ARQULE INC Form DEF 14A April 29, 2011

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant ý

Filed by a Party other than the Registrant o

Check the appropriate box:

- o Preliminary Proxy Statement
- o Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- ý Definitive Proxy Statement
- o Definitive Additional Materials
- o Soliciting Material under §240.14a-12

ArQule, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- ý No fee required.
- o Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
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 - (4) Proposed maximum aggregate value of transaction:

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o Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount Previously Paid:
- (2) Form, Schedule or Registration Statement No.:

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Dear Stockholders:

Progress during 2010 was highlighted by promising results in our Phase 2, randomized, double-blind trial with tivantinib (ARQ 197) in non-small cell lung cancer (NSCLC). Tivantinib is a first-in-class, small molecule inhibitor of the c-Met receptor tyrosine kinase, one of the most compelling molecular targets in cancer research today. We first presented data from this trial in a plenary session at the 2010 American Society of Clinical Oncology (ASCO) Annual Meeting. These data provided strong signals of clinical benefit among NSCLC patients with non-squamous cell histology, as measured by improvements in progression-free survival (PFS) and overall survival (OS).

Later in the year, following further review of the Phase 2 data, discussions with the U.S. Food and Drug Administration (FDA) and input from key opinion leaders worldwide, we and our partner, Daiichi Sankyo Co., Ltd., reached agreement with the FDA for a Special Protocol Assessment (SPA) for a Phase 3 trial in this patient population. The SPA process is a procedure by which the FDA provides official evaluation and written guidance on the design and size of proposed protocols that are intended to form the basis for a New Drug Application.

We enrolled the first patient in the Phase 3 trial in January 2011. This trial, named MARQUEE (*Met Inhibitor ARQ* 197 plus *E*rlotinib vs. *E*rlotinib plus placebo in NSCLC), is a randomized, double-blinded, controlled study of previously treated patients with locally advanced or metastatic, non-squamous NSCLC who will receive tivantinib plus erlotinib or placebo plus erlotinib. The primary objective of the MARQUEE trial is to evaluate OS in the intent-to-treat population. Daiichi Sankyo is the sponsor for this trial, which will include approximately 1,000 patients at clinical sites in the U.S., Canada, eastern and western Europe, Australia and Latin America.

Although this trial is clearly the highlight of the tivantinib development program, we have cast a broad net that includes a number of additional clinical trials in other tumor types. Principal among these are liver cancer and colorectal cancer. We expect to read data from these trials later in 2011 and in 2012, and we may consider Phase 3 clinical development plans following a thorough analysis of these data and an evaluation of the evolving therapeutic landscape. Similarly, we will be examining the results of ongoing Phase 1 trials of tivantinib in combinations with sorafenib and gemcitabine to identify signals that may lead to further testing in other tumors.

Our other pipeline products are directed toward additional targets in oncology, including the RAF kinases, the Eg5 kinesin motor protein and fibroblast growth factor receptor. We are in Phase 1 clinical testing with inhibitors of the first two of these targets, and we are working toward the objective of filing an Investigational New Drug application for an inhibitor of the third target late this year or early next. Our strategy with these three proprietary product candidates is to generate sufficient clinical data by the end of next year to inform our decision whether to pursue further development with one or more of them either independently or on a partnered basis.

We are continuing to advance our AKIP (ArQule Kinase Inhibitor Platform) discovery engine, which has the potential to target the inactive as well as other conformations of kinases that play pivotal roles in cancer and other diseases. Relative to our discovery activities, during 2010 we expanded our AKIP collaboration with Daiichi Sankyo by establishing a third therapeutic target, with an option for a fourth, in the field of oncology, and we extended the term of the collaboration by two years.

We ended 2010 with \$83 million in cash and marketable securities. In January 2011, the Company completed a common stock offering, which combined with the full exercise of an over-allotment option, resulted in net proceeds of approximately \$46.8 million. In February 2011, the Company received a

\$25 million development milestone payment from Daiichi Sankyo triggered by the dosing of the first patient in the MARQUEE trial. In light of these cash inflows, cash, cash equivalents and marketable securities on hand at December 31, 2010, and certain milestone assumptions related to our collaboration agreements, we currently expect to end 2011 with between \$85 and \$90 million in cash and marketable securities.

We are focused more than ever on our primary mission to serve cancer patients. The American Cancer Society has estimated that more than 220,000 cases of lung cancer were diagnosed in 2010 in the U.S. Lung cancer, of which non-small cell lung cancer accounts for 80 percent of all cases, causes more deaths than colon, breast, and prostate cancers combined. Certainly the need among these patients for improved therapies remains unmet, and we begin our Phase 3 trial with these patients uppermost in our minds.

Paolo Pucci Chief Executive Officer

ARQULE, INC.

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD JUNE 1, 2011

To Our Stockholders,

Our 2011 Annual Meeting of Stockholders will be held at the offices of ArQule, Inc. at 19 Presidential Way, Woburn, Massachusetts 01801-5140 at 10:00 a.m. Eastern Daylight Savings Time on Thursday, June 1, 2011 for the following purposes:

- To elect Ronald M. Lindsay, William G. Messenger and Patrick J. Zenner as directors to hold office for a term of three years and until their respective successors are elected and qualified;
- To approve amendments to our Amended and Restated 1994 Equity Incentive Plan to increase the number of shares of common stock available for awards granted under such plan by 3,000,000 from 12,500,000 to 15,500,000 shares of common stock and to incorporate other changes described in our proxy statement;
- To approve an amendment to our Amended and Restated 1996 Employee Stock Purchase Plan to increase the number of shares of common stock available for purchase by participants in such plan by 400,000 from 2,000,000 to 2,400,000 shares of common stock;
- 4. To approve an amendment to our Amended and Restated 1996 Director Stock Option Plan to increase the number of shares of common stock available for awards under such plan by 200,000 from 750,500 to 950,500 shares of common stock;
- 5. To ratify the selection of PricewaterhouseCoopers LLP, an independent registered public accounting firm, to audit our financial statements for the year ending December 31, 2011.
- 6. To approve, by non-binding vote, the compensation of our named executive officers;
- 7. To recommend, by non-binding vote, the frequency of votes approving executive compensation;
- 8. To transact any other business that may properly come before the meeting or any adjournment of the meeting.

Only stockholders of record at the close of business on April 15, 2011 will be entitled to vote at the meeting or any adjournment. A list of these stockholders will be available during ordinary business hours at the offices of ArQule, Inc. for a period beginning ten days before the meeting. Any stockholder may examine the list for any purpose germane to the meeting.

We look forward to seeing you at the meeting.

IT IS IMPORTANT THAT YOUR SHARES ARE REPRESENTED AT THE MEETING. THEREFORE, WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE COMPLETE YOUR PROXY AND RETURN IT IN THE ENCLOSED ENVELOPE, WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES. YOU MAY ALSO SUBMIT YOUR PROXY ELECTRONICALLY OR BY TELEPHONE, ACCORDING TO THE INSTRUCTIONS ON THE ENCLOSED PROXY CARD. IF YOU ATTEND THE MEETING AND WISH TO VOTE IN PERSON, YOUR PROXY WILL NOT BE USED. YOU MAY REVOKE YOUR PROXY AT ANY TIME BEFORE IT IS VOTED.

By order of our Board of Directors,

Peter S. Lawrence

President and Chief Operating Officer

Woburn, Massachusetts

Dated: April 29, 2011

ARQULE, INC.

19 Presidential Way Woburn, Massachusetts 01801-5140 Telephone: (781) 994-0300

Proxy Statement

General Information

With the enclosed proxy card, our Board of Directors (the "Board") is soliciting your proxy for use at our 2011 Annual Meeting of Stockholders to be held at the offices of ArQule, Inc. at 19 Presidential Way, Woburn, Massachusetts 01801-5140 at 10:00 a.m. Eastern Daylight Savings Time on Wednesday, June 1, 2011 and any adjournment or postponement of the meeting. This proxy statement and accompanying proxy card are first being sent or given to stockholders on or about May 2, 2011.

The principal business expected to be transacted at the meeting, as more fully described below, will be the election of directors; approval of amendments to our Amended and Restated 1994 Equity Incentive Plan, our Amended and Restated 1996 Employee Stock Purchase Plan and our Amended and Restated 1996 Director Stock Option Plan; ratification of the selection of PricewaterhouseCoopers LLP to audit our financial statements for the year ending December 31, 2011; and approvals, by non-binding votes, of our named executive officers' compensation, and the frequency of votes by stockholders approving executive compensation.

Stockholders may revoke the authority granted by an executed proxy at any time before its exercise by voting in person at the meeting or by filing with our Secretary a written revocation or a duly executed proxy bearing a later date.

We will bear the cost of solicitation of proxies, including charges and expenses of brokerage firms and others for forwarding solicitation material by mail to beneficial owners of stock. We have retained the Proxy Advisory Group, LLC to aid in the solicitation of proxies by mail, telephone, facsimile, e-mail and personal solicitation. For these services we will pay The Proxy Advisory Group, LLC a fee of \$23,000 plus reimbursement of certain specified out-of-pocket expenses. In addition, our officers, employees and other representatives may solicit proxies in person or by telephone.

Only stockholders of record at the close of business on April 15, 2011 will be entitled to vote at the meeting. On that date, we had outstanding 53,115,658 shares of common stock, \$0.01 par value ("Common Stock"), each of which is entitled to one vote. The presence at the meeting, in person or by proxy, of a majority of our outstanding shares of Common Stock entitled to vote at the Annual Meeting shall constitute a quorum for the transaction of business.

You may submit your proxy in writing, electronically, or by telephone according to the instructions on the enclosed proxy card. If you submit a proxy without directions as to votes on the matters to be considered at the Annual Meeting, the proxy will be voted "FOR" the election of the nominees listed below and "FOR" proposals 2, 3, 4, 5 and 6 and for "EVERY YEAR" on Proposal 7. The Company is not aware of any matter that will be brought before the annual meeting (other than procedural matters) that is not referred to herein. Abstentions and broker non-votes will be considered present for purposes of determining the presence of a quorum. Broker non-votes are proxies submitted by brokers that do not indicate a vote for one or more proposals because the brokers have not received instructions from the beneficial owners on how to vote on these proposals and do not have discretionary voting authority.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be Held June 1, 2011:

This Proxy Statement and the ArQule, Inc. 2010 Annual Report on Form 10-K for the year ended December 31, 2010 are available at www.proxyvote.com.

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PROPOSAL 1 ELECTION OF DIRECTORS

Our By-laws provide that the number of directors is established by our Board. For 2011, the number of directors is currently fixed at seven, divided into three classes as equal in number as possible and defined by the expiration dates of their terms of service. At the meeting, three directors will be elected to terms of three years, expiring in 2014, and until their respective successors are elected and qualified.

Ronald M. Lindsay, William G. Messenger and Patrick J. Zenner, all of whom are presently serving as directors, have been nominated for re-election by our Board for a term of three years. Unless your proxy withholds authority to vote for any of the nominees, the shares represented by your proxy will be voted for their election as the Board's nominees. If any nominee is unable to serve, which is not expected, the shares represented by your proxy will be voted for such other candidate as may be nominated by the Board.

Vote Required

The affirmative vote of a plurality of the shares of Common Stock cast by the stockholders present at the meeting, in person or by proxy, and entitled to vote on this proposal is required to elect each of the nominees. Broker non-votes and votes withheld will not affect the outcome of the election of directors.

Set forth below is certain information about the qualifications and other directorships of the nominees and our continuing incumbent directors.

Nominees for Terms Expiring at the 2014 Annual Meeting

Ronald M. Lindsay, Ph.D. (Age: 63) Dr. Lindsay has been a director since June 2005. He currently operates Milestone Consulting, a biopharmaceutical consulting enterprise. Dr. Lindsay was previously Chief Scientific Officer and Vice President, Research and Development, at diaDexus Inc. from 2000 to 2004, and held a number of positions at Millennium Pharmaceuticals, Inc., including Senior Vice President, Biotherapeutics, from 1997 to 2000. At Regeneron Pharmaceuticals, where he worked from 1989 to 1997, he was a founding scientist and Vice President, Neurobiology. Dr. Lindsay also worked at the Sandoz Institute for Medical Research, London from 1984 to 1989, where he was Head of Cell Biology. He is a director and Executive Vice President of Research and Development of Sequenom Inc., a director of HistoRx Inc., and a Senior Advisor to TVM-Capital, Munich. Dr. Lindsay is Executive Chairman of NeuroCentRx Pharmaceuticals Ltd., Edinburgh, Scotland, which he co-founded in 2008. Dr. Lindsay completed post-doctoral work at the Friedrich Miescher Institute, and he holds a B.Sc. (Hons) in chemistry from the University of Glasgow and a Ph.D. in biochemistry from the University of Calgary.

William G. Messenger, D. Min. (Age: 50) Dr. Messenger has been a director since January 2005. He chairs the Company's Compensation, Nominating and Governance Committee and is a member of its Audit Committee. He has been the owner and managing director of the Lexington Sycamore Group, consultants in the fields of business strategy, organization and leadership, since 1994. Dr. Messenger also serves as the Executive Editor of the Theology of Work Project, a small international organization conducting research and publication in the field of business ethics. He currently serves as adjunct professor of business ethics at Rensselaer Polytechnic Institute and a lecturer in business ethics at Holy Cross College. From 1999 to 2008, Dr. Messenger served as Director of the Mockler Center for Faith and Ethics in the Workplace at Gordon-Cornwell Theological Seminary. Dr. Messenger received a B.S. in Physics with highest honors from Case Western Reserve University, an M.B.A. with high distinction from Harvard Business School, a Master of Divinity degree, *summa cum laude*, from Boston University School of Theology, and a Doctor of Ministry from Gordon-Conwell Theological Seminary.

Patrick J. Zenner (Age: 64) Mr. Zenner was named Chairman of the Board in May 2004 and has been a director since 2002. Mr. Zenner retired in 2001 from the position of President and Chief Executive Officer of Hoffmann-La Roche Inc., North America. Hoffmann-La Roche Inc., based in Nutley, N.J., is the prescription drug unit of the Roche Group. Mr. Zenner held various executive positions during his 32-year career with the company. Mr. Zenner is currently on the Board of Trustees of Creighton University and is Chairman of the Board of Trustees of Fairleigh Dickinson University. In addition, Mr. Zenner is a member of the Boards of Directors of West Pharmaceutical Services, Inc., and Par Pharmaceuticals, Inc. In 2010, he resigned from the boards of Geron Corporation, Xoma Ltd. and Exact Sciences, Inc. Until its sale in September 2009, Mr. Zenner was a director of CuraGen Corporation. He has a B.S./B.A. from Creighton University and an M.B.A. from Fairleigh Dickinson University.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF THE NOMINEES LISTED ABOVE.

Continuing Incumbent Directors with Terms Expiring at the 2012 Annual Meeting

Timothy C. Barabe (Age: 58) Mr. Barabe has been a director since November 2001. Mr. Barabe is currently Executive Vice President and Chief Financial Officer of Affymetrix, Inc. Previously, from July 2006 until March 2010, he was Senior Vice President and Chief Financial Officer of Human Genome Sciences, Inc. He was with Regent Medical Limited, a U.K.-based, privately owned, surgical supply company, where he was Chief Financial Officer, from 2004-2006. Mr. Barabe served with Novartis AG from 1982 through August 2004 in a succession of senior executive positions in finance, general management and strategic planning, most recently as the Chief Financial Officer of Sandoz GmbH, the generic pharmaceutical subsidiary of Novartis. Mr. Barabe received his B.B.A. degree from the University of Massachusetts (Amherst) and his M.B.A. degree from the University of Chicago.

Paolo Pucci (Age: 49) Mr. Pucci joined ArQule as Chief Executive Officer and a member of the board of directors in June 2008 from Bayer A.G., where he served as senior vice president and president in charge of the Bayer-Schering Pharmaceuticals Global Oncology/Specialized Therapeutics Business Units. Previously, Mr. Pucci was senior vice president of Bayer Pharmaceuticals Global Specialty Business Unit, president of U.S. Pharmaceutical Operations and a member of the Bayer Pharmaceuticals Global Management Committee. At Bayer, Mr. Pucci was involved in a broad range of activities related to Nexavar® (sorafenib), an oral multiple kinase inhibitor used to treat liver and kidney cancers. These activities included clinical development, regulatory review, corporate alliance management, product launch and marketing. Mr. Pucci joined Bayer as head of its Italian Pharmaceutical operations in 2001. Prior to Bayer, Mr. Pucci held positions of increasing responsibility with Eli Lilly, culminating with his appointment as Managing Director, Eli Lilly Sweden AB. At Lilly, his responsibilities included operations, sales, marketing and strategic planning. Mr. Pucci holds an MBA from the University of Chicago and is a graduate of the Universita Degli Studi Di Napoli in Naples, Italy.

Continuing Incumbent Director with Term Expiring at the 2013 Annual Meeting

Michael D. Loberg, Ph.D. (Age: 63) Dr. Loberg has been a director since January 2007. Dr. Loberg is a member of the Board of Directors of Inotek Pharmaceuticals Corporation, a developer of ophthalmic medicines, and recently served as its Interim Chief Executive Officer. Previously, he served as Chief Executive Officer and a member of the Board of Directors of NitroMed, Inc., a pharmaceutical company, from September 1997 to March 2006 and as its President from September 2003 to March 2006. From 1979 to 1997, Dr. Loberg held a number of senior management positions at Bristol-Myers Squibb, including President of Bristol-Myers Squibb's Oncology and Immunology, U.S. Primary Care, Northern Europe, Specialty Pharmaceuticals and Squibb Diagnostics divisions, as well as director and Vice President, E.R. Squibb & Sons Research and Development.

Prior to his employment with Bristol-Myers Squibb, Dr. Loberg was an associate professor of medicine and pharmacy from 1976 to 1979 and an assistant professor from 1973 to 1976 at the University of Maryland. Since 2004, Dr. Loberg is a director of Kereos, Inc., a developer of targeted molecular imaging agents and therapeutics. Until May 2009 when he did not stand for reelection, he was a director of AMAG, a biotechnology company focused in renal disease. He holds a B.S. in Chemistry from Trinity College and a Ph.D. in Chemistry from Washington University.

Susan L. Kelley, M.D. (Age: 56) Dr. Kelley has been a director since April 27, 2011. From 2001 to 2008, Dr. Kelley was employed by Bayer Healthcare Pharmaceuticals and Bayer-Schering Pharma in Germany and the United States serving as Vice President, Global Strategic Drug Development, Cancer and Metabolics from April 2001 to May 2002 and from May 2002 until June 2008 as Vice President, Global Clinical Development and Therapeutic Area Head-Oncology. From July 2008 to March 2011, she was Chief Medical Officer of The Multiple Myeloma Research Foundation/Consortium. Most recently, she has been an independent consultant to the pharmaceutical and biotechnology industries in the field of oncology drug development and strategy. Dr. Kelley has an A.B. Biology, *magna cum laude* from Colgate University and an M.D. from Duke University School of Medicine. She was a Fellow in Medical Oncology and Clinical Fellow in Medicine at Dana-Farber Cancer Institute, Harvard Medical School and a Fellow in Medical Oncology and Pharmacology at Yale University School of Medicine where she also served as a Clinical Assistant Professor of Medicine.

Dr. Nancy Simonian, who was member of the class of directors whose term of service expired in 2013, announced on March 18, 2011 that she was resigning from our Board, effective March 31, 2011. Dr. Simonian (age 50) was a director since May 2006. Dr. Simonian is currently Chief Medical Officer and Senior Vice President of Clinical, Medical, and Regulatory Affairs at Millennium Pharmaceuticals, Inc. The Takeda Oncology Company, where she has worked since 2001.

Corporate Governance Guidelines

At ArQule, we value honesty, integrity, and fairness in our dealings with our fellow employees, our stockholders, our collaborators and our communities. In addition to meeting both the letter and the spirit of regulations and rules adopted by the Securities and Exchange Commission ("SEC"), other federal and state laws and regulations and the standards of the Nasdaq Global Market ("Nasdaq"), our directors have mandated that our business dealings comply with the highest ethical and corporate governance standards.

We have adopted general corporate governance principles, the ArQule Corporate Code of Conduct ("Code of Conduct") and related policies to provide guidance to our directors and management in their efforts to provide effective and appropriate corporate governance. As is the case with our other policies and practices, the tenets reflected in the Code of Conduct and policies are intended to align the interests of our directors, management and other employees with those of our stockholders. We will review and, if necessary in our judgment, modify the guidelines from time to time. The governance principles, Code of Conduct, and certain related policies are available on our website at http://www.arqule.com in the "Investors and Media" Section under the heading "Corporate Governance."

Corporate Code of Conduct

The Code of Conduct applies to our directors, employees and officers, including our Chief Executive Officer, President and Chief Operating Officer, Vice President of Finance, Corporate Controller and Treasurer (our principal executive officer, principal financial officer and principal accounting officer, respectively), and our Chief Medical Officer and Chief Scientific Officer. The Code of Conduct addresses: the standards of conduct expected of each director, officer and employee; conflicts of interest; disclosure process; compliance with laws, rules and regulations (including insider

trading laws); corporate opportunities; confidentiality; fair dealing; and protection and proper use of Company assets. It also strongly encourages the reporting of any illegal or unethical behavior. Waivers of the requirements of the Code of Conduct or associated policies with respect to members of the Board and executive officers are subject to the approval of the full Board or a committee of the Board to which resolution of the matter is delegated and will be disclosed on our website.

Director Qualifications and Nomination Process

Director Qualifications

The Compensation, Nominating and Governance Committee (the "Compensation Committee") identifies nominees for directors from various sources including referrals from current Board members and industry contacts. In the past, the Compensation Committee has used third party consultants to assist in identifying, evaluating, and recruiting potential nominees, but no third party consultant was used during 2010. The directors have not set formal criteria or qualifications for individuals to be nominated or re-nominated as candidates for Board membership. Instead, the Compensation Committee has developed a general profile for candidates reflecting the personal and professional characteristics that our directors believe a suitable individual should possess. Such characteristics include integrity, suitable business acumen and educational background, relevant industry experience, understanding of interpersonal relationships, no conflict of interest, a high degree of commitment to the functioning of the Board and its committees, and the ability to meet the independence and financial literacy requirements defined by applicable Nasdaq and SEC rules. Additionally, the Compensation Committee carefully considers issues of diversity among its members in identifying and considering potential nominees and attempts, where appropriate, to achieve a diversity of professional experiences, business cultures, perspectives, genders, ages and ethnicities, among other characteristics, in the membership of Board and its committees. The Company does not require members of the Board (or our executive officers) to purchase or hold a minimum number of shares of our Common Stock.

Our Company is a clinical-stage biotechnology company engaged in the research and development of innovative cancer therapeutics. In light of the Company's current needs and business priorities, the Compensation Committee believes that the Board's membership should include directors with a high level of scientific and relevant business experience. Our business requires an understanding of the science behind our pre-clinical and clinical product candidates, as well as the clinical development and commercialization processes. Accordingly, the Compensation Committee has determined that scientific, drug development and commercialization experience should be represented on the Board. In addition, as a public company, our Board should include individuals who are financially literate to serve as members of the audit and other committees. We also believe that members should have a firm grounding in corporate governance and business ethics. Lastly, our business is dynamic and rapidly evolving and benefits from having a Board that includes individuals from a variety of backgrounds and professional experiences who contribute to the Board's overall ability to identify and ask difficult questions and to think innovatively.

The following table summarizes the specific qualifications, attributes, skills and experience described above that each individual director contributes to the Board. An "X" in the chart below indicates that a specific competency for which the director has been appointed to serve on the Company's Board.

The lack of an "X" for a particular qualification does not mean that the director does not possess that qualification or skill. Rather, an "X" indicates a specific area of focus or expertise of a director on which the Board currently relies.

	Timothy C. Barabe (1)	Ronald M. Lindsay (3)	Michael Loberg (2)(3)	William Messenger (1)(2)	Paolo Pucci	Patrick Zenner (1)(2)	Susuan L. Kelley (3)
High level of financial literacy	X		X	X	X	\mathbf{X}	
Relevant biotechnology business experience	\mathbf{X}	X	\mathbf{X}	X	\mathbf{X}	\mathbf{X}	X
Extensive knowledge of drug research and							
development		X	X		\mathbf{X}		X
Extensive knowledge of drug commercialization and							
marketing	X	\mathbf{X}			X	X	
Expertise in corporate governance and business							
ethics	X			X		X	
Diversity of background, professional experience or culture			X	X	X		X

- (1) Member of Audit Committee
- (2) Member of Compensation Committee
- (3) Member of Science Committee

Stockholder Nominations

The Compensation Committee has not established any special procedures for stockholder submissions of nominees for election to the Board. Our By-laws permit any stockholder entitled to vote for the election of directors to nominate one or more directors. We believe that this long-standing mechanism, in place since incorporation of the Company, provides the appropriate means for stockholder nominations. Pursuant to our By-laws, a stockholder wishing to nominate a director candidate must deliver or mail written notice of such nomination to the Chairman of the Board, the President, or the Secretary of the Company at our principal executive office. If a stockholder is nominating a director candidate for election at the annual meeting of stockholders, notice must be received at least 75 days before the anniversary date of the prior year's meeting, assuming there was an annual meeting in the prior year and the date of the current year's annual meeting is within 30 days of the anniversary date of the prior year's meeting. Otherwise, notice must be received at least 45 days before the date of the current year's annual meeting or the special meeting is provided. If neither of the previous two sentences applies, notice must be received no later than 15 days after the date on which notice of the date of the current year's annual meeting or the special meeting was mailed or public disclosure was made of such meeting date. The notice must include the stockholder's name and address, the class and number of shares of securities beneficially owned by such stockholder, and each nominee's:

- (i) name, age, business address, and home address;
- (ii) principal occupation or employment;
- (iii) beneficial ownership of Company securities, including the class and number of shares of stock; and
- (iv) any other information relating to the nominee that is required to be disclosed in solicitations for proxies for election of directors by Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

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The Compensation Committee will consider all nominees submitted by stockholders in the manner described above and will evaluate all potential nominees using the same criteria.

The Board's Role in Risk Oversight

The role of our Board in our Company's risk oversight process includes receiving regular reports on areas of material risk to our Company, including clinical, regulatory, financial, legal, strategic and reputational risks. The full Board (or the appropriate committee in the case of risks that are under the purview of a particular committee) receives these reports from the member of management responsible for the function from which the risk arises so that it can understand and assess our ongoing risk identification, risk management and risk mitigation strategies. Our Board also administers its risk oversight function through the required approval by the Board (or a committee of the Board) of significant transactions and other material decisions, and regular periodic reports from our company's independent registered public accounting firm and other outside consultants regarding various areas of potential risk, including, among others, those relating to our internal controls and financial reporting. As part of its charter, the Audit Committee discusses with management and our independent registered public accounting firm significant risks and exposures and the steps management has taken to minimize those risks.

Communications with Directors

We do not have a formal process for communication by stockholders to our directors. However, stockholders and others who wish to communicate may write to the Board as a whole, or to individual directors c/o:

Investor Relations
ArQule, Inc.
19 Presidential Way
Woburn, Massachusetts 01801-5140
Attn. William B. Boni
Vice President, Investor Relations/Corporate Communications

Such communications will be forwarded directly to the addressee(s).

Director Independence

For a director to be designated as independent, as defined by the Nasdaq listing standards set forth below, our Board must determine that he or she has no "material relationship" with ArQule other than that of a director. When assessing the materiality of a director's relationship with ArQule, the Board considers:

all relevant facts and circumstances, not only of the director's relationship with the Company, but also that of the persons or organizations with which the director is affiliated;

the frequency and regularity of any services the director performed for the Company outside of the scope of duties as a director;

whether the director carried out those services at arm's length in the ordinary course of business; and

whether the director provided those services on substantially the same terms as those prevailing at the time for unrelated parties in comparable transactions.

For a Nasdaq-listed company, a director is not considered independent if any of the following circumstances exist:

the director is currently, or was at any time during the preceding three years, employed by the listed company, its parent or subsidiaries, or if any of the director's family members is, or was, an executive officer of the listed company, its parent or subsidiaries, at any time during the preceding three years;

the director has accepted, or has a family member who has accepted, from the listed company, its parent or subsidiaries, any payment in excess of \$120,000 during any twelve-month period within the preceding three years, other than (a) compensation for board or board committee services, (b) compensation paid to a family member who is a non-executive employee of the listed company, its parent or any subsidiary; or (c) benefits under a tax-qualified retirement plan or non-discretionary compensation;

the director is, or has a family member who is, employed as an executive officer of any other entity where at any time during the preceding three years any of the executive officers of the company served on the compensation committee of such other entity;

the director is, or has a family member who is, a partner in, or a controlling stockholder or an executive officer of, any organization to which the listed company made, or from which the company received, payments (other than payments arising solely from investments in the listed company's securities or payments under non-discretionary charitable contribution matching programs) that exceed the greater of \$200,000 or 5% of the recipient's consolidated gross revenues during the current or any of the past three fiscal years;

the director is, or has a family member who is, a current partner of the listed company's outside auditors, or was a partner or employee of the listed company's outside auditor who worked on the listed company's audit at any time during the past three years; or

the director otherwise has a relationship that, in the opinion of the listed company's board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

On January 21, 2011, our Board determined that all of our directors, other than our Chief Executive Officer, are "independent directors" as defined in the listing standards of the Nasdaq Marketplace Rules, and these directors constitute a majority of the members of the Board.

Review and Approval of Related Person Transactions

Pursuant to our written Conflict of Interest Policy, no director, director nominee, or executive officer may enter into any transaction or relationship that is disclosable by the Company pursuant to SEC Regulation S-K, Item 404, without the prior approval of the disinterested members of our Compensation Committee. No director or executive officer may directly or indirectly approve, or represent the Company or the other party in arranging, the terms of any transaction between the Company and a party with which he/she has any relationship of a type that is disclosable by the Company pursuant to Item 404. All transactions between ArQule and a party with which a director or executive officer has such a relationship shall be on an arm's length basis.

Relationships or transactions disclosable under Item 404 may be deemed acceptable and appropriate upon full disclosure of the relationship or transaction, review of all of the relevant factors, including those specified in our Conflict of Interest Policy, and approval by the disinterested members of our Compensation Committee.

Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee during 2010 served as an officer, former officer, or employee of the Company or had a relationship disclosable under our policies or SEC regulations. Further, during 2010, no executive officer of the Company served as:

a member of the compensation committee (or equivalent) of any other entity, one of whose executive officers served as one of our directors or was an immediate family member of a director, or served on our Compensation Committee; or

a director of any other entity, one of whose executive officers or their immediate family member served on our Compensation Committee.

BOARD COMMITTEES AND MEETINGS

The Board held eight meetings during 2010. Each director attended at least 75% of the aggregate number of meetings of the Board and the committees of the Board on which he or she served.

We do not have a policy regarding attendance of directors at our annual meeting of stockholders. In May 2010, all our directors attended our annual meeting. We also do not have a formal policy regarding the separation of our Board Chairman and Chief Executive Officer positions. At this time, the positions are separate, as the Board believes this structure to be in the best current interests of the Company and our stockholders.

Committees of the Board

Our Board has a standing audit committee (the "Audit Committee"), compensation, nominating, and governance committee (the "Compensation Committee"), and science committee (the "Science Committee"). Independent directors chair and entirely make up each of these committees. The Board has adopted written charters for each of our standing committees, which may be viewed by accessing the "Investors and Media" Section of our website at www.arqule.com and clicking on the headings "Corporate Governance" and "Committee Charters."

Audit Committee

In 2010, the members of the Audit Committee were Mr. Barabe (Chairman), Dr. Messenger, and Mr. Zenner. The Audit Committee met five times in 2010. Each member of the Audit Committee meets the independence and financial literacy requirements as defined by applicable Nasdaq and SEC rules. The Board has determined that Mr. Barabe is an "audit committee financial expert" as defined by the rules and regulations of the SEC.

The duties and principal purposes of the Audit Committee include:

generally, oversight of the integrity of the Company's financial reporting process;

in particular, monitoring of:

the integrity of the Company's financial statements;

the Company's compliance with legal and regulatory requirements; and

the qualifications, independence and performance of the Company's independent registered public accountants and of its internal audit function;

pre-approval of all audit services;

preparation of the audit committee report that is required to be included in the proxy statement for our annual meeting of stockholders;

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assessment of significant financial risks and exposures and the adequacy of the Company's overall risk assessment and risk management policies and procedures;

evaluation of whether risks presented by the Company's financial policies and practices are likely to have a material adverse effect on the Company; and

assessment of the steps management has taken to control risks to the Company.

The Company's independent registered public accounting firm (currently, PricewaterhouseCoopers LLP, an independent registered public accounting firm) is ultimately accountable to the Audit Committee in its capacity as a committee of the Board. The Audit Committee has sole authority and responsibility to select, hire, oversee, evaluate, approve the compensation of, and, where appropriate, replace our independent registered public accounting firm.

Additional information regarding the responsibilities of the Audit Committee is provided in the committee's charter.

The report of the Audit Committee is on page 30.

Compensation Committee

In 2010, the members of the Compensation Committee were Dr. Messenger (Chairman), Dr. Loberg and Mr. Zenner. The Compensation Committee met five times in 2010.

The duties and purposes of the Compensation Committee include:

advising the Board concerning the Company's compensation philosophy and policies, in general, and, in particular, to determine, or recommend to the Board for determination, the compensation of the Company's Chief Executive Officer and all other executive officers and directors;

advising the Board regarding succession planning for the Company's Chief Executive Officer;

identifying individuals qualified to become members of the Board;

recommending candidates to the Board to fill vacancies on the Board;

recommending to the Board the directors to be appointed to its committees;

assessing, or ensuring that the Board assesses, the performance of individual members of the Board and the Board as a whole;

administering our stock option, stock purchase, and other stock compensation plans;

reviewing and approving or rejecting proposed related party transactions;

reviewing with management the annual compensation discussion and analysis ("CD&A") section of the Company's disclosures to the SEC prepared by management and recommending to the Board whether the CD&A should be included in the Company's filings with the SEC;

reviewing and approving an annual report on the Compensation Committee's review of the CD&A for inclusion in the Company's proxy statement; and

overseeing the Company's efforts to meet its corporate governance, legal, and regulatory obligations and identifying, reviewing, and resolving issues relating to such matters.

Additional information regarding the responsibilities of the Compensation Committee is provided in the committee's charter.

The report of the Compensation Committee is on page 19.

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Science Committee

In 2010, the members of the Science Committee were Dr. Lindsay (Chairman), Dr. Loberg and Dr. Simonian. Dr. Kelly joined the Science Committee effective as of her appointment to the Board on April 27, 2011. The Science Committee met four times during 2010.

The Science Committee is responsible for:

reviewing the scientific direction of the Company;

playing a role in assessing the manner by which the Company will continue to enhance its capabilities as a drug discovery organization (whether by acquisition, merger, in-licensing, internal growth, or a combination of those methods);

evaluating the scientific opportunities under consideration by management; and

as requested by management, reviewing data relating to new scientific directions for the Company and other science-related matters.

Additional information regarding the responsibilities of the Science Committee is provided in the committee's charter.

DIRECTOR COMPENSATION

The following table provides information concerning compensation paid by the Company to its non-employee directors during 2010. Any director who is also an employee of the Company is not compensated for his or her service as a director. During 2010 Mr. Pucci, the Company's Chief Executive Officer, also served on the Board, but did not receive any compensation for services as a director.

Name	Carned or n Cash (\$)	Option Awards(1) (\$)	,	Γotal (\$)
- 144	(.,		Φ.	(.,
Timothy C. Barabe(2)	\$ 53,125	\$ 55,658	\$	108,783
Ronald M. Lindsay, Ph.D.	52,500	55,658		108,158
Michael D Loberg, Ph.D.(3)	42,750	55,658		98,408
William G. Messenger, D. Min.	51,750	55,658		107,408
Nancy A. Simonian, MD	36,750	55,658		92,408
Patrick J. Zenner	57,750	92,763		150,513

- This column reflects the aggregate grant date fair value for all option awards granted during 2010. Assumptions used in the calculation of this amount are included in Note 2 to the Company's audited financial statements for the year ended December 31, 2010, set forth in the Company's Annual Report on Form 10-K filed with the SEC on March 2, 2011 ("2010 Annual Report on Form 10-K"). As of December 31, 2010, for each director the aggregate number of shares of Common Stock that may be acquired upon exercise of outstanding option awards is as follows: Mr. Barabe, 81,000; Dr. Lindsay, 65,000; Dr. Loberg, 65,000; Dr. Messenger, 70,000; Dr. Simonian, 65,000; and Mr. Zenner, 107,500.
- Mr. Barabe elected to have a portion of his fees for service as a director in the amount of \$31,832 paid to him in the form of 6,966 shares of our Common Stock in accordance with our 2005 Director Stock Compensation Plan. The number of shares was determined on the date of the payment of director fees based on the closing market price for a share on that date.
- (3)

 Mr. Loberg elected to have a portion of his fees for service as a director in the amount of \$21,326 paid to him in the form of 4,695 shares of our Common Stock in accordance with our 2005

Director Stock Compensation Plan. The number of shares was determined on the date of the payment of director fees based on the closing market price for a share on that date.

Currently, each of our non-employee directors who is serving as a director prior to and immediately following any annual meeting of stockholders receives a \$20,000 annual retainer. Each non-employee director receives \$2,000 for each day on which the Board meets and the director attends and \$1,000 for each day on which a committee of the Board meets and the director attends. In addition to the base compensation for directors, chairs of committees receive additional compensation. The director serving as Chairman of the Board (currently, Mr. Zenner) receives an additional \$15,000 annual retainer; the director serving as Chairman of the Audit Committee (currently, Mr. Barabe) receives an additional \$15,000 annual retainer, the director serving as Chairman of the Compensation Committee (currently, Dr. Messenger) receives an additional \$10,000 annual retainer; and the director serving as Chairman of the Science Committee (currently, Dr. Lindsay) receives an additional \$15,000 annual retainer.

All of our non-employee directors, currently six directors, are eligible to participate in our Amended and Restated 1996 Director Stock Option Plan. Pursuant to the terms of such plan on March 14, 2011, the Directors voted to amend the plan to increase the number of shares subject to options granted to directors. See Appendix C.

Pursuant to the Director Stock Option Plan, an option to purchase 30,000 shares of Common Stock is automatically granted to each non-employee director (other than the Chairman) at the time that he or she is first elected or appointed to the Board. This initial option will become exercisable as to 10,000 shares on the date of the Company's next annual meeting following the date of grant and as to 10,000 shares on the date of each of the next two annual meetings.

Also, at each annual meeting of stockholders, each eligible director (other than the Chairman) serving as a member of the board of directors prior to and immediately after such annual meeting is automatically granted an immediately exercisable option to purchase 15,000 shares of Common Stock (whether or not the director is a nominee for election at such annual meeting).

Upon the initial election of a non-employee director as Chairman of the Board, the non-employee director will be automatically granted an option to purchase 25,000 shares of Common Stock. These options become exercisable as to 8,334 shares on the date of the Company's next annual meeting of stockholders following the date of grant and as to 8,333 shares on the date of each of the next two annual meetings of stockholders.

In addition, at each annual meeting of stockholders, the eligible director serving as Chairman of the Board prior to and immediately after such annual meeting will be automatically granted an immediately exercisable option to purchase 25,000 shares of Common Stock (whether or not the Chairman is a nominee for election at such annual meeting).

Pursuant to our 2005 Director Stock Compensation Plan, the Company's non-employee directors may elect to receive in lieu of all or a part of their cash compensation for service as a director, an equivalent amount of Common Stock. As noted in the table above, in 2010 Mr. Barabe and Dr. Loberg received a portion of their director fees in the amount of \$31,832 and \$21,326, respectively, in the form of Common Stock. The number of shares was determined on the date of the payment of director fees based on the closing market price for a share of Common Stock.

COMPENSATION DISCUSSION AND ANALYSIS

The Compensation Committee is responsible for determining the compensation of our named executive officers, including our Chief Executive Officer.

Compensation Philosophy

Guiding Principles:

Our executive compensation program is designed to be closely linked to corporate performance and returns to stockholders. To this end, we have developed an overall compensation strategy and a specific compensation plan that establish competitive base salaries and tie a significant portion of executive compensation to the Company's success in meeting specified and measurable Company-wide performance goals. By using stock options and other stock-based awards, we ensure that part of each executive's compensation is closely tied to the performance of our stock. We believe that a significant part of overall compensation for senior executives should be "at risk," i.e., contingent upon successful implementation of the Company's strategy and achievement of its goals. Individuals with the greatest influence on company-wide performance should have the largest amount of cash benefits and stock options at risk. In our view, a balanced approach to compensation decisions motivates management's efforts to drive positive outcomes in both the current and future environments and mitigates the risk that any one incentive could lead executive officers to take actions that are not in our best interests. In addition, the tying of compensation to performance goals that must be achieved in a heavily regulated business environment such as ours adds an additional layer of scrutiny to the Company's actions and lessens greatly the opportunities for individuals to take inappropriate actions without discovery and sanctions.

Objective	es:
	To attract and retain the best executive talent available;
	To motivate our executives to achieve the goals inherent in our business strategy;
	To link executive and stockholder interests through equity-based compensation; and
Key com	To provide a compensation package that recognizes individual contributions as well as corporate performance. pensation elements:
	Base salary;
	Annual performance-based cash bonuses;
	Stock-based incentive awards; and
	Employee benefits.
Each of these	elements is described in more detail below.

The Role of the Compensation Committee

The members of the Compensation Committee are currently Michael D. Loberg, Ph.D., William G. Messenger, D. Min. (Chairman), and Patrick J. Zenner. Each of the current members is an "independent director" under Nasdaq listing standards, a "Non-Employee Director" within the meaning of Section 16 of the Exchange Act, and an "outside director" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Tax Code").

The Compensation Committee advises our Board concerning the Company's compensation philosophy and policies, in general, and, in particular, determines, or recommends to the Board for determination, the compensation of our Chief Executive Officer and other named executive officers and members of the Board. Recommendations and decisions made by the Compensation Committee are reported to the full Board for approval or ratification, as appropriate.

The Compensation Committee's Process

General

The Compensation Committee sets the mix of elements of executive compensation including base salary, annual performance-based bonuses and stock-based awards for our named executive officers. While the Compensation Committee considers the elements of compensation described below separately, it takes into account the full compensation package afforded to each executive officer in making its recommendations. The Compensation Committee also makes recommendations concerning the appropriate linkage of executive compensation to individual and corporate performance and financial returns to stockholders.

The Compensation Committee considers the views of our Chief Executive Officer regarding achievement of individual and departmental objectives of those executives reporting directly to him. With the assistance of our Vice President of Human Development, the Compensation Committee reviews peer group data and additional selected data from the Radford Life Sciences Executive Survey produced by Radford Surveys & Consulting, a division of Aon Consulting ("Radford"). Our peer group of companies, which we review periodically, is comprised principally of non-commercial, life sciences companies with products in phase II or phase III clinical trials that Radford has deemed to be most comparable to us in market capitalization and head count. For 2010, the peer group companies consisted of the following:

Allos Therapeutics, Inc. Maxygen, Inc.

Alnylam Pharmaceuticals, Inc. Micromet Inc.

Ariad Pharmaceuticals, Inc. Novavax, Inc.

Array BioPharma, Inc. Rigel Pharmaceuticals, Inc.

BioCyst Phramaceuticals, Inc. Sangamo BioSciences, Inc.

Cytokinetics Inc. SuperGen, Inc.

Dyax Corp. Targacept, Inc.

Geron Corporatio VIVUS, INC.

Infinity Pharmaceuticals, Inc. XenoPort, Inc.

In addition, the Compensation Committee supplemented the peer group survey data with broader competitive market data from the Radford Global Life Sciences Executive Survey. Radford derived the data from non-commercial, public life sciences companies with between 50 and 350 employees. The overall market composite considered by the Compensation Committee was represented 50 percent by the peer group and 50 percent by the broader market reference group.

Benchmarking

In general terms, as a basis for its recommendations, the Compensation Committee benchmarks total compensation for all of our employees to the median compensation (*i.e.* 50th percentile) of employees performing similar job functions at biotechnology companies nationally, adjusted for differences in company size, stage of development, location, and performance. However, we strongly believe in retaining the best talent among our executive management team. Therefore, we have recommended, and may recommend in the future, total compensation packages for senior executive management that vary substantially from the median based on factors such as industry experience, scope of responsibility, knowledge, and unique qualifications.

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Elements of Compensation

Base Salary

Salary levels are considered annually as part of our performance review process, but also in the cases of promotion or other change in the job responsibilities of an executive officer. For named executive officers, initial base salaries generally are established in connection with negotiation of an offer of employment and employment agreement. Increases in base salary have several elements. In addition to promotion and increased responsibilities, merit and company-wide general increases are also factored in. Salaries of our named executive officers for 2010 and certain prior years are also reported in the Summary Compensation Table on page 20.

The following table shows changes in the annualized base salaries of our named executive officers from 2009 to 2010:

V 1811 18 W	2009 Annualized Base	2010 Annualized Base	%	
Name and Principal Position	Salary (\$)	Salary (\$)	Increase	Comment
Paolo Pucci, CEO	450,000	475,000	5.6	Base salary negotiated in and adjusted per amended employment agreement and annual review.
Peter S. Lawrence, COO	384,000	392,000	2.0	Base salary negotiated in and adjusted per amended employment agreement and annual review.
Dr. Brian Schwartz, CMO	332,000	338,000	2.0	Base salary negotiated in and adjusted per employment agreement and annual review.
Dr. Thomas C.K. Chan, CSO	325,000	332,000	2.0	Base salary negotiated in and adjusted per employment agreement and annual review.

Performance-Based Bonuses

Cash bonuses represent a percentage of each named executive officer's salary. In determining the target award opportunity for the bonus of a particular executive, we consider compensation data and level of strategic contribution to the Company's performance. This determination is made at the time an executive officer is hired and generally is one of the negotiated terms of his or her employment agreement. Adjustments to bonus targets are also considered, subject to the requirements of those employment agreements, as part of the annual review process.

At the beginning of each fiscal year, we set corporate goals at minimum, planned, and maximum levels of performance and weight the goals according to their importance to our corporate strategy. Levels of performance for these goals are expressed as percentages which, when determined by our Board following conclusion of the fiscal year, are aggregated to arrive at an overall level of performance for the Company. In determining individual bonus amounts for our named executive officers, our directors take into consideration the Company's overall performance, the named executive officer's achievement of specific individual goals, and the amount of the named executive officer's target bonus.

The following is a summary description of the primary corporate goals for 2010 used to determine performance-based bonuses:

C-Met Program ARO 197

If Phase 2 clinical data are supportive, commence phase 3 non-small cell lung cancer trial by a specified date

If Phase 2 clinical data are supportive, commence Phase 3 c-met sarcoma trial by a specified date

Complete accrual of Phase 2 hepatocelluar carcinoma (liver cancer) mono-therapy trial by a specified date

Complete expansion of Phase $^{1}/_{2}$ trial of ARQ 197 in combination with Gemcitabine by a specified date Eg5 Program ARQ 621

If Phase 1 clinical data are supportive, commence a Phase 2 trial by a specified date

Discovery Program

File one investigative new drug application on a new molecule from our FGFR or BRAF programs by a specified date

Complete lead optimization on two chemical scaffolds for our research and development collaboration with Daiichi Sankyo by a specified date

Business Development

Enter into a new collaboration for an early stage program or ArQule Kinase Inhibitor Program deal or extend an existing collaboration.

Arrange an agreement among Daiichi Sankyo, Kyowa Hakko Kirin and the Company for a global non-small cell lung cancer program

Finance

End 2010 with at least \$80 million of cash while meeting all key budget parameters <u>Publications & Presentations</u>

Publish and present in a specified number and type of public forums data regarding our drug discovery and development programs

Following the recommendations of the Compensation Committee, our Board determined that, on a weighted basis, our overall level of performance warranted payment of bonuses at 110% of the bonus targets. This determination reflected results with respect to the C-Met Program, Discovery Program, Finance, Business Development and Publications & Presentations goals that were determined to be at

or above planned performance in most cases. The following table shows percentages of target and actual bonuses paid to our named executive officers.

Name and Principal Position	2010 Bonus Target (% of Base Salary)	2010 Bonus Actual (% of Base Salary)	Comment
Paolo Pucci, CEO	60%	66%	Target bonus set by terms of amended employment agreement. Actual Bonus 110% of target.
Peter S. Lawrence, COO	40%	44%	Target bonus set by terms of amended employment agreement. Actual bonus 110% of target.
Dr. Brian Schwartz, CMO	35%	38.5%	Target bonus set by terms of employment agreement. Actual bonus 110% of target.
Dr. Thomas C.K. Chan, CSO	35%	38.5%	Target bonus set by terms of employment agreement. Actual bonus 110% of target.

The amounts of cash bonus awards made to our named executive officers are also reported in the Summary Compensation Table on page 20.

Stock-based Awards

Primarily, we grant stock options and/or shares of restricted stock to the named executive officers under our Amended and Restated 1994 Equity Incentive Plan. It is our current policy to grant stock options and/or shares of restricted stock with an exercise price or share valuation equal to the closing price of our Common Stock as reported by Nasdaq on the date of grant. Options vest over various periods of time, generally four years. Restricted stock awards have restrictions which lapse over various periods of time, also generally four years. In one instance, we awarded to our Chief Executive Officer performance-based stock units, each of which represents a contingent right to receive one share of Common Stock, in two tranches of units that vest, respectively, upon the achievement of certain performance targets related to the development of the Company's products and the average price of our Common Stock within defined time periods.

Stock option grants, and awards of restricted stock and stock units, are designed to encourage the creation of stockholder value over the long term since the full benefits of the options and awards cannot be realized unless stock price appreciation is achieved, and, once achieved, is maintained and increased. Accordingly, awards of options, restricted stock and stock units align the interests of executive officers and employees with those of stockholders. In determining the amount of these grants and awards, we evaluate the executive's job level, promotions, responsibilities he or she will assume in the upcoming year, and responsibilities in prior years. In addition, we take into account the size of the executive's grants and awards in the past and market data relating to compensation. After consideration of all of these factors, as well as corporate and individual performance, in January 2011 for 2010, we awarded Mr. Pucci, in addition to the stock units discussed above and an option to purchase an additional 100,000 shares of our Common Stock described below under the caption "Employment Agreements", an option to purchase 300,000 shares of our Common Stock; Mr. Lawrence, an option to purchase 140,000 shares of our Common Stock; Dr. Schwartz, an option to purchase 140,000 shares of our Common Stock; and Dr. Chan, an option to purchase of our Common Stock.

The Compensation Committee comes to a recommendation regarding annual stock option awards at a meeting in December prior to the first meeting of the Board in January of the following calendar year. At the January meeting, the Board acts upon the recommendations of the Compensation Committee. The effective date for such awards is the date of such meeting of the full Board.

Employment Agreements

ArQule generally enters into employment agreements with named executive officers. Typically, these agreements are offered in connection with recruiting executive officers when ArQule deems it necessary or appropriate to attract, incentivize and retain new hires. Agreements of this type exist to establish initial salary and bonuses, benefits, initial option grants, reporting lines, and change of control and related severance provisions, among other things. Mr. Pucci, Mr. Lawrence, Dr. Schwartz, and Dr. Chan have such agreements. Additional information regarding these agreements is set forth on page 21 in the "Employment Agreements" section and page 26 in the "Payments Upon Termination or Change in Control" section.

Other Elements of Compensation and Perquisites

We provide our named executive officers with certain benefits and perquisites. The value of such benefits and perquisites provided in 2010 was less than \$10,000 for each named executive officer. We provided these benefits on the same terms as those applicable to all of our other employees. The primary benefits are:

health (medical, dental and vision) insurance for which the Company pays a portion of the premiums;

a life insurance benefit equivalent to two times base salary up to a maximum of \$400,000 for which the Company pays the premiums;

long-term disability insurance equal to 60% of base salary up to \$15,000 per month, the premiums for which are paid by the Company with the amount of the premiums being included in the taxable compensation of employees;

if necessary in given circumstances to attract management talent, housing allowances and relocation costs;

a retirement plan (401(k) Plan) under which an employee can choose to contribute up to 60% (subject to Tax Code limits) of compensation on a pre-tax basis with a matching contribution from the Company of \$0.50 for each \$1.00 contributed up to the first 6% of compensation;

a tax-qualified stock purchase plan which permits participants to acquire shares of Common Stock at a price that is 85% of the stock price on either the first day or last day of the designated offering period (generally six months), whichever is lower; and

tuition reimbursement up to \$3,000 per year for undergraduate courses and \$6,000 for graduate courses.

Currently, the Company does not have a nonqualified deferred compensation plan, a pension plan, or other defined benefit plan. In addition, the Company does not have a policy on adjustments to, or recovery of, awards if the performance measures on which they were based are adjusted or restated.

Potential Payments to Named Executive Officers Upon Termination or Change in Control

The employment agreements of Mr. Pucci, Mr. Lawrence, Dr. Schwartz, and Dr. Chan provide for certain payments to be made to them in the event that their employment with the Company is, or is deemed to be (as provided in the employment agreements), terminated without "cause." Severance benefits are an important tool in attracting and retaining key employees, and provide a degree of financial security to such employees where their employment is terminated through no fault of their own. Each of the agreements also provides for acceleration of vesting of the executive's options in certain circumstances following the occurrence of a change in control of the Company. We believe that it is generally appropriate to vest option awards to key employees in a change in control transaction, as

such a transaction may often result in the elimination or reduction of the employee's ability to realize value from his or her options.

For information regarding the severance and change in control benefits provided to Mr. Pucci, Mr. Lawrence, Dr. Schwartz, and Dr. Chan under their employment agreements, see "Payments Upon Termination or Change of Control" on page 26.

Tax Considerations

If an executive is entitled to nonqualified deferred compensation benefits that are subject to Section 409A of the Tax Code, and such benefits do not comply with Section 409A, the executive would be subject to adverse tax treatment, including accelerated income recognition (in the first year that benefits are no longer subject to a substantial risk of forfeiture) and an additional income tax of 20% of the amount so recognized. The employment agreements of our named executive officers described herein contain provisions intended to limit or eliminate adverse tax consequences through timing of payments.

Section 162(m) of the Tax Code generally denies a deduction to any publicly held corporation for compensation paid to its named executive officers to the extent that any such individual's compensation exceeds \$1 million, subject to certain exceptions, including one for "performance-based compensation." Generally, the Compensation Committee seeks to maximize executive compensation deductions for federal income tax purposes. However, certain awards under the Company's Amended and Restated 1994 Equity Incentive Plan may result in an amount of compensation not being deductible under Section 162(m) of the Tax Code. At the Company's present stage of development, management and the Compensation Committee believe that the loss of a deduction is not significant to the Company. Management and the Compensation Committee take the issue of deductibility into consideration as our Amended and Restated 1994 Equity Incentive Plan and other benefit plans are updated. The Compensation Committee believes that none of the Company's named executive officers received compensation in 2010 that was nondeductible under Section 162(m) of the Tax Code.

COMPENSATION COMMITTEE REPORT

The Compensation, Nominating and Governance Committee of the Board of Directors of ArQule, Inc., composed entirely of independent directors in accordance with applicable laws, regulations, Nasdaq listing requirements and our governance guidelines, sets and administers policies that govern the Company's executive compensation programs and various incentive and stock programs. The Compensation, Nominating and Governance Committee has reviewed and discussed the Compensation Discussion and Analysis with the management of ArQule, Inc. Based on this review and discussion, the Committee recommended to the full Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

Submitted by the Compensation, Nominating and Governance Committee,

William G. Messenger, Chairman Michael D. Loberg Patrick J. Zenner

EXECUTIVE COMPENSATION

The table and text below describe the cash and additional incentive compensation paid to the Company's Chief Executive Officer, President and Chief Operating Officer (principal financial officer for SEC reporting purposes), Chief Scientific Officer and Chief Medical Officer (the "named executive officers") for the fiscal periods indicated.

SUMMARY COMPENSATION TABLE

The following table summarizes total compensation earned during the fiscal years ended December 31, 2010, 2009 and, 2008 by each of our named executive officers:

				Stock		Non-Equity Incentive Plan	All Other	
Name and Dringing		Colowy (\$)	Bonus	Awards (\$)	Option Awards (\$)	Compensation (\$)	•	Total
Name and Principal Position	Year	Salary (\$) (1)	(\$)	(a) (2)	(3)	(4)	(\$) (5)	(\$)
Paolo Pucci	2010	461,250	(Ψ)	(2)	714,688	313,500	7,926	1,497,364
Chief Executive Officer	2009	450,000		238,950	ŕ	202,500	11,890	903,340
	2008	250,962	200,000	493,750	1,039,550	225,000	20,754	2,230,016
Peter S. Lawrence	2010	391,472		265.500	270,075	172,508	7,926	841,981
President, Chief Operating Officer, General Counsel and	2009 2008	383,654 373,846		265,500	518,020	138,375 150,000	7,890 7,428	795,419 1,049,294
Secretary Dr. Brian Schwartz								
Chief Medical Officer	2010 2009	337,753 331,120		41,418	186,975	130,231 104,463	7,926 7,673	662,885 484,674
and Senior Vice President	2008	150,000			387,700	47,400	5,956	591,056
Dr. Thomas C. K.								
Chan Chief Scientific Officer	2010 2009	331,000 323,769		70,800	186,975	127,628 87,750	576 540	646,179 482,859
and Senior Vice President	2008	287,808			288,815	73,267	528	650,418

- (1)
 The amounts in this column include compensation earned but deferred at the election of the named executive officer, under the Company's retirement savings plan established under Section 401(k) of the Tax Code.
- This column reflects the aggregate grant date fair value for all stock awards granted during the fiscal year. Assumptions used in the calculation of this amount are included in Note 2 to the Company's audited financial statements for the year ended December 31, 2010, included in the Company's Annual Report on Form 10-K filed with the SEC on March 2, 2011 ("2010 Annual Report on Form 10-K"). Additional information regarding stock options issued to the named executive officers is provided in the tables "Outstanding Equity Awards at Fiscal Year-End".
- This column reflects the aggregate grant date fair value for all option awards granted during the fiscal year. Assumptions used in the calculation of this amount are included in Note 2 to the Company's audited financial statements for the year ended December 31, 2010, included in the Company's 2010 Annual Report on Form 10-K. Additional information regarding stock options issued to the named executive officers is provided in the tables "Outstanding Equity Awards at Fiscal Year-End".
- (4)

 Represents bonus amounts earned under our annual incentive program for 2010 and paid in the first quarter of 2011. Additional information regarding the annual incentive program is provided in the "Compensation Discussion and Analysis" Performance-Based Bonuses" beginning on page 15.

(5)

In 2011, for each named executive officer, the amount includes the Company's contributions to a 401(k) plan account for the executive and payment of group term life insurance premiums. Reimbursed temporary housing and living expenses of \$4,000 in 2009 and \$17,211 in 2008 for Mr. Pucci are included in all other compensation.

EMPLOYMENT AGREEMENTS

The Company is party to employment agreements with four of its named executive officers. A summary of the material terms of these agreements follows below. For information regarding the post-employment and change in control benefits provided by these agreements, see "Payments Upon Termination or Change in Control" on page 26.

Employment Agreement with Paolo Pucci

Mr. Pucci's agreement originally provided that the Company would employ him as its Chief Executive Officer effective June 9, 2008, at an initial annual base salary of \$450,000. The base salary was subject to annual review and upward adjustment by the Company. The agreement also provided that Mr. Pucci was eligible to receive a discretionary annual cash bonus based on a target amount of 50% of his base salary. The award of a bonus is in the discretion of the Company's Board based on Company and individual performance.

On July 15, 2010, the Company, acting through its Compensation Committee, amended certain terms of Mr. Pucci's employment agreement. The amendment: (i) extends the term of the agreement from June 9, 2012 to June 30, 2015; (ii) increases Mr. Pucci's minimum base salary by approximately five percent; (iii) increases the target amount of the discretionary annual cash bonus payable to Mr. Pucci under the agreement from 50% to 60% of Mr. Pucci's annual base salary; (iv) revises the definition of the occurrences following a change in control of the Company which constitute a deemed termination of Mr. Pucci's employment; (v) grants Mr. Pucci stock options covering 100,000 shares of the Company's Common Stock; (vi) grants Mr. Pucci 390,000 performance-based stock units, each of which represents a contingent right to receive one share of Common Stock, in tranches of 300,000 and 90,000 units that vest, respectively, upon the achievement of certain performance targets related to the development of the Company's products and the average price of its Common Stock; and (vii) provides that, if a deemed termination without cause of Mr. Pucci's employment under the agreement occurs prior to achievement of such product development, 300,000 of the performance-based stock units will vest if the average price of Common Stock meets or exceeds a target price over a specified period established by the Compensation Committee.

All other material terms of the employment agreement that were in effect prior to the amendment remain in effect.

Employment Agreement with Peter S. Lawrence

Mr. Lawrence's agreement, as amended, provides that we will employ Mr. Lawrence as President and Chief Operating Officer at an initial base salary of \$375,000 per year. The base salary is subject to annual review and upward adjustment by the Company. Mr. Lawrence is also eligible to receive a discretionary annual cash bonus based on a target amount of 40% of his base salary. The award of a bonus is in the discretion of the Company's Board based on Company and individual performance.

Employment Agreement with Brian Schwartz

Dr. Schwartz's agreement provides that the Company will employ Dr. Schwartz as its Chief Medical Officer at an initial annual base salary of \$325,000. The base salary is subject to annual review and upward or downward adjustment by the Company. Dr. Schwartz is also eligible to receive a discretionary annual cash bonus based on a target amount of 35% of base salary. The award of a bonus is in the discretion of the Company's Board based on Company and individual performance.

Employment Agreement with Thomas C. K. Chan

Dr. Chan's agreement provides that the Company will employ Dr. Chan as its Chief Scientific Officer at an initial annual base salary of \$309,000. The base salary is subject to annual review and upward or downward adjustment by the Company. Dr. Chan is also eligible to receive a discretionary annual cash bonus based on a target amount of 30% of base salary. The award of a bonus is in the discretion of the Company's Board based on Company and individual performance.

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GRANTS OF PLAN-BASED AWARDS FOR FISCAL YEAR 2010

The following table sets forth certain information with respect to awards granted during the fiscal year ended December 31, 2010 to our named executive officers under our equity and non-equity incentive plans.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)		Under Non-Equity				All Other Option Awards: Number of Securities Underlying	or Base Price of	Grant Date Fair Value of Stock and Option
Name	T Grant Date	hreshold (\$)	Target (\$)	Maximum (\$)	or Units (#)(2)	Options (#)	Awards (\$)	Awards(3) (\$)		
Paolo Pucci	N/A 1/21/2010 7/15/2010 7/15/2010	(,,	290,700	436,050	390,000	225,000 100,000	(,,	467,438 247,250 1,614,600		
Peter S. Lawrence	N/A 1/21/2010		160,746	241,119		130,000		270,075		
Dr. Brian Schwartz	N/A 1/21/2010		121,944	182,916		90,000		186,975		
Dr. Thomas C.K. Chan	N/A 1/21/2010		119,506	179,259		90,000		186,975		

⁽¹⁾The threshold amount under the cash bonus program is zero. The target amount is based on the individual's current salary. The target represents 60% of Mr. Pucci's base salary, 40%, 35% and 35% of the base salaries of Mr. Lawrence, Dr. Schwartz and Dr. Chan respectively. The maximum amount is 150% of the target amount.

⁽²⁾All Other Stock Awards consist of performance stock units granted under our Amended and Restated 1994 Equity Incentive Plan during 2010.

⁽³⁾The dollar amount for performance stock units is calculated as the number of performance stock units granted times the market price on the date of award.

OUTSTANDING EQUITY AWARDS AT 2010 FISCAL YEAR-END

The following table sets forth certain information with respect to the value of all unexercised options previously awarded to our named executive officers as of December 31, 2010:

	0			Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#)(1) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested	of Un t	arket Value f Shares or nits of Stock that Have of Vested(3)
Paolo Pucci(2)	375,000 25,000	125,000 225,000 75,000	\$ 3.95 3.42 4.14	6/9/2018 1/21/2020 7/15/2020	50,625 390,000	\$ \$	179,213 1,614,600
Peter S. Lawrence	300,000 37,500 75,000 100,000	12,500 25,000 100,000 130,000	6.20 6.16 7.56 4.75 3.42	4/13/2016 1/16/2017 10/4/2017 1/17/2018 1/21/2020	56,250	\$	199,125
Dr. Brian Schwartz	100,000	100,000 90,000	3.62 3.42	7/14/2018 1/21/2020	8,775	\$	31,064
Dr. Thomas C.K. Chan	50,000 37,500 25,000 50,000	12,500 25,000 50,000 90,000	6.93 6.16 4.75 2.86 3.42	12/1/2015 1/16/2017 1/17/2018 11/21/2018 01/21/2020	15,000	\$	53,100

⁽¹⁾ Except as otherwise noted, each option vests at the rate of one-fourth of the underlying shares annually beginning on the anniversary of the date of grant.

In accordance with Mr. Pucci's employment agreement dated as of April 15, 2008, Mr. Pucci was granted an option to purchase 500,000 shares of the Company's Common Stock, of which 125,000 vested on June 9, 2008, and 125,000 vest on the anniversary of the date of grant for the following three years. On June 9, 2008, Mr. Pucci was also awarded 125,000 shares of restricted stock 50% of which vested immediately and the remaining shares vested on June 9, 2009.

In accordance with an amendment to Mr. Pucci's employment agreement dated as of July 15, 2010, Mr. Pucci was granted an option to purchase 100,000 shares of the Company's Common Stock, vesting annually over four years and 390,000 performance-based stock units, each of which represents a contingent right to receive one share of the Company's Common Stock, in tranches of 300,000 and 90,000 units that vest, respectively, upon the achievement of certain performance targets related to the development of the Company's products and the average price of the Company's Common Stock; provided that, if a deemed termination of Mr. Pucci's employment under the Employment Agreement occurs prior to achievement of such product development milestones, 300,000 of the performance-based stock units will vest if the average price of the Company's Common Stock meets or exceeds over a specified period a target price established by the Compensation Committee.

(3)
Market Value is calculated as the number of shares of non vested stock awarded times the market price on the date of award.

OPTION EXERCISES AND STOCK VESTED IN FISCAL YEAR 2010

The table below sets forth certain information regarding stock option exercises and vested stock awards for the Company's executive officers during the last fiscal year.

	Option A	Stock Awards				
	Number of Securities	Value Realized Upon	Number of Shares	Value Realized on		
Name	Acquired on Exercise	Exercise (\$)	Acquired on Vesting		Vesting (\$)(1)	
Paolo Pucci			16,875	\$	59,569	
Peter S. Lawrence			18,750		66,188	
Dr. Brian Schwartz			2,925		10,325	
Dr. Thomas C. K. Chan			5,000		17,650	

(1) On January 20, 2009, Mr. Pucci, Mr. Lawrence, Dr. Schwartz and Dr. Chan were awarded 67,500, 75,000, 11,700 and 20,000 shares of restricted stock respectively, 25% of which vested on January 20, 2010 and 25% of which will vest on each anniversary of the date of award for the following three years. The fair market value of the Company's Common Stock was \$3.53 on January 20, 2010.

PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

The Company is party to employment agreements with four of its named executive officers. Each of the employment agreements provides for the payment of severance and change in control benefits. The following discussion and table provide information about the severance and change in control provisions of these employment agreements, and are qualified by reference to the full text of the agreements, as amended, each of which is on file with the SEC.

The following terms are used in the discussion below:

"Change in Control" means any of the following:

the acquisition by any person or entity of our Common Stock so that such person or entity holds or controls 50% or more of our outstanding Common Stock;

the merger or consolidation of the Company with or into any other entity in circumstances where the holders of the Company's outstanding shares of capital stock before the transaction do not retain stock representing a majority of the voting power of the surviving entity;

a sale of all or substantially all of the assets of the Company to a third party;

within any 24-month period, the election by the Company's stockholders of 20% or more of the Company's directors other than pursuant to nomination by management; or

the execution of an agreement approved by the Board providing for any of the above.

"Cause" means any of the following:

arbitrary, unreasonable, or willful failure of the executive to follow the reasonable instructions of the Chief Executive Officer (or, in the case of the Chief Executive Officer, the Board), or otherwise perform his or her duties;

willful misconduct by the executive that is materially injurious to the Company;

willful commission by the executive of an act constituting fraud with respect to the Company;

conviction of the executive for a felony under state or federal law; or

material breach by the executive of his or her obligations to the Company regarding confidentiality of information, rights in intellectual property.

Termination "without Cause" means any of the following occurrences:

the Company terminates the executive's employment without Cause; or

the executive terminates his employment upon the occurrence of any of the following: (a) the Company substantially reduces or diminishes the executive's responsibilities or title without cause; (b) the Company reduces the executive's base salary or bonus target (other than in connection with a Company-wide decrease in salary or bonus, respectively); (c) the Company materially breaches any of its obligations to the executive under his or her employment agreement, and fails to cure such breach; (d) the Company relocates the executive's place of employment without his or her consent by a distance of more than fifty (50) miles; or (e) a successor in interest to the Company fails to assume the obligations of the employment agreement.

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In the case of Mr. Pucci, Termination without Cause shall also occur if, following a Change in Control, the executive terminates his employment:

because the executive is unable to have direct responsibility for the Company's fully-integrated profit and loss statement (whether as a stand-alone entity or as a division or other business unit of some other acquiring entity); or

because of the exclusion from, or failure to appoint the executive to, the board of directors, or the executive committee, management committee or equivalent corporate managerial body of senior executives, of the acquiring company.

Employment Agreement with Paolo Pucci

Mr. Pucci's agreement, as amended, provides for continued employment until June 30, 2015. If Mr. Pucci is terminated without Cause, the Company will be required to pay Mr. Pucci an amount equal to twenty-four months of his base salary in effect at the time of termination, plus an amount equal to the total of bonuses paid to him with respect to the two years preceding the year in which he is terminated. These amounts will be paid in substantially equal installments according to the Company's normal payroll schedule during the twenty-four month period following termination. In addition, the Company will, at its expense, continue to provide Mr. Pucci with certain employee benefits for a period of twenty-four months from the date of termination. Finally, all of Mr. Pucci's unvested stock options and restricted stock that would have become exercisable or vested within one year from the termination date will immediately become exercisable or vested free of restrictions without regard to the original vesting schedule. If a Change in Control occurs, and the Company subsequently terminates Mr. Pucci's employment without Cause within a specified period, prior to achievement of the product development milestone, 300,000 of the performance-based stock units will vest if the average price of Common Stock meets or exceeds over a specified period a target price established by the Compensation Committee. Termination of Mr. Pucci's employment by reason of scheduled expiration of his employment agreement will not be considered as termination without Cause.

Employment Agreement with Peter S. Lawrence

Mr. Lawrence's employment agreement, as amended, provides that, in the event that his employment is terminated without Cause, he is entitled, subject to the execution of a general release of claims, to a lump sum severance payment equal to twelve months' base salary as of the date of termination, plus the average of the annual performance bonuses that he received in the preceding two years. In addition, 50% of any then unvested options that were granted at the time that the employment agreement was executed will become immediately exercisable on the termination date, and the Company will pay, for the twelve-month period following the date of termination, the cost of continuing the health and other employee benefits that Mr. Lawrence is entitled to receive under his employment agreement at the level in effect as of the termination date. The employment agreement further provides that, upon a Change in Control of the Company, all of any then unvested options held by Mr. Lawrence will become immediately exercisable.

Employment Agreement with Brian Schwartz

Dr. Schwartz's employment agreement provides that, in the event that his employment is terminated without Cause, he is entitled, subject to the execution of a general release of claims, to a severance payment equal to twelve months' base salary as of the date of termination, plus the average of the annual performance bonuses that he received in the preceding two years. This amount will be paid in substantially equal installments according to the Company's normal payroll schedule during the twelve-month period following termination. In addition, the Company will pay, for the 12-month period

following the date of termination, the cost of continuing the benefits that Dr. Schwartz is entitled to receive under his employment agreement at the level in effect as of the termination date. If Dr. Schwartz's employment is terminated without Cause within one year after a change in control of the Company, in addition to the severance benefits described above, 100% of any then unvested stock options will become immediately exercisable without regard to the original vesting schedule and any shares of Restricted Stock previously granted shall immediately be free and clear of any restrictions.

Employment Agreement with Thomas C. K. Chan

Dr. Chan's employment agreement provides that, in the event that his employment is terminated without Cause, he is entitled, subject to the execution of a general release of claims, to a severance payment equal to twelve months' base salary as of the date of termination, plus the average of the annual performance bonuses that he received in the preceding two years. This amount will be paid in substantially equal installments according to the Company's normal payroll schedule during the twelve-month period following termination. In addition, the Company will pay, for the twelve-month period following the date of termination, the cost of continuing the benefits that Dr. Chan is entitled to receive under his employment agreement at the level in effect as of the termination date. If Dr. Chan's employment is terminated without Cause within one year after a change in control of the Company, in addition to the severance benefits described above, 100% of any then unvested stock options will become immediately exercisable without regard to the original vesting schedule and any shares of Restricted Stock previously granted shall immediately be free and clear of any restrictions.

The following table sets forth information with respect to compensation that would have been payable to Mr. Pucci, Mr. Lawrence, Dr. Schwartz and Dr. Chan if the named executive officer's employment had been terminated without Cause as of December 31, 2010 immediately following a change in control of the Company:

Name	Cash Payment(1) (\$)	Equity Acceleration(2) (\$)	Benefits and Perquisites(3) (\$)	Total (\$)	
Paolo Pucci	\$ 1,355,000	921,000	\$ 21,245	\$ 2,297,245	
Peter S. Lawrence	548,888	430,500	23,408	1,002,796	
Dr. Brian Schwartz	456,655	445,500	23,408	925,563	
Dr. Tom C.K. Chan	430,950	399,000	15,757	845,707	

- For Mr. Pucci, the cash payment is calculated as the sum of an amount equal to two times his annual salary as of December 31, 2010, plus a bonus payment equal to the sum of the 2009 and 2010 bonus. For each of Mr. Lawrence, Dr. Schwartz and Dr. Chan, the cash payment is calculated as the sum of the executive's annual salary as of December 31, 2009, plus a bonus payment equal to 40%, 35% and 35%, respectively, of annual salary.
- (2) Reflects the aggregate intrinsic value of unvested stock options as of December 31, 2010. Aggregate intrinsic value represents the value for only those options which have an exercise price less than the market value of our stock on December 31, 2010.
- (3)

 Reflects the premiums for twelve months for group medical, dental, life and disability programs. Amounts are based on the premiums in effect at December 31, 2010.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

As of April 20, 2011 there were 7,363,179 shares subject to issuance upon exercise of outstanding options and there were no stock appreciation rights under all of our equity compensation plans referred to in the table below, at a weighted average exercise price of \$5.45, and with a weighted average remaining life of 6.9 years. There were a total of 604,353 shares subject to outstanding restricted stock and performance share units and other full value awards that remain subject to forfeiture. As of April 20, 2011, there were 1,382,014 shares available for future issuance under those plans.

The following table provides information as of December 31, 2010 regarding compensation plans (including individual compensation arrangements) under which our equity securities are authorized for issuance.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c)(1) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	6,355,827	\$ 5.29	2,730,438
Equity compensation plans not approved by security holders			
Total	6,355,827	\$ 5.29	2,730,438

(1)
Column "(c)" includes 391,216 shares available for issuance under the ArQule, Inc. Amended and Restated 1996 Employee Stock
Purchase Plan, 2,154,222 available for issuance under the ArQule, Inc. Amended and Restated 1994 Equity Incentive Plan and
185,000 available for issuance under the ArQule, Inc. Amended and Restated 1996 Director Stock Option Plan.

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REPORT OF THE AUDIT COMMITTEE

In the course of its oversight of the Company's financial reporting process, the Audit Committee of the Board of Directors has:

reviewed and discussed with management the Company's audited financial statements for the fiscal year ended December 31, 2010;

discussed with our independent registered public accounting firm, PricewaterhouseCoopers LLP, matters required to be discussed under Public Company Accounting Oversight Board standards;

received the written disclosures and the letter from PricewaterhouseCoopers LLP pursuant to applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the Audit Committee concerning independence;

discussed with PricewaterhouseCoopers LLP the firm's independence; and

considered whether the provision of non-audit services by PricewaterhouseCoopers LLP is compatible with maintaining independence.

Based on the foregoing review and discussions, the Audit Committee recommended to the Board of Directors that the Company's audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010 for filing with the SEC.

By the Audit Committee,

Timothy C. Barabe, Chairman William G. Messenger Patrick J. Zenner 30

PROPOSAL 2 AMENDMENTS TO OUR AMENDED AND RESTATED 1994 EQUITY INCENTIVE PLAN

General

We are asking our stockholders to approve the following amendments to our Amended and Restated 1994 Equity Incentive Plan, referred to as the Equity Plan:

to increase the aggregate number of shares of Common Stock that may be issued under the Equity Plan by 3,000,000 shares, from 12,500,000 to 15,500,000 shares;

to make the minimum vesting periods for awards of performance shares, restricted stock, stock units or other stock-based awards other than nonstatutory stock options, incentive stock options and stock appreciation rights made under the Equity Plan (i) three years for awards that vest based on continued service to the Company and (ii) one year for awards that vest based upon the accomplishment of performance criteria (where such performance criteria are determined by the Board, in its discretion):

to provide that no nonstatutory or incentive stock option shall have a term greater than ten (10) years measured from the date of award and that in the case of any incentive stock option granted to a 10% stockholder the term of the incentive stock option shall not exceed five years measured from the date the option is granted and that subject to Section 5(b) of the Equity Plan, the exercise price of nonstatutory or incentive stock options shall not be less than 100% of the fair market value per share of Common Stock on the date the award is made;

to provide that an award of stock appreciation rights shall have a term no greater than ten (10) years measured from the date of award and that subject to Section 5(b) of the Equity Plan, the base price of a stock appreciation right shall not be less than 100% of the fair market value per share of Common Stock on the date the award is made and that all awards of stock appreciation rights shall be settled in shares issuable upon the exercise of the stock appreciation rights;

to provide that to the extent that any award is forfeited, or any stock option or stock appreciation right terminates, expires or lapses without being exercised, the shares subject to such awards not delivered as a result thereof shall again be available for awards under the Equity Plan. Shares tendered or withheld to pay the exercise price of a stock option or to pay tax withholding for restricted stock will count against shares authorized under the Equity Plan but unissued and will not be added back to the shares available under the Equity Plan. When a stock appreciation right is exercised and settled for shares, the number of shares subject to the grant shall be counted against the number of shares available for issuance under the Equity Plan as one (1) share for every share subject thereto, regardless of the number of shares used to settle the stock appreciation right upon exercise; and

to provide that for any two (2) shares of Common Stock issued in connection with a full value award, i.e., performance shares, restricted stock, stock units or other stock-based awards, three (3) fewer shares of Common Stock will be available for issuance in connection with Options and future Stock Awards under Section 4(a) of the Equity Plan.

The following summary of the material terms of the Equity Plan, as proposed to be amended, is qualified by reference to the full text of the Equity Plan. A copy of the Equity Plan showing the proposed amendments and other technical and editorial changes is attached to this Proxy Statement as Appendix A. You may also request and obtain a copy by writing to:

ArQule, Inc.
19 Presidential Way
Woburn, MA 01801
Attn.: William B. Boni
Vice President, Investor Relations/Corporate Communications.

The purpose of the Equity Plan is to attract and retain key employees and consultants and to provide an incentive for these persons to achieve long-range performance goals. Unless otherwise specified, capitalized terms used in this discussion have the meanings assigned to them in the Equity Plan. The Equity Plan currently permits us to authorize the granting of "Awards" to our employees and consultants in any of the following forms:

options to purchase shares of the Company's Common Stock, which may be nonstatutory stock options or incentive stock options under the Tax Code;

stock appreciation rights, which give the holder the right to receive the difference between the fair market value per share the Company's Common Stock on the date of exercise over the grant price;

performance shares upon the attainment of specified performance goals;

restricted stock, which is subject to restrictions on transferability and subject to forfeiture on terms set by the Compensation Committee:

stock units, which represent the right to receive shares of the Company's Common Stock in the future, subject to terms, restrictions, conditions, performance criteria, vesting requirements and payment rules as set by the Compensation Committee:

other stock-based awards in the discretion of the Compensation Committee, including convertible preferred stock, convertible debentures, exchangeable securities and Common Stock awards or options.

To date, we have granted only incentive stock options, non-statutory stock options, restricted stock and stock units under the Equity Plan. Currently, we plan to issue only stock options and restricted stock under the Equity Plan but wish to retain the flexibility to make Awards in other forms.

On March 14, 2011, our Board voted to amend the Equity Plan, subject to stockholder approval, in order to increase the aggregate number of shares of Common Stock that may be issued under the Equity Plan by 3,000,000 shares from 12,500,000 shares to 15,500,000 shares. If the stockholders approve the proposed amendment, Awards may be granted under the Equity Plan for up to 15,500,000 shares of Common Stock, subject to adjustment for stock splits and similar capital changes.

As of April 15, 2011, options to purchase an aggregate of 18,044,985 shares of Common Stock have been granted pursuant to the Equity Plan. Options to purchase 7,719,590 shares have been cancelled, options to purchase 3,477,641 shares have been exercised, and options to purchase 6,847,754 shares remain outstanding. 1,192,285 restricted shares of Common Stock have been awarded, of which 91,015 restricted shares have been cancelled, 888,919 shares have been issued as restrictions lapsed and 214,353 shares remain reserved for issuance if and when restrictions lapse. 390,000 performance-based stock units have been awarded and none have vested. This leaves 805,798 shares currently available for issuance of new options, restricted shares or stock units under the Equity Plan. The closing price of our Common Stock as reported by Nasdaq on April 15, 2011 was \$7.29.

The Company does not believe that the proposed amendments to the Equity Plan would have affected the number or types of Awards that were awarded for performance in 2010. Future grants are not presently determinable, and it is not possible to predict the benefits or amounts that will be received by or allocated to particular individuals or groups for 2011. However, if the amendments are not approved the total amount of options awarded may be curtailed. All shares available for Awards under the Equity Plan can be used for Awards in the form of options, restricted stock, stock appreciation rights, performance shares, stock units, and other rights having a Common Stock element.

Administration and Eligibility

The selection of persons who receive Awards under the Equity Plan and the sizes and types of Awards are generally determined by the Compensation Committee. All of the Company's employees are eligible to participate in the Equity Plan. As of April 15, 2011, the Company had 113 employees. Consultants of the Company or any affiliate, who are capable of contributing significantly to the successful performance of the Company, are also eligible to participate in the Equity Plan, but only for Awards other than incentive stock options.

Currently, awards under the Equity Plan are either granted at the discretion of the Compensation Committee, with ratification of the Compensation Committee's actions by the Board or recommended by the Compensation Committee for approval by the Board. The Compensation Committee determines the recipients and, within the limits of the Equity Plan, establishes the terms and conditions of each Award. In the case of stock options, the terms and conditions include the exercise price, the form of payment of the exercise price, the number of shares subject to the option, and the dates at which the option becomes exercisable. However, the exercise price of any incentive stock option granted under the Equity Plan may not be less than the fair market value of the Common Stock on the date of grant and the term of any such option cannot be greater than 10 years. The Compensation Committee determines the exercise price of any non-statutory stock option. In the case of restricted stock, the terms and conditions include the restrictions on ownership and the dates upon which the restrictions lapse.

If the proposed amendments to the Equity Plan are approved by stockholders, the exercise price of any stock option (nonstatutory and incentive) and the base price of any stock appreciation right awarded granted under the Equity Plan will not be less than 100% of the fair market value of the Common Stock on the date of grant and the term of any such option or stock appreciation right will not be greater than 10 years.

Subject to certain limitations, the Compensation Committee or the Board may delegate to one or more of our executive officers the power to make Awards to participants who are not subject to Section 16 of the Exchange Act or "covered employees" for purposes of Section 162(m) of the Tax Code. In January 2011, the Board granted such authority to Mr. Pucci and Mr. Lawrence.

Federal Income Tax Considerations

The following discussion briefly summarizes certain federal income tax consequences of Awards under the Equity Plan and does not attempt to describe all possible federal or any foreign, state, local, or other tax consequences related to Awards or tax consequences based upon particular circumstances.

Incentive Stock Options. Generally, a participant who is granted an incentive stock option will not recognize income on the grant or exercise of the option. However, the difference between the exercise price and the fair market value of the stock on the date of exercise is an adjustment item for purposes of the alternative minimum tax. If a participant does not exercise an incentive stock option within certain specified periods after termination of employment, the participant will recognize ordinary income on the exercise of the incentive stock option in the same manner as on the exercise of a non-statutory stock option, as described below.

Non-statutory Stock Options. A participant generally is not required to recognize income on the grant of a non-statutory stock option. Generally, ordinary income is instead required to be recognized on the date the non-statutory stock option is exercised. In general, the amount of ordinary income required to be recognized is the excess, if any, of the fair market value of the shares of Common Stock on the date of exercise over the exercise price.

Restricted Stock. Unless a participant who is granted shares of restricted stock makes an election under Section 83(b) of the Tax Code as described below, the participant generally is not required to recognize ordinary income on the award of restricted stock. Instead, on the date that the shares vest (i.e. the shares become transferable or no longer subject to a substantial risk of forfeiture), the participant will be required to recognize ordinary income in an amount equal to the excess, if any, of the fair market value of the shares of restricted stock on such date over the amount, if any, paid for such shares. If a participant makes a Section 83(b) election to recognize ordinary income on the date the shares of restricted stock are awarded, the amount of ordinary income required to be recognized is an amount equal to the excess, if any, of the fair market value of the shares on the date of award over the amount, if any, paid for such shares. In such case, the participant will not be required to recognize additional ordinary income when the shares vest.

Stock Appreciation Rights, Performance Shares, Stock Units and Other Stock Based Awards. A participant generally is not required to recognize income on the grant of a stock appreciation right, an award of performance shares, an award of stock units, or any other stock based award. Generally, ordinary income is instead required to be recognized upon the issuance of shares and/or cash pursuant to the terms of the award. In general, the amount of ordinary income required to be recognized is the excess, if any, of the amount of cash and the fair market value of any shares received, over the amount, if any, paid for the Award.

Gain or Loss on Sale or Exchange of Shares. In general, gain or loss from the sale or exchange of shares of Common Stock granted or awarded under the Equity Plan will be treated as capital gain or loss, if the shares are held as capital assets at the time of the sale or exchange. However, if certain holding period requirements are not satisfied at the time of a sale or exchange of shares of Common Stock acquired upon exercise of an incentive stock option (a "disqualifying disposition"), a participant generally will be required to recognize ordinary income upon such disposition.

Deductibility by Company. The Company generally is not allowed a deduction in connection with the grant or exercise of an incentive stock option. However, if a participant is required to recognize ordinary income as a result of a disqualifying disposition, the Company generally will be entitled to a deduction equal to the amount of ordinary income so recognized. In general, for a non-statutory stock option (including an incentive stock option that is treated as a non-statutory stock option, as described above), a restricted stock award, a stock appreciation right, a performance shares award, a stock units award, or any other stock-based award, the Company will be allowed to deduct the amount of ordinary income recognized by the participant, provided certain income tax reporting requirements are satisfied.

Performance-Based Compensation. Subject to certain exceptions, Section 162(m) of the Tax Code disallows federal income tax deductions for compensation paid by a publicly-held corporation to certain executives to the extent the amount paid to an executive exceeds \$1 million for the taxable year. The Equity Plan has been designed to allow the grant of awards that qualify under an exception to the deduction limit of Section 162(m) for "performance-based compensation."

Tax Rules Affecting Nonqualified Deferred Compensation Plans. Section 409A of the Tax Code imposes tax rules that apply to "nonqualified deferred compensation plans." Failure to comply with, or to qualify for an exemption from, the rules with respect to an award could result in significant adverse tax results to the award recipient including immediate taxation upon vesting, an additional income tax of 20 percent of the amount of income so recognized, plus a tax in the nature of interest. The Equity

Plan is intended to comply with, or qualify for an exemption from, Section 409A of the Tax Code to the extent applicable.

Parachute Payments. Where payments to certain persons that are contingent on a change in control exceed limits specified in the Tax Code, the person generally is liable for a 20 percent excise tax on, and the corporation or other entity making the payment generally is not entitled to any deduction for, a specified portion of such payments. Any award under which vesting is accelerated by a change in control of the Company, would be relevant in determining whether the excise tax and deduction disallowance rules would be triggered.

Vote Required

The affirmative vote of a majority of the total votes cast by the stockholders present at the meeting, in person or by proxy, and entitled to vote on this proposal is needed to approve the amendments to the Equity Plan. If you submit a proxy without direction as to a vote on this matter, your proxy will be treated as a vote "FOR" this proposal. Broker non-votes will not be treated as votes cast and will have no effect on the outcome of the vote on this proposal. Abstentions will be treated as a vote against this proposal.

PROPOSAL 3 APPROVAL OF AN AMENDMENT TO OUR AMENDED AND RESTATED 1996 EMPLOYEE STOCK PURCHASE PLAN

General

We are soliciting approval of an amendment to our Amended and Restated 1996 Employee Stock Purchase Plan (the "Purchase Plan") to increase the number of shares of Common Stock available for purchase by participants in such plan by 400,000 from 2,000,000 to 2,400,000 shares of Common Stock.

On January 24, 2011, our Board voted to amend the Purchase Plan, subject to stockholder approval, to increase the number of shares of Common Stock available for purchase by participants in such plan by 400,000 shares from 2,000,000 to 2,400,000 shares of Common Stock. If the proposed amendment is approved, the Purchase Plan would authorize the grant of rights to purchase a maximum of 2,400,000 shares of Common Stock, subject to adjustment for stock splits and similar capital changes, to eligible employees.

The following summary of the material terms of the Purchase Plan, as amended, is qualified by reference to the full text of the Purchase Plan (attached as Appendix B). You may also obtain a copy by writing to:

ArQule, Inc.
19 Presidential Way
Woburn, MA 01801
Attn.: William B. Boni
Vice President, Investor Relations/Corporate Communications.

Unless otherwise specified, capitalized terms used in this discussion have the meanings assigned to them in the Purchase Plan.

As of April 15, 2011, approximately 113 employees were eligible to participate in the Purchase Plan and 1,608,784 shares had been purchased under the Purchase Plan since its inception. The closing price of our Common Stock as reported by Nasdaq on April 15, 2011 was \$7.29.

The number of shares purchased in Offerings (as defined below) under the Purchase Plan is generally determined by both the number of rights to purchase shares granted by the Board, the number of participants and the number of shares the participants wish to purchase. Such future grants are not presently determinable, and it is not possible to predict the benefits or amounts that will be received by or allocated to particular individuals or groups in 2011.

The Company believes that the proposed amendment to the Purchase Plan would not have affected the number of rights to purchase Common Stock that were granted under the Purchase Plan in 2011. However, if the amendment is not approved, the total amount of rights granted in the future may be curtailed, particularly if the number of employees increases.

Administration and Eligibility

The Purchase Plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the Tax Code. The Compensation Committee, in its discretion, grants rights to purchase shares of Common Stock under the Purchase Plan pursuant to one or more offerings ("Offerings"). The Compensation Committee determines the frequency and duration of individual Offerings under the Purchase Plan and the date(s) when stock may be purchased. All of our full-time employees are eligible to participate in the Purchase Plan. For purposes of the preceding sentence, "full-time employees" are defined as employees who work at least 20 hours a week and have been employed with us for at least five months in the calendar year in which an Offering occurs or in the calendar year immediately preceding such year. Eligible employees participate voluntarily and may withdraw from any Offering at

any time before stock is purchased. Participation terminates automatically upon termination of employment for any reason.

The purchase price per share of Common Stock in an Offering, unless the Compensation Committee determines a higher price, is 85% of the lower of the fair market value of Common Stock on the first day of an Offering period or on the last day of such offering period, i.e., the date the shares are purchased. The purchase price may be paid through regular payroll deductions, lump sum cash payments or a combination of both, as determined by the Compensation Committee.

In accordance with Section 423 of the Tax Code, no employee may participate in an offering under the Purchase Plan if, immediately after the right to acquire shares of Common Stock in the offering is granted, the employee would own 5% or more of the voting stock or value of the Company (including Common Stock that may be purchased through subscriptions under the Purchase Plan or any other options), nor may an employee buy more than \$25,000 worth of stock (determined by the fair market value of the Common Stock at the time the right to purchase the Common Stock is granted) through the Purchase Plan in any calendar year. In addition, each employee's purchases under the Purchase Plan in any calendar year cannot exceed 15% of the employee's annual rate of compensation. The Purchase Plan may be amended or terminated at any time by the Board, subject to any necessary approval by stockholders.

Federal Income Tax Considerations

General.

The following discussion briefly summarizes certain federal income tax consequences of participation in the Purchase Plan and does not attempt to describe all possible federal or any foreign, state, local or other tax consequences of such participation or tax consequences based upon particular circumstances. Moreover, statutory provisions are technical and subject to change, as are their interpretations, and their application may vary in individual circumstances.

Tax Consequences to Participants.

The Purchase Plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the Tax Code. A participant under the Purchase Plan will be taxed on amounts withheld for the purchase of shares as if such amounts were actually received by the participant. No other income with respect to the shares purchased under the Purchase Plan will be recognized until disposition of such shares or the participant's death. The tax consequences upon disposition generally depend on the period that the purchased shares are held prior to disposition.

If a participant disposes of shares purchased under the Purchase Plan more than two years after the date of grant and more than one year after the date on which the shares are purchased or in the event of such participant's death, the participant will recognize ordinary income upon the disposition of such shares equal to the lesser of (i) the amount by which the fair market value of such shares on the date of grant exceeded the actual purchase price paid by the participant for such shares and (ii) the amount by which the fair market value of such shares at the time of disposition exceeded the actual purchase price paid by the participant for such shares. In addition, the participant will generally recognize capital gain (or loss) in the year of disposition equal to the amount by which proceeds from the disposition of the shares exceed (or are less than) than the sum of the actual purchase price and the amount of ordinary income recognized by the participant. The date of grant will be the first day of the Offering if the terms of the Offering either (i) designates the maximum number of shares that may be purchased by each employee during the Offering or (ii) requires the application of a formula to establish, on the first day of the Offering the maximum number of shares that may be purchased by each employee during the Offering. If the terms of the Offering do not include (i) or (ii) above, the date the shares are purchased will be the date of grant.

If a participant disposes of shares purchased under the Purchase Plan prior to the end of the holding period described above (a "disqualifying disposition"), he or she will be required to recognize, in the year of the disqualifying disposition, ordinary income equal to the excess of the fair market value of the shares on the date of purchase over the actual purchase price of such shares. In addition, the participant will generally recognize capital gain (or loss) equal to the amount by which proceeds from the disposition of the shares exceed (or are less than) the fair market value of the shares on the date of purchase.

Tax Consequences to the Company.

The Company will not be allowed a deduction for federal income tax purposes if a participant holds shares purchased under the Purchase Plan for the prescribed holding period described above or dies while holding the shares. However, if a participant makes a disqualifying disposition, the Company will generally be entitled to a deduction for federal income tax purposes equal to the amount recognized as ordinary income by the participant upon such disposition, except to the extent such deduction is limited by applicable provisions of the Tax Code.

Vote Required

The affirmative vote of a majority of the total votes cast by the stockholders present at the meeting, in person or by proxy, and entitled to vote on this proposal is necessary for approval of the amendment to the Purchase Plan. If you submit a proxy without direction as to a vote on this matter, the proxy will be voted "FOR" the proposal. Abstentions will have the effect of a vote against this proposal. Broker non-votes will not be treated as votes cast and will have no effect on the outcome of the vote on this proposal.

PROPOSAL 4 APPROVAL OF AMENDMENTS TO OUR AMENDED AND RESTATED 1996 DIRECTOR STOCK OPTION PLAN

General

We are soliciting approval of an amendment to our Amended and Restated 1996 Director Stock Option Plan (the "Director Plan"), to increase the maximum number of shares of Common Stock available for awards made under the Plan by 200,000 shares from 750,500 shares to 950.500 shares.

On March 14, 2011, our Board voted to amend the Director Plan, subject to stockholder approval, to increase the aggregate number of shares of Common Stock issuable under the Director Plan by 200,000 shares from 750,500 shares to 950,500 shares. If the proposed amendment is approved, the Director Plan would authorize the grant of non-statutory stock options for the purchase of a maximum of 950,500 shares of Common Stock, subject to adjustment for stock splits and similar capital changes, to eligible directors as defined below.

The following summary of the material terms of the Director Plan, as proposed to be amended, is qualified by reference to the full text of the Director Plan. A copy of the Director Plan showing the proposed amendment and other technical and editorial changes is attached to this Proxy Statement as Appendix C. You may also obtain a copy by writing to:

ArQule, Inc.
19 Presidential Way
Woburn, MA 01801
Attn.: William B. Boni
Vice President, Investor Relations/Corporate Communications.

Unless otherwise specified, capitalized terms used in this discussion have the meanings assigned to them in the Director Plan.

The purpose of the Director Plan is to attract and retain qualified non-employee directors to serve on our Board and to encourage stock ownership of our Common Stock by such directors so as to provide additional incentives to promote our success. The purpose of the amendment is to ensure that adequate shares of Common Stock are available to issue to eligible directors in the future.

We last increased the number of shares of Common Stock available under the Director Plan in May 2007. As of April 15, 2011, options to purchase an aggregate of 717,500 shares of Common Stock had been granted under the Director Plan, leaving 185,000 shares available for future grants. The latter amount reflects cancellation of lapsed and relinquished options to purchase 153,000 shares of Common Stock.

We granted an aggregate of 85,000 options under the Director Plan during 2010. As grants under the Director Plan are automatic in prescribed amounts, the amendment would not have affected the number of options granted pursuant to the Director Plan in 2010. However, if the amendment is not approved, the total amount of options granted in the future may be curtailed, particularly if the number of directors increases.

Administration and Eligibility

All of our non-employee directors, currently six directors, are eligible to participate in the Director Plan. Pursuant to the Director Plan, an option to purchase 30,000 shares of Common Stock is automatically granted to each non-employee director (other than the Chairman) at the time that he or she is first elected or appointed to the board of directors. This initial option becomes exercisable as to 10,000 shares on the date of the Company's next three annual meeting of stockholders following the date of grant. In addition, at each annual meeting of stockholders, each eligible director (other than the Chairman) serving as a member of the board of directors prior to and immediately after such

annual meeting is automatically granted an immediately exercisable option to purchase 15,000 shares of Common Stock (whether or not the director is a nominee for election at such annual meeting).

Upon the initial election of a non-employee director as Chairman of the Board, such non-employee director will be automatically granted an option to purchase 25,000 shares of Common Stock, which will become exercisable as to 8,334 shares on the date of the Company's next annual meeting of stockholders following the date of grant and as to 8,333 shares on the date of each of the next two annual meetings of stockholders. In addition, at each annual meeting of stockholders, such eligible director serving as Chairman of the Board prior to and immediately after such annual meeting will be automatically granted an immediately exercisable option to purchase 25,000 shares of Common Stock (whether or not the Chairman is a nominee for election at such annual meeting).

The exercise price of options granted under the Director Plan, unless otherwise determined by the Board, is the closing price of our Common Stock reported by Nasdaq on the date of grant, and the term of each option granted under the Director Plan is ten years. The closing price of our Common Stock as reported by Nasdaq on April 15, 2011 was \$7.29.

Currently, the Director Plan authorizes the grant of nonstatutory stock options for the purchase of up to a maximum of, 750,500 shares of Common Stock, subject to adjustment for stock splits and similar capital changes, to eligible directors as discussed above.

All questions of interpretation with respect to the Director Plan and options granted under it are determined by the Board or a committee appointed by the board of directors, currently the Compensation Committee.

Federal Income Tax Considerations

General.

The following discussion briefly summarizes certain federal income tax aspects of nonstatutory options under the Director Plan. It does not attempt to describe all possible federal or any foreign, state, local or other tax consequences related to nonstatutory options or tax consequences based on particular circumstances.

Nonstatutory Stock Options.

A grantee generally is not required to recognize income on the grant of a nonstatutory stock option. Instead, ordinary income generally is required to be recognized on the date the nonstatutory stock option is exercised. In general, the amount of ordinary income required to be recognized in the case of a nonstatutory stock option is an amount equal to the excess, if any, of the fair market value of the shares on the exercise date over the exercise price.

Gain or Loss on Sale or Exchange of Director Plan Shares.

In general, gain or loss from the sale or exchange of shares granted under the Director Plan will be treated as capital gain or loss, provided that the shares are held as capital assets at the time of the sale or exchange.

Deductibility by Company.

In general, in the case of a nonstatutory stock option, the Company will be allowed a deduction in an amount equal to the amount of ordinary income recognized by the grantee, provided that certain income tax reporting requirements are satisfied.

Parachute Payments.

Where payments to certain persons that are contingent on a change in control exceed limits specified in the Tax Code, the person generally is liable for a 20 percent excise tax on, and the corporation or other entity making the payment generally is not entitled to any deduction for, a specified portion of such payments. In the event that the vesting of nonstatutory stock options under the Director Plan is accelerated by a change in control of the Company, such accelerated vesting would be relevant in determining whether the excise tax and deduction disallowance rules would be triggered.

Tax Rules Affecting Nonqualified Deferred Compensation Plans.

Section 409A of the Tax Code imposes tax rules that apply to "nonqualified deferred compensation plans." Failure to comply with, or to qualify for an exemption from, the new rules with respect to an option grant could result in significant adverse tax results to the grantee including immediate taxation upon vesting, an additional income tax of 20 percent of the amount of income so recognized, plus a special interest payment. The Director Plan is intended to comply with Section 409A of the Tax Code to the extent applicable, and the Board will administer and interpret the Director Plan and grants accordingly.

Vote Required

The affirmative vote of a majority of the total votes cast by the stockholders present at the meeting, in person or by proxy, and entitled to vote on this proposal is necessary to approve the proposed amendment to the Director Plan. If you submit a proxy without direction as to a vote on this matter, the proxy will be voted "FOR" this proposal. Abstentions will have the effect of a vote against this proposal. Broker non-votes will not be treated as votes cast and will have no effect on the outcome of the vote on this proposal.

PROPOSAL 5 RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We are asking our stockholders to ratify the selection by our Audit Committee of PricewaterhouseCoopers LLP, an independent registered public accounting firm, to audit our financial statements for the fiscal year ending December 31, 2011. PricewaterhouseCoopers LLP has audited our financial statements since our inception.

The Audit Committee of our Board selected PricewaterhouseCoopers LLP to audit our financial statements for the year ending December 31, 2011. We expect that representatives of PricewaterhouseCoopers LLP will attend our 2011 Annual Meeting of Stockholders to respond to appropriate questions. They will also have the opportunity to make a statement if they so desire. PricewaterhouseCoopers LLP has no direct or indirect financial interest in the Company or in any of its subsidiaries, nor has it had any connection with the Company or any of its subsidiaries in the capacity of promoter, underwriter, voting trustee, director, officer or employee.

The following table summarizes fees for services provided by PricewaterhouseCoopers LLP to us in 2010 and 2009:

	2010		2009	
Audit Fees	\$	420,399	\$	400,000
Audit-Related Fees		11,900		
Tax Fees				
All Other Fees				
Total	\$	432,299	\$	400,000

"Audit Fees" are fees for the audit of our consolidated financial statements and internal controls over financial reporting, included in our Annual Reports on Form 10-K, the review of interim financial statements included in our Quarterly Reports on Form 10-Q and other services normally associated with statutory and regulatory filings or engagements.

"Audit-Related Fees" are fees for assurance and related services that are reasonably related to the performance of the audit and the review of ArQule's financial statements and which are not reported under "Audit Fees." In 2010, these services related to accounting for executive compensation.

The Audit Committee pre-approves each proposed service by PricewaterhouseCoopers LLP on a case-by-case basis. The Audit Committee does not have any pre-approval policies or procedures for PricewaterhouseCoopers LLP's services. The Audit Committee approved 100% of the audit and audit-related services PricewaterhouseCoopers LLP provided to us in 2010 and 2009.

Vote Required

The affirmative vote of a majority of the total votes cast by the stockholders present at the meeting, in person or by proxy, and entitled to vote on this proposal is necessary to ratify the selection of PricewaterhouseCoopers LLP to audit our financial statements. If you submit a proxy without direction as to a vote on this matter, your proxy will be treated as a vote "FOR" this proposal. Abstentions will be treated as votes against this proposal. Broker non-votes will not be treated as votes cast and will have no effect on the outcome of the vote on this proposal.

PROPOSAL 6 ADVISORY VOTE ON APPROVAL OF THE COMPENSATION OF THE COMPANY'S NAMED EXECUTIVE OFFICERS

The proxy rules, which were recently amended in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), permit our stockholders to cast an advisory vote on the compensation of our named executive officers as described in this proxy statement. Furthermore, our Board recognizes that stockholders have a legitimate interest in executive compensation matters and a growing interest in voicing their approval on our policies with respect to such matters.

Accordingly, this proposal gives you, as a stockholder, the opportunity to endorse or not endorse our overall compensation programs and policies relating to our named executive officers, as described in detail in the Compensation Discussion and Analysis, the Summary Compensation Table and related compensation tables (and accompanying narrative disclosures) contained in this proxy statement, by voting for or against the compensation of our named executive officers.

Your vote will not directly affect or otherwise limit any compensation or award arrangements that have already been granted to any of our named executive officers. Because your vote is advisory, it will not be binding on the Board. However, our Compensation Committee will take into account the outcome of the vote when considering future executive compensation arrangements.

We believe that our compensation policies and procedures support our business strategy by rewarding successful achievement of specific business goals, as well as our operating and financial results. Furthermore, we believe that our compensation policies and procedures, which provide performance-based incentives to maximize stockholder value, are strongly aligned with the long-term interests of our stockholders.

PROPOSAL 7 ADVISORY VOTE REGARDING THE FREQUENCY OF STOCKHOLDER VOTES ON EXECUTIVE COMPENSATION

In compliance with the Dodd-Frank Act, stockholders are invited to express their views on how frequently the advisory vote on executive compensation described in Proposal 6 should occur. Stockholders can advise the Board on whether such vote should occur every year, every two years or every three years, or they may abstain from voting.

This is an advisory vote, and as such is not binding on the Company. However, the Board will take the results of the vote into account in deciding when to call for the next advisory vote on the Company's executive compensation. Because this is a non-binding advisory vote, the Board may decide that it is in the best interests of the Company and its stockholders to hold an advisory vote on executive compensation more or less frequently than the option preferred by stockholders.

The Board recommends that the non-binding advisory vote on executive compensation be held every year. The Board recognizes that stockholders want the ability to voice their views on compensation for our named executive officers from time-to-time. The Board believes that it is in the Company's best interest and in the best interest of its stockholders that a vote on the frequency of stockholder votes on executive compensation be held every year.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE FOR "EVERY YEAR" ON THIS PROPOSAL.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There is no amount due to or from a related party as of December 31, 2010 and there was no revenue from a related party in 2010.

SHARE OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The following table and footnotes set forth certain information regarding the beneficial ownership of the Company's Common Stock by persons known by us to be beneficial owners of more than 5% of our Common Stock.

We had approximately 53,115,658 shares of Common Stock outstanding on April 15, 2011.

Name	Common Stock Owned	Options to Purchase Common Stock	Total Stock and Stock-based Holdings	Percent of Class
BlackRock, Inc.(1) 55 East 52nd Street New York, NY 10055	4,515,519		4,515,519	10.05%
Franklin Resources, Inc.(2) One Franklin Parkway San Mateo, CA 94403	3,409,200			