. Certain holders (including, but not limited to, U.S. expatriates, partnerships or other entities classified as partnerships for U.S. federal income tax purposes, banks, insurance companies, regulated investment companies, tax-exempt organizations, financial institutions, persons subject to the alternative minimum tax, persons who acquired the Securities pursuant to the exercise of employee stock options or otherwise as compensation, persons that own (directly, indirectly or by attribution) 5% or more of our voting stock or 5% or more of our outstanding share capital, dealers in securities or currencies, persons that elect to mark their securities to market for U.S. federal income tax purposes and persons holding Securities as a position in a synthetic security, straddle or conversion transaction) may be subject to special rules not discussed below. *Holders of Securities are advised to consult their own tax advisers with regard to the application of French tax law and U.S. federal income tax law to their particular situations, as well as any tax consequences arising under the laws of any state, local or other foreign jurisdiction.*

**French Taxes**

*Estate and Gift Taxes and Transfer Taxes*

In general, a transfer of Securities by gift or by reason of death of a U.S. holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of the Convention between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978, unless the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or the Securities were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

Pursuant to Article 235 ter ZD of the French General Tax Code, purchases of Securities are subject to a 0.2% French tax on financial transactions provided that Sanofi's market capitalization exceeds 1 billion euros as of December 1 of the year preceding the taxation year. A list of companies whose market capitalization exceeds 1 billion euros as of December 1 of the year preceding the taxation year is published annually by the French state. Pursuant to a ministerial regulation (*arrêté*) dated January 11, 2013, Sanofi is included in such list as a company whose market capitalization exceeds 1 billion euros as of December 1, 2012 and therefore, purchases of Sanofi's Securities are subject to such tax.

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*Wealth Tax*

The French wealth tax *impôt de solidarité sur la fortune* applies only to individuals and does not generally apply to the Securities if the holder is a U.S. resident, as defined pursuant to the provisions of the Treaty, provided that the individual does not own directly or indirectly a shareholding exceeding 25% of the financial rights.

**U.S. Taxes**

*Ownership of the Securities*

Deposits and withdrawals by a U.S. holder of ordinary shares in exchange for ADSs, will not be taxable events for U.S. federal income tax purposes. For U.S. tax purposes, holders of ADSs will be treated as owners of the ordinary shares represented by such ADSs. Accordingly, the discussion that follows regarding the U.S. federal income tax consequences of acquiring, owning and disposing of ordinary shares is equally applicable to ADSs.

*Information Reporting and Backup Withholding Tax*

Distributions made to holders and proceeds paid from the sale, exchange, redemption or disposal of Securities may be subject to information reporting to the Internal Revenue Service. Such payments may be subject to backup withholding taxes unless the holder (i) is a corporation or other exempt recipient or (ii) provides a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. Holders that are not U.S. persons generally are not subject to information reporting or backup withholding. However, such a holder may be required to provide a certification of its non-U.S. status in connection with payments received within the United States or through a U.S.-related financial intermediary to establish that it is an exempt recipient. Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability. A holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the Internal Revenue Service and furnishing any required information.

*Foreign Asset Reporting*

In addition, a U.S. holder that is an individual (and, to the extent provided in future regulations, an entity), may be subject to recently-enacted reporting obligations with respect to ordinary shares and ADSs if the aggregate value of these and certain other "specified foreign financial assets" exceeds \$50,000. If required, this disclosure is made by filing Form 8938 with the U.S. Internal Revenue Service. Significant penalties can apply if holders are required to make this disclosure and fail to do so. In addition, a U.S. holder should consider the possible obligation to file a Form TD F 90-22.1 Foreign Bank and Financial Accounts Report as a result of holding ordinary shares or ADSs. Holders are thus encouraged to consult their U.S. tax advisors with respect to these and other reporting requirements that may apply to their acquisition of ordinary shares and ADSs.

*State and Local Taxes*

In addition to U.S. federal income tax, U.S. holders of Securities may be subject to U.S. state and local taxes with respect to such Securities.  *Holders of Securities are advised to consult their own tax advisers with regard to the application of U.S. state and local income tax law to their particular situation.*

**ADSs-Ordinary Shares**

**French Taxes**

*Taxation of Dividends*

Under French law, dividends paid by a French corporation, such as Sanofi, to non-residents of France are generally subject to French withholding tax at a rate of 30% (21% for distributions made to individuals that are resident in the European Economic Area, and 15% for distributions made to not-for-profit organizations with a head office in a Member State of the European Economic Area which would be subject to the tax regime set forth under article 206-5 of the French General Tax Code if its head office were located in France and which meet the criteria set forth in the administrative guidelines BOI-RPPM-RCM-30-30-10-70-20120912, n°130). Dividends



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paid by a French corporation, such as Sanofi, towards non-cooperative States or territories, as defined in Article 238-0 A of the French General Tax Code, will generally be subject to French withholding tax at a rate of 75%, irrespective of the tax residence of the beneficiary of the dividends if the dividends are received in such States or territories; however, eligible U.S. holders entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty who are U.S. residents, as defined pursuant to the provisions of the Treaty and who receive dividends in non-cooperative States or territories, will not be subject to this 75% withholding tax rate.

Under the Treaty, the rate of French withholding tax on dividends paid to an eligible U.S. holder who is a U.S. resident as defined pursuant to the provisions of the Treaty and whose ownership of the ordinary shares or ADSs is not effectively connected with a permanent establishment or fixed base that such U.S. holder has in France, is reduced to 15%, or to 5% if such U.S. holder is a corporation and owns directly or indirectly at least 10% of the share capital of the issuing company; such U.S. holder may claim a refund from the French tax authorities of the amount withheld in excess of the Treaty rates of 15% or 5%, if any. For U.S. holders that are not individuals but are U.S. residents, as defined pursuant to the provisions of the Treaty, the requirements for eligibility for Treaty benefits, including the reduced 5% or 15% withholding tax rates contained in the "Limitation on Benefits" provision of the Treaty, are complicated, and certain technical changes were made to these requirements by the protocol of January 13, 2009. U.S. holders are advised to consult their own tax advisers regarding their eligibility for Treaty benefits in light of their own particular circumstances.

Dividends paid to an eligible U.S. holder may immediately be subject to the reduced rates of 5% or 15% provided that such holder establishes before the date of payment that it is a U.S. resident under the Treaty by completing and providing the depository with a treaty form (Form 5000). Dividends paid to a U.S. holder that has not filed the Form 5000 before the dividend payment date will be subject to French withholding tax at the rate of 30% and then reduced at a later date to 5% or 15%, provided that such holder duly completes and provides the French tax authorities with the treaty forms Form 5000 and Form 5001 before December 31 of the second calendar year following the year during which the dividend is paid. Pension funds and certain other tax-exempt entities are subject to the same general filing requirements as other U.S. holders except that they may have to supply additional documentation evidencing their entitlement to these benefits.

Form 5000 and Form 5001, together with instructions, will be provided by the depository to all U.S. holders registered with the depository and are also available from the U.S. Internal Revenue Service. The depository will arrange for the filing with the French Tax authorities of all such forms properly completed and executed by U.S. holders of ordinary shares or ADSs and returned to the depository in sufficient time that they may be filed with the French tax authorities before the distribution so as to obtain immediately a reduced withholding tax rate.

The withholding tax refund, if any, ordinarily is paid within 12 months of filing the applicable French Treasury Form, but not before January 15 of the year following the calendar year in which the related dividend is paid.

*Tax on Sale or Other Disposition*

In general, under the Treaty, a U.S. holder who is a U.S. resident for purposes of the Treaty will not be subject to French tax on any capital gain from the redemption (other than redemption proceeds characterized as dividends under French domestic law), sale or exchange of ordinary shares or ADSs unless the ordinary shares or the ADSs form part of the business property of a permanent establishment or fixed base that the U.S. holder has in France. Special rules apply to holders who are residents of more than one country.

**U.S. Taxes**

*Taxation of Dividends*

For U.S. federal income tax purposes, the gross amount of any distribution paid to U.S. holders (that is, the net distribution received plus any tax withheld therefrom) will be treated as ordinary dividend income to the extent paid or deemed paid out of the current or accumulated earnings and profits of Sanofi (as determined under U.S. federal income tax principles). Dividends paid by Sanofi will not be eligible for the dividends-received deduction generally allowed to corporate U.S. holders.

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Subject to certain exceptions for short-term and hedged positions, the U.S. dollar amount of dividends received by an individual U.S. holder with respect to the ADSs or our ordinary shares is currently subject to taxation at a maximum rate of 20% if the dividends are "qualified dividends". Dividends paid on the ordinary shares or ADSs will be treated as qualified dividends if (i) the issuer is eligible for the benefits of a comprehensive income tax treaty with the United States that the Internal Revenue Service has approved for the purposes of the qualified dividend rules and (ii) the issuer was not, in the year prior to the year in which the dividend was paid, and is not, in the year in which the dividend is paid, a passive foreign investment company ("PFIC"). The Treaty has been approved for the purposes of the qualified dividend rules. Based on our audited financial statements and relevant market and shareholder data, we believe Sanofi was not a PFIC for U.S. federal income tax purposes with respect to its 2012 taxable year. In addition, based on its current expectations regarding the value and nature of its assets, the sources and nature of its income, and relevant market and shareholder data, we do not anticipate that Sanofi will become a PFIC for its 2013 taxable year. *Holders of ordinary shares and ADSs should consult their own tax advisers regarding the availability of the reduced dividend tax rate in light of their own particular circumstances.*

If you are a U.S. holder, dividend income received by you with respect to ADSs or ordinary shares generally will be treated as foreign source income for foreign tax credit purposes. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. Distributions out of earnings and profits with respect to the ADSs or ordinary shares generally will be treated as "passive category" income (or, in the case of certain U.S. holders, "general category" income). Subject to certain limitations, French income tax withheld in connection with any distribution with respect to the ADSs or ordinary shares may be claimed as a credit against the U.S. federal income tax liability of a U.S. holder if such U.S. holder elects for that year to credit all foreign income taxes. Alternatively, such French withholding tax may be taken as a deduction against taxable income. Foreign tax credits will not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions in Securities and may not be allowed in respect of certain arrangements in which a U.S. holder's expected economic profit is insubstantial. *The U.S. federal income tax rules governing the availability and computation of foreign tax credits are complex. U.S. holders should consult their own tax advisers concerning the implications of these rules in light of their particular circumstances.*

To the extent that an amount received by a U.S. holder exceeds the allocable share of our current and accumulated earnings and profits, such excess will be applied first to reduce such U.S. holder's tax basis in its ordinary shares or ADSs and then, to the extent it exceeds the U.S. holder's tax basis, it will constitute capital gain from a deemed sale or exchange of such ordinary shares or ADSs (see "Tax on Sale or Other Disposition", below).

The amount of any distribution paid in euros will be equal to the U.S. dollar value of the euro amount distributed, calculated by reference to the exchange rate in effect on the date the dividend is received by a U.S. holder of ordinary shares (or by the depositary, in the case of ADSs) regardless of whether the payment is in fact converted into U.S. dollars on such date. *U.S. holders should consult their own tax advisers regarding the treatment of foreign currency gain or loss, if any, on any euros received by a U.S. holder or depositary that are converted into U.S. dollars on a date subsequent to receipt.*

Distributions to holders of additional ordinary shares (or ADSs) with respect to their ordinary shares (or ADSs) that are made as part of a pro rata distribution to all ordinary shareholders generally will not be subject to U.S. federal income tax. However, if a U.S. holder has the option to receive a distribution in shares (or ADSs) or to receive cash in lieu of such shares (or ADSs), the distribution of shares (or ADSs) will be taxable as if the holder had received an amount equal to the fair market value of the distributed shares (or ADSs), and such holder's tax basis in the distributed shares (or ADSs) will be equal to such amount.

*Tax on Sale or Other Disposition*

In general, for U.S. federal income tax purposes, a U.S. holder that sells, exchanges or otherwise disposes of its ordinary shares or ADSs will recognize capital gain or loss in an amount equal to the U.S. dollar value of the difference between the amount realized for the ordinary shares or ADSs and the U.S. holder's adjusted tax basis (determined in U.S. dollars and under U.S. federal income tax rules) in the ordinary shares or ADSs. Such gain or loss generally will be U.S.-source gain or loss, and will be treated as long-term capital gain or loss if the U.S. holder's holding period in the ordinary shares or ADSs exceeds one year at the time of disposition. If the U.S. holder

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is an individual, any capital gain generally will be subject to U.S. federal income tax at preferential rates (currently a maximum of 20%) if specified minimum holding periods are met. The deductibility of capital losses is subject to significant limitations.

*Medicare Tax*

Recently-enacted legislation requires certain U.S. holders who are individuals, estates or trusts to pay a Medicare tax of 3.8% (in addition to taxes they would otherwise be subject to) on their "net investment income" which would include, among other things, dividends and capital gains from the ordinary shares and ADSs.

***F. Dividends and Paying Agents***

N/A

***G. Statement by Experts***

N/A

***H. Documents on Display***

We are subject to the information requirements of the U.S. Securities Exchange Act of 1934, as amended, or Exchange Act, and, in accordance therewith, we are required to file reports, including this annual report on Form 20-F, and other information with the U.S. Securities and Exchange Commission, or Commission, by electronic means.

You may review a copy of our filings with the Commission, as well as other information furnished to the Commission, including exhibits and schedules filed with it, at the Commission's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information. In addition, the Commission maintains an Internet site at <http://www.sec.gov> that contains reports and other information regarding issuers that file electronically with the Commission (these documents are not incorporated by reference in this annual report).

***I. Subsidiary Information***

N/A

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**Item 11. Quantitative and Qualitative Disclosures about Market Risk**

**General Policy**

Liquidity risk, foreign exchange risk and interest rate risk, as well as related counterparty risk, are managed centrally by our dedicated treasury team within the Group Finance Department. Where it is not possible to manage these risks centrally, in particular due to regulatory restrictions (such as foreign exchange controls) or local tax restrictions, credit facilities and/or currency lines, guaranteed whenever necessary by the parent company, are contracted by our subsidiaries locally with banks, under the supervision of the central treasury team.

Our investment and financing strategies, as well as our interest rate and currency hedging strategies, are reviewed monthly by the Group Finance Department.

Our policy on derivatives prohibits speculative exposure.

**Liquidity Risk**

We operate a centralized treasury platform whereby all surplus cash and financing needs of our subsidiaries are invested with or funded by the parent company (where permitted by local legislation). The central treasury department manages the Group's current and projected financing (debt, net of cash and cash equivalents), and ensures that the Group is able to meet its financial commitments by maintaining sufficient cash and confirmed credit facilities for the size of our operations and the maturity of our debt (see Notes D.17.c and D.17.g to the consolidated financial statements).

The Group diversifies its short-term investments with leading banks using money-market products with instant access or with a maturity lower than three months. As of December 31, 2012, cash and cash equivalents amounted to €6,381 million and short-term investments mainly comprised:

collective investments in 'short-term money market' and 'money market' euro-denominated funds based on the European classification used by the *Autorité des Marchés Financiers*, and in 'money market' U.S. dollar-denominated funds subject to the U.S. Securities and Exchange Commission regulation 2a-7. All such funds can be traded on a daily basis and the amount invested in each fund may not exceed 10% of the total amount invested in such funds;

bank current account deposits, bank term deposits and certificates of deposit with a maturity lower than three months. These short-term investments are entered into with leading financial institutions;

term deposits with a maturity lower than three months. These short-term investments are entered into with non-financial institutions.

As of December 31, 2012, the Group had €10 billion of undrawn general corporate purpose confirmed credit facilities, of which €3 billion expire in December 2013, €0.25 billion in July 2015 and €6.75 billion in July 2017. Our credit facilities are not subject to financial covenant ratios.

Our policy is to diversify our sources of funding through public or private issuances of debt securities, in the United States and in France (Euro Medium Term Note program), and by issuing commercial paper in the United States and in France. The average duration of the total debt was 3.2 years as of December 31, 2012, compared to 3.5 years as of December 31, 2011. Short-term commercial paper programs (U.S. dollar-denominated commercial paper swapped into euro and euro-denominated commercial paper) are used to meet our short-term financing needs. In 2012, the French commercial paper program was not drawn down, whereas average drawdowns under the U.S. commercial paper program were €2.3 billion (maximum €3.3 billion). Drawdowns under these programs are generally renewed for periods of one and a half months. As of December 31, 2012, these programs were not drawn down.

In a market-wide liquidity crisis, the Group could be exposed to difficulties in calling up its available cash, a scarcity of sources of funding including the above-mentioned programs, or a deterioration in their terms. This situation could damage the capacity of the Group to refinance its debt or to issue new debt on reasonable terms.





Table of Contents**Interest Rate Risk**

Since the financing of the Genzyme acquisition in 2011, the Group has managed its net debt in two currencies, the euro and the U.S. dollar (see note D.17 to the consolidated financial statements). The floating-rate portion of this debt exposes the Group to rises in interest rates, primarily in the Eonia and Euribor benchmark rates (for the euro) and in the U.S. Libor and Federal Fund Effective rates (for the U.S. dollar). In order to reduce the amount and/or volatility of the cost of debt, the Group has contracted derivative instruments (interest rate swaps, cross-currency swaps and interest rate options). These have the effect of altering the fixed/floating split of the debt. These derivative instruments are denominated in euros or in U.S. dollars.

As of December 31, 2012, the sensitivity of the total debt, net of cash and cash equivalents to interest rate fluctuations over a full year is as follows:

Change in 3-month Euribor	Impact on pre-tax net income (€million)	Impact on income/(expense) recognized directly in equity, before tax (€million)
+100 bp	(10)	(3)
+25 bp	(2)	(1)
-25 bp	2	1
-100 bp	10	3

**Foreign Exchange Risk***a. Operational Foreign Exchange Risk*

A substantial portion of our net sales is generated in countries in which the euro, which is our reporting currency, is not the functional currency. In 2012, for example, 31% of our consolidated net sales were generated in the United States. Although we also incur expenses in those countries, the impact of those expenses is not enough wholly to offset the impact of exchange rates on net sales. Consequently, our operating income may be materially affected by fluctuations in the exchange rate between the euro and other currencies, primarily the U.S. dollar.

We operate a foreign exchange risk hedging policy to reduce the exposure of our operating income to exchange rate movements. This policy involves regular assessments of our worldwide foreign currency exposure, based on foreign-currency transactions to be carried out by the parent company and its subsidiaries. These transactions mainly comprise sales, purchases, research costs, co-marketing and co-promotion expenses, and royalties. To reduce the exposure of these transactions to exchange rate movements, we may contract currency hedges using liquid financial instruments, mainly forward purchases and forward sales of currencies, and swaps.

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The table below shows operational currency hedging derivatives in place as of December 31, 2012, with the notional amount translated into euros at the relevant closing exchange rate. See also Note D.20 to the consolidated financial statements for the accounting classification of these instruments as of December 31, 2012.

**Operational foreign exchange derivatives as of December 31, 2012 <sup>(1)</sup>:**

<i>(€ million)</i>	<b>Notional amount</b>	<b>Fair value</b>
<b>Forward currency sales</b>	<b>2,972</b>	<b>21</b>
<i>Of which</i>	972	6
<i>U.S. dollar</i>	485	15
<i>Japanese yen</i>	368	(3)
<i>Russian rouble</i>	271	
<i>Singapore dollar</i>	255	1
<i>Chinese yuan renminbi</i>		
<b>Forward currency purchases</b>	<b>944</b>	<b>(4)</b>
<i>Of which</i>	231	(4)
<i>Singapore dollar</i>	166	(3)
<i>Hungarian forint</i>	110	
<i>Swiss franc</i>	94	
<i>Chinese yuan renminbi</i>	69	
<i>U.S. dollar</i>		
<b>Total</b>	<b>3,916</b>	<b>17</b>

<sup>(1)</sup> As of December 31, 2011, the notional amount of forward currency sales was €3,446 million with a fair value of -€96 million (including forward sales of U.S. dollars of a notional amount of €1,779 million with a fair value of -€59 million). As of December 31, 2011, the notional amount of forward currency purchases was €1,077 million with a fair value of €7 million (including forward purchases of U.S. dollars of a notional amount of €69 million with an immaterial fair value).

As of December 31, 2012, none of these instruments had an expiry date after February 28, 2013 except for a specific forward currency purchase position for a total of £33 million expiring between 2013 and 2015.

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These positions mainly hedge future foreign-currency cash flows arising after the balance sheet date in relation to transactions carried out during the year ended December 31, 2012 and recognized in the balance sheet at that date. Gains and losses on derivative instruments (forward contracts) have been and will continue to be calculated and recognized in parallel with the recognition of gains and losses on the hedged items. Due to this hedging relationship, the foreign exchange profit and loss on these items (derivative instruments and underlying assets as of December 31, 2012) will be close to zero in 2013.

### *b. Financial Foreign Exchange Risk*

Some of our financing activities, such as the cash pooling arrangements for foreign subsidiaries outside the euro zone and our U.S. commercial paper issues, expose certain entities to financial foreign exchange risk (i.e., the risk of changes in the value of loans and borrowings denominated in a currency other than the functional currency of the lender or borrower). The net foreign exchange exposure is hedged by the holding company with firm financial instruments, usually forward contracts and currency swaps, dealt with banking counterparties.

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The table below shows financial currency hedging instruments in place as of December 31, 2012, with the notional amount translated into euros at the relevant closing exchange rate. See also Note D.20 to the consolidated financial statements for the accounting classification of these instruments as of December 31, 2012.

**Financial foreign exchange derivatives as of December 31, 2012 <sup>(1)</sup>:**

<i>(€ million)</i>	<b>Notional amount</b>	<b>Fair value</b>	<b>Expiry</b>
<b>Forward currency sales</b>	<b>3,970</b>	<b>38</b>	
Of which	1,897	1	2013
U.S. dollar	1,272	34	2013
Japanese yen	191		2013
Czech koruna			
<b>Forward currency purchases</b>	<b>2,638</b>	<b>(12)</b>	
Of which	549	(3)	2013
Pound sterling	521	1	2013
U.S. dollar	492	(4)	2013
Singapore dollar			
<b>Total</b>	<b>6,608</b>	<b>26</b>	

<sup>(1)</sup> *As of December 31, 2011, the notional amount of forward currency sales was €4,900 million with a fair value of -€104 million (including forward sales of U.S. dollars of a notional amount of €2,964 million with a fair value of -€89 million). As of December 31, 2011, the notional amount of forward currency purchases was €2,719 million with a fair value of €24 million (including forward purchases of U.S. dollars of a notional amount of €828 million with a fair value of €10 million).*

These forward contracts generate a net financial foreign exchange gain or loss arising from the interest rate differential between the hedged currency and the euro, given that the foreign exchange gain or loss on the foreign-currency liabilities and receivables is offset by the change in the intrinsic value of the hedging instruments.

As of December 31, 2012, none of the instruments had an expiry date after March 31, 2013.

We may also hedge some future foreign-currency investment or divestment cash flows.

***c. Other Foreign Exchange Risks***

A significant proportion of our consolidated net assets is denominated in U.S. dollars. For a breakdown of net assets see Note D.35 to the consolidated financial statements. As a result, any fluctuation in the exchange rate of the U.S. dollar against the euro affects our equity. As of December 31, 2012, we had no derivative instruments in place to limit the effect of such fluctuations.

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The Group operates a substantial portion of its activity within the euro zone and holds a significant part of its cash and cash equivalent in this currency, whereas its indebtedness is denominated in the euro and the U.S. dollar (for more information, see Note D.17.e to the consolidated financial statements). The euro is also the reporting currency of the Group. In the specific context of the sovereign debt crisis affecting certain European countries, the threatened or actual withdrawal of the euro as currency in one or more European Monetary Union countries and the associated fluctuations in currency exchange rates could have a material effect on our financial condition and earnings, the magnitude and consequences of which are unpredictable.

### **Counterparty Risk**

Our financing and investing operations, as well as our currency and interest rate hedges, are contracted with leading banks. We set limits for investment and derivative transactions with individual banks, depending on the rating of each bank. Compliance with these limits, which are based on notional amounts weighted by the residual maturity and the nature of the commitment, is monitored on a daily basis.

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The table below shows our total exposure as of December 31, 2012 by rating and in terms of our percentage exposure to the dominant counterparty.

<i>(€ million)</i>	Cash and cash equivalent (excluding mutual funds) <sup>(1)</sup>	Notional amounts of currency hedges <sup>(2)</sup>	Notional amounts of interest hedges <sup>(2)</sup>	General corporate purpose credit facilities
AA-	608	1,095	300	690
A+	1,029	4,452	2,016	3,195
A	1,019	5,512	2,102	5,175
A-	100			
BBB+	215			250
BBB	301	262	600	690
Not splitted	145			
<b>Total</b>	<b>3,417</b>	<b>11,321</b>	<b>5,018</b>	<b>10,000</b>
<b>% / rating of the dominant counterparty</b>	<b>18% / AA-</b>	<b>16% / A</b>	<b>16% / A</b>	<b>7% / A</b>

(1) Cash equivalents include mutual fund investments of €2,964 million.

(2) The notional amounts are computed on the basis of the forward rates negotiated at the inception date of the derivative instruments.

Mutual fund investments are made by the Sanofi parent company. These mutual fund investments are in 'short-term money market' and 'money market' euro-denominated funds based on the European classification used by the *Autorité des Marchés Financiers*, and 'money market' U.S. dollar-denominated funds subject to U.S. Securities and Exchange Commission regulation 2a-7. They show low volatility, low sensitivity to interest rate risk and a very low probability of loss of principal. The depository banks of the mutual funds, and of Sanofi itself, are at least A rated.

Realization of counterparty risk could impact our liquidity in certain circumstances.

**Stock Market Risk**

It is our policy not to trade on the stock market for speculative purposes.

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**Item 12. Description of Securities other than Equity Securities**

**12.A Debt Securities**

Not applicable.

**12.B Warrants and Rights**

Not applicable.

**12.C Other Securities**

Not applicable.

**12.D American Depositary Shares**

**General**

JPMorgan Chase Bank, N.A. ("JPMorgan"), as depositary, issues Sanofi ADSs in certificated form (evidenced by an American depositary receipt, or ADR) or book-entry form. Each ADR is a certificate evidencing a specific number of Sanofi ADSs. Each Sanofi ADS represents one-half of one Sanofi ordinary share (or the right to receive one-half of one Sanofi ordinary share) deposited with the Paris, France office of BNP Paribas, as custodian. Each Sanofi ADS also represents an interest in any other securities, cash or other property that may be held by the depositary under the deposit agreement. The depositary's office is located at 1 Chase Manhattan Plaza, Floor 58, New York, New York 10005-1401.

A holder may hold Sanofi ADSs either directly or indirectly through his or her broker or other financial institution. The following description assumes holders hold their Sanofi ADSs directly, in certificated form evidenced by ADRs. Holders who hold the Sanofi ADSs indirectly must rely on the procedures of their broker or other financial institution to assert the rights of ADR holders described in this section. Holders should consult with their broker or financial institution to find out what those procedures are.

Holders of Sanofi ADSs do not have the same rights as holders of Sanofi shares. French law governs shareholder rights. The rights of holders of Sanofi ADSs are set forth in the deposit agreement between Sanofi and JPMorgan and in the ADR. New York law governs the deposit agreement and the ADRs.

The following is a summary of certain terms of the deposit agreement, as amended. The form of our deposit agreement has been filed as an exhibit to our Form F-6 filed on August 7, 2007, and the amendment to our deposit agreement has been filed as an exhibit to Post-Effective Amendment No. 1 to our Form F-6 filed on April 30, 2011. Each of the form and the amendment is incorporated by reference into this document. For more complete information, holders should read the entire deposit agreement (including the amendment) and the ADR itself. Holders may also inspect a copy of the deposit agreement at the depositary's office.

**Share Dividends and Other Distributions**

***Receipt of dividends and other distributions***

The depositary has agreed to pay to holders of Sanofi ADSs the cash dividends or other distributions that it or the custodian receives on the deposited Sanofi ordinary shares and other deposited securities after deducting its fees and expenses. Holders of Sanofi ADSs will receive these distributions in proportion to the number of Sanofi ADSs that they hold.

*Cash.* The depositary will convert any cash dividend or other cash distribution paid on the shares into U.S. dollars if, in its judgment, it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If the depositary determines that such a conversion and transfer is not possible, or if any approval from the French government is needed and cannot be obtained within a reasonable period, then the depositary may (1) distribute the foreign currency received by it to the holders of Sanofi ADSs or (2) hold the foreign currency distribution (uninvested and without liability for any interest) for the account of holders of Sanofi ADSs.





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In addition, if any conversion of foreign currency, in whole or in part, cannot be effected to some holders of Sanofi ADSs, the deposit agreement allows the depositary to distribute the dividends only to those ADR holders to whom it is possible to do so. It will hold the foreign currency it cannot convert into U.S. dollars for the account of the ADR holders who have not been paid. It will not invest the funds it holds and it will not be liable for any interest.

Before making a distribution, any withholding taxes that must be paid under French law will be deducted. The depositary will distribute only whole U.S. dollars and cents and will round fractional cents down to the nearest whole cent. ***Exchange rate fluctuations during a period when the depositary cannot convert euros into U.S. dollars may result in holders losing some or all of the value of a distribution.***

***Shares.*** The depositary may, and at our request will, distribute new ADRs representing any shares we distribute as a dividend or free distribution, if we furnish it promptly with satisfactory evidence that it is legal to do so. At its option, the depositary may distribute fractional Sanofi ADSs. If the depositary does not distribute additional Sanofi ADSs, the outstanding ADRs will also represent the new shares. The depositary may withhold any tax or other governmental charges, or require the payment of any required fees and expenses, prior to making any distribution of additional Sanofi ADSs.

***Rights to Receive Additional Shares.*** If we offer holders of Sanofi ordinary shares any rights to subscribe for additional shares or any other rights, the depositary, after consultation with us, will, in its discretion, either (1) make these rights available to holders or (2) dispose of such rights on behalf of holders and make the net proceeds available to holders. The depositary may make rights available to certain holders but not others if it determines it is lawful and feasible to do so. However, if, under the terms of the offering or for any other reason, the depositary may not make such rights available or dispose of such rights and make the net proceeds available, it will allow the rights to lapse. In that case, holders of Sanofi ADSs will receive no value for them.

In circumstances where rights would not otherwise be distributed by the depositary to holders of Sanofi ADSs, a holder of Sanofi ADSs may nonetheless request, and will receive from the depositary, any instruments or other documents necessary to exercise the rights allocable to that holder if the depositary first receives written notice from Sanofi that (1) Sanofi has elected, in its sole discretion, to permit the rights to be exercised and (2) such holder has executed the documents Sanofi has determined, in its sole discretion, are reasonably required under applicable law.

If the depositary makes rights available to holders of Sanofi ADSs, upon instruction from such holders, it will exercise the rights and purchase the shares on such holder's behalf. The depositary will then deposit the shares and deliver ADRs to such holders. It will only exercise rights if holders of Sanofi ADSs pay it the exercise price and any other charges the rights require such holders to pay.

U.S. securities laws may restrict the sale, deposit, cancellation or transfer of ADRs issued upon exercise of rights. For example, holders of Sanofi ADSs may not be able to trade Sanofi ADSs freely in the United States. In this case, the depositary may deliver Sanofi ADSs under a separate restricted deposit agreement that will contain the same provisions as the deposit agreement, except for changes needed to implement the required restrictions.

***Other Distributions.*** The depositary will distribute to holders of Sanofi ADSs anything else we may distribute on deposited securities (after deduction or upon payment of fees and expenses or any taxes or other governmental charges) by any means it thinks is legal, equitable and practical. If, for any reason, it cannot make the distribution in that way, the depositary may sell what we distributed and distribute the net proceeds of the sale in the same way it distributes cash dividends, or it may choose any other method to distribute the property it deems equitable and practicable.

The depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any holders of Sanofi ADSs. We have no obligation to register Sanofi ADSs, shares, rights or other securities under the U.S. Securities Act of 1933, as amended. We also have no obligation to take any other action to permit the distribution of ADRs, shares, rights or anything else to holders of Sanofi ADSs. This means that holders may not receive the distribution we make on our shares or any value for them if it is illegal or impractical for the depositary to make them available to such holders.

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*Elective Distributions.* Whenever we intend to distribute a dividend payable at the election of shareholders either in cash or in additional shares, we will give prior notice thereof to the depositary and will indicate whether we wish the elective distribution to be made available to holders of Sanofi ADSs. In that case, we will assist the depositary in determining whether that distribution is lawful and reasonably practicable. The depositary will make the election available to holders of Sanofi ADSs only if it is reasonably practicable and if we have provided all the documentation contemplated in the deposit agreement. In that case, the depositary will establish procedures to enable holders of Sanofi ADSs to elect to receive either cash or additional ADSs, in each case as described in the deposit agreement. If the election is not made available to holders of Sanofi ADSs, such holders will receive either cash or additional Sanofi ADSs, depending on what a shareholder in France would receive for failing to make an election, as more fully described in the deposit agreement.

**Deposit, Withdrawal and Cancellation**

*Delivery of ADRs*

The depositary will deliver ADRs if the holder or his or her broker deposit shares or evidence of rights to receive shares with the custodian. Upon payment of its fees and expenses and any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will register the appropriate number of Sanofi ADSs in the names the holder requests and will deliver the ADRs to the persons the holder requests at its office.

*Obtaining Sanofi ordinary shares*

A holder may turn in his or her ADRs at the depositary's office. Upon payment of its fees and expenses and any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will deliver (1) the underlying shares to an account designated by the holder and (2) any other deposited securities underlying the ADR at the office of a custodian or, at the holder's request, risk and expense, the depositary will deliver the deposited securities at its office.

**Voting Rights**

A holder may instruct the depositary to vote the Sanofi ordinary shares underlying his or her Sanofi ADSs at any meeting of Sanofi shareholders, but only if we request that the depositary ask for holder instructions. Otherwise, holders will not be able to exercise their right to vote unless they withdraw the underlying ordinary shares from the ADR program and vote as an ordinary shareholder. However, holders may not know about the meeting sufficiently in advance to timely withdraw the underlying ordinary shares.

If we ask for holder instructions in connection with a meeting of Sanofi shareholders, the depositary will mail materials to holders of Sanofi ADSs in the manner described under the heading "Notices and Reports; Rights of Holders to Inspect Books" below. For any instructions to be valid, the depositary must receive them on or before the date specified in the materials distributed by the depositary. The depositary will endeavor, in so far as practical, subject to French law and the provisions of our *statuts*, to vote or to have its agents vote the shares or other deposited securities as holders may validly instruct. The depositary will only vote or attempt to vote shares as holders validly instruct.

We cannot assure holders that they will receive the voting materials in time to ensure that holders can instruct the depositary to vote their shares. As long as they act in good faith, neither the depositary nor its agents will be responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. ***This means that holders may not be able to exercise their right to vote and there may be nothing holders can do if their shares are not voted as they requested.***

Similar to our shares, Sanofi ADSs evidenced by ADRs that are registered in the name of the same owner for at least two (2) years are eligible for double voting rights so long as certain procedures are followed, as set out in the deposit agreement. For additional information regarding double voting rights, see "Item 10. Additional Information B. Memorandum and Articles of Association Voting Rights".

The deposit agreement allows the depositary and Sanofi to change the voting procedures or require additional voting procedures in addition to the ones described above if necessary or appropriate to comply with French or

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United States law or our *statuts*. *For example, holders might be required to arrange to have their Sanofi ADSs deposited in a blocked account for a specified period of time prior to a shareholders' meeting in order to be allowed to give voting instructions.*

**Notices and Reports; Rights of Holders to Inspect Books**

On or before the first date on which we give notice, by publication or otherwise, of any meeting of holders of shares or other deposited securities, or of any adjourned meeting of such holders, or of the taking of any action in respect of any cash or other distributions or the offering of any rights, we will transmit to the depositary a copy of the notice.

Upon notice of any meeting of holders of shares or other deposited securities, if requested in writing by Sanofi, the depositary will, as soon as practicable, mail to the holders of Sanofi ADSs a notice, the form of which is in the discretion of the depositary, containing (1) a summary in English of the information contained in the notice of meeting provided by Sanofi to the depositary, (2) a statement that the holders as of the close of business on a specified record date will be entitled, subject to any applicable provision of French law and of our *statuts*, to instruct the depositary as to the exercise of the voting rights, if any, pertaining to the amount of shares or other deposited securities represented by their respective ADSs and (3) a statement as to the manner in which such instructions may be given.

The depositary will make available for inspection by ADS holders at the depositary's office any reports and communications, including any proxy soliciting material, received from us that are both (1) received by the depositary as the holder of the deposited securities and (2) made generally available to the holders of such deposited securities by us. The depositary will also, upon written request, send to ADS holders copies of such reports when furnished by us pursuant to the deposit agreement. Any such reports and communications, including any such proxy soliciting material, furnished to the depositary by us will be furnished in English to the extent such materials are required to be translated into English pursuant to any regulations of the SEC.

The depositary will keep books for the registration of ADRs and transfers of ADRs that at all reasonable times will be open for inspection by the holders provided that such inspection is not for the purpose of communicating with holders in the interest of a business or object other than our business or a matter related to the deposit agreement or the ADRs.

**Fees and Expenses**

**Fees Payable By ADS Holders**

Pursuant to the deposit agreement, holders of our ADSs may have to pay to JPMorgan, either directly or indirectly, fees or charges up to the amounts set forth in the table below.

<b>Associated Fee</b>	<b>Depositary Action</b>
\$5.00 or less per 100 ADSs (or portion thereof)	Execution and delivery of ADRs for distributions and dividends in shares and rights to subscribe for additional shares or rights of any other nature and surrender of ADRs for the purposes of withdrawal, including the termination of the deposit agreement
\$0.02 or less per ADS (or portion thereof)	Any cash distribution made pursuant to the deposit agreement, including, among other things:  cash distributions or dividends,  distributions other than cash, shares or rights,  distributions in shares, and  rights of any other nature, including rights to subscribe for additional shares.



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<b>Associated Fee</b>	<b>As applicable</b>	<b>Depository Action</b>
Registration fees in effect for the registration of transfers of shares generally on the share register of the company or foreign registrar and applicable to transfers of shares to or from the name of JPMorgan or its nominee to the custodian or its nominee on the making of deposits and withdrawals	As applicable	
A fee equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities		Distributions of securities other than cash, shares or rights
Any other charges payable by JPMorgan, its agents (and their agents), including BNP Paribas, as custodian (by deductions from cash dividends or other cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them) Expenses incurred by JPMorgan		Servicing of shares or other deposited securities
		Cable, telex and facsimile transmission (where expressly provided for in the deposit agreement)
		Foreign currency conversion into U.S. dollars

In addition to the fees outlined above, each holder will be responsible for any taxes or other governmental charges payable on his or her Sanofi ADSs or on the deposited securities underlying his or her Sanofi ADSs. The depository may refuse to transfer a holder's Sanofi ADSs or allow a holder to withdraw the deposited securities underlying his or her Sanofi ADSs until such taxes or other charges are paid. It may apply payments owed to a holder or sell deposited securities underlying a holder's Sanofi ADSs to pay any taxes owed, and the holder will remain liable for any deficiency. If it sells deposited securities, it will, if appropriate, reduce the number of Sanofi ADSs to reflect the sale and pay to the holder any proceeds, or send to the holder any property, remaining after it has paid the taxes. For additional information regarding taxation, see "Item 10. Additional Information E. Taxation".

### *Fees Paid to Sanofi by the Depository*

JPMorgan, as depository, has agreed to reimburse Sanofi for certain expenses (subject to certain limits) Sanofi incurs relating to legal fees, investor relations servicing, investor-related presentations, ADR-related advertising and public relations in those jurisdictions in which the ADRs may be listed or otherwise quoted, investor relations channel, perception studies, accountants' fees in relation to our annual report on Form 20-F or any other expenses directly or indirectly relating to managing the program or servicing the shareholders. The depository has also agreed to provide additional payments to Sanofi based on certain performance indicators relating to the ADR facility. From January 1, 2012 to December 31, 2012, Sanofi received from JPMorgan reimbursements of \$4,250,000 for expenses and no additional payments based on performance of the ADR facility were made. In addition to such amounts, JPMorgan has agreed to waive servicing fees Sanofi may incur in connection with routine corporate actions such as annual general meetings and dividend distributions, as well as for other assistance JPMorgan may provide Sanofi, such as preparation of tax and regulatory compliance documents for holders and investor relations advisory services.

### **Changes Affecting Deposited Securities**

If we:

change the nominal or par value of our Sanofi ordinary shares;

recapitalize, reorganize, merge or consolidate, liquidate, sell assets, or take any similar action;

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reclassify, split up or consolidate any of the deposited securities; or

distribute securities on the deposited securities that are not distributed to holders;

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then either:

the cash, shares or other securities received by the depositary will become deposited securities and each Sanofi ADS will automatically represent its equal share of the new deposited securities; or

the depositary may, and will if we ask it to, distribute some or all of the cash, shares or other securities it receives. It may also deliver new ADRs or ask holders to surrender their outstanding ADRs in exchange for new ADRs identifying the new deposited securities.

**Disclosure of Interests**

The obligation of a holder or other person with an interest in our shares to disclose information under French law and under our *statuts* also applies to holders and any other persons, other than the depositary, who have an interest in the Sanofi ADSs. The consequences for failing to comply with these provisions are the same for holders and any other persons with an interest as a holder of our ordinary shares. For additional information regarding these obligations, see "Item 10. Additional Information B. Memorandum and Articles of Association Requirements for Holdings Exceeding Certain Percentages".

**Amendment and Termination**

We may agree with the depositary to amend the deposit agreement and the ADRs without the consent of the ADS holders for any reason. If the amendment adds or increases fees or charges, except for taxes and other governmental charges or registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses, or prejudices a substantial right of holders of Sanofi ADSs, it will only become effective 30 days after the depositary notifies such holders of the amendment. However, we may not be able to provide holders of Sanofi ADSs with prior notice of the effectiveness of any modifications or supplements that are required to accommodate compliance with applicable provisions of law, whether or not those modifications or supplements could be considered to be materially prejudicial to the substantial rights of holders of Sanofi ADSs. *At the time an amendment becomes effective, such holders will be considered, by continuing to hold their ADR, to have agreed to the amendment and to be bound by the ADR and the deposit agreement as amended.*

The depositary will terminate the agreement if we ask it to do so. The depositary may also terminate the agreement if the depositary has told us that it would like to resign and we have not appointed a new depositary bank within 90 days. In both cases, the depositary must notify holders of Sanofi ADSs at least 30 days before termination.

After termination, the depositary and its agents will be required to do only the following under the deposit agreement: (1) collect distributions on the deposited securities, (2) sell rights and other property as provided in the deposit agreement and (3) deliver shares and other deposited securities upon cancellation of ADRs. Six months or more after termination, the depositary may sell any remaining deposited securities by public or private sale. After that, the depositary will hold the money it receives on the sale, as well as any other cash it is holding under the deposit agreement, for the pro rata benefit of the holders of Sanofi ADSs that have not surrendered their Sanofi ADSs. It will have no liability for interest. Upon termination of the deposit agreement, the depositary's only obligations will be to account for the proceeds of the sale and other cash and with respect to indemnification. After termination, our only obligation will be with respect to indemnification and to pay certain amounts to the depositary.

**Limitations on Obligations and Liability to Holders of Sanofi ADSs**

The deposit agreement expressly limits our obligations and the obligations of the depositary, and it limits our liability and the liability of the depositary. We and the depositary:

are obligated only to take the actions specifically set forth in the deposit agreement without gross negligence or bad faith;

are not liable if either is prevented or delayed by law or circumstances beyond its control from performing its obligations under the deposit agreement;





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are not liable if either exercises, or fails to exercise, any discretion permitted under the deposit agreement;

have no obligation to become involved in a lawsuit or other proceeding related to the Sanofi ADSs or the deposit agreement on holders' behalf or on behalf of any other party, unless indemnity satisfactory to it against all expense and liability is furnished as often as may be required;

are not liable for the acts or omissions made by any securities depository, clearing agency or settlement system or the insolvency of the custodian to the extent the custodian is not a branch or affiliate of JPMorgan;

may rely without any liability upon any written notice, request or other document believed by either of us to be genuine and to have been signed or presented by the proper parties; and

are not liable for any action or nonaction taken in reliance upon the advice of or information from legal counsel, accountants, any person presenting ordinary shares for deposit, any ADS holder, or any other person believed in good faith to be competent to give such advice or information.

In addition, the depository will not be liable for any acts or omissions made by a successor depository. Moreover, neither we nor the depository nor any of our respective agents will be liable to any holder of Sanofi ADSs for any indirect, special, punitive or consequential damages.

Pursuant to the terms of the deposit agreement, we and the depository have agreed to indemnify each other under certain circumstances.

**Requirements for Depository Actions**

Before the depository will deliver or register the transfer of Sanofi ADSs, make a distribution on Sanofi ADSs or process a withdrawal of shares, the depository may require:

payment of stock transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any shares or other deposited securities;

production of satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and

compliance with regulations it may establish, from time to time, consistent with the deposit agreement, including presentation of transfer documents.

The depository may refuse to deliver Sanofi ADSs, register transfers of Sanofi ADSs or permit withdrawals of shares when the transfer books of the depository or our transfer books are closed, or at any time if the depository or we think it advisable to do so.

**Right to Receive the Shares Underlying the Sanofi ADSs**

Holders have the right to cancel their Sanofi ADSs and withdraw the underlying Sanofi ordinary shares at any time except:

when temporary delays arise when we or the depository have closed our transfer books or the deposit of shares in connection with voting at a shareholders' meeting, or the payment of dividends;

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when the holder or other holders of Sanofi ADSs seeking to withdraw shares owe money to pay fees, taxes and similar charges; or

when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to Sanofi ADSs or to the withdrawal of shares or other deposited securities.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

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**Pre-Release of Sanofi ADSs**

Unless we instruct the depository not to, the deposit agreement permits the depository to deliver Sanofi ADSs before deposit of the underlying shares. This is called a pre-release of the Sanofi ADSs. The depository may also deliver shares upon cancellation of pre-released Sanofi ADSs (even if the Sanofi ADSs are cancelled before the pre-release transaction has been closed out). A pre-release is closed out as soon as the underlying shares are delivered to the depository. The depository may receive Sanofi ADSs instead of shares to close out a pre-release. Unless otherwise agreed in writing, the depository may pre-release Sanofi ADSs only under the following conditions: (1) before or at the time of the pre-release, the person to whom the pre-release is being made must represent to the depository in writing that it or its customer (i) owns the shares or Sanofi ADSs to be deposited, (ii) assigns all beneficial rights, title and interest in such shares or ADRs to the depository in its capacity as depository and (iii) will not take any action with respect to such shares or ADRs that is inconsistent with the transfer of beneficial ownership, other than in satisfaction of such pre-release; (2) the pre-release must be fully collateralized with cash, U.S. government securities or other collateral that the depository considers appropriate; (3) the depository must be able to close out the pre-release on not more than five business days' notice; and (4) the depository may require such further indemnities and credit regulations as it deems appropriate. In addition, the depository will limit the number of Sanofi ADSs that may be outstanding at any time as a result of pre-release, although the depository may disregard the limit from time to time, if it thinks it is appropriate to do so. The depository may retain for its own account any compensation received by it in connection with the foregoing.

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**PART II**

**Item 13. Defaults, Dividend Arrearages and Delinquencies**

N/A

**Item 14. Material Modifications to the Rights of Security Holders**

N/A

**Item 15. Controls and Procedures**

(a) Our Chief Executive Officer and principal financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that, as of such date, our disclosure controls and procedures were effective to ensure that material information relating to Sanofi was timely made known to them by others within the Group.

(b) Report of Management on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Management assessed the effectiveness of internal control over financial reporting as of December 31, 2012 based on the framework in "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on that assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2012 to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of its financial statements for external purposes, in accordance with generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements, and can only provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The effectiveness of the Company's internal control over financial reporting has been audited by PricewaterhouseCoopers Audit and Ernst & Young et Autres, independent registered public accounting firms, as stated in their report on the Company's internal control over financial reporting as of December 31, 2012, which is included herein. See paragraph (c) of the present Item 15, below.

(c) See report of PricewaterhouseCoopers Audit and Ernst & Young et Autres, independent registered public accounting firms, included under "Item 18. Financial Statements" on page F-3.

(d) There were no changes to our internal control over financial reporting that occurred during the period covered by this Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 16.**

[Reserved]

**Item 16A. Audit Committee Financial Expert**

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Our Board of Directors has determined that Klaus Pohle, Robert Castaigne, Christian Mulliez and Gérard Van Kemmel, directors serving on the Audit Committee, are independent financial experts within the meaning of paragraph 407 of the Sarbanes-Oxley Act of 2002.

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The Board of Directors deemed Klaus Pohle to be a financial expert taking into account his education and professional experience in financial matters, accountancy and internal control. The Board of Directors determined that Robert Castaigne qualifies as a financial expert based on his education and his experience as Chief Financial Officer of a major corporation. The Board of Directors deemed Christian Mulliez to be a financial expert taking into account his experience as Vice President, General Manager Administration and Finance of L'Oréal and graduate of the *Ecole Supérieure des Sciences Economiques et Commerciales* (ESSEC). The Board of Directors determined that Gérard Van Kemmel qualifies as a financial expert based on his experience as a partner at an international accounting firm.

The Board of Directors has determined that all five directors meet the independence criteria of U.S. Securities and Exchange Commission Rule 10A-3, although only Mrs. Piwnica, Mr. Castaigne, Mr. Pohle and Mr. Van Kemmel meet the French AFEP-MEDEF Code criteria of independence applied by the Board of Directors for general corporate governance purposes. (See Item 16.G, below.)

**Item 16B. Code of Ethics**

We have adopted a financial code of ethics, as defined in Item 16B. of Form 20-F under the Exchange Act. Our financial code of ethics applies to our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and other officers performing similar functions, as designated from time to time. Our financial code of ethics is available on our Website at [www.sanofi.com](http://www.sanofi.com) (information on our website is not incorporated by reference in this annual report). A copy of our financial code of ethics may also be obtained without charge by addressing a written request to the attention of Individual Shareholder Relations at our headquarters in Paris. We will disclose any amendment to the provisions of such financial code of ethics on our website.

**Item 16C. Principal Accountants' Fees and Services**

See Note E. to our consolidated financial statements included at Item 18 of this annual report.

**Item 16D. Exemptions from the Listing Standards for Audit Committees**

N/A

**Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

In 2012, Sanofi made the following purchases of its ordinary shares.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs <sup>(1)</sup>	(d) Approximate Value of Shares that May Yet Be Purchased Under the Plans or Programs
February 2012	5,184,555	€ 56.31	5,184,555	€ 10,435,395,454
March 2012	1,953,164	€ 57.60	1,953,164	€ 10,322,886,122
April 2012	375,774	€ 55.65	375,774	€ 10,301,973,191
May 2012	257,373	€ 57.08	257,373	€ 10,287,283,561
June 2012	243,983	€ 56.58	243,983	€ 10,285,903,172
July 2012	2,274,000	€ 65.61	2,274,000	€ 10,136,695,283
August 2012	3,000,206	€ 66.85	3,000,206	€ 9,936,144,522
September 2012	284,588	€ 65.84	284,588	€ 9,917,407,277

<sup>(1)</sup> The Company was authorized to repurchase up to €10,727,350,480 of shares for a period of eighteen months (i.e., through November 4, 2013) by the Annual Shareholders' Meeting held on May 4, 2012.

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This schedule does not include purchases and sales conducted by Exane under a liquidity contract entered into in 2010 and that is still in effect. For more information see Item 10.B *Memorandum and Articles of Association - Use of Share Repurchase Programs*.



Table of Contents**Item 16F. Change in Registrant's Certifying Accountant**

N/A

**Item 16G. Corporate Governance**

Sanofi is incorporated under the laws of France, with securities listed on regulated public markets in the United States (New York Stock Exchange) and France (Euronext Paris). Consequently, as described further in our annual report, our corporate governance framework reflects the mandatory provisions of French corporate law, the securities laws and regulations of France and the United States and the rules of the aforementioned public markets. In addition, we generally follow the "AFEP-MEDEF" corporate governance recommendations for French listed issuers (hereafter referred to as the "AFEP-MEDEF Code"). As a result, our corporate governance framework is similar in many respects to, and provides investor protections that are comparable to or in some cases, more stringent than the corresponding rules of the New York Stock Exchange. Nevertheless, there are important differences to keep in mind.

In line with New York Stock Exchange rules applicable to domestic issuers, Sanofi maintains a board of directors at least half of the members of which are independent. Sanofi evaluates the independence of members of our Board of Directors using the standards of the French AFEP-MEDEF Code as the principal reference. We believe that AFEP-MEDEF's overarching criteria for independence no relationship of any kind whatsoever with the Company, its group or the management of either that is such as to color a Board member's judgment are on the whole consistent with the goals of the New York Stock Exchange's rules although the specific tests proposed under the two standards may vary on some points. We note that under the AFEP-MEDEF Code, our non-executive Chairman of the Board has automatically been classified as non-independent although he has no relationship with Sanofi that would cause him to be non-independent under the rules of the New York Stock Exchange. Additionally, we have complied with the audit committee independence and other requirements of the Rule 10A-3 under the U.S. Securities Exchange Act of 1934, as amended, adopted pursuant to the Sarbanes-Oxley Act of 2002. Our Compensation Committee includes non-independent members, which is permitted under the AFEP-MEDEF Code but would not be compliant with the rules of the New York Stock Exchange for domestic issuers.

Under French law, the committees of our Board of Directors are advisory only, and where the New York Stock Exchange Listed Company Manual would vest certain decision-making powers with specific committees by delegation (*e.g.*, appointment or audit committees), under French law our Board of Directors remains the only competent body to take such decisions, albeit taking into account the recommendation of the relevant committees. Additionally, under French corporate law, it is the Shareholders' General Meeting of Sanofi that is competent to appoint our auditors upon the proposal of our Board of Directors, although our Board Charter provides that the Board of Directors will make its proposal on the basis of the recommendation of our Audit Committee. We believe that this requirement of French law, together with the additional legal requirement that two sets of statutory auditors be appointed, share the New York Stock Exchange's underlying goal of ensuring that the audit of our accounts be conducted by auditors independent from company management.

In addition to the oversight role of our Compensation Committee for questions of management compensation including by way of equity, under French law any option or restricted share plans or other share capital increases, whether for the benefit of senior management or employees, may only be adopted by the Board of Directors pursuant to and within the limits of a shareholder resolution approving the related capital increase and delegating to the Board the authority to implement such operations.

As described above, a number of issues, which could be resolved directly by a board or its committees in the United States, require the additional protection of direct shareholder consultation in France. On the other hand, there is not a tradition of non-executive Board of Directors sessions. Our Audit Committee is entirely composed of independent directors as that term is defined in Rule 10A-3 under the U.S. Securities Exchange Act of 1934, as amended, adopted pursuant to the Sarbanes-Oxley Act of 2002. The composition of our Audit Committee, Compensation Committee, and Appointments and Governance Committee includes directors who are also officers of our largest shareholder.

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As a 'foreign private issuer' under the U.S. securities laws, our Chief Executive Officer and our Chief Financial Officer issue the certifications required by §302 and §906 of the Sarbanes Oxley Act of 2002 on an annual basis (with the filing of our annual report on U.S. Form 20-F) rather than on a quarterly basis as would be the case of a U.S. corporation filing quarterly reports on U.S. Form 10-Q.

French corporate law provides that the Board of Directors must vote to approve a broadly defined range of transactions that could potentially create conflicts of interest between Sanofi on the one hand and its Directors and Chief Executive Officer on the other hand, which are then presented to shareholders for approval at the next annual meeting. This legal safeguard provides shareholders with an opportunity to approve significant aspects of the Chief Executive Officer's compensation package even in the absence of "say on pay" legislation in France, and it operates in place of certain provisions of the NYSE Listed Company Manual.

**Item 16H. Mine Safety Disclosure**

N/A

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**PART III**

**Item 17. Financial Statements**

See Item 18.

**Item 18. Financial Statements**

See pages F-1 through F-122 incorporated herein by reference.

**Item 19. Exhibits**

- 1.1 Articles of association (*statuts*) of Sanofi (English translation)
- 1.2 Board Charter (*Règlement Intérieur*) of Sanofi (English translation)
- 2.1 Form of Deposit Agreement between Sanofi and JPMorgan Chase Bank, N.A., as depositary (*incorporated herein by reference to Exhibit A to the Registration Statement on Form F-6 dated August 7, 2007 relating to our American Depositary Shares, SEC File No. 333-145177*)
- 2.2 Amendment No.1 to Deposit Agreement between Sanofi and JPMorgan Chase Bank, N.A., as depositary (*incorporated herein by reference to Exhibit (a)(2) to Post-Effective Amendment No.1 to Form F-6 dated April 30, 2011 relating to our American Depositary Shares, SEC File No. 333-145177*)
- 2.3 Instrument defining rights of holders of American Depositary Shares each representing one quarter of a Participating Share Series A (*incorporated by reference to Item. 3 Exhibit (a) of the Registration Statement on Form F-6 (Registration No. 33-31904) dated November 21, 1989*)
- 4.1 Facilities Agreement, dated October 2, 2010, by and among Sanofi-Aventis, BNP Paribas, J.P. Morgan plc and Société Générale Corporate & Investment Banking acting as Initial Mandated Lead Arrangers, Société Générale acting as Facilities Agent, the Companies listed as Additional Borrowers thereto and the Financial Institutions included as Lenders therein. (*incorporated by reference to Exhibit (b)(A) of the Tender Offer Statement on Schedule TO filed on October 4, 2010.*)
- 4.2 Amendment dated February 15, 2011 to the Facilities Agreement, dated October 2, 2010, by and among Sanofi-Aventis, BNP Paribas, J.P. Morgan plc and Société Générale Corporate & Investment Banking acting as Initial Mandated Lead Arrangers, Société Générale acting as Facilities Agent, the Companies listed as Additional Borrowers thereto and the Financial Institutions included as Lenders therein. (*incorporated by reference to Exhibit (b)(B) of Amendment No. 15 to the Tender Offer Statement on Schedule TO filed on February 16, 2011*)
- 4.3 Agreement and Plan of Merger, dated as of February 16, 2011, among Sanofi-Aventis, GC Merger Corp., and Genzyme Corporation (*incorporated by reference to Exhibit (d)(1) of Amendment No. 15 to the Tender Offer Statement on Schedule TO filed on February 16, 2011*)
- 4.4 Form of Contingent Value Rights Agreement by and among Sanofi and Trustee (*incorporated by reference to Exhibit (d)(2) of Amendment No. 15 to the Tender Offer Statement on Schedule TO filed on February 16, 2011*)
- 8.1 List of significant subsidiaries, see "Item 4. Information on the Company C. Organizational Structure" of this 20-F.
- 12.1 Certification by Christopher Viehbacher, Chief Executive Officer, required by Section 302 of the Sarbanes-Oxley Act of 2002