Prothena Corp plc
Form 10-Q
August 07, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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FORM 10-Q

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(Mark One)

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

For the quarterly period ended June 30, 2018

Or

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

Commission file number: 001-35676

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PROTHENA CORPORATION PUBLIC LIMITED COMPANY
(Exact name of registrant as specified in its charter)

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Ireland	98-1111119
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

Adelphi Plaza
Upper George's Street
Dún Laoghaire
Co. Dublin, A96 T927, Ireland
(Address of principal executive offices including Zip Code)
Registrant’s telephone number, including area code: 011-353-1-236-2500

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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 x No o

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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	x	Accelerated filer	o
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	o
		Emerging growth company	o

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The number of ordinary shares outstanding as of July 20, 2018 was 39,836,836.

PROTHENA CORPORATION plc
Form 10-Q – QUARTERLY REPORT
For the Quarter Ended June 30, 2018
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(in thousands, except share and per share data)

	June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$486,212	$ 417,620
Receivable from Roche	8	240
Prepaid expenses and other current assets	7,817	8,467
Total current assets	494,037	426,327
Non-current assets:		
Property and equipment, net	53,398	54,990
Deferred tax assets	11,307	8,113
Restricted cash	4,056	4,056
Other non-current assets	502	2,843
Total non-current assets	69,263	70,002
Total assets	$563,300	$ 496,329
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$10,052	$ 13,633
Accrued research and development	10,160	13,509
Income taxes payable, current	946	311
Build-to-suit lease obligation, current	1,474	733
Restructuring liability	18,396	—
Other current liabilities	5,104	9,185
Total current liabilities	46,132	37,371
Non-current liabilities:		
Deferred revenue	110,242	—
Deferred rent	229	254
Build-to-suit lease obligation, non-current	50,691	51,515
Total non-current liabilities	161,162	51,769
Total liabilities	207,294	89,140
Commitments and contingencies (Note 7)		
Shareholders' equity:		
Euro deferred shares, €22 nominal value:	—	—
Authorized shares — 10,000 at June 30, 2018 and December 31, 2017		
Issued and outstanding shares — none at June 30, 2018 and December 31, 2017		
Ordinary shares, $0.01 par value:	398	385
Authorized shares — 100,000,000 at June 30, 2018 and December 31, 2017		
Issued and outstanding shares — 39,831,836 and 38,482,764 at June 30, 2018 and December 31, 2017, respectively		
Additional paid-in capital	906,583	849,154
Accumulated deficit	(550,975)	(442,350)
Total shareholders' equity	356,006	407,189
Total liabilities and shareholders' equity	$563,300	$ 496,329

See accompanying Notes to Condensed Consolidated Financial Statements.

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Prothena Corporation plc and Subsidiaries
Condensed Consolidated Statements of Operations
(in thousands, except per share data)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Collaboration revenue	$279	$26,812	$506	$27,071
Total revenue	279	26,812	506	27,071
Operating expenses:				
Research and development	31,452	34,032	66,158	59,730
General and administrative	10,992	10,912	25,221	21,744
Restructuring costs	20,904	—	20,904	—
Total operating expenses	63,348	44,944	112,283	81,474
Loss from operations	(63,069)	(18,132)	(111,777)	(54,403)
Other income (expense):				
Interest income (expense), net	831	18	1,031	(346)
Other income (expense), net	410	(874)	138	(1,284)
Total other income (expense), net	1,241	(856)	1,169	(1,630)
Loss before income taxes	(61,828)	(18,988)	(110,608)	(56,033)
Benefit from income taxes	(1,946)	(1,287)	(1,983)	(2,948)
Net loss	$(59,882)	$(17,701)	$(108,625)	$(53,085)
Basic and diluted net loss per share	$(1.50)	$(0.46)	$(2.77)	$(1.44)
Shares used to compute basic and diluted net loss per share	39,824	38,073	39,257	36,922

See accompanying Notes to Condensed Consolidated Financial Statements.

Prothena Corporation plc and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Six Months Ended June 30,	
	2018	2017
Operating activities		
Net loss	$(108,625)	$(53,085)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	1,596	1,518
Share-based compensation	13,211	12,255
Restructuring share-based compensation	2,512	—
Deferred income taxes	(1,198)	157
Interest expense under build-to-suit lease obligation	1,825	1,830
Gain from early lease retirement	—	(2,096)
Loss (gain) from disposal of fixed assets	101	(5)
Changes in operating assets and liabilities:		
Accounts receivable	232	(30,062)
Prepaid and other assets	2,991	(8,744)
Deferred revenue	110,242	—
Accounts payable, accruals and other liabilities	(12,222)	4,311
Restructuring liability	15,884	—
Net cash provided by (used in) operating activities	26,549	(73,921)
Investing activities		
Purchases of property and equipment	(280)	(2,712)
Proceeds from disposal of fixed assets	—	105
Net cash used in investing activities	(280)	(2,607)
Financing activities		
Proceeds from issuance of ordinary shares in public offering, net	—	150,323
Proceeds from subscription of ordinary shares	39,758	—
Proceeds from issuance of ordinary shares upon exercise of stock options	4,473	12,013
Reduction of build-to-suit lease obligation	(1,908)	(1,002)
Net cash provided by financing activities	42,323	161,334
Net increase in cash, cash equivalents and restricted cash	68,592	84,806
Cash, cash equivalents and restricted cash, beginning of the year	421,676	390,979
Cash, cash equivalents and restricted cash, end of the period	$490,268	$475,785
Supplemental disclosures of cash flow information		
Cash paid for income taxes, net of refunds	$576	$691
Supplemental disclosures of non-cash investing and financing activities		
Acquisition of property and equipment included in accounts payable and accrued liabilities	$—	$393
Offering costs included in accounts payable and accrued liabilities	$—	$31

See accompanying Notes to Condensed Consolidated Financial Statements.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the statement of financial position that sum to the total of the same such amounts shown in the Condensed Consolidated Statements of Cash Flows.

	Six Months Ended June 30,	
	2018	2017
Cash and cash equivalents	$486,212	$471,729
Restricted cash	4,056	4,056
Total Cash, cash equivalents and restricted cash, end of the period	$490,268	$475,785

Notes to the Condensed Consolidated Financial Statements
(unaudited)

1. Organization

Description of Business

Prothena Corporation plc and its subsidiaries ("Prothena" or the "Company") is a clinical-stage neuroscience company focused on the discovery and development of novel therapies with the potential to fundamentally change the course of progressive, life-threatening diseases. Fueled by a deep scientific understanding built over decades of neuroscience research, we are advancing a pipeline of therapeutic candidates for a number of indications and novel targets including Parkinson's disease and other related synucleinopathies (prasinezumab, or PRX002/RG7935) and ATTR amyloidosis (PRX004), as well as tau and A (Beta amyloid) for the potential treatment of Alzheimer's disease and other neurodegenerative disorders, and TDP-43 for the potential treatment of ALS (amyotrophic lateral sclerosis) and FTD (frontotemporal dementia).

The Company was formed on September 26, 2012 under the laws of Ireland and re-registered as an Irish public limited company on October 25, 2012. The Company's ordinary shares began trading on The Nasdaq Global Market under the symbol "PRTA" on December 21, 2012 and currently trade on The Nasdaq Global Select Market.

Liquidity and Business Risks

As of June 30, 2018, the Company had an accumulated deficit of $551.0 million and cash and cash equivalents of $486.2 million.

Based on the Company's business plans, management believes that the Company's cash and cash equivalents at June 30, 2018 are sufficient to meet its obligations for at least the next twelve months. To operate beyond such period, or if the Company elects to increase its spending on development programs significantly above current long-term plans or enters into potential licenses and or other acquisitions of complementary technologies, products or companies, the Company may need additional capital. The Company expects to continue to finance future cash needs that exceed its cash from operating activities primarily through its current cash and cash equivalents, its collaborations with Roche and Celgene, and to the extent necessary, through proceeds from public or private equity or debt financings, loans and other collaborative agreements with corporate partners or other arrangements.

The Company is subject to a number of risks, including but not limited to: the uncertainty of the Company's research and development ("R&D") efforts resulting in future successful commercial products; obtaining regulatory approval for its product candidates; its ability to successfully commercialize its product candidates, if approved; significant competition from larger organizations; reliance on the proprietary technology of others; dependence on key personnel; uncertain patent protection; dependence on corporate partners and collaborators; and possible restrictions on reimbursement from governmental agencies and healthcare organizations, as well as other changes in the healthcare industry.

2. Summary of Significant Accounting Policies

Basis of Preparation and Presentation of Financial Information

These accompanying Unaudited Interim Condensed Consolidated Financial Statements have been prepared in accordance with the accounting principles generally accepted in the U.S. ("GAAP") and with the instructions for Form 10-Q and Regulation S-X statements. Accordingly, they do not include all of the information and notes required for complete financial statements. These interim Condensed Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and Notes thereto contained in the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (the "SEC") on February 26, 2018 (the "2017 Form 10-K"). These Unaudited Interim Condensed Consolidated Financial Statements are presented in U.S. dollars, which is the functional currency of the Company and its consolidated subsidiaries. These Unaudited Interim Condensed Consolidated Financial Statements include the accounts of the Company and its consolidated subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Unaudited Interim Financial Information

The accompanying Unaudited Interim Condensed Consolidated Financial Statements and related disclosures are unaudited, have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of

management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair presentation of the results of operations for the periods presented. The year-end condensed consolidated balance sheet data was derived from audited financial statements, however certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP

have been condensed or omitted. The condensed consolidated results of operations for any interim period are not necessarily indicative of the results to be expected for the full year or for any other future year or interim period.

Use of Estimates

The preparation of the Condensed Consolidated Financial Statements in conformity with GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures. On an ongoing basis, management evaluates its estimates, including critical accounting policies or estimates related to revenue recognition, share-based compensation and research and development expenses. The Company bases its estimates on historical experience and on various other market specific and other relevant assumptions that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Because of the uncertainties inherent in such estimates, actual results may differ materially from these estimates.

Significant Accounting Policies

There were no significant changes to the accounting policies during the six months ended June 30, 2018, from the significant accounting policies described in Note 2 of the “Notes to Consolidated Financial Statements” in the 2017 Form 10-K, with the exception of those noted below.

Restructuring Charges, Net

The Company recognizes restructuring charges related to its reorganization plan. In connection with these activities, the Company records restructuring charges for contractual employee termination benefits, one-time employee termination benefits and contract termination costs. The Company accounts for its restructuring charges as a liability when the obligations are incurred and records such charges at fair value.

The recognition of restructuring charges requires the Company to make certain judgments and estimates regarding the nature, timing and amount of costs associated with the planned reorganization plan. To the extent the Company’s actual results differ from its estimates and assumptions, the Company may be required to revise the estimates of future liabilities, requiring the recognition of additional restructuring charges or the reduction of liabilities already recognized. Such changes to previously estimated amounts may be material to the consolidated financial statements. Changes in the estimates of the restructuring charges are recorded in the period the change is determined.

At the end of each reporting period, the Company evaluates the remaining accrued balances to ensure that no excess accruals are retained and the utilization of the provisions are for their intended purpose in accordance with developed restructuring plans. See Note 11 “Restructuring” for additional information regarding restructuring charges.

Recently Adopted Accounting Pronouncement

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers, which is largely codified in Accounting Standards Codification Topic 606 (ASC 606). ASC 606 supersedes the revenue recognition requirement in ASC 605, Revenue Recognition, and supersedes nearly all existing revenue recognition guidance under GAAP. To date, the Company has derived its revenue from a license and collaboration agreement and a service agreement. The consideration the Company is eligible to receive under these agreements includes upfront payments, research and development funding, milestone payments and royalties. The core principle of ASC 606 is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods and services. The Company adopted ASC 606 as of January 1, 2018 using the modified retrospective transition method. As of January 1, 2018, the Company did not record any changes to the opening balance of the accumulated deficit since the cumulative effect of applying the new revenue standard was the same as applying ASC 605. Prior period amounts are not adjusted and continue to be reported in accordance with the Company’s historical accounting under ASC 605. Upon adoption of the new revenue standard, the Company has provided additional revenue-related disclosures in its notes to the Consolidated Financial Statements which commenced in the three months ended March 31, 2018.

Revenue Recognition

Revenue is recognized only when the Company satisfies an identified performance obligation by transferring a promised good or service to a customer.

Contracts with Multiple Performance Obligations

The Company's License Agreement with Roche contains multiple performance obligations. The Company accounts for the individual performance obligations separately if they are distinct. Factors considered in the determination of whether the license performance obligations are distinct included, among other things, the research and development capabilities of Roche and Roche's sublicense rights, and for the remaining performance obligations the fact that they are not proprietary and can be and have been provided by other vendors. The transaction price is allocated to the separate performance obligation on a relative standalone selling price basis.
The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognize revenue at the amount to which we have the right to invoice for services performed.

Collaboration Revenue

Upon adoption of ASC 606, the Company recognizes research and development reimbursements as collaboration revenue earned over time as services are performed. Prior to adoption of ASC 606, the Company recorded research reimbursement as collaboration revenue and development reimbursement as an offset to R&D expense once the license revenue cap was met.

Milestone Revenue

The Company generally classifies each of its milestones into one of three categories: (i) clinical milestones; (ii) regulatory and development milestones; and (iii) commercial milestones. Clinical milestones are typically achieved when a product candidate advances into or completes a defined phase of clinical research. For example, a milestone payment may be due to the Company upon the initiation of a clinical trial for a new indication. Regulatory and development milestones are typically achieved upon acceptance of the submission for marketing approval of a product candidate or upon approval to market the product candidate by the FDA or other regulatory authorities. For example, a milestone payment may be due to the Company upon submission for marketing approval of a product candidate by the FDA. Commercial milestones are typically achieved when an approved product reaches certain defined levels of net royalty sales by the licensee of a specified amount within a specified period.

In general, the Company considers such milestone payments as variable consideration with constraint and therefore recognizes the revenue from such milestone payments as collaboration revenue at point in time when the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

Profit Share Revenue

For agreements, with profit sharing arrangements, the Company will record its share of the pre-tax commercial profit as collaboration revenue when the profit sharing can be reasonably estimated and that a significant revenue reversal will not occur in future periods.

Royalty Revenue

The Company will recognize revenue from royalties based on licensees' sales of the Company's products or products using the Company's technologies. Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and that a significant revenue reversal will not occur in future periods. There were no royalties earned during the six months ended June 30, 2018 and 2017, respectively.

Taxes, Shipping and Handling

The Company excludes from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by the Company from a customer (e.g., sales, use, value added, some excise taxes). In addition, we account for shipping and handling as activities that are performed after our customers obtain control of the goods as activities to fulfill our performance obligation to transfer the goods.

Incremental Costs to Obtain or Fulfill a Contract

For costs to obtain a contract, the Company will capitalize such amounts if they are incremental and expected to be recovered. Sales commissions directly related to obtaining new contracts will be capitalized unless the amortization period is one year or

less, at which these costs will be recorded within selling and general administrative expenses. As of June 30, 2018, the Company does not have such costs capitalized in its unaudited condensed consolidated balance sheet.

Share-based Compensation

To determine the fair value of share-based payment awards, the Company uses the Black-Scholes option-pricing model. The determination of fair value using the Black-Scholes option-pricing model is affected by the Company's share price as well as assumptions regarding a number of complex and subjective variables. Share-based compensation expense is recognized on a straight-line basis over the requisite service period for each award. Further, share-based compensation expense recognized in the Consolidated Statements of Operations is based on awards expected to vest and therefore the amount of expense has been reduced for estimated forfeitures. If actual forfeitures differ from estimates at the time of grant they will be revised in subsequent periods. Beginning in 2018, the Company uses its historical volatility for the Company's stock to estimate expected volatility. Through December 31, 2017, the expected volatility was based on a combination of historical volatility for the Company's stock and the historical volatilities of several of the Company's publicly traded comparable companies. If factors change and different assumptions are employed in determining the fair value of share-based awards, the share-based compensation expense recorded in future periods may differ significantly from what was recorded in the current period (see Note 10 for further information).

The Company records any excess tax benefits or tax shortfalls from its equity awards in its Consolidated Statements of Operations in the reporting periods in which stock options are exercised.

Segment and Concentration of Risks

The Company operates in one segment. The Company's chief operating decision maker (the "CODM"), its Chief Executive Officer, manages the Company's operations on a consolidated basis for purposes of allocating resources. When evaluating the Company's financial performance, the CODM reviews all financial information on a consolidated basis.

Financial instruments that potentially subject the Company to concentration of credit risk consist of cash and cash equivalents and accounts receivable. The Company places its cash equivalents with high credit quality financial institutions and by policy, limits the amount of credit exposure with any one financial institution. Deposits held with banks may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on its deposits of cash and cash equivalents and its credit risk exposure is up to the extent recorded on the Company's Consolidated Balance Sheet.

The receivable from Roche as of June 30, 2018 and December 31, 2017 are amounts due from Roche entities located in the U.S. and Switzerland under the License Agreement that became effective January 22, 2014. Revenue recorded in the Statements of Operations consists of reimbursement from Roche for research and development services. The Company's credit risk exposure is up to the extent recorded on the Company's Condensed Consolidated Balance Sheet.

As of June 30, 2018, $52.8 million of the Company's long-lived assets were held in the U.S. and $0.6 million were in Ireland. As of December 31, 2017, $54.4 million of the Company's long-lived assets were held in the U.S. and $0.6 million were in Ireland.

The Company does not own or operate facilities for the manufacture, packaging, labeling, storage, testing or distribution of nonclinical or clinical supplies of any of its drug candidates, including for commercial supplies if the Company obtains regulatory approval to market any of its drug candidates. The Company instead contracts with and relies on third-parties to manufacture, package, label, store, test and distribute all pre-clinical development and clinical supplies of our drug candidates, and it plans to continue to do so for the foreseeable future, including for commercial supplies if the Company obtains regulatory approval to market any of its drug candidates. The Company also relies on third-party consultants to assist in managing these third-parties and assist with its manufacturing strategy.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update 2016-02 Topic 842, Leases (ASC 842), which will require lessees to recognize assets and liabilities for leases with lease terms of more than 12 months. Consistent with current GAAP, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a

lessee primarily will depend on its classification as a finance or operating lease. However, unlike current GAAP, which requires only capital leases to be recognized on the balance sheet, the new guidance will require both types of leases to be recognized on the balance sheet. ASC 842 is effective for annual periods beginning after December 15, 2018, and interim periods within those years. Early adoption is permitted for all entities. The standard requires that entities use a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Entities have the option to use certain relief. Full retrospective application is prohibited. The FASB approved an amendment to ASC 842 in March 2018 permitting a company to use the effective date as the date of initial application on transition. Note 7, “Commitments and Contingencies” provides details on the Company's current lease arrangements. The Company continues to evaluate the provisions of ASC 842 to determine the

impact the adoption will have on its consolidated financial statements; however, the Company expects to use the new transition method which will result in the effective date being the date of initial application, which is expected to be January 1, 2019. The company anticipates recognition of additional assets and corresponding liabilities related to leases on its consolidated balance sheets. Additionally, the Company expects to derecognize its build-to-suit asset and liabilities upon adoption pending its final evaluation.

In December 2017, the SEC staff issued Staff Accounting Bulletin ("SAB") 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (the "TCJA"), to provide guidance for companies that are not able to complete their accounting for the income tax effects of the Act in the period of enactment. In doing so, the SEC staff acknowledged the challenges companies may face in accounting for the effects of the Act by their financial reporting deadlines and said the guidance is intended to help companies provide investors with timely, decision-useful information. The TCJA was effective in the first quarter of 2018 and, among other things, lowered the Company's U.S. federal income tax rate from 34% to 21%. Accordingly, the Company recorded a provisional tax benefit of $0.4 million as of December 31, 2017 related to the remeasurement of its U.S. deferred tax assets to reflect the lower statutory tax rate. As of June 30, 2018, no adjustments have been made to the provisional net tax benefit reported as of the year ended December 31, 2017. As of June 30, 2018, the Company has not completed its accounting for the tax effects of the TCJA, and recorded a provisional net tax benefit based on the Company's best estimates. The provisional amounts incorporate assumptions made based upon the Company's current interpretation of the TCJA and are subject to revision as the Company receives and interprets any additional clarification and implementation guidance issued by the U.S. Treasury Department, Internal Revenue Service (the "IRS"), and other standard-setting bodies. Any adjustments to the provisional amounts recorded will be included as an adjustment to the provision for income taxes. Adjustments may materially impact the Company's provision for income taxes and effective tax rate in the period in which the adjustments are made. The Company anticipates its accounting for the tax effects of the TCJA will be completed in 2018.

3. Fair Value Measurements

The Company measures certain financial assets and liabilities at fair value on a recurring basis, including cash equivalents. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

Level 1 — Observable inputs such as quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 — Include other inputs that are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant inputs are observable in the market or can be derived from observable market data. Where applicable, these models project future cash flows and discount the future amounts to a present value using market-based observable inputs including interest rate curves, foreign exchange rates, and credit ratings.

Level 3 — Unobservable inputs that are supported by little or no market activities, which would require the Company to develop its own assumptions.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The carrying amounts of certain financial instruments, such as cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities, and low market interest rates, if applicable.

Based on the fair value hierarchy, the Company classifies its cash equivalents within Level 1. This is because the Company values its cash equivalents using quoted market prices. The Company's Level 1 securities consisted of $361.5 million and $319.7 million in money market funds included in cash and cash equivalents at June 30, 2018 and December 31, 2017, respectively.

4. Composition of Certain Balance Sheet Items

Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	June 30, 2018	December 31, 2017
Machinery and equipment	$9,084	$9,078
Leasehold improvements	579	579
Purchased computer software	1,299	1,316
Build-to-suit property	51,760	51,760
	62,722	62,733
Less: accumulated depreciation and amortization	(9,324)	(7,743)
Property and equipment, net	$53,398	$54,990

Depreciation expense was $0.8 million and $1.6 million for the three and six months ended June 30, 2018, respectively, compared to $0.8 million and $1.5 million for the three and six months ended June 30, 2017, respectively.

Other Current Liabilities

Other current liabilities consisted of the following (in thousands):

	June 30, 2018	December 31, 2017
Payroll and related expenses	$3,914	$ 7,342
Professional services	641	438
Deferred rent	49	49
Other	500	1,356
Other current liabilities	$5,104	$ 9,185

5. Net Loss Per Ordinary Share

Basic net income (loss) per ordinary share is calculated by dividing net income (loss) by the weighted-average number of ordinary shares outstanding during the period. Shares used in diluted net income per ordinary share would include the dilutive effect of ordinary shares potentially issuable upon the exercise of stock options outstanding. However, potentially issuable ordinary shares are not used in computing diluted net loss per ordinary share as their effect would be anti-dilutive due to the loss recorded during the three and six months ended June 30, 2018 and 2017, and therefore diluted net loss per share is equal to basic net loss per share.

Net loss per ordinary share was determined as follows (in thousands, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Numerator:				
Net loss	$(59,882)	$(17,701)	$(108,625)	$(53,085)
Denominator:				
Weighted-average ordinary shares outstanding	39,824	38,073	39,257	36,922
Net loss per share:				
Basic and diluted net loss per share	$(1.50)	$(0.46)	$(2.77)	$(1.44)

The equivalent ordinary shares not included in diluted net loss per share because their effect would be anti-dilutive are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Stock options to purchase ordinary shares	7,719	4,608	7,719	4,608

6. Build-to-Suit Lease

In March 2016, the Company entered into a noncancelable operating sublease (the “Lease”) to lease 128,751 square feet of office and laboratory space in South San Francisco, California (the “Current SSF Facility”). Subsequently, in April 2016, the Company took possession of the Current SSF Facility. The Lease includes a free rent period and escalating rent payments and has a term that expires on December 31, 2023, unless terminated earlier. The Company's obligation to pay rent commenced on August 1, 2016. The Company is obligated to make lease payments totaling approximately $39.2 million over the lease term. The Lease further provides that the Company is obligated to pay to the sublandlord and master landlord certain costs, including taxes and operating expenses. Expected future lease payments under the build-to-suit lease as of June 30, 2018 are included in Note 7, “Commitments and Contingencies.”

In connection with this Lease, the Company received a tenant improvement allowance of $14.2 million from the sublandlord and the master landlord, for the costs associated with the design, development and construction of tenant improvements for the Current SSF Facility. The Company is obligated to fund all costs incurred in excess of the tenant improvement allowance. The scope of the tenant improvements did not qualify as “normal tenant improvements” under the lease accounting guidance. Accordingly, for accounting purposes, the Company is the deemed owner of the building during the construction period and the Company capitalized $36.5 million within property and equipment, net, including $1.2 million for capitalized interest and recognized a corresponding build-to-suit obligation in other non-current liabilities in the Condensed Consolidated Balance Sheets as of June 30, 2018. The Company has also recognized structural and non-structural tenant improvements totaling $15.3 million as of June 30, 2018 as an addition to the build-to-suit lease property for amounts incurred by the Company during the construction period, of which $14.2 million were reimbursed by the landlord during the year ended December 31, 2016 through the tenant improvement allowance. The Company increased its financing obligation for the additional building costs reimbursements received from the landlord during the construction period. In addition, for the three and six months ended June 30, 2018 the Company recorded rent expense associated with the ground lease of $0.1 million and $0.2 million, respectively, in its Condensed Consolidated Statements of Operations. Total interest, which represents the cost of financing obligation under the Lease agreement, was $0.9 million and $1.8 million for the three and six months ended June 30, 2018 , respectively, which was recognized within the Condensed Consolidated Statement of Operations.

During the fourth quarter of 2016, construction on the build-to-suit lease property was substantially completed and the build-to-suit lease property was placed in service. As such, the Company evaluated the Lease to determine whether it had met the requirements for sale-leaseback accounting, including evaluating whether all risks of ownership have been transferred back to the landlord, as evidenced by a lack of continuing involvement in the build-to-suit lease property. The Company determined that the construction project did not qualify for sale-leaseback accounting and will instead be accounted for as a financing lease, given the Company’s expected continuing involvement after the conclusion of the construction period. The build-to-suit lease property remains on the Company’s Consolidated Balance Sheets as of June 30, 2018 at its historical cost of $51.8 million and is being depreciated over its estimated useful life. As of June 30, 2018, the total amount of the build-to-suit lease obligation was $52.2 million, of which $1.5 million and $50.7 million were classified as current and non-current liability, respectively, on the Company's Condensed Consolidated Balance Sheets. The Company expects to derecognize the build-to-suit lease property and financing lease obligation at the end of the lease term.

The Company obtained a standby letter of credit in April 2016 in the initial amount of $4.1 million, which may be drawn down by the sublandlord in the event the Company fails to fully and faithfully perform all of its obligations under the Lease and to compensate the sublandlord for all losses and damages the sublandlord may suffer as a result of the occurrence of any default on the part of Company not cured within the applicable cure period. This standby letter of credit is collateralized by a certificate of deposit of the same amount which is classified as restricted cash. As of June 30, 2018, none of the standby letter of credit amount has been used.

7. Commitments and Contingencies

Lease Commitments

The Company recognizes rent expense for its operating leases on a straight-line basis over the noncancelable lease term and records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements and/or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them in the determination of straight-line rent expense over the lease term. The Company records the tenant improvement allowance for operating leases as deferred rent and associated expenditures as leasehold improvements that are being amortized over the shorter of their estimated useful life or the term of the lease. Rent expense was $0.2 million and $0.4 million for the three and six months ended June 30, 2018, respectively, and $0.2 million and $0.5 million for the three and six months ended June 30, 2017, respectively.

Dublin

In August 2015, the Company entered into an agreement to lease 6,258 square feet of office space in Dún Laoghaire, Ireland. This lease has a term of 10 years from commencement and provides for an option to terminate the lease at the end of the fifth year of the term. It is also subject to a rent review every five years. As a result of this noncancelable operating lease, the Company is obligated to make lease payments totaling approximately €2.0 million, or $2.4 million as converted using an exchange rate as of June 30, 2018, over the term of the lease, assuming current lease payments. Of this obligation, approximately $1.8 million remains outstanding as of June 30, 2018.

Future minimum payments under the above-described noncancelable operating leases as of June 30, 2018 are as follows (in thousands):

Year Ended December 31,	Operating Lease
2018 (6 months)	$ 141
2019	242
2020	242
2021	242
2022	242
Thereafter	644
Total	$ 1,753

Current SSF Facility

In March 2016, the Company entered into a noncancelable operating sublease of the Current SSF Facility which expires in December 31, 2023. The Company is considered the “accounting owner” of the Current SSF Facility as a build-to-suit property and has recorded a build-to-suit lease obligation on its consolidated balance sheet. Additional information regarding the build-to-suit lease is included in Note 6, “Build-To-Suit Lease.” Future minimum payments under build-to-suit lease obligation as of June 30, 2018 are as follows (in thousands):

Year Ended December 31,	Expected Cash Payments Under Build-To-Suit Lease Obligation
2018 (6 months)	$ 2,749
2019	5,803
2020	5,979
2021	6,165
2022	6,350
Thereafter	6,535
Total	$ 33,581

Indemnity Obligations

The Company has entered into indemnification agreements with its current and former directors and officers and certain key employees. These agreements contain provisions that may require the Company, among other things, to indemnify such persons against certain liabilities that may arise because of their status or service and advance their expenses incurred as a result of any indemnifiable proceedings brought against them. The obligations of the Company pursuant to the indemnification agreements continue during such time as the indemnified person serves the Company and continues thereafter until such time as a claim can be brought. The maximum potential amount of future payments

the Company could be required to make under these indemnification agreements is unlimited; however, the Company has a director and officer liability insurance policy that limits its exposure and enables the Company to recover a portion of any future amounts paid. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal. Accordingly, the Company had no liabilities recorded for these agreements as of June 30, 2018 and December 31, 2017.

Other Commitments

In April 2018, the Company decided to discontinue all development of NEOD001. The commitments table below includes the obligations under the Company's restructuring plan following the discontinuation of the NEOD001 program, including exit fees resulting from the cancellation of various contracts associated with the NEOD001 program.

In the normal course of business, the Company enters into various firm purchase commitments primarily related to research and development activities. As of June 30, 2018, the Company had non-cancelable purchase commitments to suppliers for $5.9 million of which $4.6 million is included in accrued current liabilities, and contractual obligations under license agreements of $1.6 million of which $0.2 million is included in accrued current liabilities. The following is a summary of the Company's non-cancelable purchase commitments and contractual obligations as of June 30, 2018 (in thousands):

	Total	2018	2019	2020	2021	2022	Thereafter
Purchase Obligations	$5,946	$5,946	$—	$—	$—	$ —	$ —
Contractual obligations under license agreements [1]	1,595	215	235	105	105	90	845
Obligations under restructuring plan	16,574	6,510	5,508	4,556	—	—	—
Total	$24,115	$12,671	$5,743	$4,661	$105	$ 90	$ 845

[1] Excludes future obligations pursuant to the cost-sharing arrangement under the Company's License Agreement with Roche. Amounts of such obligations, if any, cannot be determined at this time.

Legal Proceedings

On May 17, 2018, a purported class action lawsuit entitled Arkansas Teacher Retirement System v. Prothena Corporation plc, et al., Civil Action No. 18-cv-2865-WHA, was filed in the U.S. District Court for the Northern District of California against the Company and certain of its current and former officers; the plaintiff voluntarily dismissed that case on July 10, 2018. On July 5, 2018, another purported class action lawsuit, entitled Michael Ramezani v. Prothena Corporation plc, et al., Civil Action No. 3:18-cv-04035-WHA, was filed in the same court against the same parties; the plaintiff voluntarily dismissed that case on July 13, 2018. On July 16, 2018, two additional purported class action lawsuits were filed against the same parties: Simon James v. Prothena Corporation plc, et al., Civil Action No. 18-cv-04261-JST, filed in the U.S. District Court for the Northern District of California; and Granite Point Capital v. Prothena Corporation plc, et al., Civil Action No. 18-cv-06425, filed in the U.S. District Court for the Southern District of New York. The plaintiff in each of these cases seeks compensatory damages, costs and expenses in an unspecified amount on behalf of a putative class of persons who purchased the Company's ordinary shares between October 15, 2015 and April 20, 2018, inclusive. The complaints allege that the defendants violated federal securities laws by allegedly making false and misleading statements and omitting certain material facts in certain public statements and in the Company's filings with the U.S. Securities and Exchange Commission during the putative class period, regarding the clinical trial results and prospects for approval of the Company's NEOD001 drug development program. On July 16, 2018, the plaintiff in the Simon James lawsuit filed a motion with the court seeking to consolidate that lawsuit and the Arkansas Teacher Retirement System and Ramezani lawsuits (notwithstanding the prior dismissal of those cases), and have the plaintiff in Simon James serve as the lead plaintiff. Because the Company is in the early stages of these proceedings, the Company is not able to estimate a reasonably possible loss or range of loss, if any, that could result from these proceedings.

8. Significant Agreements

Roche License Agreement

In December 2013, the Company through its wholly owned subsidiary Prothena Biosciences Limited and Prothena Biosciences Inc entered into a License, Development, and Commercialization Agreement (the "License Agreement") with F. Hoffmann-La Roche Ltd. and Hoffmann-La Roche Inc. (together, "Roche") to develop and commercialize certain antibodies that target -synuclein, including PRX002/RG7935, which are referred to collectively as "Licensed Products." Upon the effectiveness of the License Agreement in January 2014, the Company granted to Roche an exclusive, worldwide license to develop, make, have made, use, sell, offer to sell, import and export the Licensed

Products. The Company retained certain rights to conduct development of the Licensed Products and an option to co-promote PRX002/RG7935 in the U.S. During the term of the License Agreement, the Company and Roche will work exclusively with each other to research and develop antibody products targeting alpha-synuclein (or -synuclein) potentially including incorporation of Roche's proprietary Brain Shuttle™ technology to

potentially increase delivery of therapeutic antibodies to the brain. The License Agreement provided for Roche making an upfront payment to the Company of $30.0 million, which was received in February 2014; making a clinical milestone payment of $15.0 million upon initiation of the Phase 1 study for PRX002/RG7935, which was received in May 2014; and making a clinical milestone payment of $30.0 million upon dosing of the first patient in the Phase 2 study for PRX002/RG7935, which was achieved in June 2017.

For PRX002/RG7935, Roche is also obligated to pay:

- up to $350.0 million upon the achievement of development, regulatory and various first commercial sales milestones;
- up to an additional $175.0 million upon achievement of ex-U.S. commercial sales milestones; and
- tiered, high single-digit to high double-digit royalties in the teens on ex-U.S. annual net sales, subject to certain adjustments.

Roche bears 100% of the cost of conducting the research activities under the License Agreement. In the U.S., the parties share all development and commercialization costs, as well as profits, all of which will be allocated 70% to Roche and 30% to the Company, for PRX002/RG7935 in the Parkinson's disease indication, as well as any other Licensed Products and/or indications for which the Company opts in to participate in co-development and co-funding. After the completion of specific clinical trial activities, the Company may opt out of the co-development and cost and profit sharing on any co-developed Licensed Products and instead receive U.S. commercial sales milestones totaling up to $155.0 million and tiered, single-digit to high double-digit royalties in the teens based on U.S. annual net sales, subject to certain adjustments, with respect to the applicable Licensed Product.

The Company filed an Investigational New Drug Application ("IND") with the FDA for PRX002/RG7935 and subsequently initiated a Phase 1 study in 2014. Following the Phase 1 study, Roche became primarily responsible for developing, obtaining and maintaining regulatory approval for and commercializing Licensed Products. Roche also became responsible for the clinical and commercial manufacture and supply of Licensed Products.

In addition, the Company has an option under the License Agreement to co-promote PRX002/RG7935 in the U.S. in the Parkinson's disease indication. If the Company exercises such option, it may also elect to co-promote additional Licensed Products in the U.S. approved for Parkinson's disease. Outside the U.S., Roche will have responsibility for developing and commercializing the Licensed Products. Roche bears all costs that are specifically related to obtaining or maintaining regulatory approval outside the U.S. and will pay the Company a variable royalty based on annual net sales of the Licensed Products outside the U.S.

While Roche will record product revenue from sales of the Licensed Products, the Company and Roche will share in the net profits and losses of sales of the PRX002/RG7935 for the Parkinson's disease indication in the U.S. on a 70%/30% basis with the Company receiving 30% of the profit and losses provided that the Company has not exercised its opt-out right.

The License Agreement continues on a country-by-country basis until the expiration of all payment obligations under the License Agreement. The License Agreement may also be terminated (i) by Roche at will after the first anniversary of the effective date of the License Agreement, either in its entirety or on a Licensed Product-by-Licensed Product basis, upon 90 days' prior written notice to the Company prior to first commercial sale and 180 days' prior written notice to Prothena after first commercial sale, (ii) by either party, either in its entirety or on a Licensed Product-by-Licensed Product or region-by-region basis, upon written notice in connection with a material breach uncured 90 days after initial written notice, and (iii) by either party, in its entirety, upon insolvency of the other party. The License Agreement may be terminated by either party on a patent-by-patent and country-by-country basis if the other party challenges a given patent in a given country. The Company's rights to co-develop Licensed Products under the License Agreement will terminate if the Company commences certain studies for certain types of competitive products. The Company's rights to co-promote Licensed Products under the License Agreement will terminate if the Company commences a Phase 3 study for such competitive products.

The License Agreement cannot be assigned by either party without the prior written consent of the other party, except to an affiliate of such party or in the event of a merger or acquisition of such party, subject to certain conditions. The License Agreement also includes customary provisions regarding, among other things, confidentiality, intellectual property ownership, patent prosecution, enforcement and defense, representations and warranties, indemnification, insurance, and arbitration and dispute resolution.

Collaboration Accounting

The License Agreement was evaluated under ASC 808, Collaborative Agreements. At the outset of the License Agreement, the Company concluded that it did not qualify as collaboration under ASC 808 because the Company does not share significant

risks due to the net profit and loss split (under which Roche incurs substantially more of the costs of the collaboration) and because of the Company's opt-out provision. The Company believes that Roche will be the principal in future sales transactions with third parties as Roche will be the primary obligor bearing inventory and credit risk. The Company will record its share of pre-tax commercial profit generated from the collaboration as collaboration revenue once the Company can conclude it is probable that a significant revenue reversal will not occur in future periods. Prior to commercialization of a Licensed Product, the Company's portion of the expenses related to the License Agreement reflected on its income statement will be limited to R&D expenses. After commercialization, if the Company opts-in to co-detail commercialization, expenses related to commercial capabilities, including expenses related to the establishment of a field sales force and other activities to support the Company's commercialization efforts, will be recorded as sales, general and administrative ("SG&A") expense and will be factored into the computation of the profit and loss share. The Company will record the receivable related to commercialization activities as collaboration revenue once the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

Adoption of ASC 606, Revenue from Contracts with Customers

The Company adopted ASC 606, Revenue from Contracts with Customers, as of January 1, 2018 using the modified retrospective transition method. The Company recognized the cumulative effect of applying the new revenue standard as an adjustment to the opening balance of the accumulated deficit as of January 1, 2018. Prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under ASC 605, Revenue Recognition.

As of January 1, 2018, the Company did not record any changes to the opening balance of the accumulated deficit since the cumulative effect of applying the new revenue standard was the same as applying ASC 605. The impact of the adoption of ASC 606 to revenues for the three and six months ended June 30, 2018 was an increase of $0.3 million and $0.5 million, respectively, both of which represent the revenue recognized for the development services provided by the Company during the period that is reimbursable by Roche. Historically, the Company recorded such reimbursement as an offset against its R&D expenses under ASC 605. Upon the adoption of ASC 606, the reimbursement for development services is now included as part of the Company's collaboration revenue.

Performance Obligations

The License Agreement was evaluated under ASC 606. The License Agreement includes the following distinct performance obligations: (1) the Company's grant of an exclusive royalty bearing license, with the right to sublicense to develop and commercialize certain antibodies that target -synuclein, including PRX002/RG7935, and the initial know how transfer which was delivered at the effective date (the "Royalty Bearing License"); (2) the Company's obligation to supply clinical material as requested by Roche for a period up to twelve months (the "Clinical Product Supply Obligation"); (3) the Company's obligation to provide manufacturing related services to Roche for a period up to twelve months (the "Supply Services Obligation"); (4) the Company's obligation to prepare and file the IND (the "IND Obligation"); and (5) the Company's obligation to provide development activities under the development plan during Phase 1 clinical trials (the "Development Services Obligation"). Revenue allocated to the above performance obligations under the License Agreement are recognized when the Company has satisfied its obligations either at a point in time or over a period of time.

The Company concluded that the Royalty Bearing License and the Clinical Product Supply Obligation were satisfied at a point in time. The Royalty Bearing License is considered to be a functional intellectual property, in which the revenue would be recognized at the point in time since (a) the Company concluded that the license to Roche has a significant stand-alone functionality, (b) the Company does not expect the functionality of the intellectual property to be substantially changed during the license period as a result of activities of Prothena, and (c) Prothena's activities

transfer a good or service to Roche. The Clinical Product Supply Obligation does not meet criteria for over time recognition; as such, the revenue related to such performance obligation was recognized the point in time at which Roche obtained control of manufactured supplies, which occurred during the first quarter of 2014.

The Company concluded that the Supply Services Obligation, the IND Obligation and the Development Services Obligation were satisfied over time. The Company utilized an input method measure of progress by basing the recognition period on the efforts or inputs towards satisfying the performance obligation (i.e. costs incurred and the time elapsed to complete the related performance obligations). The Company determined that such input method provides an appropriate measure of progress toward compete satisfaction of such performance obligations.

As of June 30, 2018 and December 31, 2017, there were no remaining performance obligations under License Agreement since the obligations related to research and development activities were only for the Phase 1 clinical trial and the remaining obligations were delivered or performed.

Transaction Price

According to ASC 606-10-32-2, the transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example, some sales taxes). The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. Factors considered in the determination of the transaction price include, among other things, estimated selling price of the license and costs for clinical supply and development costs.

The initial transaction price under the License Agreement, pursuant to ASC 606, was $55.1 million, including $45.0 million for the Royalty Bearing License, $9.1 million for the IND and Development Services Obligations, and $1.1 million for the Supply Services Obligation. The $45.0 million for the Royalty Bearing License included the upfront payment of $30.0 million and the clinical milestone payment of $15.0 million upon initiation of the Phase 1 clinical trial of PRX002/RG7935, both of which were made in 2014. The remaining transaction price amounts the Company expected to receive as reimbursements were based on costs expected to be paid to third parties and other costs to be incurred by the Company in order to satisfy its performance obligations. They are considered to be variable considerations not subject to constraint. The Company did not incur any incremental costs, such as commissions, to obtain or fulfill the License Agreement.

Under ASC 606, the transaction price was allocated to the performance obligations as follows: $48.9 million to the Royalty Bearing License; $4.6 million to the IND and Development Services Obligations; $1.1 million to the Clinical Product Supply Obligation; and $0.6 million to the Supply Services Obligation. As of June 30, 2018, the aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied is $nil. Prior to the adoption of ASC 606, the transaction price was allocated to the deliverables as follows: $35.6 million to the Royalty Bearing License; $3.3 million to the IND and Development Services Obligations; $0.8 million to the Clinical Product Supply Obligation; and $0.4 million to the Supply Services Obligation.

The Company allocated the initial transaction price to the Royalty Bearing License and other performance obligations using the relative selling price method based on its best estimate of selling price for the Royalty Bearing License and third party evidence for the remaining performance obligations. The best estimate of selling price for the Royalty Bearing License was based on a discounted cash flow model. The key assumptions used in the discounted cash flow model used to determine the best estimate of selling price for the Royalty Bearing License included the market opportunity for commercialization of PRX002/RG7935 in the U.S. and the royalty territory (for licensed products that are jointly funded the royalty territory is worldwide except for the U.S., and for all licensed products that are not jointly funded the Royalty Territory is worldwide), the probability of successfully developing and commercializing PRX002/RG7935, the estimated remaining development costs for PRX002/RG7935, and the estimated time to commercialization of PRX002/RG7935. The Company concluded that a change in the assumptions used to determine the best estimate of selling price (“BESP”) of the license deliverable would not have a significant effect on the allocation of arrangement consideration.

The Company’s discounted cash flow model included several market conditions and entity-specific inputs, including the likelihood that clinical trials for PRX002/RG7935 will be successful, the likelihood that regulatory approval will be obtained and the product commercialized, the appropriate discount rate, the market locations, size and potential market share of the product, the expected life of the product, and the competitive environment for the product. The market assumptions were generated using a patient-based forecasting approach, with key epidemiological, market penetration, dosing, compliance, length of treatment and pricing assumptions derived from primary and secondary market research, referenced from third-party sources.

Significant Payment Terms

Payments for development services are due within 45 days after receiving an invoice from the Company. Variable considerations related to clinical and regulatory milestone payments are constrained due to high likelihood of a revenue reversal. The payment term for all milestone payments are due within 45 days after the achievement of the

relevant milestone and receipt by Roche of an invoice for such an amount from the Company.
According to ASC 606-10-32-17, a significant financing component does not exist if a substantial amount of the consideration promised by the customer is variable, and the amount or timing of that consideration varies on the basis of the occurrence or nonoccurrence of a future event that is not substantially within the control of the customer or the entity. Since a “substantial amount of the consideration” promised by Roche to the Company is variable (i.e., is in the form of either milestone payments or sales-based royalties) and the amount of such variable consideration varies based upon the occurrence or nonoccurrence of future events that are not within the control of either Roche or the Company (i.e., are largely subject to regulatory approval), the License Agreement does not have a significant financing component.

Optional Goods and Services

An option for additional goods or services exists when a customer has a present contractual right that allows it to choose the amount of additional distinct goods or services that are purchased. Prior to the customer's exercise of that right, the vendor is not presently obligated to provide those goods or services. ASC 606-10-25-18(j) requires recognition of an option as a distinct performance obligation when the option provides a customer with a material right.

In addition to the distinct performance obligations noted above, the Company was obligated to provide indeterminate research services for up to three years ending in 2017 at rates that were not significantly discounted and fully reimbursable by Roche (the "Research Services"). The amount for any such Research Services was not fixed and determinable and was not at a significant incremental discount. There were no refund rights, concessions or performance bonuses to consider.

The Company evaluated the obligation to perform Research Services under ASC 606-10-55-42 and 55-43 to determine whether it gave Roche a "material right". According to ASC 606-10-55-43, if a customer has the option to acquire an additional good or services at a price that would reflect the standalone selling price for that good or service, that option does not provide the customer with a material right even if the option can be exercised only by entering into a previous contract.

The Company concluded that Roche's option to have the Company perform Research Services did not represent a "material right" to Roche that it would not have received without entering into the License Agreement. As a result, Roche's option to acquire additional Research Services was not considered a performance obligation at the outset of the License Agreement under ASC 606. Accordingly, this deliverable will become new performance obligation for Prothena when Roche asks Prothena to conduct such Research Services. As of June 30, 2018, there were no remaining Research Services performance obligations. Prior to the adoption of ASC 606, the Company recognized Research Services as collaboration revenue as earned.

Post Contract Deliverables

Any development services provided by the Company after performance of the Development Service Obligation are not considered a contractual performance obligation under the License Agreement, since the License Agreement does not require the Company to provide any development services after completion of the Development Service Obligation. However, the collaboration's Joint Steering Committee approved continued funding for additional development services to be provided by the Company (the "Additional Development Services"). Under the License Agreement and upon the adoption of ASC 606, the Company recognizes the reimbursements for Additional Development Services as collaboration revenue as earned.

Revenue and Expense Recognition

The Company recognized $0.3 million and $0.5 million as collaboration revenue for the three and six months ended June 30, 2018 for Additional Development Services and $nil for Research Services, as compared to $0.2 million and $0.5 million of Research Services as collaboration revenue for the three and six months ended June 30, 2017, respectively. The Company recorded $0.4 million and $1.2 million of reimbursement for Additional Development Services from Roche for the three and six months ended June 30, 2017, respectively, as offset to R&D expenses. Cost sharing payments to Roche are recorded as R&D expenses. The Company recognized $4.0 million and $6.4 million in R&D expenses for payments made to Roche during the three and six months ended June 30, 2018, as compared to $2.9 million and $4.2 million for the three and six months ended June 30, 2017, respectively.

Milestone Accounting

Under the License Agreement, only if the U.S. and or global options are exercised, the Company is eligible to receive milestone payments upon the achievement of development, regulatory and various first commercial sales milestones. Milestone payments are evaluated under ASC Topic 606. Factors considered in this determination included scientific and regulatory risk that must be overcome to achieve each milestone, the level of effort and investment required to achieve the milestone, and the monetary value attributed to the milestone. Accordingly, the Company estimates payments in the transaction price based on the most likely approach, which considers the single most likely amount in

a range of possible amounts related to the achievement of these milestones. Additionally, milestone payments are included in the transaction price only when the Company can conclude it is probable that a significant revenue reversal will not occur in future periods when the milestone is achieved.

The Company excludes the milestone payments and royalties in the initial transaction price calculation because such payments are considered to be variable considerations with constraint. Such milestone payments and royalties will be recognized as revenue once the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

The clinical and regulatory milestones under the License Agreement after the point at which the Company could opt-out are considered to be variable considerations with constraint due to the fact that active participation in the development activities that

generate the milestones is not required under the License Agreement, and the Company can opt-out of these activities. There are no refunds or claw-back provisions and the milestones are uncertain of occurrence even after the Company has opted out. Based on this determination, these milestones will be recognized when the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

In June 2017, the Company achieved a $30.0 million clinical milestone under the License Agreement as a result of dosing of first patient in Phase 2 study for PRX002. The milestone was accounted for under ASC 605 and was allocated to the units of accounting based on the relative selling price method for income statement classification purposes. As such, the Company recognized $26.6 million of the $30.0 million milestone as collaboration revenue and $3.4 million as an offset to R&D expenses during the three and six months ended June 30, 2017. The Company did not achieve any clinical and regulatory milestones under the License Agreement during the three and six months ended June 30, 2018.

Celgene Collaboration Agreement

Overview

On March 20, 2018, the Company, through its wholly owned subsidiary, Prothena Biosciences Limited, entered into a Master Collaboration Agreement (the "Collaboration Agreement") with Celgene Switzerland LLC ("Celgene"), a subsidiary of Celgene Corporation, pursuant to which Prothena granted to Celgene a right to elect in its sole discretion to exclusively license rights both in the U.S. (the "US Rights") and on a global basis (the "Global Rights"), with respect to the Company's programs to develop and commercialize antibodies targeting Tau, TDP-43 and an undisclosed target (the "Collaboration Targets"). For each such program, Celgene has an exclusive right to license clinical candidates in the U.S. at the IND filing and if exercised, would also have a right to expand the license to global rights at the completion of Phase 1. Following the exercise for global rights, Celgene would have decision making authority over all further global clinical development and commercialization. The Company is responsible for all research and development activity through completion of Phase 1 clinical studies of products in each such program, unless Celgene elects otherwise at its cost.

The Collaboration Agreement provided for Celgene making an upfront payment to the Company of $100.0 million, which was received in April 2018, plus future potential license exercise payments and regulatory and commercial milestones for each program under the Collaboration Agreement, as well as royalties on net sales of any resulting marketed products. In connection with the Collaboration Agreement, the Company and Celgene entered into a Share Subscription Agreement on March 20, 2018, under which Celgene subscribed to 1,174,536 of the Company's ordinary shares for a price of $42.57 per share, for a total of approximately $50.0 million.

Celgene U.S. and Global Rights and Licenses

On a program-by-program basis, following the Company's filing of an IND application for any of the Company's three collaboration programs to Celgene, Celgene may elect in its sole discretion to exercise its US Rights to receive an exclusive license to develop and commercialize antibodies targeting the applicable Collaboration Target in the U.S. If Celgene exercises its US Rights for a collaboration program, it is obligated to pay the Company an exercise fee of approximately $80.0 million per program. Thereafter, following Phase 1, Celgene would have decision making authority over development activities, and all regulatory, manufacturing and commercialization activities, for antibody products targeting the relevant Collaboration Target (the "Collaboration Products") in the U.S.

On a program-by-program basis, following completion of a Phase 1 clinical trial for a collaboration program for which Celgene has previously exercised its US Rights, Celgene may elect in its sole discretion to exercise its Global Rights with respect to such collaboration program to receive a worldwide, exclusive license to develop and commercialize antibodies targeting the applicable Collaboration Target. If Celgene exercises its Global Rights, Celgene would be obligated to pay the Company an additional exercise fee of $55.0 million for such collaboration program. The Global Rights would then replace the US Rights for that collaboration program, and Celgene would have decision making authority over developing, obtaining and maintaining regulatory approval for, manufacturing and commercializing the Collaboration Products worldwide.

After Celgene's exercise of Global Rights for a collaboration program, the Company is eligible to receive up to $562.5 million in regulatory and commercial milestones per program. For obtaining either US Rights or Global Rights for such collaboration program by Celgene, the Company will also be eligible to receive tiered royalties on net sales of Collaboration Products ranging from high single digit to high teen percentages, on a weighted average basis depending on the achieving of certain net sales thresholds. Such exercise fees, milestones and royalty payments are subject to certain reductions as specified in the Collaboration Agreement, the agreement for US Rights and the agreement for Global Rights.

Celgene will continue to pay royalties on a Collaboration Product-by-Collaboration Product and country-by-country basis, until the latest of (i) expiration of certain patents covering the Collaboration Product, (ii) expiration of all regulatory exclusivity for the Collaboration Product, and (iii) an agreed period of time after the first commercial sale of the Collaboration Product in the applicable country (the "Royalty Term").

Term and Termination

The research term under the Collaboration Agreement continues for a period of six years, which Celgene may extend for up to two additional 12-month periods by paying an extension fee of $10.0 million per extension period. The term of the Collaboration Agreement continues until the last to occur of the following: (i) expiration of the research term; (ii) expiration of all US Rights terms; and (iii) expiration of all Global Rights terms.

The term of any US License or Global License would continue on a Licensed Product-by-Licensed Product and country-by-country basis until the expiration of all Royalty Terms under such agreement.

The Collaboration Agreement may be terminated (i) by either party on a program-by-program basis if the other party remains in material breach of the Collaboration Agreement following a cure period to remedy the material breach, (ii) by Celgene at will on a program-by-program basis or in its entirety, (iii) by either party, in its entirety, upon insolvency of the other party, or (iv) by Prothena, in its entirety, if Celgene challenges a patent licensed by Prothena to Celgene under the Collaboration Agreement.

Share Subscription Agreement

Pursuant to the terms of the Collaboration Agreement, the Company entered into a Share Subscription Agreement (the "SSA") with Celgene, pursuant to which the Company issued, and Celgene subscribed for, 1,174,536 of the Company's ordinary shares (the "Shares") for an aggregate subscription price of approximately $50.0 million, pursuant to the terms and conditions thereof.

Under the SSA, Celgene is subject to certain transfer and standstill restrictions, including a restriction on acquiring more than 9.9% of the Company's share capital for a specified period of time following the closing of the subscription of the Shares, or earlier upon announcement of the intent to consummate a change of control of the Company by the Company or a third party, or expiration or termination of the Collaboration Agreement. In addition, Celgene will be entitled to request the registration of the Shares with the U.S. Securities and Exchange Commission on Form S-3ASR or Form S-3 following termination of the transfer restrictions if the Shares cannot be resold without restriction pursuant to Rule 144 promulgated under the U.S. Securities Act of 1933, as amended (the "Securities Act").

Collaboration Accounting

The Collaboration Agreement was evaluated under ASC 808, Collaborative Agreements. At the outset of the Collaboration Agreement, the Company concluded that it does not qualify as collaboration under ASC 808 because the Company does not share significant risks due to economics of the collaboration.

Performance Obligations

The Collaboration Agreement was evaluated under ASC 606. Per ASC 606, a performance obligation is defined as a promise to transfer a good or service or a series of distinct goods or services. At inception of the Collaboration Agreement, the Company concluded that it does not have material distinct performance obligation as the Company is not obligated to transfer the US or Global license to Celgene unless Celgene exercises its US Right or Global Right, respectively, and the Company is not obligated to perform development activities under the development plan during preclinical and Phase 1 clinical trials including the regulatory filing of the IND. The discovery, preclinical and clinical development activities performed by the Company are to be performed at the Company's discretion and therefore are not considered distinct performance obligations under ASC 606. Per the terms of the Collaboration Agreement, the Company may conduct discovery activities to characterize, identify and generate antibodies to become collaboration candidates that target such Collaboration Target, and thereafter may pre-clinically develop collaboration candidates to identify lead candidates that target such Collaboration Target and file an IND with the U.S. Food and Drug Administration (the "FDA") for a Phase 1 clinical trial for such lead candidates. The Company is solely responsible for

any and all costs and expenses in connection with the performance, in its discretion, of any program prior to the exercise of the Global Right for such program. The Company is not obligated to perform manufacturing activities. Per the terms of the Collaboration Agreement, to the extent that the Company, at its discretion, conducts a program, the Company shall be responsible for the manufacture of collaboration candidates and collaboration products for use in such program, as well as the associated costs. Delivery of manufactured compound (clinical product supply) is not deemed a performance obligation under ASC 606 as the Company is not obligated to transfer supply of collaboration product to Celgene unless Celgene exercises its right to participate in the Phase 1 development.

Transaction Price

According to ASC 606-10-32-2, the transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example, some sales taxes). The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. Factors considered in the determination of the transaction price included, among other things, estimated selling price of the license and costs for clinical supply and development costs.
The initial transaction price under the Collaboration Agreement, pursuant to ASC 606, was $110.2 million, including the $100.0 million upfront payment and $10.2 million premium on the ordinary shares purchased under the SSA.
The Company evaluated the potential obligations to transfer the U.S. and global licenses to Celgene under ASC 606-10-55-42 and 55-43 to determine whether it gave Celgene a “material right”. According to ASC 606-10-55-43, if a customer has the option to acquire an additional good or services at a price that would reflect the standalone selling price for that good or service, that option does not provide the customer with a material right even if the option can be exercised only by entering into a previous contract. The Company concluded that Celgene’s options to exercise its US Rights or Global Rights did not represent a “material right” to Celgene that it would not have received without entering into the Collaboration Agreement. As a result, the obligations to transfer the U.S. and Global licenses to Celgene were not considered performance obligations at the outset of the Collaboration Agreement under ASC 606.
In addition, the Company did not include the option fees in the initial transaction price because such fees are variable consideration that are contingent on the options to the US Rights and the Global Rights being exercised. Upon the exercise of the US Rights and the Global Rights, the Company will have the obligation to deliver the U.S. and global licenses, respectively. The Company will include the option fees in the transaction price at a point in time when the Company can conclude that it is probable that a significant revenue reversal will not occur. In addition, the Company did not include in the initial transaction price certain clinical and regulatory milestone payments since these variable considerations are constrained due to high likelihood of a revenue reversal.

At the inception of the Collaboration Agreement, the Company did not transfer any goods or services to Celgene. Accordingly, the Company has concluded that the initial transaction price will be recognized as contract liability and will be deferred until the Company transfers control of goods or services to Celgene (which would be when Celgene exercises the US Right and receives control of the US license for at least one of the programs) or at the termination of the Collaboration Agreement, whichever occurs first. The total transaction price will be allocated to each of the Company’s performance obligations on a relative standalone selling price basis at the point that Celgene receives the license for each program.

Significant Payment Terms

The upfront payment of $100.0 million was due within ten business days after the effective date of the Collaboration Agreement and was received in April 2018, while all option fees and milestone payments are due within 30 days after the achievement of the relevant milestone by Celgene or receipt by Celgene of an invoice for such an amount from the Company.
The Collaboration Agreement does not have a significant financing component since a substantial amount of consideration promised by Celgene to the Company is variable and the amount of such variable consideration varies based upon the occurrence or nonoccurrence of future events that are not within the control of either Celgene or the Company. Variable considerations related to clinical and regulatory milestone payments and option fees are constrained due to high likelihood of a revenue reversal.

Milestone and Royalties Accounting

Under the Collaboration Agreement, the Company is eligible to receive milestone payments upon the achievement of development, regulatory and various first commercial sales milestones. Milestone payments are evaluated under ASC

Topic 606. Factors considered in this determination included scientific and regulatory risk that must be overcome to achieve each milestone, the level of effort and investment required to achieve the milestone, and the monetary value attributed to the milestone. Accordingly, the Company estimates payments in the transaction price based on the most likely approach, which considers the single most likely amount in a range of possible amounts related to the achievement of these milestones. Additionally, milestone payments are included in the transaction price only when the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

The Company excluded the milestone payments and royalties in the initial transaction price because such payments are considered to be variable considerations with constraint. Such milestone payments and royalties will be recognized as revenue at a point in time when the Company can conclude it is probable that a significant revenue reversal will not occur in future periods.

The Company did not achieve any clinical and regulatory milestones under the Collaboration Agreement during the three and six months ended June 30, 2018.

9. Shareholders' Equity

Ordinary Shares

As of June 30, 2018, the Company had 100,000,000 ordinary shares authorized for issuance with a par value of $0.01 per ordinary share and 39,831,836 ordinary shares issued and outstanding. Each ordinary share is entitled to one vote and, on a pro rata basis, to dividends when declared and the remaining assets of the Company in the event of a winding up.

Euro Deferred Shares

As of June 30, 2018, the Company had 10,000 Euro Deferred Shares authorized for issuance with a nominal value of €22 per share. No Euro Deferred Shares are outstanding at June 30, 2018. The rights and restrictions attaching to the Euro Deferred Shares rank pari passu with the ordinary shares and are treated as a single class in all respects.

March 2017 Offering

In March 2017, the Company completed an underwritten public offering of an aggregate of 2,700,000 of its ordinary shares at a public offering price of $57.50 per ordinary share. The Company received aggregate net proceeds of approximately $150.3 million, after deducting the underwriting discount and offering costs.

Celgene Share Subscription Agreement

In connection with the Celgene Collaboration Agreement, the Company entered into a Share Subscription Agreement (the “SSA”) with Celgene, pursuant to which the Company issued, and Celgene subscribed for, 1,174,536 of the Company’s ordinary shares (the “Shares”) for an aggregate subscription price of approximately $50.0 million, of which the fair value of $39.8 million was recorded in shareholders' equity and the premium of $10.2 million was recorded as deferred revenue from Celgene.

Under the SSA, Celgene is subject to certain transfer and standstill restrictions, including a restriction on acquiring more than 9.9% of the Company’s share capital for a specified period of time following the closing of the subscription of the Shares, or earlier upon announcement of the intent to consummate a change of control of the Company by the Company or a third party, or expiration or termination of the Collaboration Agreement. In addition, Celgene will be entitled to request the registration of the Shares with the SEC on Form S-3ASR or Form S-3 following termination of the transfer restrictions if the Shares cannot be resold without restriction pursuant to Rule 144 promulgated under the Securities Act.

10. Share-Based Compensation

2018 Long Term Incentive Plan (“2018 LTIP”)

In May 2018, the Company’s shareholders approved the 2018 Long Term Incentive Plan (“2018 LTIP”), which provides for the grant of ISOs, NQSOs, SARs, restricted shares, RSUs, performance bonus awards, performance share units awards, dividend equivalents and other share or cash-based awards to eligible individuals. Options under the 2018 LTIP may be granted for periods up to ten years. All options issued to date have had a ten year life. Under the 2018 LTIP, the number of ordinary shares authorized for issuance under the 2018 LTIP is equal to the sum of (a) 1,800,000 shares, (b) 1,177,933 shares that were available for issuance under the 2012 LTIP as of the May 15, 2018 effective date of the 2018 LTIP, and (c) any shares subject to issued and outstanding awards under the 2012 LTIP that expire, are cancelled or otherwise terminate following the effective date of the 2018 LTIP; provided, that no more than 2,500,000 shares may be issued pursuant to the exercise of ISOs.

Amended and Restated 2012 Long Term Incentive Plan (“2012 LTIP”)

Prior to the effective date of the 2018 LTIP, employees and consultants of the Company, its subsidiaries and affiliates, as well as members of the Company’s Board of Directors, received equity awards under the 2012 LTIP. Options under the 2012 LTIP were granted for periods up to ten years. All options issued to date have had a ten year life.

Shares Available for Grant

The Company granted 2,953,200 and 430,000 share options during the three months ended June 30, 2018 and 2017, respectively, and 4,046,300 and 1,284,800 share options during the six months ended June 30, 2018 and 2017, respectively. The

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Company's option awards generally vest over four years. As of June 30, 2018, 574,537 ordinary shares remained available for grant under the 2018 LTIP, and options to purchase 7,719,424 ordinary shares, in aggregate under both the 2012 LTIP and 2018 LTIP, were outstanding with a weighted-average exercise price of approximately $28.73 per share.

Share-based Compensation Expense

The Company estimates the fair value of share-based compensation on the date of grant using an option-pricing model. The Company uses the Black-Scholes model to value share-based compensation, excluding RSUs, which the Company values using the fair market value of its ordinary shares on the date of grant. The Black-Scholes option-pricing model determines the fair value of share-based payment awards based on the share price on the date of grant and is affected by assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, the Company's share price, volatility over the expected life of the awards and actual and projected employee stock option exercise behaviors. Since the Company does not have sufficient historical employee share option exercise data, the simplified method has been used to estimate the expected life of all options. The Company uses its historical volatility for the Company's stock to estimate expected volatility starting January 1, 2018. Through December 31, 2017, the expected volatility was based on a combination of historical volatility for the Company's stock and the historical volatilities of several of the Company's publicly traded comparable companies due to insufficient historical employee share option exercise data. Although the fair value of share options granted by the Company is estimated by the Black-Scholes model, the estimated fair value may not be indicative of the fair value observed in a willing buyer and seller market transaction.

As share-based compensation expense recognized in the Consolidated Financial Statements is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from estimates. Forfeitures were estimated based on estimated future turnover and historical experience.

Share-based compensation expense will continue to have an adverse impact on the Company's results of operations, although it will have no impact on its overall financial position. The amount of unearned share-based compensation currently estimated to be expensed from now through the year 2021 related to unvested share-based payment awards at June 30, 2018 is $88.4 million. The weighted-average period over which the unearned share-based compensation is expected to be recognized is 3.45 years. If there are any modifications or cancellations of the underlying unvested securities, the Company may be required to accelerate and/or increase any remaining unearned share-based compensation expense. Future share-based compensation expense and unearned share-based compensation will increase to the extent that the Company grants additional equity awards.

Share-based compensation expense recorded in these Consolidated Financial Statements for the three and six months ended June 30, 2018 and 2017 was based on awards granted under the LTIP. The following table summarizes share-based compensation expense for the periods presented (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Research and development	$2,553	$2,735	$4,810	$5,043
General and administrative	3,756	3,918	8,401	7,212
Restructuring costs [1]	2,512	—	2,512	—
Total share-based compensation expense	$8,821	$6,653	$15,723	$12,255

[1] Restructuring costs for the three and six months ended June 30, 2018 includes $2.5 million of share-based compensation expense related to the contractual acceleration of vesting of certain stock options granted to executive officers.

For the three months ended June 30, 2018 and 2017, the Company recognized tax benefits from share-based awards of $1.0 million and $1.1 million, respectively, and $2.1 million and $1.9 million for the six months ended June 30, 2018 and 2017, respectively.

The fair value of the options granted to employees and non-employee directors during the three months ended June 30, 2018 and 2017 was estimated as of the grant date using the Black-Scholes option-pricing model assuming the weighted-average assumptions listed in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Expected volatility	83.9%	72.2%	79.4%	72.8%
Risk-free interest rate	2.8%	2.0%	2.8%	2.0%
Expected dividend yield	—%	—%	—%	—%
Expected life (in years)	6.0	6.0	6.0	6.0
Weighted average grant date fair value	$11.28	$35.37	$13.82	$35.32

The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period for each award. Each of the inputs discussed above is subjective and generally requires significant management judgment to determine.

The following table summarizes the Company's stock option activity during the six months ended June 30, 2018:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2017	4,406,752	$ 38.93	7.60	$ 30,455
Granted	4,046,300	20.39		
Exercised	(174,536)	25.63		
Canceled	(559,092)	49.80		
Outstanding at June 30, 2018	7,719,424	$ 28.73	7.78	$ 4,882
Vested and expected to vest at June 30, 2018	7,271,257	$ 28.99	7.70	$ 4,880
Vested at June 30, 2018	2,505,501	$ 31.82	5.67	$ 4,869

The total intrinsic value of options exercised was $0.1 million and $8.9 million during the three months ended June 30, 2018 and 2017, respectively, and $2.2 million and $25.9 million during the six months ended June 30, 2018 and 2017, respectively, determined as of the date of exercise.

11. Restructuring

In May 2018, the Company commenced a reorganization plan to reduce its operating costs and better align its workforce with the needs of its business following the Company's April 23, 2018 announcement of its decision to discontinue further development of NEOD001.

The Company incurred aggregate restructuring charges of approximately $20.9 million for the three and six months ended June 30, 2018. Restructuring charges incurred under this plan primarily consisted of employee termination benefits and and contract termination costs primarily associated with exit fees relating to third-party manufacturers that we contracted with for NEOD001 clinical and commercial supplies. Employee termination benefits include severance costs, employee-related benefits, supplemental one-time termination payments and non-cash share-based compensation expense related to the acceleration of stock options. Charges and other costs related to the workforce reduction and structure realignment are presented as restructuring costs in the Condensed Consolidated Statements of Operations. Substantially all of the cash payments are expected to be paid out by the end of the first quarter of 2019. The Company may also incur additional costs not currently contemplated due to events that may occur as a result of, or that are associated with, the restructuring.

The following table summarizes the restructuring liability and utilization by cost type associated with the restructuring activities during the three and six months ended June 30, 2018 (in thousands):

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	Restructuring Liability			
	Termination Benefits	Contract Termination Costs	Other	Total
Balance at March 31, 2018	$—	$ —	$ —	$—
Restructuring charges	8,507	9,875	—	18,382
Non cash charges	2,512	—	—	2,512
Reductions for cash payments	(2,119)	(96)	—	(2,215)
Foreign Exchange	(5)	(278)	—	(283)
Balance at June 30, 2018	$8,895	$ 9,501	$ —	$18,396

The total amount expected to be incurred in connection with the restructuring plan is $21.6 million. The cumulative amount incurred to date is $20.9 million as of June 30, 2018. As of June 30, 2018, the restructuring liability is included in current liabilities on the consolidated balance sheets.

12. Income Taxes

The major taxing jurisdictions for the Company are Ireland and the U.S. The Company recorded an income tax benefit of $1.9 million and $2.0 million for the three and six months ended June 30, 2018, respectively, as compared to an income tax benefit of $1.3 million and $2.9 million for the three and six months ended June 30, 2017, respectively. The provision for income taxes differs from the statutory tax rate of 12.5% applicable to Ireland primarily due to Irish net operating losses for which a tax provision benefit is not recognized and U.S. income taxed at different rates. The income tax provision reflects the estimate of the effective tax rate expected to be applicable for the full year and the Company re-evaluates this estimate each quarter based on its forecasted tax expense for the full year. Jurisdictions with a projected loss for the year where no tax benefit can be recognized are excluded from the estimated annual effective tax rate.

The Company recorded a restructuring charge of approximately $20.9 million during the three and six months ended June 30, 2018. Accordingly, the Company recorded a discrete tax benefit for the restructuring charge of $1.6 million.

The Company adopted ASU 2016-09 on January 1, 2017. Pursuant to the adoption of ASU 2016-09, tax attributes previously tracked off balance sheet have been recorded as deferred tax assets, offset by a valuation allowance. Further, excess benefits of stock compensation have been recorded as a benefit to the tax provision for all periods presented. For the three and six months ended June 30, 2018, the Company recorded a net tax shortfall of $16,000 and $0.4 million, respectively as compared to excess tax benefits of $1.5 million and $3.4 million, respectively, for the three and six months ended June 30, 2017 all of which were recorded as part of its income tax provision in the Condensed Consolidated Statements of Operations. The Company’s income tax expense will continue to be impacted by fluctuations in stock price between the grant dates and the exercise dates of its option awards.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the “TCJA”) was signed into law. It contains many significant changes to the U.S. income tax laws. The TCJA is effective in the first quarter of 2018 and, among other things, lowers the Company’s U.S. federal income tax rate from 34% to 21%. Accordingly, for the year ended December 31, 2017, the Company recorded a provisional tax benefit of $0.4 million related to the remeasurement of its U.S. deferred tax assets to reflect the lower statutory tax rate. As of June 30, 2018, no adjustments have been made to the provisional net tax benefit reported as of the year ended December 31, 2017.

As of June 30, 2018, the Company has not completed its accounting for the tax effects of the TCJA, but recorded a provisional net tax benefit based on the Company’s best estimates. The provisional amounts incorporate assumptions made based upon the Company’s current interpretation of the TCJA and are subject to revision as the Company receives and interprets any additional clarification and implementation guidance issued by the U.S. Treasury Department, IRS and other standard-setting bodies. Any adjustments to the provisional amounts recorded will be included as an adjustment to the provision for income taxes. Adjustments may materially impact the Company's provision for income taxes and effective tax rate in the period in which the adjustments are made. The Company anticipates its accounting for the tax effects of the TCJA will be completed in 2018.

The Company’s deferred tax assets are composed primarily of its Irish subsidiaries’ net operating loss carryovers, state net operating loss carryforwards available to reduce future taxable income of the Company’s U.S. subsidiary, federal and California research and development credit carryforward, shared-based compensation and other temporary differences. The Company maintains a valuation allowance against its Irish and certain U.S. federal and state deferred tax assets. Each reporting period, the Company evaluates the need for a valuation allowance on its deferred tax assets by jurisdiction.

No provision for income tax in Ireland has been recognized on undistributed earnings of the Company's U.S. and Swiss subsidiaries because the Company considers such earnings to be indefinitely reinvested.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q, including this Management's Discussion and Analysis of Financial Condition and Results of Operations, contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. These statements relate to, among other things, our objective to fundamentally change the course of progressive, life-threatening diseases; our goal of advancing a pipeline of therapeutic candidates for a number of potential indications and novel targets; the design, proposed mechanism of action and potential therapeutic benefits of prasinezumab (PRX002/RG7935); the design, proposed mechanism of action and potential therapeutic benefits of PRX004; the design and objectives of our Phase 1 study for PRX004; the capabilities of our proprietary mis-TTR assay and our intention to use it in the Phase 1 study of PRX004; when we expect to have made substantially all cash payments under our restructuring plan; the possibility of future studies of PRX004; the sufficiency of our cash and cash equivalents to meet our obligations; our anticipated need for additional capital; and our estimates of certain future contractual obligations. Forward-looking statements may include words such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "due," "estimate," "expect," "goal," "intend," "may," "
"predict," "potential," "positioned," "seek," "should," "target," "will," "would" and other similar expressions that are predictio
indicate future events and future trends, or the negative of these terms or other comparable terminology.

Forward-looking statements are subject to risks and uncertainties, and actual events or results may differ materially. Factors that could cause our actual results to differ materially include, but are not limited to, the risks and uncertainties listed below as well as those discussed under Part II Item 1A - Risk Factors of this Form 10-Q:

- our ability to obtain additional financing in future offerings and/or obtain funding from future collaborations;
- our operating losses;
- our ability to successfully complete research and development of our drug candidates;
- our ability to develop, manufacture and commercialize products;
- our collaborations with third parties, including Roche and Celgene;
- our ability to protect our patents and other intellectual property;
- our ability to hire and retain key employees;
- tax treatment of our separation from Elan and subsequent distribution of our ordinary shares;
- our ability to maintain financial flexibility and sufficient cash, cash equivalents and investments and other assets capable of being monetized to meet our liquidity requirements;
- potential disruptions in the U.S. and global capital and credit markets;
- government regulation of our industry;
- the volatility of our ordinary share price;
- business disruptions; and
- the other risks and uncertainties described in Item 1A - Risk Factors of this Form 10-K.

We undertake no obligation to revise or update any forward-looking statements to reflect any event or circumstance that arises after the date of this report.

This discussion should be read in conjunction with the Condensed Consolidated Financial Statements and Notes presented in this Quarterly Report on Form 10-Q and the Condensed Consolidated Financial Statements and Notes contained in our Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (the "SEC") on February 26, 2018 (the "2017 Form 10-K").

Overview

Prothena Corporation plc is a clinical-stage neuroscience company focused on the discovery and development of novel therapies with the potential to fundamentally change the course of progressive, life-threatening diseases. Fueled by a deep scientific understanding built over decades of neuroscience research, we are advancing a pipeline of therapeutic candidates for a number of indications and novel targets including Parkinson's disease and other related

synucleinopathies (prasinezumab, or PRX002/R

G7935) and ATTR amyloidosis (PRX004), as well as tau and A (Amyloid beta) for the potential treatment of Alzheimer's disease and other neurodegenerative disorders, and TDP-43 for the potential treatment of ALS (amyotrophic lateral sclerosis) and FTD (frontotemporal dementia).

We were formed on September 26, 2012 under the laws of Ireland and re-registered as an Irish public limited company on October 25, 2012. Our ordinary shares began trading on The Nasdaq Global Market under the symbol "PRTA" on December 21, 2012 and currently trade on The Nasdaq Global Select Market.

Recent Developments

Prasinezumab (PRX002/RG7935) for the Potential Treatment of Parkinson's Disease

Prasinezumab (PRX002/RG7935) is an investigational monoclonal antibody targeting alpha-synuclein designed to slow the progressive neurodegeneration associated with synuclein misfolding and/or the cell-to-cell transmission of the pathogenic forms of synuclein in Parkinson's disease and other synucleinopathies. Prasinezumab is the focus of a worldwide collaboration between Prothena and Roche.

In June, we published results from the Phase 1b multiple ascending dose study of prasinezumab (PRX002/RG7935) in patients with Parkinson's disease in JAMA Neurology. The paper is entitled "Safety and Tolerability of Multiple Ascending Doses of PRX002/RG7935, an Anti- -Synuclein Monoclonal Antibody, in Patients With Parkinson Disease: A Randomized Clinical Trial." The data were previously presented as part of a late-breaking oral session at the 13th International Conference on Alzheimer's and Parkinson's Diseases (AD/PD) in Vienna, Austria in April 2017 and supported advancing prasinezumab into the Phase 2 PASADENA clinical study in patients with early Parkinson's disease that is currently ongoing.

PRX004 for the Potential Treatment of ATTR Amyloidosis

PRX004 is an investigational monoclonal antibody designed to target and clear the pathogenic, misfolded forms of the TTR protein found in ATTR amyloidosis without affecting the native, or normal, tetrameric form of the protein.

In May, we announced first-in-human dosing in a Phase 1 clinical study of PRX004 in patients with ATTR amyloidosis. The Phase 1 study will evaluate PRX004 in patients with ATTR amyloidosis to inform possible future studies and will include the use of Prothena's proprietary mis-TTR assay as a pharmacodynamic measure of the levels of misfolded TTR species in plasma across multiple hereditary TTR mutations.

Discontinuation of NEOD001 Development

In April, we announced the discontinuation of development of NEOD001, an investigational monoclonal antibody for the potential treatment of AL amyloidosis, based on the results from the Phase 2b PRONTO study of NEOD001, which did not meet its primary or secondary endpoints, and a futility analysis of the Phase 3 VITAL study of NEOD001.

Reorganization

In May, as a result of the discontinuation of the NEOD001 development program, we updated our financial guidance and implemented a reorganization designed to concentrate resources around our neuroscience research, discovery and early development expertise to advance our broad discovery and clinical-stage pipeline. As a result of the reorganization, we are reducing our workforce by approximately 57 percent.

Critical Accounting Policies and Estimates

Management’s discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with the accounting principles generally accepted in the U.S. (“GAAP”). The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions for the reported amounts of assets, liabilities, revenues, expenses and related disclosures.

Except for the accounting policies for revenue recognition that was updated as a result of adopting ASC 606, there were no significant changes to our critical accounting policies and estimates during the three months ended June 30, 2018 from the critical accounting policies and estimates disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2017 Form 10-K.

Recent Accounting Pronouncements

Except as described in Note 2 to the Condensed Consolidated Financial Statements under the heading “Recent Accounting Pronouncements”, there have been no new accounting pronouncements or changes to accounting pronouncements during the three months ended June 30, 2018 , as compared to the recent accounting pronouncements described in our 2017 Form 10-K, that are of significance or potential significance to us.

Results of Operations

Comparison of Three and Six Months Ended June 30, 2018 and 2017

Revenue

	Three Months Ended June 30,		Percentage Change
	2018	2017	
	(Dollars in thousands)		
Collaboration revenue	$279	$26,812	(99)%
Total revenue	$279	$26,812	(99)%

	Six Months Ended June 30,		Percentage Change
	2018	2017	
	(Dollars in thousands)		
Collaboration revenue	$506	$27,071	(98)%
Total revenue	$506	$27,071	(98)%

Total revenue was $0.3 million and $26.8 million for the three months ended June 30, 2018 and 2017, respectively, and $0.5 million and $27.1 million for the six months ended June 30, 2018 and 2017, respectively.

Collaboration revenue includes reimbursements under our License Agreement with Roche and for the three and six months ended June 30, 2017, collaboration revenue recognized also included $26.6 million of a $30.0 million clinical milestone from Roche. See Note 8 to the Condensed Consolidated Financial Statements regarding “Roche License Agreement” for more information.

Operating Expenses

	Three Months Ended June 30,		Percentage Change
	2018	2017	
	(Dollars in thousands)		
Research and development	$31,452	$34,032	(8)%
General and administrative	10,992	10,912	1 %
Restructuring costs	20,904	—	nm
Total operating expenses	$63,348	$44,944	41 %

	Six Months Ended June 30,		Percentage Change
	2018	2017	
	(Dollars in thousands)		
Research and development	66,158	$59,730	11 %
General and administrative	25,221	21,744	16 %

Restructuring costs	20,904	—	nm	
Total operating expenses	$112,283	$81,474	38	%

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nm = not meaningful

Total operating expenses consist of research and development ("R&D") expenses, general and administrative ("G&A") expenses and restructuring costs. Our operating expenses for the three and six months ended June 30, 2018 were $63.3 million and $112.3 million, respectively, and for the three and six months ended June 30, 2017 were $44.9 million and $81.5 million, respectively.

Our R&D expenses primarily consist of personnel costs and related expenses, including share-based compensation and external costs associated with nonclinical activities and drug development related to our drug programs, including NEOD001, PRX002/RG7935, PRX004 and our discovery programs. Pursuant to our License Agreement with Roche, we make payments to Roche for our share of the development expenses incurred by Roche related to PRX002/RG7935 program, which is included in our R&D expense. Prior to January 1, 2018, we recorded reimbursements from Roche for development as an offset to R&D expense.

Our G&A expenses primarily consist of professional service expenses and personnel costs and related expenses, including share-based compensation.

Research and Development Expenses

Our R&D expenses decreased by $2.6 million, or 8%, for the three months ended June 30, 2018, and increased by $6.4 million, or 11%, for the six months ended June 30, 2018, as compared to the same periods in the prior year. The decrease for the three months ended June 30, 2018, compared to the same period in the prior year, was primarily due to a decrease in external expenses related to product manufacturing and to a lesser extent clinical trial costs offset in part by higher expense associated with PRX002/RG7935. The increase for the six months ended June 30, 2018, compared to the same period in the prior year, was primarily due to higher expense associated with PRX002/RG7935, higher consulting expenses and higher personnel costs (including share-based compensation expenses), offset in part by a decrease in external expenses related to product manufacturing and to a lesser extent lower clinical trial costs associated primarily with the NEOD001 program.

Our research activities are aimed at developing new drug products. Our development activities involve the translation of our research into potential new drugs. R&D expenses include personnel costs and related expenses, external expenses associated with nonclinical and drug development and materials, equipment and facilities costs that are allocated to clearly related R&D activities.

The following table sets forth the R&D expenses for our major programs (specifically, any program with successful first dosing in a Phase 1 clinical trial, which were NEOD001, PRX002/RG7935, PRX003 and PRX004) and other R&D expenses for the three and six months ended June 30, 2018 and 2017, and the cumulative amounts to date (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,		Cumulative to Date
	2018	2017	2018	2017	
NEOD001[1]	$19,747	$26,226	$45,343	$44,446	$ 297,551
PRX002/RG7935					