RXi Pharmaceuticals Corp Form DEF 14A November 04, 2016

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

Filed by the Registrant x Filed by a Party other than the Registrant "

Check the appropriate box:

- " Preliminary Proxy Statement
- x Definitive Proxy Statement
- " Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- " Definitive Additional Materials
- "Soliciting Material Pursuant to sec. 240.14a-11(c) or sec. 240.14a-12

RXi PHARMACEUTICALS CORPORATION

(Name of Registrant as Specified In Its Charter)

N/A

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

Payment of Filing Fee (Check the appropriate box):

Fee	not required.
Fee	computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
(1)	Title of each class of securities to which transaction applies.
(2)	Aggregate number of securities to which transaction applies.
(3)	Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
(4)	Proposed maximum aggregate value of transaction.
(5)	Total fee paid.
Fee	paid previously with preliminary materials.
	ck 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 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 State No.:
(3)	Filing Party:
(4)	Date Filed:

257 Simarano Drive, Suite 101

Marlborough, MA 01752

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held on December 15, 2016

Dear Stockholder:

You are cordially invited to attend the 2016 Annual Meeting of Stockholders (the *Annual Meeting*) of RXi Pharmaceuticals Corporation, a Delaware corporation (the *Company*), which will be held on December 15, 2016, at 10:00 a.m. local time, at the offices of Gibson, Dunn & Crutcher LLP, located at 200 Park Avenue, New York, NY 10166. Only stockholders who held stock at the close of business on the record date, October 26, 2016 (the *Record Date*), may vote at the Annual Meeting, including any adjournment or postponement thereof. If you wish to attend the 2016 Annual Meeting in person, you must RSVP by marking the appropriate box on the proxy card or by contacting the Company by December 12, 2016 by telephone at 508-929-3646. In order to be admitted into the Annual Meeting, your name must appear on the attendance list and you must present government-issued photo identification (such as a driver s license).

At the Annual Meeting, you will be asked to consider and vote upon: (1) the election of the five director nominees named in the accompanying Proxy Statement; (2) the ratification of BDO USA, LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2016; (3) an advisory (non-binding) vote to approve the Company s executive compensation; (4) an increase in the number of shares available for issuance under the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan; (5) an increase in the number of shares available under the 2012 RXi Pharmaceuticals Corporation Long Term Incentive Plan; and (6) the transaction of any other business that may properly come before the meeting or any adjournment thereof. Pursuant to the Company s bylaws, no other items of business are expected to be considered at the meeting and no other director nominees will be entertained.

The accompanying Proxy Statement more fully describes the details of the business to be conducted at the Annual Meeting. After careful consideration, our Board of Directors has unanimously approved the proposals and recommends that you vote FOR each nominee and proposal described in the Proxy Statement.

We are pleased to make use of the Securities and Exchange Commission rules that allow companies to furnish proxy materials to their stockholders via the Internet. We believe the ability to deliver proxy materials electronically allows us to provide our stockholders with the information they need, while lowering the costs of delivery and reducing the environmental impact from the distribution of our Annual Meeting materials.

We look forward to seeing you at the Annual N	Aeeting.
---	----------

Sincerely,

Geert Cauwenbergh, Dr. Med. Sc. President and Chief Executive Officer

WHETHER OR NOT YOU EXPECT TO ATTEND THE MEETING, PLEASE VOTE VIA THE INTERNET OR OVER THE TELEPHONE AS INSTRUCTED IN THE NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS AND ON THE ENCLOSED PROXY CARD OR, IF YOU REQUESTED AND RECEIVED A PRINTED COPY OF THE PROXY STATEMENT, COMPLETE, DATE, SIGN AND RETURN THE ENCLOSED PROXY CARD USING THE ENCLOSED RETURN ENVELOPE, AS PROMPTLY AS POSSIBLE IN ORDER TO ENSURE YOUR REPRESENTATION AT THE MEETING. EVEN IF YOU HAVE VOTED BY PROXY, YOU MAY STILL VOTE IN PERSON IF YOU ATTEND THE MEETING. PLEASE NOTE, HOWEVER, THAT IF YOUR SHARES ARE HELD OF RECORD BY A BROKER, BANK OR OTHER NOMINEE AND YOU WISH TO VOTE AT THE MEETING, YOU MUST OBTAIN A PROXY CARD ISSUED IN YOUR NAME FROM THAT INTERMEDIARY.

257 Simarano Drive, Suite 101

Marlborough, MA 01752

PROXY STATEMENT FOR

2016 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON DECEMBER 15, 2016

GENERAL INFORMATION

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors (the *Board*) of RXi Pharmaceuticals Corporation (*RXi* or the *Company*) for use at the Company s 2016 Annual Meeting of Stockholders (the *Annual Meeting*), to be held at the offices of Gibson, Dunn & Crutcher LLP, located at 200 Park Avenue, New York, NY 10166 on December 15, 2016, at 10:00 a.m. local time. This Proxy Statement is being made available via the Internet on November 4, 2016 and the mailing date of the Notice Regarding the Availability of Proxy Materials (the *Notice*) to our stockholders will be on or about November 4, 2016.

The Notice instructs you as to how you may access and review important information contained in the proxy materials. The Notice also instructs you on how you may submit your proxy via the Internet. If you receive a Notice by mail and would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting such materials included in the Notice.

For a proxy to be effective, it must be properly executed and received prior to the Annual Meeting. Each proxy properly tendered will, unless otherwise directed by the stockholder, be voted for the proposals and nominees described in this Proxy Statement and at the discretion of the proxy holder(s) with regard to all other matters that may properly come before the meeting.

The Company will pay all of the costs of soliciting proxies. We will provide copies of our proxy materials to brokerage firms, fiduciaries and custodians for forwarding to beneficial owners who request printed copies of these materials and will reimburse these persons for their costs of forwarding these materials. Our directors, officers and employees may also solicit proxies by telephone, facsimile or personal solicitation; however, we will not pay them additional compensation for any of these services.

Shares Outstanding and Voting Rights

Only holders of record of our common stock (*common stock*) at the close of business on October 26, 2016 (the *Record Date*), are entitled to notice of and to vote at the Annual Meeting. On the Record Date, 6,599,846 shares of common stock were issued and outstanding. Each share of common stock is entitled to one vote on all matters to be voted upon at the Annual Meeting. Holders of common stock do not have the right to cumulative voting in the election of directors. The presence, in person or by proxy, of the holders of a majority of the outstanding shares on the Record Date will constitute a quorum for the transaction of business at the Annual Meeting and any adjournment thereof.

Persons who hold shares of our common stock directly on the Record Date (*record holders*) must return a proxy card or attend the Annual Meeting in person in order to vote on the proposals. Persons who hold shares of

our common stock indirectly on the Record Date through a brokerage firm, bank or other financial institution (*beneficial holders*) must return a voting instruction form to have their shares voted on their behalf. Brokerage firms, banks or other financial institutions that do not receive voting instructions from beneficial holders may either vote these shares on behalf of the beneficial holders or return a proxy leaving these shares un-voted (a *broker non-vote*).

Abstentions and broker non-votes will be counted for the purpose of determining the presence or absence of a quorum, but will not be counted for the purpose of determining the number of votes cast on a given proposal. The required vote for each of the proposals expected to be acted upon at the Annual Meeting is described below:

Proposal No. 1 Election of directors. Directors are elected by a plurality, with the five nominees obtaining the most votes being elected. Because there is no minimum vote required, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome. Under the plurality vote standard, any shares that are not voted, whether by abstention, broker non-votes or otherwise, will not affect the election of directors.

Proposal No. 2 Ratification of independent registered public accounting firm. This proposal must be approved by a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

Proposal No. 3 Advisory (non-binding) vote to approve executive compensation. This proposal will be approved if it receives the affirmative vote of a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

Proposal No. 4 Approval of an increase in the number of shares available for issuance under the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan. This proposal must be approved by a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

Proposal No. 5 Approval of an increase in the number of shares available for issuance under the 2012 RXi Pharmaceuticals Corporation Long Term Incentive Plan. This proposal must be approved by a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

We encourage you to vote by proxy, whether via telephone, through the Internet or mailing an executed proxy card. By voting in advance of the Annual Meeting, this ensures that your shares will be voted and reduces the likelihood that the Company will be forced to incur additional expenses soliciting proxies for the Annual Meeting. Any record holder of our common stock may attend the Annual Meeting in person and may revoke the enclosed form of proxy at any time by:

executing and delivering to the Corporate Secretary a later-dated proxy;

delivering a written revocation to the Corporate Secretary before the meeting; or

voting in person at the Annual Meeting.

Beneficial holders of our common stock who wish to change or revoke their voting instructions should contact their brokerage firm, bank or other financial institution for information on how to do so. Beneficial holders who wish to attend the Annual Meeting and vote in person should contact their brokerage firm, bank or other financial institution

holding shares of our common stock on their behalf in order to obtain a legal proxy, which will allow them to both attend the Annual Meeting and vote in person. Without a legal proxy, beneficial holders cannot vote at the Annual Meeting because their brokerage firm, bank or other financial institution may have already voted or returned a broker non-vote on their behalf.

PROPOSAL NO. 1

ELECTION OF DIRECTORS

The Amended and Restated Bylaws of the Company (the *Bylaws*) provide that the number of directors shall be not fewer than two and not more than five, with directors serving one year terms. The total Board size is currently fixed at five directors. Currently, the directors (whose terms expire at the 2016 Annual Meeting of Stockholders) are Geert Cauwenbergh, Dr. Med. Sc., Robert J. Bitterman, Keith L. Brownlie, H. Paul Dorman and Curtis A. Lockshin, Ph.D. Directors elected at the Annual Meeting will hold office until the 2017 Annual Meeting of Stockholders and until their successors are elected and qualified, unless they resign or their seats become vacant due to death, removal or other cause in accordance with the Bylaws.

As described below, the Board has nominated Drs. Cauwenbergh and Lockshin and Messrs. Bitterman, Brownlie and Dorman for reelection as directors at the Annual Meeting. All nominees have indicated their willingness to serve if elected. Should any nominee become unavailable for election at the Annual Meeting, the persons named on the enclosed proxy as proxy holders may vote all proxies given in response to this solicitation for the election of a substitute nominee chosen by the Board.

Nomination of Directors

The Nominating and Governance Committee reviews and recommends to the Board potential nominees for election to the Board. In reviewing potential nominees, the Nominating and Governance Committee considers the qualifications of each potential nominee in light of the Board s existing and desired mix of experience and expertise.

After reviewing the qualifications of potential Board candidates, the Nominating and Governance Committee presents its recommendations to the Board, which selects the final director nominees. Upon the recommendation of the Nominating and Governance Committee, the Board nominated Drs. Cauwenbergh and Lockshin and Messrs. Bitterman, Brownlie and Dorman for reelection as directors. The Company did not pay any fees to any third parties to identify or assist in identifying or evaluating nominees for the Annual Meeting.

The Nominating and Governance Committee considers stockholder nominees using the same criteria set forth above. Stockholders who wish to present a potential nominee to the Nominating and Governance Committee for consideration for election at a future annual meeting of stockholders must provide the Nominating and Governance Committee with notice of the nomination and certain information regarding the candidate within the time periods set forth below under the caption Stockholder Proposals.

Although the Nominating and Governance Committee may consider whether nominees assist in achieving a mix of Board members that represents a diversity of background and experience, including but not limited to race, gender or national origin, we have no formal policy regarding Board diversity.

Nominees and Incumbent Directors

The Nominating and Governance Committee has recommended and the Board has nominated Drs. Cauwenbergh and Lockshin and Messrs. Bitterman, Brownlie and Dorman to be reelected as directors at the Annual Meeting. The following table sets forth the following information for these nominees: the year each was first elected a director of the Company, their respective ages as of the date of filing of this Proxy Statement, the positions currently held with the Company and the year their current term will expire:

Nominee / Director Name		Position(s) with the	Year Current Term	
and Year First Became a Director Nominees for Directors:	Age	Company	Expires	
Geert Cauwenbergh, Dr. Med. Sc. (2012)	62	President, Chief Executive Officer, acting Chief Financial Officer and Director	2016	
Robert J. Bitterman (2012)	65	Chairman of the Board of Directors	2016	
Keith L. Brownlie (2012)	64	Director	2016	
H. Paul Dorman (2013)	79	Director	2016	
Curtis A. Lockshin, Ph.D. (2013)	56	Director	2016	
Directors Nominated for Election				

The following persons have been nominated by the Board to be elected as directors at the Annual Meeting.

Geert Cauwenbergh, Dr. Med. Sc. was appointed to the Board and was elected as President and Chief Executive Officer of the Company in April 2012. Prior to joining us, from June 2011 to April 2012, Dr. Cauwenbergh was active, through his consulting company Phases123 LLC, in advising various small biotech and healthcare companies. From July 2008 to June 2011, Dr. Cauwenbergh was the Chief Executive Officer of Rhei Pharmaceuticals HK Ltd, a Chinese company that licenses western drugs for development and commercialization in China, and Managing Director of the Center for Medical Innovation, a government subsidized center for translational medicine for the Belgian Region of Flanders. In February 2008 and May 2009, Dr. Cauwenbergh founded Phases 123 LLC and Aramis LLC, a consulting company and a dermatology company, respectively. From September 2008 to March 2010, Dr. Cauwenbergh served as a member of the board of directors of DARA Biosciences, Inc., a publicly-traded biopharmaceutical company. From 2002 to 2008, Dr. Cauwenbergh served as Chief Executive Officer of Barrier Therapeutics, Inc., a publicly traded biopharmaceutical company that he founded in 2001 and where he also served as Chairman of the board of directors from 2002 to 2006. Barrier, which focused on dermatology drug development and commercialization, was acquired by Stiefel Laboratories, Inc. in 2008. Prior to founding Barrier, Dr. Cauwenbergh held a number of ascending senior management positions at Johnson & Johnson, where he was employed for 23 years. As Vice President of Research and Development for Johnson & Johnson s Skin Research Center, he was responsible for the worldwide research and development of all skin care products for the Johnson & Johnson consumer companies. He is a member of the board of directors of Moberg Pharma AB, a Swedish pharmaceutical company. In February 2014, Dr. Cauwenbergh joined the board of directors of Phosphagenics Ltd., an Australian company focused on developing new transdermal delivery systems for pharmaceutical products. Dr. Cauwenbergh currently serves as chairman of the nominating and governance committee of Phosphagenics. In September 2011, Dr. Cauwenbergh also joined the board of directors of Cutanea Life Sciences, Inc., a wholly owned subsidiary of Maruho Company, LTD., which focuses on the development and commercialization of proprietary technologies to treat diseased and aging skin. In 2005, Dr. Cauwenbergh was inducted into the New Jersey High-Tech Hall of Fame, and, from 2009 to 2010, he served as Chairman of the Board of Trustees of BioNJ. He has authored more than 100 publications and has been a guest editor for numerous books addressing mycology and infectious diseases. Dr. Cauwenbergh received his

Doctorate in Medical Sciences from the Catholic University of Leuven, Faculty of Medicine (Belgium), where he also completed his masters and undergraduate work. Based on Dr. Cauwenbergh s understanding of the business through his role as our Chief Executive Officer and as an incumbent member of the Board, as well as his extensive experience in dermatology and company-building, the Nominating and Governance Committee concluded that Dr. Cauwenbergh has the requisite experience, qualifications, attributes and skill necessary to serve as a member of the Board.

Robert J. Bitterman has served as a member and the Chairman of our Board of Directors since 2012. Prior to joining the Company, Mr. Bitterman founded Cutanea Life Sciences, Inc. in September 2005 as its President, Chief Executive Officer and Board Director. Cutanea Life Sciences, Inc. focuses on the development and commercialization of proprietary technologies to treat diseased and aging skin and was successfully acquired by Maruho Company, LTD. in February 2012, where Mr. Bitterman has continued his role as President and Chief Executive Officer. Mr. Bitterman also served as President and General Manager of Dermik Laboratories, the global dermatology strategic business unit of Aventis S.A. from 1994 to 2004. Prior to assuming senior operational leadership positions, Mr. Bitterman held various positions of increasing responsibility in financial and commercial capacities within Aventis S.A. From September 2004 until April 2005, Mr. Bitterman also held the position of President and Chief Executive Officer of Isolagen, Inc., a publicly traded bioscience technology company which developed and commercialized autologous human fibroblasts targeting soft tissue enhancement. Mr. Bitterman holds an A.B. degree in Economics from The College of the Holy Cross and a Master of Business Administration degree from Boston University. He also holds a Doctor of Human Letters (Honoris Causa) from the New York College of Podiatric Medicine and is a member of the Philadelphia Business Leaders Network. Based on Mr. Bitterman s significant leadership roles in other bioscience companies, including the role of chief executive officer, his experience with development stage organizations, and his knowledge of dermatology and the pharmaceutical industry, the Nominating and Governance Committee concluded that Mr. Bitterman has the requisite experience, qualifications, attributes and skill necessary to serve as a member of the Board.

Keith L. Brownlie has served as a member of our Board of Directors since June 2012. Prior to joining us, Mr. Brownlie was employed by the accounting firm Ernst & Young LLP from 1974 to 2010. At Ernst & Young, he served as audit partner for numerous public companies and was the Life Sciences Industry Leader for the New York Metro Area. Mr. Brownlie co-founded the New Jersey Entrepreneur of the Year Program and was co-chair of the BIONJ/PABIO Annual Symposium. Since his retirement from Ernst & Young in 2010, Mr. Brownlie currently serves as a member of the board of directors and chairman of the audit committee of Soligenix, Inc., which develops products to treat life-threatening side effects of cancer treatments and serious gastrointestinal diseases and vaccines for certain bioterrorism agents. From 2011 to 2013, Mr. Brownlie also served as a member of the board of directors and served as the chairman of the audit committee of EpiCept Corporation, which focused on the development and commercialization of pharmaceutical products for the treatment of pain and cancer and merged with Immune Pharmaceuticals in August 2013. From 2013 to 2014, Mr. Brownlie was a member of the board of directors and served as the chairman of the audit committee of Cancer Genetics, Inc., an emerging leader in DNA-based cancer diagnostics that personalizes the clinical management of difficult-to-diagnose cancers. Mr. Brownlie received a B.S. in Accounting from Lehigh University and is a Certified Public Accountant. Based on Mr. Brownlie s experience in the area of public company financial reporting, his responsibilities as an audit partner, which qualify him as a financial expert, and his membership on the board of directors of other public companies, the Nominating and Governance Committee concluded that Mr. Brownlie has the requisite experience, qualifications, attributes and skill necessary to serve as a member of the Board.

H. Paul Dorman has served as a member of our Board of Directors since April 2013. Mr. Dorman currently serves as the Chairman and CEO of DFB Pharmaceuticals, a holdings company specializing in investing in and operating pharmaceutical businesses. From 1990 to 2012, Mr. Dorman also served as the Chairman and CEO of DPT Laboratories, a contract manufacturer and developer of pharmaceutical products. During that time, Mr. Dorman expanded DPT into a portfolio of healthcare companies that provides services and proprietary branded pharmaceutical products to the global market. Prior to acquiring DPT, Mr. Dorman was employed by Johnson & Johnson for 12 years, where he served in various positions, including Vice President and as a member of the board of directors. Prior to Johnson & Johnson, Mr. Dorman was employed by Baxter-Travenol, a large pharmaceuticals company. Mr. Dorman holds a B.S. degree in Mechanical Engineering from Tulane University and a Juris Doctor of Law from Loyola University. Based on Mr. Dorman s experience through his roles as Chairman and CEO and his deep understanding of the pharmaceutical industry in holding executive positions at large public companies, the Nominating and Governance Committee concluded that Mr. Dorman has the requisite experience, qualifications, attributes and skill necessary to

serve as a member of the Board.

Curtis A. Lockshin, Ph.D. has served as a member of our Board of Directors since April 2013. Since July 2015, Dr. Lockshin has served as Chief Executive Officer and Director of SciVac Therapeutics Inc., and its subsidiary SciVac, Ltd., a biologics and vaccine company in Rehovot, Israel, where he has been serving as CEO and Director since September 2014. Dr. Lockshin has also served as the Vice President of Research and Operations of Xenetic Biosciences, Inc., a biopharmaceutical company focused on developing biologic drugs and novel oncology therapeutics since March 2014 and as the President and CEO of Guardum Pharmaceuticals, LLC, a private pharmaceutical company, since May 2013. From October 2011 to February 2013, Dr. Lockshin served as Vice President of Corporate R&D Initiatives for OPKO Health, Inc., a multinational pharmaceutical and diagnostics company, at which time he then assumed the position of consultant to OPKO until December 2013. From March 2011 until December 2013, Dr. Lockshin served as a member of the board of directors for ChromaDex, Inc., a natural products company engaged in the dietary supplement, food & beverage, cosmetic and pharmaceutical industries. From October 2009 to September 2012, Dr. Lockshin served as a member of the board of directors for Sorrento Therapeutics, Inc., a development-stage biopharmaceutical company. Since April 2004, Dr. Lockshin has also served as a member of the board of directors of the Ruth K. Broad Biomedical Research Foundation. The foundation is a Duke University Support Corporation that supports basic research related to Alzheimer s disease and neurodegeneration via intramural, extramural and international grants. Since 2003, Dr. Lockshin has worked as an independent consultant, focusing on small private companies in the healthcare, biotechnology and security sectors. From August 2002 to March 2003, Dr. Lockshin held the position of Director of Discovery Biology at Beyond Genomics, Inc. (now BG Medicine, Inc.), a company engaged in the discovery of disease-associated biomarkers and identification of therapeutic targets. Dr. Lockshin held various positions from June 1998 to July 2002 at Sepracor, Inc. (now Sunovion Pharmaceuticals, Inc.), a pharmaceutical company that develops therapeutic products for the central nervous system and respiratory disorders. Dr. Lockshin holds a S.B. degree in Life Sciences and a Ph.D. in Biological Chemistry from the Massachusetts Institute of Technology. Based on Dr. Lockshin s industry knowledge in the biotechnology and pharmaceutical fields and his membership on the board of directors of other public companies, the Nominating and Governance Committee concluded that Dr. Lockshin has the requisite experience, qualifications, attributes and skill necessary to serve as a member of the Board.

Vote Required

The five nominees who receive the greatest number of affirmative votes of the shares present in person or by proxy will be elected as directors. Any shares that are not voted, whether by abstention, broker non-votes or otherwise, will not affect the election of directors.

Holders of proxies solicited by this Proxy Statement will vote the proxies received by them as directed on the proxy card or, if no direction is made, then FOR the election of the nominees named in this Proxy Statement.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR

THE NOMINEES IDENTIFIED ABOVE.

PROPOSAL NO. 2

RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has selected BDO USA, LLP (*BDO*) as our independent registered public accounting firm for the fiscal year ending December 31, 2016, and has further directed that we submit the selection of BDO for ratification by our stockholders at the Annual Meeting.

The Company is not required to submit the selection of our independent registered public accounting firm for stockholder approval. However, if the stockholders do not ratify this selection, the Audit Committee will reconsider its selection of BDO. Even if the selection is ratified, our Audit Committee may direct the appointment of a different independent registered public accounting firm at any time during the year if the Audit Committee determines that the change would be in the best interests of the Company.

The Audit Committee reviews and pre-approves all audit and non-audit services performed by its independent registered public accounting firm, as well as the fees charged for such services. All fees incurred in fiscal years 2015 and 2014 for services rendered by BDO were approved in accordance with these policies. In its review of non-audit service fees, the Audit Committee considers, among other things, the possible impact of the performance of such services on the auditor s independence. Additional information concerning the Audit Committee and its activities can be found in the Board Committees section of this Proxy Statement.

Representatives of BDO are expected to be present at the Annual Meeting, will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate stockholder questions.

Fees for Independent Registered Public Accounting Firm

Total Other Fees

Total All Fees:

The following is a summary of the fees billed to the Company by BDO for professional services rendered for the fiscal years ended December 31, 2015 and 2014. These fees are for work invoiced in the fiscal years indicated.

	2015	2014
Audit Fees:		
Consists of fees billed for professional services rendered for the audit of the Company s		
annual financial statements and the review of the interim financial statements included in		
the Company s quarterly reports (together, the Financial Statements) and for services		
normally provided in connection with statutory and regulatory filings or engagements	\$ 194,962	\$ 122,851
Other Fees:		
Audit-Related Fees		
Consists of fees billed for assurance and related services reasonably related to the		
performance of the annual audit or review of the Financial Statements		
Tax Fees		
Consists of fees billed for tax compliance, tax advice and tax planning		
All Other Fees		
Consists of fees billed for other products and services not described above, which consisted		
of fees relating to: accounting policy and auditor consent		

16

\$ 122,851

\$ 194,962

Recommendation

The Board recommends a vote FOR the ratification of BDO as our independent registered public accounting firm for the fiscal year ending December 31, 2016. Proxies will be so voted unless stockholders specify otherwise in their proxies.

Vote Required

Ratification of the selection of the independent registered public accounting firm requires the affirmative vote of a majority of the votes cast on the matter affirmatively or negatively. Abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR PROPOSAL NO. 2.

PROPOSAL NO. 3

ADVISORY VOTE TO APPROVE EXECUTIVE COMPENSATION

The advisory vote to approve executive compensation (*say-on-pay*) is a non-binding vote on the compensation of the Company s named executive officers described in the Executive Compensation section, the tabular disclosure regarding such compensation and the accompanying narrative disclosure, set forth in this Proxy Statement. The advisory vote to approve executive compensation is not a vote on the Company s general compensation policies, compensation of the Company s Board of Directors or the Company s compensation policies as they relate to risk management. The Dodd-Frank Wall Street Reform and Consumer Protection Act (the *Dodd-Frank Act*) requires the Company to hold the advisory vote to approve executive compensation at least once every three years.

Our philosophy in setting compensation policies for executive officers has two fundamental objectives: (1) to attract and retain a highly-skilled team of executives and (2) to align our executives interests with those of our stockholders by rewarding short-term and long-term performance and tying compensation to increases in stockholder value. The Compensation Committee believes that executive compensation should be directly linked both to continuous improvements in corporate performance (so-called *pay for performance*) and accomplishments that are expected to increase stockholder value.

The vote under this Proposal No. 3 is advisory, and therefore not binding on the Company, the Board or our Compensation Committee. However, our Board, including our Compensation Committee, values the opinions of our stockholders and, to the extent there is any significant vote against the executive officer compensation as disclosed in this Proxy Statement, we will consider our stockholders—concerns and evaluate what actions may be appropriate to address those concerns. Our Board has adopted a policy providing for—say-on-pay—advisory votes once every three years. Unless the Board modifies its policy on the frequency of holding—say-on-pay—advisory votes, the next—say-on-pay—advisory vote will occur in 2019.

Stockholders will be asked at the Annual Meeting to approve the following resolution pursuant to this Proposal No. 3:

RESOLVED, that the stockholders of the Company approve, on an advisory basis, the compensation of the Company s named executive officers as such compensation is described in the Executive Compensation section, including the tabular disclosure regarding such compensation and the accompanying narrative disclosure, set forth in the Company s definitive Proxy Statement for the 2016 Annual Meeting of Stockholders.

Recommendation

The Board of Directors recommends a vote FOR approval of the foregoing resolution. Proxies will be so voted unless stockholders specify otherwise in their proxies.

Vote Required

This proposal will be approved if it receives the affirmative vote of a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR PROPOSAL NO. 3.

PROPOSAL NO. 4

APPROVAL OF AN INCREASE IN THE NUMBER OF SHARES AVAILABLE FOR ISSUANCE UNDER THE RXI PHARMACEUTICALS CORPORATION EMPLOYEE STOCK PURCHASE PLAN

Background

On June 7, 2013, our Board adopted, and on June 2, 2014 our stockholders approved, the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan. In order to continue to provide eligible employees the opportunity to purchase shares of our common stock at a discount from the market price, the Board of Directors has authorized an amendment to the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan (as amended, the *ESPP*), subject to stockholder approval. The amendment will increase the number of shares of common stock reserved for issuance under the ESPP by 500,000 to a total of 511,333 shares and will remove the evergreen provision so that the number of shares reserved will not increase on an annual basis. This increase of 500,000 shares represents approximately 8% of the Company s outstanding shares of common stock as of October 26, 2016. No other changes are being made to the ESPP.

As of October 26, 2016, there were no shares of common stock available for issuance under the ESPP. We believe that the ESPP is in the best interest of stockholders, as it enhances broad-based employee stock ownership; enables the Company to attract, motivate and retain the best employees with a market-competitive benefit; and does so at a reasonable cost to stockholders. We are proposing an increase in the number of shares authorized and reserved for issuance under the ESPP to enable us to continue providing this benefit to new and current employees. Our Board believes that the Company s interests are best advanced by aligning stockholder and employee interests.

The proposed additional 500,000 shares being requested under this proposal represents potential dilution of approximately 8% as of October 26, 2016 (potential dilution for this purpose is determined by dividing the 500,000 additional shares by the total number of common stock outstanding as of October 26, 2016). The dilution attributable to the ESPP for fiscal 2015 was less than 1% (which was determined by dividing the number of shares issued under the ESPP during fiscal 2015 by the total number of common stock outstanding as of December 31, 2015). The Board believes that this is a reasonable amount of potential dilution and generally in line with that of our public peer companies.

We monitor our long-term dilution as a result of the ESPP by tracking the number of shares actually purchased and issued under the ESPP on an annual basis, expressed as a percentage of total shares outstanding and referred to as burn rate. Burn rate is another measure of dilution that shows how rapidly a company is depleting its shares reserved for equity compensation plans. Our burn rate under the ESPP for fiscal 2015 was less than 1%.

Based upon the typical levels of participation in the ESPP over the last several years, we expect the additional 500,000 shares will be sufficient to cover purchases under the ESPP for at least the next five years. In approving the increase to the share pool under the ESPP, the Board determined that reserving shares sufficient for approximately five years of new purchases at historical rates is in line with the practice of our public peer companies.

Plan Summary

The following description of the ESPP is a summary of its principal provisions and is qualified in its entirety by reference to the complete text of the ESPP, and the proposed amendment thereto, which are set forth in Appendix A to this Proxy Statement. Stockholders are encouraged to read the text of the ESPP in its entirety.

Purpose. The purpose of the ESPP is to provide our employees with a convenient means of acquiring an equity interest in the Company through payroll deductions, to enhance such employees sense of participation in our affairs

and to provide these employees an incentive for continued employment. The ESPP is intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code (the Code).

Amendment/Termination. The Board can suspend or terminate the ESPP at any time and may amend the ESPP at any time, provided that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code and the regulations thereunder must be approved by stockholders.

Eligibility. Employees of the Company and its designated subsidiaries are eligible to participate in the ESPP on or after the first day of the month following such employee s date of hire with respect to a purchase period beginning on or after such date; provided, however, that any employee who immediately after the grant of a stock right under the ESPP would own stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or of its parent or any subsidiary is not eligible to receive a stock right under the ESPP. Further, no employee s right to purchase common stock under the ESPP may accrue at a rate which exceeds \$25,000 per year. As of October 26, 2016, approximately 15 employees were eligible to participate in the ESPP.

Administration. The ESPP is administered by the Compensation Committee, which has the right to determine any questions which may arise regarding the interpretation and application of the provisions of the ESPP and to make, administer, and interpret such rules and regulations as it deems necessary or advisable.

Number of Shares of Common Stock Available under the ESPP. If this proposal is approved, the maximum number of shares of common stock available for issuance pursuant to the ESPP will equal 511,333 shares. The shares to be delivered under the ESPP may be either shares of authorized but unissued common stock or shares of reacquired common stock, as the Board may determine. If any stock right granted under the ESPP expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased common stock subject to such stock right will again be available for issuance under the ESPP.

Purchase Periods. Unless otherwise determined by the Compensation Committee, there are two semi-annual six-month purchase periods (each, a *Purchase Period*) under the ESPP running from January 1 to June 30 and from July 1 to December 31 of each year. Each employee participating in the ESPP on the first day of a Purchase Period is granted a right to acquire shares of common stock during that Purchase Period.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any subsidiary designated by the Board may participate in the ESPP and may contribute, through payroll deductions, up to the maximum percentage of their total compensation established by the Compensation Committee for the relevant Purchase Period. A participant may not change his or her withholding rate during a Purchase Period but may change his or her withholding rate for future Purchase Periods by filing a new payroll deduction authorization form on or before the enrollment deadline for the Purchase Period for which the change is to be effective.

Purchase Price. Common stock will be purchased for accounts of employees participating in the ESPP at a price per share equal to 90% of the fair market value per share on either (a) the date of grant of a purchase right under the ESPP or (b) the date on which the purchase right is deemed exercised, whichever is less.

Cancellation and Withdrawal. A participant may at any time prior to the exercise date of a given Purchase Period cancel all (but not less than all) of his or her stock right by delivering written notice to the Company. Upon such cancellation, the balance in the participant s withholding account will be returned to the participant. A participant may also terminate his or her payroll deduction authorization as of any date by written notice delivered to the Company and will cease to be a participant as of such date.

Termination of Employment. Generally, upon the termination of a participant s employment, such participant will cease to be a participant under the ESPP and any stock right held under the ESPP will be deemed canceled and the balance of his or her withholding account will be returned.

Non-Transferability. The rights and privileges of a participant under any stock right granted under the ESPP will be exercisable during the participant s lifetime only by him or her and generally may not be sold, pledged, assigned or transferred in any manner.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split, the number of shares reserved under the ESPP and the number of shares and purchase price of all outstanding purchase rights will be appropriately adjusted.

Corporate Transactions. In the event of certain significant corporate transactions in which the Company is not the surviving corporation or which results in the acquisition of the Company by another person, the Board will (a) if the Company is merged with or acquired by another corporation, provide that the then-outstanding rights to purchase our stock under the ESPP will be assumed, continued or substituted for by any surviving or acquiring entity (or a parent or subsidiary of such entity), (b) cancel each purchase right and return the balances in participants withholding accounts to the participants, or (c) end the Purchase Period on or before the date of the proposed transaction.

Certain U.S. Federal Income Tax Consequences

The rules concerning the federal income tax consequences with respect to the purchase of shares under the ESPP are quite technical. Moreover, the applicable statutory provisions are subject to change, as are their interpretations and applications, which may vary in individual circumstances. Therefore, the following is designed to provide a general understanding of the U.S. federal income tax consequences as of the date hereof with respect to such purchases. In addition, the following discussion does not set forth any gift, estate, social security or state or local tax consequences that may be applicable and is limited to the U.S. federal income tax consequences to individuals who are citizens or residents of the United States, other than those individuals who are taxed on a residence basis in a foreign country.

The ESPP, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Section 423 of the Code. Under these provisions, no income generally will be taxable to a participant until the shares purchased under the ESPP are sold or otherwise disposed of. Upon sale or other disposition of the shares, the participant will generally be subject to tax in an amount that depends upon how long the shares have been held by the participant. If the shares are sold or otherwise disposed of more than two years after the first day of the applicable Purchase Period in which such shares were acquired and more than one year after the applicable date of purchase, the participant will recognize ordinary income equal to the lesser of (1) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price, or (2) an amount equal to 10% (or such other discount as the Compensation Committee may establish) of the fair market value of the shares as of the first day of the applicable Purchase Period in which such shares were acquired. Any additional gain will be treated as long-term capital gain. If the shares are sold or otherwise disposed of before the expiration of the aforementioned periods (a disqualifying disposition), the participant will recognize ordinary income equal to the excess of (1) the fair market value of the shares on the date the shares are purchased over (2) the purchase price. Any additional gain or loss on such sale or disposition will be capital gain or loss, which will be long-term if the shares are held for more than one year. The Company generally is not entitled to a deduction for amounts taxed as ordinary income or capital gain to a participant except to the extent of ordinary income recognized by participants upon a disqualifying disposition.

New Plan Benefits

The actual number of shares that may be purchased by any individual under the ESPP is not currently determinable because the number is determined, in part, based on future contribution elections of individual participants and the purchase price of the shares, which is not determined until the last day of each Purchase Period. During the year ended December 31, 2015, 6,955 shares of our common stock were purchased by employees under the ESPP. As of October 26, 2016, the closing price of a share of our common stock was \$1.15.

Recommendation

The Board of Directors recommends a vote FOR approval of the share increase under the Employee Stock Purchase Plan.

Vote Required

This proposal must be approved by a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR PROPOSAL NO. 4

PROPOSAL NO. 5

APPROVAL OF AN INCREASE IN THE NUMBER OF SHARES AVAILABLE FOR ISSUANCE UNDER THE 2012 RXi PHARMACEUTICALS CORPORATION LONG TERM INCENTIVE PLAN

Background

On January 23, 2012, our Board and our then sole stockholder adopted the RXi Pharmaceuticals Corporation 2012 Long Term Incentive Plan. On June 7, 2013, our stockholders approved an increase in the number of shares available for issuance under the 2012 Long Term Incentive Plan. In order to continue to provide employees, directors, consultants and advisors with stock-based incentives, the Board has authorized an amendment to the 2012 RXi Pharmaceuticals Corporation s Long Term Incentive Plan (as amended, the 2012 Incentive Plan), subject to stockholder approval. The amendment will increase the number of shares of common stock reserved for issuance under the 2012 Incentive Plan by 750,000 to a total of 1,250,000 shares. This increase of 750,000 shares represents approximately 11% of the Company s outstanding shares of common stock as of October 26, 2016. No other changes are being made to the 2012 Incentive Plan. Additionally, approval of this proposal will serve as ratification of the 2012 Incentive Plan for purposes of satisfying the stockholder approval requirement of Section 162(m) of the Code, as more fully described below.

As of October 26, 2016, an aggregate of 108,831 shares of common stock remained available for new grants under the 2012 Incentive Plan for the grant of stock-based incentives. The Company believes a compensation policy that includes a balanced mix of cash and equity is the most effective way to attract and retain talented employees whose interests are aligned with stockholders. Without approval of the amendment to the 2012 Incentive Plan, the Company will be constrained in its ability to use equity as a component of its compensation philosophy. If the increase in shares under the 2012 Incentive Plan is not approved, the number of shares currently available under the 2012 Incentive Plan may not be sufficient to cover projected awards through 2018. The Board currently intends that the additional 750,000 shares under the 2012 Incentive Plan will be sufficient to fund the Company s equity compensation needs for approximately 5 to 7 years.

While approving the share increase under the 2012 Incentive Plan, the Board considered, among other things, the following:

Potential dilution to its current stockholders as measured by burn rate and overhang (as described in Key Data below);

The recommendations of stockholder advisory firms like Glass Lewis and Institutional Shareholder Services; and

The continued importance of motivating, recruiting and retaining key employees.

Key Data

When approving the share increase under the 2012 Incentive Plan, the Board considered the burn rate with respect to the equity awards granted by the Company, as well as the Company s overhang. The burn rate is equal to the total number of equity awards the Company granted in a fiscal year divided by the weighted average common stock outstanding during the year. Overhang is equal to the total number of equity awards outstanding plus the total number of shares available for grant under the Company s equity plans, divided by the sum of the total common stock

outstanding, the number of equity awards outstanding and the total number of shares available for grant under the Company s equity plans. The Company s three-year average burn rate, at the time the Board approved the share increase under the 2012 Incentive Plan, was approximately 3%. The Company s overhang as of September 30, 2016 was 7%. If the share increase under the 2012 Incentive Plan is approved, the Company s overhang would increase to 16%

The following table sets forth information regarding outstanding equity awards and shares available for future equity awards under the 2012 Incentive Plan as of September 30, 2016 (without giving effect to approval of the share increase under the 2012 Incentive Plan):

Total shares underlying outstanding stock options				
Weighted average exercise price of outstanding stock options	\$	26.38		
Weighted average remaining contractual life of outstanding stock options (in years)		6.85		
Total shares underlying outstanding unvested restricted stock and restricted stock unit awards				
Total shares currently available for grant under 2012 Incentive Plan		108,831		
Total shares of common stock outstanding as of September 30, 2016				
Promotion of Good Corporate Governance Practices				

The 2012 Incentive Plan provides for the following:

Awards subject to exercise, including stock options and stock appreciation rights, may not have a term in excess of ten years and may not be granted at a discount to the fair market value of our common stock on the grant date;

Awards may not be repriced without stockholder approval;

The administrator may claw back awards previously realized in the event of certain misconduct by a participant and/or overpayment due to inaccurate financial data; and

Awards made under the 2012 Incentive Plan may qualify as performance-based compensation under Section 162(m) of the Code.

Section 162(m) of the Code

The Board continues to believe that it is in the best interests of the Company and its stockholders to provide for an incentive plan under which stock-based and qualifying cash compensation awards made to the Company s executive officers can qualify for deductibility by the Company for federal income tax purposes. Accordingly, the 2012 Incentive Plan has been structured in a manner such that awards under it can satisfy the requirements for performance-based compensation within the meaning of Section 162(m) of the Code. In general, under Section 162(m), in order for the Company to be able to deduct compensation in excess of \$1 million paid in any one year to the Company s Chief Executive Officer or any of the Company s three other most highly compensated executive officers (other than the Company s Chief Financial Officer), such compensation must qualify as performance-based. One of the requirements of performance-based compensation for purposes of Section 162(m) is that the material terms of the performance goals under which compensation may be paid be disclosed to and approved by the Company s stockholders. For purposes of Section 162(m), the material terms include (i) the employees eligible to receive compensation, (ii) a description of the business criteria on which the performance goal is based and (iii) the maximum amount of compensation that can be paid to an employee under the performance goal. With respect to the various types of awards under the 2012 Incentive Plan, each of these aspects is discussed below, and stockholder approval of this proposal will also constitute approval of each of these aspects of the 2012 Incentive Plan for purposes of the approval requirements of Section 162(m). Although stockholder approval is one of the requirements for exemption

under Section 162(m), even with stockholder approval there can be no guarantee that compensation will be treated as exempt performance-based compensation under Section 162(m). Furthermore, our Compensation Committee will continue to have the authority to provide compensation that is not exempt from the limits on deductibility under Section 162(m).

Plan Summary

The following summary of the material terms of the 2012 Incentive Plan is qualified in its entirety by reference to the complete text of the 2012 Incentive Plan, and the proposed amendment thereto, which are set forth in Appendix B to this Proxy Statement. Stockholders are encouraged to read the text of the 2012 Incentive Plan in its entirety.

Purpose. The 2012 Incentive Plan was established to advance the interests of the Company by providing for the grant to eligible participants of stock-based and other incentive awards.

Administration; Amendment and Termination. Our Compensation Committee currently acts as the administrator of our 2012 Incentive Plan. The administrator has the power to select participants from among the key employees, directors and consultants of and advisors to the Company, establish the terms, conditions and vesting schedule, if applicable, of each award and to accelerate vesting or exercisability of any award. The administrator has the power to do all things necessary to carry out the purposes of the 2012 Incentive Plan. The administrator may at any time modify or amend the 2012 Incentive Plan or any award made thereunder in any respect, except where a participant s approval is required by law or where such termination or modification or amendment affects materially and adversely the rights of a participant under a previously granted award and such participant s consent has not been obtained. Amendments to the 2012 Incentive Plan require stockholder approval only if (i) stockholder approval is required under the rules of the applicable stock exchange on which the stock is admitted to trading, and (ii) it would reduce the exercise price of any stock option previously granted under the 2012 Incentive Plan or otherwise constitute a repricing. In addition, the administrator may at any time terminate the 2012 Incentive Plan. The administrator has the power under the 2012 Incentive Plan to grant a variety of types of awards, as described more fully below.

Eligible Participants. Any person who is an employee or director of, or consultant or advisor to, the Company or its affiliates may be chosen by the administrator to receive awards under the 2012 Incentive Plan. As of October 26, 2016, approximately 15 employees and 4 non-employee directors were eligible to participate in the 2012 Incentive Plan. Options intending to qualify as incentive stock options (*Incentive Stock Options* or *ISOs*) within the meaning of Section 422 of the Code may only be granted to employees of the Company or any affiliate.

Available Shares. Subject to stockholder approval of this proposal, the maximum number of shares of common stock of the Company that may be delivered upon satisfaction of equity awards under the 2012 Incentive Plan is equal to 1,250,000 shares of common stock. Up to the total number of shares of common stock set forth in the preceding sentence may be issued in satisfaction of ISOs. The number of shares of common stock delivered in satisfaction of equity awards is determined net of shares of common stock withheld by the Company in payment of the exercise price of an award or in satisfaction of tax withholding requirements with respect to an award and without including any shares of common stock underlying awards settled in cash or which otherwise expire or become unexercisable without having been exercised or that are forfeited to or repurchased by the Company due to failure to vest. The share limits set forth in the 2012 Incentive Plan will be construed to comply with Section 422. To the extent consistent with the requirements of Section 422 and with other applicable legal requirements (including applicable stock exchange requirements, if any), common stock issued under Substitute Awards (as defined in the 2012 Incentive Plan) will not reduce the number of shares available for awards under the 2012 Incentive Plan. The shares which may be delivered under Substitute Awards are in addition to the limitations set forth in 2012 Incentive Plan on the number of shares available for issuance under the 2012 Incentive Plan, and such Substitute Awards are not be subject to the per participant award limits described below. The shares of common stock delivered by the Company under the 2012 Incentive Plan may be authorized but unissued common stock or previously issued common stock acquired by the Company. No fractional shares of common stock may be delivered under the 2012 Incentive Plan.

Tax Code Limitations. The maximum number of shares of common stock for which stock options may be granted to any person in a single calendar year and the maximum number of shares of common stock subject to stock appreciation rights granted to any person in a single calendar year are each one half of the total number of shares authorized for issuance under the 2012 Incentive Plan (the 162(m) Limit). The maximum number of shares of common stock subject to other equity awards granted to any person in any single calendar year is equal to the 162(m) Limit. The maximum amount payable to any person in any twelve (12) month period under cash awards is \$1,000,000.

Awards. The 2012 Incentive Plan permits the grant of stock options, stock appreciation rights, restricted stock, unrestricted stock, stock units, including restricted stock units, performance awards, cash awards, and other stock-based awards.

Stock Options. Stock options give a participant the right to purchase shares of stock within a specified period of time at an exercise price determined by the administrator. The administrator may require that a participant satisfy time-and/or performance-based vesting requirements before being able to exercise the stock option. Two types of stock options may be awarded under the Plan: ISOs and non-qualified options (*NQSOs*). ISOs are subject to special tax rules as described below. Except with respect to Substitute Awards, the exercise price per share of common stock subject to an option granted under the 2012 Incentive Plan must equal or exceed 100% of the fair market value of such common stock on the date the option is granted, except that the exercise price of an ISO granted to an individual owning more than 10% of the combined voting power of all classes of Company stock must equal or exceed 110% of the fair market value of such common stock on the date of grant. The maximum term of stock options granted under the 2012 Incentive Plan generally will not exceed ten (10) years from the date of grant (or five (5) years from the date of grant in the case of an ISO granted to an individual owning more than 10% of the combined voting power of all classes of Company stock).

Stock Appreciation Rights (SARs). A SAR entitles a participant to receive stock or cash equal in value to the excess of the fair market value of the shares of common stock subject to the SAR on the date of exercise over the fair market value of those shares on the date of grant. The administrator may require that a participant satisfies time- and/or performance-based vesting requirements before being able to exercise the SAR. Whether a SAR is settled in shares of stock or in cash (or a combination) will be determined by the terms of the award. In the case of stock-settled SARs, cash will be paid in lieu of any fractional shares. Except with respect to Substitute Awards, the exercise price per share of common stock subject to a SAR granted under the 2012 Incentive Plan must equal or exceed 100% of the fair market value of such common stock on the date the SAR is granted. The maximum term of SARs granted under the 2012 Incentive Plan generally will not exceed ten (10) years from the date of grant.

Restricted Stock. The term restricted stock refers to stock that is awarded in connection with services and that, while it is restricted, may not be transferred or pledged and may be required to be forfeited to the Company or sold back to the Company for less than fair market value if specified conditions are not satisfied (for example, time- or performance-based vesting requirements). A participant who is awarded restricted stock may be required to pay a purchase price for the shares or may be awarded the shares free of charge. The date or dates on which or the circumstances in which the award vests will be determined by the administrator and will be specified in the award unless the administrator accelerates vesting. A participant receiving a restricted stock award becomes the owner of the shares at the time of grant, even though the shares may be required to be forfeited if the vesting conditions are not satisfied.

<u>Unrestricted Stock</u>. The term unrestricted stock as used in the 2012 Incentive Plan refers to stock that is awarded for past services or other lawful consideration. Unrestricted stock is not subject to vesting conditions or forfeiture.

<u>Restricted Stock Units (*RSUs*)</u>. An RSU is a conditional promise to deliver shares of common stock or a cash amount of equivalent value in the future. Vesting and delivery of common stock or cash in lieu of common stock are subject to the satisfaction of conditions (for example, time- or performance-based vesting requirements) specified in the award.

<u>Performance Awards</u>. The term performance award is used in the 2012 Incentive Plan to describe any award that is subject to the satisfaction of specified performance criteria in addition to other conditions that may be imposed by the administrator. For example, the term performance award would apply to an award under which a participant earns the right to a payout in stock or cash only if specified earnings targets are met. The performance criteria used in connection with a particular performance award will be determined by the

administrator and specified in the award. The administrator determines whether the performance targets or goals that have been specified for a particular award have been satisfied. For purposes of the 2012 Incentive Plan, a performance criterion means an objectively determinable measure of performance relating to any or any combination of the following (measured either absolutely or by reference to an index or indices and determined either on a consolidated basis or, as the context permits, on a divisional, subsidiary, line of business, project or geographical basis or in combinations thereof): sales; revenues; assets; expenses; earnings before or after deduction for all or any portion of interest, taxes, depreciation, or amortization, whether or not on a continuing operations or an aggregate or per share basis; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow; stock price; stockholder return; sales of particular products or services; customer acquisition or retention; acquisitions and divestitures (in whole or in part); joint ventures and strategic alliances; spin-offs, split-ups and the like; reorganizations; or recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings. A performance criterion and any targets with respect thereto determined by the administrator need not be based upon an increase, a positive or improved result or avoidance of loss. To the extent consistent with the requirements for satisfying the performance-based compensation exception under Section 162(m) of the Code, the administrator may establish that in the case of any award intended to qualify for such exception that one or more of the performance criteria applicable to such award will be adjusted in an objectively determinable manner to reflect events (such as the impact of charges for restructurings, discontinued operations, mergers, acquisitions, extraordinary items, and other unusual or non-recurring items, and the cumulative effects of tax or accounting changes, each as defined by U.S. generally accepted accounting principles) occurring during the performance period that affect the applicable performance criterion or criteria). The administrator may, in its sole and absolute discretion, reduce the actual payment, if any, to be made under any such performance award consistent with Section 162(m) of the Code.

Cash Awards. A cash award entitles a participant to a payment, if any, under the award only if all conditions to payment have been satisfied in accordance with the terms of the award and the 2012 Incentive Plan. The administrator will determine the actual payment, if any, under each cash award. The administrator may, in its absolute discretion, after determining the amount that would otherwise be payable under a cash award that is subject to performance criteria, adjust (including to zero) the payment, if any, to be made under such award. Cash awards granted as performance awards under the 2012 Incentive Plan will be with respect to a performance period greater than one year, except as otherwise determined by the administrator.

Transferability. Neither ISOs nor other Awards may be transferred other than by will or by the laws of descent and distribution, and during a participant s lifetime ISOs any other awards may be exercised only by the participant; provided, however, that the administrator may permit equity awards other than ISOs to be transferred by gift, subject to applicable securities and other laws and such limitations as the administrator may impose.

Mergers and Similar Transactions. In the event of a change of control in which there is an acquiring or surviving entity, the administrator may provide for the assumption or substitution of some or all of the outstanding awards by the acquiror or survivor. In the absence of an assumption or substitution, the administrator may provide that each award will become fully vested and exercisable, if applicable, prior to the transaction on a basis that gives the holder of such award, as applicable, a reasonable opportunity to participate as a stockholder in the transaction following exercise, and the award will terminate upon consummation of the transaction.

Adjustment Provisions. In the event of certain changes in the Company s capitalization, the administrator will make appropriate adjustments to the maximum number of shares that may be delivered under the 2012 Incentive Plan and to the maximum share limits set forth therein, and will also make appropriate adjustments to the number and kind of shares of stock or securities subject to equity awards then outstanding or subsequently granted, any exercise prices relating to equity awards and any other provision of awards affected by such change.

Termination of Service. Upon termination of employment of an employee, the unvested portion of any stock option generally, and with exceptions, will terminate and the balance, to the extent exercisable, will remain

exercisable for the lesser of (i) a period of three months or (ii) the period ending on the latest date on which such stock option could have been exercised.

Effective Date and Termination of the Plan. The Board originally adopted the 2012 Incentive Plan on January 23, 2012 and it will remain available for the grant of awards until the tenth anniversary thereof.

Certain U.S. Federal Income Tax Consequences

The following discussion of the federal income tax consequences of the 2012 Incentive Plan is intended to be a summary of applicable federal law as currently in effect. It should not be taken as tax advice by participants, who are urged to consult their individual tax advisors.

Stock Options. ISOs and NQSOs are treated differently for federal income tax purposes. ISOs are intended to comply with the requirements of Section 422 of the Code. NQSOs do not comply with such requirements. An optionee is not taxed on the grant or exercise of an ISO. The difference between the exercise price and the fair market value of the shares on the exercise date will, however, be a preference item for purposes of the alternative minimum tax. If an optionee holds the shares acquired upon exercise of an ISO for at least two years following the option grant date and at least one year following exercise, the optionee s gain, if any, upon a subsequent disposition of such shares is long term capital gain. The measure of the gain is the difference between the proceeds received on disposition and the optionee s basis in the shares (which generally equals the exercise price). If an optionee disposes of stock acquired pursuant to the exercise of an ISO before satisfying these holding periods, the optionee will recognize both ordinary income and capital gain in the year of disposition. The Company is not entitled to an income tax deduction on the grant or exercise of an ISO or on the optionee s disposition of the shares after satisfying the holding period requirement described above. If the holding periods are not satisfied, the Company will be entitled to a deduction in the year the optionee disposes of the shares in an amount equal to the ordinary income recognized by the optionee.

In order for an option to qualify for ISO tax treatment, the grant of the option must satisfy various other conditions more fully described in the Code. The Company does not guarantee that any option will qualify for ISO tax treatment even if the option is intended to qualify for such treatment. In the event an option intended to be an ISO fails to so qualify, it will be taxed as an NOSO as described below.

An optionee is not taxed on the grant of an NQSO. On exercise, the optionee recognizes ordinary income equal to the difference between the exercise price and the fair market value of the shares acquired on the date of exercise. The Company is entitled to an income tax deduction in the year of exercise in the amount recognized by the optionee as ordinary income. The optionee s gain (or loss) on a subsequent disposition of the shares is long term capital gain (or loss) if the shares are held for at least one year following exercise. The Company does not receive a deduction for this gain.

SARs. An optionee is not taxed on the grant of a SAR. On exercise, the optionee recognizes ordinary income equal to the cash or the fair market value of any shares received. The Company is entitled to an income tax deduction in the year of exercise in the amount recognized by the optionee as ordinary income.

Restricted Stock and Restricted Stock Units. Grantees of restricted stock or restricted stock units do not recognize income at the time of the grant. When the award vests or is paid, grantees generally recognize ordinary income in an amount equal to the fair market value of the stock or units at such time, and the Company will receive a corresponding deduction. However, no later than 30 days after a participant receives an award of restricted stock, the participant may elect to recognize taxable ordinary income in an amount equal to the fair market value of the shares at the time of receipt. Provided that the election is made in a timely manner, when the restrictions on the shares lapse, the participant will not recognize any additional income. If the participant forfeits the shares to the Company (e.g., upon the participant s termination prior to vesting), the participant may not claim a deduction with respect to the income

recognized as a result of the election. Dividends paid with respect to unvested shares of restricted stock generally will be taxable as ordinary income to the participant at the time the dividends are received.

Unrestricted Stock. If a participant is awarded or purchases shares of unrestricted stock, the participant will have ordinary income equal to the excess of the fair market value of the shares over the purchase price, if any, at the time the participant acquires the shares. For purposes of determining capital gain or loss on a sale of the stock, the participant s holding period in the shares begins at the time you acquire the shares. A participant s tax basis in the shares equals the amount paid for the shares (if anything) plus any income realized with respect to the transfer.

Cash Awards. A participant will have taxable income at the time a cash award becomes payable, and, if the participant has timely elected deferral to a later date, such later date. At that time, the participant will recognize ordinary income equal to the value of the amount then payable.

Company Deduction and Section 162(m). The 2012 Incentive Plan is designed to allow awards made under it to qualify as performance-based compensation within the meaning of Section 162(m) of the Code, however there can be no guarantee that amounts payable under the 2012 Incentive Plan will be treated as qualified performance-based compensation under Section 162(m). In general, under Section 162(m), in order for the Company to be able to deduct compensation in excess of \$1,000,000 paid in any one year to our Chief Executive Officer or any of our three other most highly compensated executive officers (other than the Chief Financial Officer), such compensation must qualify as performance-based. However, the rules and regulations promulgated under Section 162(m) are complicated and subject to change from time to time, sometimes with retroactive effect. In addition, a number of requirements must be met in order for particular compensation to so qualify. As such, there can be no assurance that any compensation awarded or paid under the 2012 Incentive Plan will be deductible under all circumstances.

Withholding Taxes. The Company will generally be required to withhold applicable taxes with respect to any ordinary income recognized by a participant in connection with awards made under the 2012 Incentive Plan. Whether or not such withholding is required, the Company will make such information reports to the Internal Revenue Service as may be required with respect to any income (whether or not that of an employee) attributable to transactions involving awards.

New Plan Benefits

The benefits that will be awarded or paid in the future under the 2012 Incentive Plan are not currently determinable. Such awards are within the discretion of the Compensation Committee, and the Compensation Committee has not determined future awards or who might receive them. As of October 26, 2016, the closing price of a share of the Company s common stock was \$1.15.

Recommendation

The Board of Directors recommends a vote FOR approval of the share increase under the 2012 Incentive Plan and the ratification of the 2012 Incentive Plan for purposes of Section 162(m) of the Code.

Vote Required

This proposal must be approved by a majority of the votes cast on the matter affirmatively or negatively. As a result, abstentions and broker non-votes will be entirely excluded from the vote and will have no effect on its outcome.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR PROPOSAL NO. 5.

CORPORATE GOVERNANCE

Director Independence

We believe that the Company benefits from having a strong and independent Board. For a director to be considered independent, the Board must determine that the director does not have any direct or indirect material relationship with the Company that would affect his or her exercise of independent judgment. On an annual basis, the Board reviews the independence of all directors under the applicable NASDAQ listing standards. The Company also considers each director s affiliations with the Company and members of management, as well as significant holdings of Company securities. This review considers all known relevant facts and circumstances in making an independence determination. Based on this review, the Board has made an affirmative determination that all directors, other than Dr. Cauwenbergh, are independent. It was determined that Dr. Cauwenbergh lacks independence because of his status as the Company s President and Chief Executive Officer.

In addition, NASDAQ listing standards require that, subject to specified exceptions, each member of our Audit, Compensation and Nominating and Governance Committees be independent and that our Audit Committee members also satisfy independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the *Exchange Act*). Our Board of Directors has determined that Messrs. Brownlie and Dorman and Dr. Lockshin, members of the Audit Committee, Messrs. Bitterman and Brownlie and Dr. Lockshin, members of the Compensation Committee, and Dr. Lockshin and Messrs. Brownlie and Dorman, members of the Nominating and Governance Committee, are independent under the applicable NASDAQ listing standards and the Exchange Act.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Waivers of our Code of Business Conduct and Ethics may only be granted by the Board of Directors or our Nominating and Governance Committee and will be publicly announced promptly in our SEC filings. Our Code of Business Conduct and Ethics, as well as other corporate governance materials, is located on our website at www.rxipharma.com.

Stockholder Communications

Generally, stockholders who have questions or concerns regarding the Company should contact our Investor Relations department at (508) 929-3646. However, any stockholders who wish to address questions regarding the business or affairs of the Company directly with the Board, or any individual director, should direct his or her questions in writing to the Chairman of the Board, RXi Pharmaceuticals Corporation, 257 Simarano Drive, Suite 101, Marlborough, MA 01752. Upon receipt of any such communications, the correspondence will be directed to the appropriate person, including individual directors.

BOARD OF DIRECTORS AND COMMITTEES

During fiscal year 2015, our Board met twelve times. Each director attended at least 94% of the aggregate of the meetings of the Board and meetings of the committees of which he was a member in our last fiscal year. The Board has three standing committees: an Audit Committee, a Compensation Committee, and a Nominating and Governance Committee. All members of the Audit, Compensation and Nominating and Governance Committees are non-employee directors who are deemed independent.

Although the Company has no formal policies regarding director attendance at annual meetings, it does expect that all members of the Board will attend the 2016 Annual Meeting. All directors attended the 2015 Annual Meeting of

Stockholders.

Board Leadership Structure and Role in Risk Oversight

The positions of Chairman of the Board and Chief Executive Officer are separated, which allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. Our Board recognizes the time, effort and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our Chairman. Our Board also believes that this structure ensures a greater role for the independent directors in the oversight of our Company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of our Board. Our Board believes its administration of its risk oversight function has not affected its leadership structure.

While our Bylaws do not require that our Chairman and Chief Executive Officer positions be separate, our Board believes that having separate positions and having an independent outside director serve as Chairman is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance. Our separated Chairman and Chief Executive Officer positions are augmented by our independent Board committees that provide appropriate oversight in the areas described below. At executive sessions of independent directors, these directors speak candidly on any matter of interest, which may be with or without the Chief Executive Officer present. The independent directors meet separately in executive session on at least an annual basis to discuss matters relating to the Company and the Board, without members of the management team present. The Board of Directors met in executive session one time in 2015. We believe this structure provides consistent and effective oversight of our management and the Company.

The Board has overall responsibility for the oversight of the Company s risk management process, which is designed to support the achievement of organizational objectives, including strategic objectives, to improve long-term organizational performance and enhance stockholder value. Risk management includes not only understanding company-specific risks and the steps management implements to manage those risks, but also what level of risk is acceptable and appropriate for the Company. Management is responsible for establishing our business strategy, identifying and assessing the related risks and implementing appropriate risk management practices. The Board periodically reviews our business strategy and management s assessment of the related risk, and discusses with management the appropriate level of risk for the Company. The Board also delegates oversight to Board committees to oversee selected elements of risk as set forth below.

Board Committees

Audit Committee. As of the Record Date, the Audit Committee was comprised of Messrs. Brownlie (Chairman) and Dorman and Dr. Lockshin. The Audit Committee selects the Company s independent registered public accounting firm, approves its compensation, oversees and evaluates the performance of the independent registered public accounting firm, oversees the accounting and financial reporting policies and internal control systems of the Company, reviews the Company s interim and annual financial statements, independent registered public accounting firm reports and management letters and performs other duties, as specified in the Audit Committee Charter, a copy of which is available on the Company s website at www.rxipharma.com. The Audit Committee met four times in fiscal year 2015. All members of the Audit Committee satisfy the current independence and experience requirements of Rule 10A-3 of the Exchange Act and the current NASDAQ independence standards, and the Board has determined that Mr. Brownlie is an audit committee financial expert, as the SEC has defined that term in Item 407 of Regulation S-K.

Compensation Committee. As of the Record Date, the Compensation Committee was comprised of Messrs. Bitterman (Chairman) and Brownlie and Dr. Lockshin. The Compensation Committee determines compensation levels for the Company s executive officers and directors, oversees administration of the Company s equity compensation plans and performs other duties regarding compensation for employees and consultants as the Board may delegate from time to

time. Our Chief Executive Officer makes recommendations to the Compensation Committee regarding the corporate and individual performance goals and objectives relevant to

executive compensation and executives performance in light of such goals and objectives, and recommends other executives compensation levels to the Compensation Committee based on such evaluations. The Compensation Committee considers these recommendations and then makes an independent decision regarding officer compensation levels and awards. The Compensation Committee met two times in fiscal year 2015. A copy of the Compensation Committee charter is available on the Company s website at www.rxipharma.com. All members of the Compensation Committee satisfy the current NASDAQ independence standards, and each member of the Committee qualifies as an outside director and non-employee director as defined by Section 162(m) of the Code and Rule 16b-3 of the Exchange Act, respectively.

Nominating and Governance Committee. As of the Record Date, the Nominating and Governance Committee was comprised of Drs. Lockshin (Chairman) and Messrs. Brownlie and Dorman. The Nominating and Governance Committee reviews potential director nominees, recommends nominees to the Board, oversees the Company s corporate governance principles and develops and implements policies and processes regarding corporate governance matters. The Nominating and Governance Committee met two times in fiscal year 2015. A copy of the Nominating and Governance Committees charter is available on our website at www.rxipharma.com. Dr. Lockshin and Messrs. Brownlie and Dorman satisfy the current NASDAQ independence standards.

EXECUTIVE OFFICERS

Our current executive officers and their respective ages and positions as of the Record Date are set forth in the following table. Biographical information regarding each executive officer who is not also a director is set forth following the table. Biographical information for Dr. Cauwenbergh is set forth above under Proposal No. 1 (Election of Directors).

Name	Age	Position
Geert Cauwenbergh, Dr. Med. Sc.	62	President, Chief Executive Officer and acting Chief Financial
		Officer
Pamela Pavco, Ph.D.	60	Chief Development Officer

Pamela Pavco, Ph.D. currently serves as our Chief Development Officer. Prior to this, Dr. Pavco served as our Senior Vice President of Pharmaceutical Development from September 24, 2011 until April 2012. From March 2007 to September 24, 2011, she served as the Vice President of Pharmaceutical Development of Galena Biopharma, Inc. Dr. Pavco has over 25 years of research and development experience in oligonucleotides. Dr. Pavco was Senior Director of Research and Development Project Management at Sirna Therapeutics, Inc., from 2002 until 2006, when it was acquired by Merck & Co., Inc. for \$1.1 billion. While at Sirna, she was responsible for the discovery research and development of Sirna-027, the first chemically modified siRNA to enter clinical trials. Dr. Pavco also managed Sirna s alliance with Allergan, Inc. that was initiated to continue discovery research in the area of ophthalmology and take Sirna-027 forward into Phase 2 clinical studies. While at Sirna, Dr. Pavco served in various additional capacities, including Director of Biology Research and Director of Pharmacology and she also managed numerous corporate collaborations and internal programs focusing on the development of therapeutic oligonucleotides in the fields of oncology, antiangiogenesis, hepatitis, respiratory disease and Huntington s disease. Dr. Pavco has authored numerous scientific articles and contributed to approximately 60 patents and patent applications in the oligonucleotide therapeutics field. Dr. Pavco received a Ph.D. in Biochemistry from Virginia Commonwealth University and did her post-doctoral work at Duke University. She is a member of the American Association of Cancer Research and the Association for Research and Vision in Ophthalmology.

CERTAIN RELATIONSHIPS AND RELATED-PARTY TRANSACTIONS

Our Board has a policy to review and approve all transactions with directors, officers and holders of more than 5% of our voting securities and their affiliates. The policy provides that, prior to Board consideration of a transaction with such a related party, the material facts as to the related party s relationship or interest in the transaction must be disclosed to the Board, and the transaction will not be considered approved by the Board unless a majority of the directors who are not interested in the transaction (if applicable) approve the transaction. Furthermore, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party s relationship or interest in the transaction must be disclosed to the stockholders, who must approve the transaction in good faith.

Indemnification Agreements

We have entered into indemnification agreements with each of our executive officers and directors. These agreements provide that, subject to limited exceptions and among other things, we will indemnify each of our executive officers and directors to the fullest extent permitted by law and advance expenses to each indemnitee in connection with any proceeding in which a right to indemnification is available.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our officers (as defined in Rule 16a-1(f) under the Exchange Act) and directors, and persons who own more than 10% of a registered class of our equity securities to file reports of beneficial ownership and changes in beneficial ownership with the SEC. Officers, directors and greater-than-10% stockholders (the *Reporting Persons*) are required by SEC regulations to furnish us with copies of all reports filed under Section 16(a). Based solely on our review of copies of these reports and representations of such reporting persons, we believe that during fiscal year 2015, all Reporting Persons satisfied such applicable SEC filing requirements.

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth certain information, as of September 30, 2016, about the securities authorized for issuance under our equity compensation plans, which consisted of our 2012 Long Term Incentive Plan and our 2013 Employee Stock Purchase Plan.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Exerc Outstand Warn	ed-Average cise Price of ling Options, rants and Eights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders	390,969	\$	26.58	108,831
Equity compensation plans not approved by security holders	270,707	\$	20.00	200,001
Total	390,969	\$	26.58	108,831

SECURITY OWNERSHIP OF

CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Based on information available to us and filings with the Securities and Exchange Commission (the *SEC*), the following table sets forth certain information regarding the beneficial ownership (as defined by Rule 13d-3 under the Exchange Act) of our outstanding common stock for (i) each of our directors, (ii) each of our named executive officers, as defined in the Executive Compensation section below, (iii) all of our directors and executive officers as a group and (iv) persons known to us to beneficially own more than 5% of our outstanding common stock. The following information is presented as of September 30, 2016 or such other date as may be reflected below.

Beneficial ownership and percentage ownership are determined in accordance with the rules of the SEC and include voting or investment power with respect to shares of stock. This information does not necessarily indicate beneficial ownership for any other purpose. Under these rules, shares of common stock issuable under stock options or warrants that are exercisable within 60 days of September 30, 2016 are deemed outstanding for the purpose of computing the percentage ownership of the person holding the options or warrants, but are not deemed outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated and subject to applicable community property laws, to our knowledge, each stockholder named in the following table possesses sole voting and investment power over their shares of common stock, except for those jointly owned with that person s spouse. Unless otherwise indicated below, the address of each person listed on the table is c/o RXi Pharmaceuticals Corporation, 257 Simarano Drive, Suite 101, Marlborough, MA 01752.

	Shares Beneficially Owned Percent of	
Name and Address of Beneficial Owner	Number ⁽¹⁾	Class ⁽²⁾
Greater than 5% Holders		
Broadfin Capital, LLC ⁽³⁾		
300 Park Avenue, 25th Floor		
New York, NY 10022	661,713	9.90%
Directors, Officers and Named Executive Officers:		
Geert Cauwenbergh, Dr. Med. Sc. (4)	160,738	2.38%
Robert J. Bitterman ⁽⁵⁾	15,860	*
Keith L. Brownlie ⁽⁶⁾	9,585	*
H. Paul Dorman ⁽⁷⁾	13,543	*
Curtis A. Lockshin, Ph.D. ⁽⁸⁾	9,818	*
Pamela Pavco, Ph.D. ⁽⁹⁾	75,756	1.14%
All current directors and executive officers as a group		
(six persons)	285,300	4.16%

- * Indicates less than 1%.
- (1) Represents shares of common stock and shares of restricted stock held as of September 30, 2016 plus shares of common stock that may be acquired upon exercise of options, warrants and other rights exercisable within 60 days of September 30, 2016.
- Based on 6,599,846 shares of the registrant s common stock that were issued and outstanding as of September 30, 2016. The percentage ownership and voting power for each person (or all directors and executive officers as a

group) is calculated by assuming the exercise or conversion of all options, warrants and convertible securities exercisable or convertible within 60 days of September 30, 2016 held by such person and the non-exercise and non-conversion of all outstanding warrants, options and convertible securities held by all other persons.

(3) Based solely on information set forth in a 13G/A filed with the SEC on February 12, 2016. Voting and dispositive power with respect to the shares is shared with Broadfin Healthcare Master Fund, Ltd. and Kevin Kotler. Kevin Kotler is the Managing Member of Broadfin Capital, LLC and Director of Broadfin Healthcare Master Fund, Ltd.

- (4) Consists of (a) 18,750 shares of common stock and (b) 137,988 shares of common stock issuable upon the exercise of options and 4,000 shares of common stock issuable upon the exercise of warrants exercisable within 60 days of September 30, 2016.
- (5) Consists of (a) 4,400 shares of common stock and (b) 9,585 shares of common stock issuable upon the exercise of options and 1,875 shares of common stock issuable upon the exercise of warrants exercisable within 60 days of September 30, 2016.
- (6) Consists of 9,585 shares of common stock issuable upon the exercise of options exercisable within 60 days of September 30, 2016.
- (7) Consists of (a) 3,750 shares of common stock and (b) 7,918 shares of common stock issuable upon the exercise of options and 1,875 shares of common stock issuable upon the exercise of warrants exercisable within 60 days of September 30, 2016.
- (8) Consists of (a) 1,300 shares of common stock and (b) 7,918 shares of common stock issuable upon the exercise of options and 600 shares of common stock issuable upon the exercise of warrants exercisable within 60 days of September 30, 2016.
- (9) Consists of (a) 6,062 shares of common stock and (b) 69,069 shares of common stock issuable upon the exercise of options and 625 shares of common stock issuable upon the exercise of warrants exercisable within 60 days of September 30, 2016.

EXECUTIVE COMPENSATION

The following describes the compensation earned in fiscal 2015 and 2014 by each of the executive officers identified below in the Summary Compensation Table, who are referred to collectively as our named executive officers. Our named executive officers with respect to the fiscal year that ended on December 31, 2015 are Geert Cauwenbergh, Dr. Med. Sc., President, Chief Executive Officer, acting Chief Financial Officer and Director, and Pamela Pavco, Ph.D., Chief Development Officer.

Summary Compensation Table

Name and principal		Salary	Option awards	Non-equity incentive plan compensationco		Total
position	Year	(\$)	$(\$)^{(1)}$	$(\$)^{(2)}$	$(\$)^{(3)}$	(\$)
Geert Cauwenbergh, Dr. Med. Sc.	2015	398,361	37,240	190,000	300	625,901
President, Chief Executive Officer and acting Chief Financial Officer	2014	381,274	305,900	114,000	552(4)	801,726
Pamela Pavco, Ph.D. Chief Development Officer	2015 2014	363,808 350,577	18,480 150,480	104,025 63,000	300 300	486,613 564,357

- The amounts shown reflect the grant date fair value computed in accordance with Financial Accounting Standards Board (**FASB**) Accounting Standards Codification (*ASC*) 718 for the indicated year, adjusted to disregard the effects of any estimate of forfeitures related to service-based vesting. The assumptions we used in valuing options are described more fully in the Management's Discussion and Analysis section and the Notes to Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015.
- (2) The amounts shown reflect the annual cash bonus earned for performance for each respective year under the Company s Incentive Bonus Program. The annual cash bonuses were paid in February of the calendar year following the year to which the bonus relates.
- (3) Represents amounts for the dollar value of life insurance premiums paid.

(4) Represents amounts for the dollar value of life insurance premiums paid and a gross-up for the related tax liability in connection with Dr. Cauwenbergh s health insurance premiums.

Outstanding Equity Awards at Fiscal Year-End

The following table shows information regarding outstanding equity awards as of December 31, 2015 for our named executive officers. None of the named executive officers held any outstanding stock awards as of that date.

	Option Awards Number			
	of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price	Option Expiration
Name	(#)	(#)	(\$)	Date
Geert Cauwenbergh, Dr. Med. Sc. ⁽¹⁾	104,363	9,489	25.50	06/08/2022
	8,334	5,000	60.00	06/07/2023
	4,988	8,313	28.50	06/02/2024
		13,301	3.80	06/01/2025
Pamela Pavco, Ph.D. ⁽²⁾	55,810		39.00	05/04/2022
	4,167	2,500	60.00	06/07/2023
	2,475	4,125	28.50	06/02/2024
	825	5,776	3.80	06/01/2025

⁽¹⁾ The option awards granted to Dr. Cauwenbergh vest as to 25% of the award on the first anniversary of the grant date and as to the remaining 75% of the option in equal monthly installments over a three year period thereafter.

(2) The option awards granted to Dr. Pavco vest in equal monthly installments over a four year period.

Nonqualified Deferred Compensation Earnings

We do not have any nonqualified deferred compensation plans.

Employment and Change of Control Agreements

Geert Cauwenbergh, Dr. Med. Sc.

Dr. Cauwenbergh was appointed Chief Executive Officer pursuant to an employment agreement, dated April 27, 2012, pursuant to which he is entitled to receive an initial base salary of \$360,000 per annum, as well as a performance bonus of up to 50% of his base salary, subject to the achievement of performance goals to be established annually. On June 8, 2012, Dr. Cauwenbergh received an option entitling him to purchase 113,852 shares of Company common stock at an exercise price equal to the fair value of the underlying common stock on the date of grant. The option vested with respect to one quarter of the underlying shares on April 27, 2013, and then vested on a ratable basis monthly thereafter over the next three years such that the option became fully vested and exercisable on April 27, 2016.

Dr. Cauwenbergh s employment agreement provides that, upon termination of Dr. Cauwenbergh s employment without cause (as defined therein) by us or by Dr. Cauwenbergh for good reason (as defined therein), he will be entitled to payment of: (1) any accrued but unpaid salary, business expenses and unused vacation as of the date of his termination as well as any unpaid bonus compensation awarded for the prior year; (2) six months of salary from the date of

termination; and (3) continued participation, at our expense, during the applicable six-month severance period in our sponsored group medical and dental plans. In the event his employment is terminated within twelve months following a change of control of RXi, he will be entitled to: (x) twelve months of salary from the date of termination; (y) accelerated vesting of any unvested RXi stock options held by him; and (z) continued participation, at our expense, during the twelve-month severance period in our sponsored group medical and dental plans.

Pamela Pavco, Ph.D.

Dr. Pavco serves as our Chief Development Officer. Under her employment agreement dated September 24, 2011, Dr. Pavco is entitled to receive an initial annual salary of \$300,000. She also received an option to purchase up to 55,810 shares of common stock at an exercise price equal to the fair value of the underlying common stock on the date of grant. The option vested in equal monthly installments over four years, beginning on October 24, 2011, such that the option became fully vested and exercisable on September 24, 2015.

Dr. Pavco s employment agreement provides that, upon termination of Dr. Pavco s employment without cause (as defined therein) by us or by Dr. Pavco for good reason (as defined therein), she will be entitled to payment of: (1) any accrued but unpaid salary and unused vacation as of the date of her termination; (2) six months of salary from the date of termination; and (3) continued participation, at our expense, during the applicable six-month severance period in our sponsored group medical and dental plans. In the event her employment is terminated within twelve months following a change of control of RXi, she will be entitled to: (x) twelve months of salary from the date of termination; (y) accelerated vesting of any unvested RXi stock options held by her as to 50% of the unvested option shares or the portion of the unvested option shares that would have vested over the following twenty-four months, whichever is greater; and (z) continued participation, at our expense, during the twelve-month severance period in our sponsored group medical and dental plans.

DIRECTOR COMPENSATION

The following table shows the compensation paid in fiscal year 2015 to the Company s non-employee directors.

	•	Option Awards		
Name	Fees Earned or Paid in Cash (\$)	$(\$)^{(1)(2)}$	Total (\$)	
Robert J. Bitterman	35,000	4,333	39,333	
Keith L. Brownlie	35,000	4,333	39,333	
H. Paul Dorman	27,500	4,333	31,833	
Curtis A. Lockshin, Ph.D.	30,000	4,333	34,333	

- (1) The amounts shown reflect the grant date fair value computed in accordance with FASB ASC 718 for the indicated year, adjusted to disregard the effects of any estimate of forfeitures related to service-based vesting. The assumptions we used in valuing options are described more fully in the Management s Discussion and Analysis section and the Notes to Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015.
- (2) Since their service on the Board, the aggregate number of shares underlying stock options outstanding at fiscal yearend to our non-employee directors is as follows: Robert J. Bitterman 8,335 option awards, Keith L. Brownlie 8,335 option awards, H. Paul Dorman 6,668 option awards and Curtis A. Lockshin, Ph.D. 6,668 option awards. We compensate our non-employee directors for their service as a member of our Board of Directors. As our only director who is also an employee, Dr. Cauwenbergh receives no separate compensation for Board service. Dr. Cauwenbergh s compensation is set forth above in the Summary Compensation Table.

Each non-employee director is entitled to receive an annual cash retainer of \$25,000. The chairs of our Board and the Audit Committee are entitled to receive an additional annual cash retainer of \$10,000 and the chair of the Nominating and Governance Committee is entitled to receive an additional annual cash retainer of \$5,000.

Each non-employee director is entitled to receive an option award for 3,334 shares of the Company s common stock, vesting in equal quarterly installments over one year, upon initial election to our Board of Directors. In addition, each non-employee director is also entitled to receive an additional annual option award for 1,667 shares of the Company s common stock, vesting in equal quarterly installments over one year.

Non-employee directors are also reimbursed for their travel and reasonable out-of-pocket expenses incurred in connection with attending Board and committee meetings and in attending continuing education seminars, to the extent that attendance is required by the Board or the committee(s) on which that director serves.

The Compensation Committee and the Board of Directors reassess the appropriate level of equity compensation for non-employee directors on an annual basis. Future equity compensation payments will be determined on a year-by-year basis for the foreseeable future due to the volatility of the Company s stock price.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee evaluates auditor performance, manages relations with the Company s independent registered public accounting firm, and evaluates policies and procedures relating to internal control systems. The Audit Committee operates under a written Audit Committee Charter that has been adopted by the Board, a copy of which is available on the Company s website at www.rxipharma.com. All members of the Audit Committee currently meet the independence and qualification standards for Audit Committee membership set forth in the listing standards provided by NASDAQ and the SEC.

Other than Mr. Brownlie, the Audit Committee members are not professional accountants or auditors. The members functions are not intended to duplicate or to certify the activities of management and the independent registered public accounting firm. The Audit Committee serves a Board-level oversight role in which it provides advice, counsel and direction to management and the auditors on the basis of the information it receives, discussions with management and the auditors, and the experience of the Audit Committee s members in business, financial and accounting matters.

The Audit Committee oversees the Company s financial reporting process on behalf of the Board. The Company s management has the primary responsibility for the financial statements and reporting process, including the Company s system of internal controls. In fulfilling its oversight responsibilities, the Audit Committee reviewed with management the audited financial statements included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2015. This review included a discussion of the quality and the acceptability of the Company s financial reporting, including the nature and extent of disclosures in the financial statements and the accompanying notes. The Audit Committee also reviewed the progress and results of the testing of the design and effectiveness of its internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002.

The Audit Committee also reviewed with the Company's independent registered public accounting firm, which is responsible for expressing an opinion on the conformity of the audited financial statements with accounting principles generally accepted in the United States of America, their judgments as to the quality and the acceptability of the Company's financial reporting and such other matters as are required to be discussed with the Committee under generally accepted auditing standards, including the Public Company Accounting Oversight Board Auditing Standard No. 16, *Communications with Audit Committees*. The Audit Committee has received the written disclosures and the letter from the independent registered public accounting firm required by the Public Company Accounting Oversight Board. The Audit Committee discussed with the independent registered public accounting firm their independence from management and the Company, including the matters required by the applicable rules of the Public Company Accounting Oversight Board.

In addition to the matters specified above, the Audit Committee discussed with the Company s independent registered public accounting firm the overall scope, plans and estimated costs of their audit. The Committee met with the independent registered public accounting firm periodically, with and without management present, to discuss the results of the independent registered public accounting firm s examinations, the overall quality of the Company s financial reporting and the independent registered public accounting firm s reviews of the quarterly financial statements, and drafts of the quarterly and annual reports.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board that the Company s audited financial statements should be included in the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Keith L. Brownlie

H. Paul Dorman

Curtis A. Lockshin

OTHER BUSINESS

We know of no other matters to be submitted to a vote of stockholders at the Annual Meeting. If any other matter is properly brought before the Annual Meeting or any adjournment thereof, it is the intention of the persons named in the enclosed proxy to vote the shares they represent in accordance with their judgment. In order for any stockholder to nominate a candidate or to submit a proposal for other business to be acted upon at a given annual meeting, he or she must provide timely written notice to our corporate secretary in the form prescribed by our Bylaws, as described below.

STOCKHOLDER PROPOSALS

Stockholder proposals intended to be included in the 2017 annual meeting proxy materials must be received by the Secretary of the Company no later than February 1, 2017, or otherwise as permitted by applicable law (the *Proxy Deadline*). The form and substance of these proposals must satisfy the requirements established by the Company s Bylaws and the SEC, and the timing for the submission of any such proposals may be subject to change as a result of changes in SEC rules and regulations.

Additionally, stockholders who intend to present a stockholder proposal at the 2017 annual meeting must provide the Secretary of the Company with written notice of the proposal not fewer than 90 nor more than 120 days prior to the anniversary date of the 2016 annual meeting, *provided, however*, that if the 2017 annual meeting date is more than 30 days before or after the anniversary date of the 2016 annual meeting, then stockholders must provide notice on or before 10 days after the day on which the date of the 2017 annual meeting is first disclosed in a public announcement. Notice must be tendered in the proper form prescribed by our Bylaws. Proposals not meeting the requirements set forth in our Bylaws will not be entertained at the meeting.

Additionally, any stockholder seeking to recommend a director candidate or any director candidate who wishes to be considered by the Nominating and Governance Committee, the committee that recommends a slate of nominees to the Board for election at each annual meeting, must provide the Secretary of the Company with a completed and signed biographical questionnaire on or before the Proxy Deadline. Stockholders can obtain a copy of this questionnaire from the Secretary of the Company upon written request. The Nominating and Governance Committee is not required to consider director candidates received after this date or without the required questionnaire. The Nominating and Governance Committee will consider all director candidates who comply with these requirements and will evaluate these candidates using the criteria described above under the caption, Nomination of Directors. Director candidates who are then approved by the Board will be included in the Company s proxy statement for that annual meeting.

DELIVERY OF PROXY MATERIALS

Our Annual Report to stockholders for the fiscal year ended December 31, 2015, including audited financial statements and the notes thereto, accompanies this Proxy Statement. Copies of our Annual Report on Form 10-K for fiscal 2015 and the exhibits thereto are available from the Company without charge upon written request of a

stockholder. Copies of these materials are also available online through the SEC at www.sec.gov. The Company may satisfy SEC rules regarding delivery of proxy materials, including the Proxy Statement, Annual Report and Notice, by delivering a single Notice and, if applicable, a single set of proxy materials to an address shared by two or more Company stockholders. This delivery method can result in meaningful cost savings for the Company. In order to take advantage of this opportunity, the Company may deliver only one Notice and, if applicable, a single set of proxy materials to multiple stockholders who share an address, unless contrary instructions are received prior to the mailing date. Similarly, if you share an address with another stockholder and have received multiple copies of our Notice and/or other proxy materials, you may write or call us at the address and phone number below to request delivery of a single copy of the Notice and, if applicable, other proxy materials in the future. We undertake to deliver promptly upon written or oral request a separate copy of the Notice and, if applicable, other proxy materials, as requested, to a stockholder at a shared address to which a single copy of the Notice and/or other proxy materials was delivered. If you hold stock as a record stockholder and prefer to receive separate copies of a Notice and, if applicable, other proxy materials either now or in the future, please contact the Company s Investor Relations department at 257 Simarano Drive, Suite 101, Marlborough, MA 01752 or by telephone at (508) 929-3646. If your stock is held through a brokerage firm or bank and you prefer to receive separate copies of a Notice and, if applicable, other proxy materials either now or in the future, please contact your brokerage firm or bank.

EACH STOCKHOLDER IS URGED TO COMPLETE, DATE, SIGN AND PROMPTLY RETURN THE ENCLOSED PROXY.

APPENDIX A

RXi PHARMACEUTICALS CORPORATION

EMPLOYEE STOCK PURCHASE PLAN

SECTION 1. PURPOSE OF PLAN

The RXi Pharmaceuticals Corporation Employee Stock Purchase Plan (the Plan) is intended to enable eligible employees of RXi Pharmaceuticals Corporation (RXi) and such of its Subsidiaries as the Board of Directors of RXi (the Board) may from time to time designate (RXi and such Subsidiaries being hereinafter referred to as the Company) to use payroll deductions to purchase shares of common stock, \$0.0001 par value of RXi (such common stock being hereafter referred to as Stock), and thereby acquire an interest in the future of RXi. For purposes of the Plan, a Subsidiary is any corporation that would be treated as a subsidiary of RXi under Section 424(f) of the Internal Revenue Code of 1986, as amended (the Code). The Plan is intended to qualify under Section 423 of the Code and will be construed accordingly.

SECTION 2. RIGHT TO PURCHASE STOCK

Subject to adjustment pursuant to Section 16 of this Plan, the maximum aggregate number of shares of Stock available for sale pursuant to the exercise of options (Stock Rights) granted under the Plan to employees of the Company (Employees) who meet the eligibility requirements set forth in Section 3 hereof (Eligible Employees) is the lesser of (a) 5,000 shares increased on each anniversary of the adoption of the Plan by one percent (1%) of the total shares of Common Stock then outstanding and (b) 11,333 shares. The Stock to be delivered upon exercise of Stock Rights under the Plan may be either shares of authorized but unissued Stock or shares of reacquired Stock, as the Board may determine. If any Stock Right granted under the Plan shall expire or terminate for any reason without having been exercised in full or shall cease for any reason to be exercisable in whole or in part, the unpurchased Stock subject to such Stock Right shall again be available for sale pursuant to the exercise of Stock Rights under the Plan.

SECTION 3. ELIGIBLE EMPLOYEES

Subject to the exceptions and limitations set forth below, each Employee will be eligible to participate in the Plan on or after the first day of the month following his or her date of hire with respect to an Purchase Period beginning on or after such date.

- (a) Any Employee who immediately after the grant of a Stock Right would own (or pursuant to Section 423(b)(3) of the Code would be deemed to own) stock possessing 5% or more of the total combined voting power or value of all classes of stock of the employer corporation or of its parent or subsidiary corporation, as defined in Section 424 of the Code, will not be eligible to receive a Stock Right to purchase Stock pursuant to the Plan.
- (b) No Employee will be granted a Stock Right under the Plan that would permit his or her rights to purchase shares of stock under all employee stock purchase plans of the employer corporation and parent and subsidiary corporations to accrue at a rate that exceeds \$25,000 (or such other maximum as may be prescribed from time to time under Section 423 of the Code or any successor provision) in fair market value of such stock (determined at the time the Stock Right is granted) for any calendar year during which any such Stock Right granted to such Employee is outstanding, as provided in Section 423 of the Code.

SECTION 4. METHOD OF PARTICIPATION

Unless otherwise determined by the Compensation Committee of the Board (the Committee), the Purchase Periods shall be the six-month periods commencing January 1 and ending June 30 and commencing July 1 and ending December 31 of each year. Except as provided in Section 11, each person who will be an Eligible Employee on the first day of any Purchase Period may elect to participate in the Plan by executing and delivering, by such deadline prior thereto as the Committee may specify (the Enrollment Deadline), a payroll

A-1

deduction authorization in accordance with Section 5. Such Employee will thereby become a participant (Participant) on the first day of such Purchase Period and will remain a Participant until his or her participation is terminated as provided in the Plan.

SECTION 5. PAYROLL DEDUCTION

Each payroll deduction authorization will request withholding at a percentage of Compensation per payroll period within a range specified by the Committee for the applicable Purchase Period. Withholding will be accomplished by means of payroll deductions from payroll periods ending in the Purchase Period. For purposes of the Plan,

Compensation means wages, tips and other compensation reported on a Participant s Form W-2, plus compensation that is not currently includible in the Participant s gross income by reason of the application of Code Sections 125, 132(f)(4), 402(e)(3), 401(k), 402(h)(1)(B), 414(h), 403(b), or 457(b), and excluding reimbursements or other expense allowances, fringe benefits (cash or non-cash), moving expenses, deferred compensation (other than deferrals permitted by reason of one of the Code sections mentioned above), welfare benefits. Compensation shall include only that compensation that is actually paid to the Participant during the applicable Plan Year and while the employee is a Participant in the Plan. A Participant may not change his or her withholding rate once during a Purchase Period. However, a Participant may change his or her withholding rate for subsequent Purchase Periods by filing a new payroll deduction authorization with the Company on or before the Enrollment Deadline for the Purchase Period as set forth in Section 11. All amounts withheld in accordance with a Participant s payroll deduction authorization will be credited to a withholding account maintained in the Participant s name on the books of the Company. Amounts credited to the withholding account will not be required to be set aside in trust or otherwise segregated from the Company s general assets.

SECTION 6. GRANT OF STOCK RIGHTS

Each person who is a Participant on the first day of a Purchase Period will be granted, as of such day and for such Purchase Period, a Stock Right entitling the Participant to acquire shares of Stock equal in number to the lesser of:

- (a) the whole number (disregarding any fractional share amount) determined by dividing \$12,500 by the fair market value of one share of Stock on the first day of the Purchase Period; and
- (b) the whole number (disregarding any fractional share amount) determined by dividing (i) the balance credited to the Participant s withholding account on the last day of the Purchase Period, by (ii) the purchase price per share of the Stock determined under Section 7.

The Committee will reduce, on a substantially proportionate basis, the number of shares of Stock purchasable by each Participant upon exercise of his or her Stock Right for a Purchase Period in the event that the number of shares then available under the Plan is insufficient. Stock Right grants under this Section 6 will be automatic and need not be separately documented.

SECTION 7. PURCHASE PRICE

The purchase price of Stock issued pursuant to the exercise of a Stock Right will be 90% of the fair market value of the Stock on (a) the date of grant of the Stock Right or (b) the date on which the Stock Right is deemed exercised, whichever is less. If the shares of Stock are traded on a national exchange or trading system (including the NASDAQ National Market System and the OTC Markets Group), the fair market value for any day will mean the reported closing price of the Stock for such day; *provided*, that if such day is not a trading day, fair market value will mean the reported closing price of the Stock for the next preceding day which is a trading day. If the shares of Stock are not traded on an exchange or trading system, the fair market value of such Stock on such date will be established in a

manner determined in good faith by the Board.

SECTION 8. EXERCISE OF STOCK RIGHTS

If any Employee is a Participant in the Plan on the last day of a Purchase Period, he or she will be deemed to have exercised the Stock Right granted to him or her for that Purchase Period. Upon such exercise, the Company will apply the balance of the Participant s withholding account to the purchase of the number of whole shares of Stock determined under Section 6 and as soon as practicable thereafter will evidence the transfer of shares of Stock or will deliver the shares of Stock to the Participant and will return to him or her the balance, if any, of his or her withholding account in excess of the total purchase price of the shares so issued; *provided*, that if the balance left in the account consists solely of an amount equal to the value of a fractional share it will be retained in the account and carried over to the next Purchase Period.

Notwithstanding anything herein to the contrary, the Company s obligation to issue and deliver shares of Stock under the Plan will be subject to the approval required of any governmental authority in connection with the authorization, issuance, sale or transfer of said shares, to any requirements of any national securities exchange applicable thereto, and to compliance by the Company with other applicable legal requirements in effect from time to time.

SECTION 9. INTEREST

No interest will be payable on withholding accounts.

SECTION 10. TAXES

Payroll deductions are made on an after-tax basis. If the Company determines that the exercise of a Stock Right or the disposition of shares following the exercise of a Stock Right could result in employment tax liability, the Company may, as a condition of exercise, make such provision as it deems necessary to provide for the remittance by the Participant of employment taxes required to be paid in connection with such exercise or disposition of shares.

SECTION 11. CANCELLATION AND WITHDRAWAL

A Participant who holds a Stock Right under the Plan may at any time prior to exercise thereof under Section 8 cancel all (but not less than all) of his or her Stock Right by written notice delivered to the Company. Upon such cancellation, the balance in the Participant s withholding account will be returned to the Participant.

A Participant may terminate his or her payroll deduction authorization as of any date by written notice delivered to the Company and will thereby cease to be a Participant as of such date. Any Participant who voluntarily terminates his or her payroll deduction authorization prior to the last day of a Purchase Period will be deemed to have canceled his or her Stock Right.

A Participant who makes a hardship withdrawal from a Company savings plan qualifying under Section 401(k) of the Code (a 401(k) Plan) will be deemed to have terminated his or her payroll deduction authorization as of the date of such hardship withdrawal, will cease to be a Participant as of such date, and will be deemed to have canceled his or her Stock Right. An Employee who has made a hardship withdrawal from a 401(k) Plan will not be permitted to participate in the Plan until the first Purchase Period that begins six months after the date of his or her hardship withdrawal.

SECTION 12. RESTRICTIONS ON TRANSFER

All shares of Stock purchased under the Plan will be subject to a restriction prohibiting the transfer of such shares of Stock from the account where such shares of Stock are initially held until such shares are sold through the Plan s administrator, custodian, or record keeper. For the avoidance of doubt, this restriction will remain in effect following

the termination of a Participant s employment with the Company.

A-3

SECTION 13. TERMINATION OF EMPLOYMENT

Except as otherwise provided in Section 14, upon the termination of a Participant s employment with the Company for any reason, he or she will cease to be a Participant, any Stock Right held by him or her under the Plan will be deemed canceled, the balance of his or her withholding account will be returned, and he or she will have no further rights under the Plan.

SECTION 14. DEATH OF PARTICIPANT

A Participant may elect that if death should occur during a Purchase Period the balance, if any, of the Participant s withholding account at the time of death will be applied at the end of the Purchase Period to the exercise of the Participant s Stock Right and the shares thereby purchased under the Stock Right (plus any balance remaining in the Participant s withholding account) will be delivered to the Participant s beneficiary or beneficiaries. Except as otherwise determined by the Committee (which may establish a procedure for the designation of beneficiaries under the Plan), a Participant s beneficiary(ies) for purposes of the Plan will be the Participant s estate.

SECTION 15. EQUAL RIGHTS; PARTICIPANT S RIGHTS NOT TRANSFERABLE

All Participants granted Stock Rights under the Plan with respect to any Purchase Period will have the same rights and privileges. Each Participant s rights and privileges under any Stock Right granted under the Plan will be exercisable during the Participant s lifetime only by him or her and except as provided in Section 14 above may not be sold, pledged, assigned, or transferred in any manner. In the event any Participant violates or attempts to violate the terms of this Section, any Stock Rights held by him or her may be terminated by the Company and, upon return to the Participant of the balance of his or her withholding account, all of the Participant s rights under the Plan will terminate.

SECTION 16. EMPLOYMENT RIGHTS

Nothing contained in the provisions of the Plan will be construed as giving to any Employee the right to be retained in the employ of the Company or as interfering with the right of the Company to discharge any Employee at any time.

SECTION 17. CHANGE IN CAPITALIZATION, MERGER

In the event of any change in the outstanding Stock of RXi by reason of a stock dividend, split-up, recapitalization, merger, consolidation, reorganization, or other capital change, the aggregate number and type of shares available under the Plan, the number and type of shares under Stock Rights granted but not exercised, the maximum number and type of shares purchasable under a Stock Right, and the Stock Right price will be appropriately adjusted.

In the event of a sale of all or substantially all of the Stock or a sale of all or substantially all of the assets of RXi, or a merger or similar transaction in which RXi is not the surviving corporation or which results in the acquisition of RXi by another person, the Board will (a) if RXi is merged with or acquired by another corporation, provide that each outstanding Stock Right will be assumed or a substitute Stock Right granted by the acquiror or successor corporation or a parent or subsidiary of the acquiror or successor corporation, (b) cancel each Stock Right and return the balances in Participants withholding accounts to the Participants, or (c) pursuant to Section 19, end the Purchase Period on or before the date of the proposed sale or merger.

SECTION 18. ADMINISTRATION OF PLAN

The Plan will be administered by the Committee, which will have the right to determine any questions which may arise regarding the interpretation and application of the provisions of the Plan and to make, administer, and interpret such rules and regulations as it will deem necessary or advisable. References in the Plan to the Committee will include

the Committee s delegates to the extent of any delegation by the Committee to such delegates of administrative responsibilities hereunder.

A-4

The Committee may specify the manner in which employees are to provide notices and payroll deduction authorizations. Notwithstanding any requirement of written notice herein, the Committee may permit employees to provide notices and payroll deduction authorizations electronically.

SECTION 19. AMENDMENT AND TERMINATION OF PLAN

RXi reserves the right at any time or times to amend the Plan to any extent and in any manner it may deem advisable, by vote of the Board; *provided*, that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code and the regulations thereunder will have no force or effect unless approved by the stockholders of RXi within twelve months before or after its adoption.

The Plan may be suspended or terminated at any time by the Board. In connection therewith, the Board may either cancel outstanding Stock Rights or continue them and provide that they will be exercisable either at the end of the applicable Purchase Period as determined under Section 4 above or on such earlier date as the Board may specify (in which case such earlier date will be treated as the last day of the applicable Purchase Period).

SECTION 20. APPROVAL OF STOCKHOLDERS

The Plan and the exercisability of Stock Rights granted hereunder will be subject to the approval of the stockholders of RXi obtained within twelve months before or after the date the Plan is adopted by the Board.

Proposed Amendment to RXi Pharmaceuticals Corporation Employee Stock Purchase Plan

Section 2 of the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan is hereby amended and restated as follows and all related Plan information shall be amended accordingly:

SECTION 2. RIGHT TO PURCHASE STOCK

Subject to adjustment pursuant to Section 16 of this Plan, the maximum aggregate number of shares of Stock available for sale pursuant to the exercise of options (Stock Rights) granted under the Plan to employees of the Company (Employees) who meet the eligibility requirements set forth in Section 3 hereof (Eligible Employees) is 511,333. The Stock to be delivered upon exercise of Stock Rights under the Plan may be either shares of authorized but unissued Stock or shares of reacquired Stock, as the Board may determine. If any Stock Right granted under the Plan shall expire or terminate for any reason without having been exercised in full or shall cease for any reason to be exercisable in whole or in part, the unpurchased Stock subject to such Stock Right shall again be available for sale pursuant to the exercise of Stock Rights under the Plan.

APPENDIX B

RXi Pharmaceuticals Corporation

2012 LONG TERM INCENTIVE PLAN

1. DEFINED TERMS

Exhibit A, which is incorporated by reference, defines the terms used in the Plan and sets forth certain operational rules related to those terms.

2. PURPOSE

The Plan has been established to advance the interests of the Company by providing for the grant to Participants of Stock-based incentive Awards and other Awards.

3. ADMINISTRATION

The Administrator has discretionary authority, subject only to the express provisions of the Plan, to interpret the Plan; determine eligibility for and grant Awards; determine, modify or waive the terms and conditions of any Award; prescribe forms, rules and procedures; and otherwise do all things necessary to carry out the purposes of the Plan. In the case of any Performance Award intended to qualify as exempt performance-based compensation under Section 162(m), the Administrator will exercise its discretion consistent with qualifying the Award for that exemption. Determinations of the Administrator made under the Plan will be conclusive and will bind all parties.

4. LIMITS ON AWARDS UNDER THE PLAN

(a) Number of Shares. The maximum number of shares of Stock that may be delivered upon satisfaction of Equity Awards under the Plan shall be 300,000 shares of Stock. Up to the total number of shares of Stock set forth in the preceding sentence may be issued in satisfaction of ISOs, but nothing in this Section 4(a) shall be construed as requiring that any, or any fixed number of, ISOs be awarded under the Plan. The number of shares of Stock delivered in satisfaction of Equity Awards shall, for purposes of this Section 4(a), be determined net of shares of Stock withheld by the Company in payment of the exercise price of the Award or in satisfaction of tax withholding requirements with respect to the Award and, for the avoidance of doubt, without including any shares of Stock underlying Awards settled in cash or which otherwise expire or become unexercisable without having been exercised or are forfeited to or repurchased by the Company due to failure to vest. The limits set forth in this Section 4(a) shall be construed to comply with Section 422. To the extent consistent with the requirements of Section 422 and with other applicable legal requirements (including applicable stock exchange requirements, if any), Stock issued under Substitute Awards shall not reduce the number of shares available for Awards under the Plan. The shares which may be delivered under Substitute Awards shall be in addition to the limitations set forth in this Section 4(a) on the number of shares available for issuance under the Plan, and such Substitute Awards shall not be subject to the per Participant Award limits described in Section 4(c) below.

(b) Type of Shares. Shares of Stock delivered by the Company under the Plan may be authorized but unissued Stock or previously issued Stock acquired by the Company. No fractional shares of Stock will be delivered under the Plan.

(c) Section 162(m) Limits. Solely for purposes of Section 162(m), the maximum number of shares of Stock for which Stock Options may be granted to any person in any calendar year and the maximum number of shares of Stock subject to SARs granted to any person in any calendar year will each be one half of the total number of shares authorized for issuance pursuant to Section 4(a) of the Plan (the 162(m) Limit). The maximum number of shares of Stock subject to

other Equity Awards granted to any person in any calendar year will be equal to the 162(m) Limit. The maximum amount payable to any person in any twelve (12) month period under Cash Awards will be \$1,000,000, which limitation, with respect to any Cash Awards for which payment is deferred in

accordance with Section 6(c)(2), shall be applied by assuming that payment of the Award was made at the time it would have been paid absent the deferral. The foregoing provisions will be construed in a manner consistent with Section 162(m).

5. ELIGIBILITY AND PARTICIPATION

The Administrator will select Participants from among those key Employees and directors of, and consultants and advisors to, the Company or its Affiliates who, in the opinion of the Administrator, are in a position to make a significant contribution to the success of the Company and its Affiliates; *provided*, that, subject to such express exceptions, if any, as the Administrator may establish, eligibility for Equity Awards shall be further limited to those persons as to whom the use of a Form S-8 registration statement is permissible. Eligibility for ISOs is limited to employees of the Company or of a parent corporation or subsidiary corporation of the Company as those terms are defined in Section 424 of the Code. Eligibility for Stock Options other than ISOs is limited to individuals described in the first sentence of this Section 5 who are providing direct services on the date of grant of the Sock Option to the Company or to a subsidiary of the Company that would be described in the first sentence of Treas. Regs. §1.409A-1(b)(5)(iii)(E).

6. RULES APPLICABLE TO AWARDS

(a) In General

- (1) Award Provisions. The Administrator will determine the terms of all Awards, subject to the limitations provided herein. By accepting (or, under such rules as the Administrator may prescribe, being deemed to have accepted) an Award, the Participant agrees to the terms of the Award and the Plan. The Administrator will determine whether Equity Awards are settled in shares of Stock or cash or whether the settlement or payment of Awards shall be subject to deferral. Notwithstanding any provision of this Plan to the contrary, Substitute Awards may contain terms and conditions that are inconsistent with the terms and conditions specified herein, as determined by the Administrator.
- (2) Term of Plan. No Awards may be made after the tenth anniversary of the date that this Plan is first adopted by the Board of Directors of the Company, but previously granted Awards may continue beyond that date in accordance with their terms.
- (3) Transferability. Neither ISOs nor, except as the Administrator otherwise expressly provides in accordance with the second sentence of this Section 6(a)(3), other Awards may be transferred other than by will or by the laws of descent and distribution, and during a Participant s lifetime ISOs (and, except as the Administrator otherwise expressly provides in accordance with the second sentence of this Section 6(a)(3), other Equity Awards requiring exercise) may be exercised only by the Participant. The Administrator may permit Equity Awards other than ISOs to be transferred by gift, subject to applicable securities and other laws and such limitations as the Administrator may impose.
- (4) Vesting, Etc. The Administrator shall determine the time or times at which an Equity Award will vest or become exercisable and the terms on which an Equity Award requiring exercise will remain exercisable. Without limiting the foregoing, the Administrator may at any time accelerate the vesting or exercisability of an Equity Award, regardless of any adverse or potentially adverse tax or other consequences resulting from such acceleration. Unless the Administrator expressly provides otherwise, however, the following rules will apply if a Participant s Employment ceases: immediately upon the cessation of the Participant s Employment, each Award requiring exercise that is then held by the Participant or by the Participant s permitted transferees, if any, will cease to be exercisable and will terminate, and all other Awards that are then held by the Participant or by the Participant s permitted transferees, if any, to the extent not already vested will be forfeited, except that:

(A) subject to (B) and (C) below, all Stock Options and SARs held by the Participant or the Participant s permitted transferees, if any, immediately prior to the cessation of the Participant s Employment, to the

extent then exercisable, will remain exercisable for the lesser of (i) a period of three months or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon terminate;

- (B) all Stock Options and SARs held by a Participant or the Participant s permitted transferees, if any, immediately prior to the cessation of Participant s Employment due to death, to the extent then exercisable, will remain exercisable for the lesser of (i) the one year period ending with the first anniversary of the Participant s death or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon terminate; and
- (C) all Stock Options and SARs held by a Participant or the Participant s permitted transferees, if any, immediately prior to the cessation of the Participant s Employment will immediately terminate upon such cessation if the Administrator in its sole discretion determines that such cessation of Employment has resulted for reasons which cast such discredit on the Participant as to justify immediate termination of the Award or are otherwise determined by the Administrator to constitute cause.

(5) Recovery of Compensation; Other Terms

- (A) Awards (whether or not vested or exercisable) held by a Participant are subject to forfeiture, termination and rescission, and a Participant will be obligated to return to the Company the value received with respect to Awards (including payments made and/or Stock delivered under an Award, and any gain realized on a subsequent sale or disposition of an Award or Stock delivered under an Award), in each case (i) to the extent provided by the Administrator in an Award agreement in connection with (A) a breach by the Participant of a non-competition, non-solicitation, confidentiality or similar covenant or agreement or (B) an overpayment to the Participant of incentive compensation due to inaccurate financial data, (ii) in accordance with Company policy relating to the recovery of erroneously-paid incentive compensation, as such policy may be amended and in effect from time to time, or (iii) as otherwise required by law or applicable stock exchange listing standards, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act.
- (B) Each Participant, by accepting an Award pursuant to the Plan, agrees to return the full amount required under this Section 6(a)(5) at such time and in such manner as the Administrator shall determine in its sole discretion and consistent with applicable law. Neither the Administrator nor the Company will be responsible for any adverse tax or other consequences to a Participant that may arise in connection with this Section 6(a)(5). For the avoidance of doubt, in addition to any forfeiture or other restrictions imposed by the terms of an Award agreement, every Award issued under the Plan will be subject to potential forfeiture or claw back to the fullest extent called for by applicable federal or state law. In addition, to the extent provided by the Administrator, Shares received upon settlement, vesting or exercise of an Award may be subject to stock ownership guidelines or policies established by the Company with respect to its employees, directors and/or other service providers.
- (6) Taxes. The Administrator will make such provision for the withholding of taxes as it deems necessary. The Administrator may, but need not, hold back shares of Stock from an Award or permit a Participant to tender previously owned shares of Stock in satisfaction of tax withholding requirements (but not in excess of the minimum withholding required by law).
- (7) Dividend Equivalents, Etc. The Administrator may provide for the payment of amounts (on terms and subject to conditions established by the Administrator) in lieu of cash dividends or other cash distributions with respect to Stock subject to an Equity Award. Any entitlement to dividend equivalents or similar entitlements shall be established and administered either consistent with exemption from, or in compliance with, the requirements of Section 409A. In addition, any amounts payable in respect of Restricted Stock (or any other Award subject to any vesting condition) may be subject to such limits or restrictions or alternative terms as the Administrator may impose.

(8) Rights Limited. Nothing in the Plan will be construed as giving any person the right to be granted an Award or to continued employment or service with the Company or its Affiliates, or any rights as a

stockholder except as to shares of Stock actually issued under the Plan. The loss of existing or potential profit in Awards will not constitute an element of damages in the event of termination of Employment for any reason, even if the termination is in violation of an obligation of the Company or any Affiliate to the Participant.

(9) Section 162(m)

(A) Awards Intended to Qualify for Performance-Based Compensation Exception. This Section 6(a)(9) applies to any Performance Award intended to qualify as exempt performance-based compensation under Section 162(m), as determined by the Administrator. In the case of any Performance Award to which this Section 6(a)(9) applies, (i) the Plan and such Award will be construed and administered to the maximum extent permitted by law in a manner consistent with qualifying the Award for such exemption, notwithstanding anything to the contrary in the Plan; (ii) the Administrator will preestablish, in writing and no later than 90 days after the commencement of the period of service to which the performance relates (or at such earlier time as is consistent with qualifying the Award for such exemption), one or more Performance Criteria applicable to such Award, the amount or amounts that will be payable or earned (subject to reduction as described below) if the Performance Criteria are achieved, and such other terms and conditions as the Administrator deems appropriate with respect to such Award; (iii) at the close of the applicable Performance Period, the Administrator will certify whether the applicable Performance Criteria have been attained; (iv) no amount will be paid under such Award unless the Performance Criteria applicable to the payment of such amount have been so certified, except as provided by the Administrator consistent with such exemption; and (v) the Administrator may, in its sole and absolute discretion (either in individual cases or in ways that affect more than one Participant), reduce the actual payment, if any, to be made under such Award to the extent consistent with such exemption.

(*B*) Certain Transition Awards. Awards intended to be exempt from the limitations of Section 162(m) will not be required to comply with the provisions of Section 6(a)(9)(A) if and to the extent they are eligible (as determined by the Administrator) for exemption from such limitations by reason of the transition relief set forth in Treas. Regs. \$1.162-27(f)(4).

(10) Coordination with Other Plans. Awards under the Plan may be granted in tandem with, or in satisfaction of or substitution for, other Awards under the Plan or awards made under other compensatory plans or programs of the Company or its Affiliates. For example, but without limiting the generality of the foregoing, awards under other compensatory plans or programs of the Company or its Affiliates may be settled in Stock (including, without limitation, Unrestricted Stock) if the Administrator so determines, in which case the shares delivered shall be treated as awarded under the Plan (and shall reduce the number of shares thereafter available under the Plan in accordance with the rules set forth in Section 4). In any case where an award is made under another plan or program of the Company or its Affiliates and such award is intended to qualify for the performance-based compensation exception under Section 162(m), and such award is settled by the delivery of Stock or another Award under the Plan, the applicable Section 162(m) limitations under both the other plan or program and under the Plan shall be applied to the Plan as necessary (as determined by the Administrator) to preserve the availability of the Section 162(m) performance-based compensation exception with respect thereto.

(11) Section 409A. Each Award shall contain such terms as the Administrator determines, and shall be construed and administered, such that the Award either (i) qualifies for an exemption from the requirements of Section 409A, or (ii) satisfies such requirements.

(12) Fair Market Value. Except as otherwise expressly provided herein, in determining the fair market value of any share of Stock under the Plan, the Administrator shall make the determination in good faith on such basis as it deems appropriate, taking into account the requirements of Section 422 and Section 409A, to the extent applicable; *provided*, that unless otherwise determined by the Administrator, if the Stock is admitted to trading on an established securities exchange, fair market value shall be the closing price of a share of Stock on such date (or, if the Stock was not traded

on such day, then the next preceding day on which the Stock was traded).

- (13) Certain Requirements of Corporate Law. Equity Awards shall be granted and administered consistent with the requirements of applicable Delaware law relating to the issuance of stock and the consideration to be received therefor, and with the applicable requirements of the stock exchanges or other trading systems or national market on which the Stock is listed or entered for trading, in each case as determined by the Administrator.
- **(b) Awards Requiring Exercise**. Equity Awards requiring exercise will be subject to the provisions of this Section 6(b).
- (1) Time and Manner of Exercise. Unless the Administrator expressly provides otherwise, an Award requiring exercise by the holder will not be deemed to have been exercised until the Administrator receives a notice of exercise (in form acceptable to the Administrator), which may be an electronic notice, signed (including electronic signature in form acceptable to the Administrator) by the appropriate person and accompanied by any payment required under the Award. If the Award is exercised by any person other than the Participant, the Administrator may require satisfactory evidence that the person exercising the Award has the right to do so.
- (2) Exercise Price. The exercise price (or the base value from which appreciation is to be measured) of each Award requiring exercise shall be 100% (in the case of an ISO granted to a ten-percent shareholder within the meaning of subsection (b)(6) of Section 422, 110%) of the fair market value of the Stock (as provided in Section 6(a)(12)) subject to the Award, determined as of the date of grant, or such higher amount as the Administrator may determine in connection with the grant or as otherwise determined by the Administrator with respect to a Substitute Award.
- (3) Payment of Exercise Price. Where the exercise of an Award is to be accompanied by payment, payment of the exercise price shall be by cash or check acceptable to the Administrator, or, if so permitted by the Administrator and if legally permissible, (i) through the delivery of unrestricted shares of Stock that have a fair market value equal to the exercise price, subject to such holding requirements, if any, as the Administrator may prescribe, (ii) through a broker-assisted exercise program acceptable to the Administrator, (iii) through the withholding of shares of Stock otherwise to be delivered upon exercise of the Award whose fair market value is equal to the aggregate exercise price of the Award being exercised, (iv) by other means acceptable to the Administrator, or (v) by any combination of the foregoing permissible forms of payment. The delivery of shares in payment of the exercise price under clause (i) above may be accomplished either by actual delivery or by constructive delivery through attestation of ownership, subject to such rules as the Administrator may prescribe.
- (4) Maximum Term. Awards requiring exercise will have a maximum term not to exceed ten (10) years from the date of grant (or five (5) years from the date of grant in the case of an ISO granted to a ten-percent shareholder described in Section 6(b)(2) above); provided, that if an Award requiring exercise (other than an ISO) would otherwise expire as a result of expiration of the maximum term of such Award (i.e., ten (10) years from the date of grant or such shorter time period as set forth in an Award agreement), and at such time the Participant holding such Award is prohibited by applicable law or written Company policy applicable to similarly situated employees from engaging in any open-market sales of Stock, the maximum term of such Award will automatically extend to thirty (30) days following the date the Participant is no longer prohibited from engaging in such open-market sales.

(c) Cash Awards

(1) A Participant who is granted a Cash Award shall be entitled to a payment, if any, under the Award only if all conditions to payment have been satisfied in accordance with the Plan and the terms of the Award. The Administrator will determine the actual payment, if any, under each Cash Award. The Administrator may, in its sole and absolute discretion (but subject, for the avoidance of doubt, to Section 6(a)(9) of the Plan), after determining the amount that would otherwise be payable for a Performance Period with respect to a Cash Award that is a Performance Award, adjust (including to zero) the payment, if any, to be made under such

Award. Cash Awards granted as Performance Awards under the Plan will be with respect to a Performance Period greater than one year, except as otherwise determined by the Administrator.

(2) The Administrator shall determine the payment dates for Cash Awards under the Plan. Except as otherwise determined by the Administrator, no payment shall be made under a Cash Award unless the Participant s Employment continues through the date such Cash Award is paid. Payments hereunder are intended to fall under the short-term deferral exception to Section 409A and shall be construed and administered accordingly. Notwithstanding the foregoing, (i) if the documentation establishing the Cash Award provides a specified and objectively determinable payment date or schedule that satisfies the requirements of Section 409A, payment under an Award may be made in accordance with such date or schedule, and (ii) the Administrator may, but need not, permit a Participant to defer payment of a Cash Award beyond the date that the Award would otherwise be payable, *provided*, that any such deferral shall be made in accordance with and subject to the applicable requirements of Section 409A, and that any amount so deferred shall be adjusted for notional interest or other notional earnings on a basis, determined by the Administrator, to the extent necessary to preserve the eligibility of the Award payment as exempt performance-based compensation under Section 162(m).

7. EFFECT OF CERTAIN TRANSACTIONS

(a) Mergers, Etc. Except as otherwise provided in an Award, the Administrator shall, in its sole discretion, determine the effect of a Covered Transaction on Awards, which determination may include, but is not limited to, the following actions:

(1) Assumption or Substitution. If the Covered Transaction is one in which there is an acquiring or surviving entity, the Administrator may provide for the assumption or continuation of some or all outstanding Awards or for the grant of new awards in substitution therefor by the acquiror or survivor or an affiliate of the acquiror or survivor.

(2) Cash-Out of Awards. If the Covered Transaction is one in which holders of Stock will receive upon consummation a payment (whether cash, non-cash or a combination of the foregoing), then subject to Section 7(a)(5) below the Administrator may provide for payment (a cash-out), with respect to some or all Awards or any portion thereof, equal in the case of each affected Equity Award or portion thereof to the excess, if any, of (A) the fair market value of one share of Stock times the number of shares of Stock subject to the Award or such portion, over (B) the aggregate exercise or purchase price, if any, under the Award or such portion (in the case of an SAR, the aggregate base value above which appreciation is measured), in each case on such payment terms (which need not be the same as the terms of payment to holders of Stock) and other terms, and subject to such conditions, as the Administrator determines; *provided*, that the Administrator shall not exercise its discretion under this Section 7(a)(2) with respect to an Award or portion thereof providing for nonqualified deferred compensation subject to Section 409A in a manner that would constitute an extension or acceleration of, or other change in, payment terms if such change would be inconsistent with the applicable requirements of Section 409A.

(3) Acceleration of Certain Awards. If the Covered Transaction (whether or not there is an acquiring or surviving entity) is one in which there is no assumption, continuation, substitution or cash-out, then subject to Section 7(a)(5) below, the Administrator may provide that each Equity Award requiring exercise will become fully exercisable, and the delivery of any shares of Stock remaining deliverable under each outstanding Award of Stock Units (including Restricted Stock Units and Performance Awards to the extent consisting of Stock Units) will be accelerated and such shares will be delivered, prior to the Covered Transaction, in each case on a basis that gives the holder of the Award a reasonable opportunity, as determined by the Administrator, following exercise of the Award or the delivery of the shares, as the case may be, to participate as a stockholder in the Covered Transaction; *provided*, that to the extent acceleration pursuant to this Section 7(a)(3) of an Award subject to Section 409A would cause the Award to fail to satisfy the requirements of Section 409A, the Award shall not be accelerated and the Administrator in lieu thereof shall take such steps as are necessary to ensure that payment of the Award is made in a medium

other than Stock and on terms that as nearly as possible, but taking into account adjustments required or permitted by this Section 7, replicate the prior terms of the Award.

(4) Termination of Awards Upon Consummation of Covered Transaction. Each Award will terminate upon consummation of the Covered Transaction, other than the following: (i) Awards assumed pursuant to Section 7(a)(1) above; (ii) Awards converted pursuant to the proviso in Section 7(a)(3) above into an ongoing right to receive payment other than Stock; (iii) outstanding shares of Restricted Stock (which shall be treated in the same manner as other shares of Stock, subject to Section 7(a)(5) below); and (iv) Cash Awards that by their terms, or as a result of action taken by the Administrator, continue following such Covered Transaction.

(5) Additional Limitations. Any share of Stock and any cash or other property delivered pursuant to Section 7(a)(2) or Section 7(a)(3) above with respect to an Equity Award may, in the discretion of the Administrator, contain such restrictions, if any, as the Administrator deems appropriate to reflect any performance or other vesting conditions to which the Award was subject and that did not lapse (and were not satisfied) in connection with the Covered Transaction. For purposes of the immediately preceding sentence, a cash out under Section 7(a)(2) above or the acceleration of exercisability of an Award under Section 7(a)(3) above shall not, in and of itself, be treated as the lapsing (or satisfaction) of a performance or other vesting condition. In the case of Restricted Stock that does not vest in connection with the Covered Transaction, the Administrator may require that any amounts delivered, exchanged or otherwise paid in respect of such Stock in connection with the Covered Transaction be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan.

(b) Changes in and Distributions With Respect to Stock

(1) Basic Adjustment Provisions. In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization or other change in the Company's capital structure that constitutes an equity restructuring within the meaning of FASB ASC Topic 718, the Administrator shall make appropriate adjustments to the maximum number of shares specified in Section 4(a) that may be delivered under the Plan and to the maximum share limits described in Section 4(c), and shall also make appropriate adjustments to the number and kind of shares of stock or securities subject to Equity Awards then outstanding or subsequently granted, any exercise prices relating to Equity Awards and any other provision of Awards affected by such change.

(2) Certain Other Adjustments. The Administrator may also make adjustments of the type described in Section 7(b)(1) above to take into account distributions to stockholders other than those provided for in Section 7(a) and 7(b)(1), or any other event, if the Administrator determines that adjustments are appropriate to avoid distortion in the operation of the Plan and to preserve the value of Awards made hereunder, having due regard for the qualification of ISOs under Section 422, the requirements of Section 409A, and the performance-based compensation rules of Section 162(m), to the extent applicable.

(3) Continuing Application of Plan Terms. References in the Plan to shares of Stock will be construed to include any stock or securities resulting from an adjustment pursuant to this Section 7.

8. LEGAL CONDITIONS ON DELIVERY OF STOCK

The Company will not be obligated to deliver any shares of Stock pursuant to the Plan or to remove any restriction from shares of Stock previously delivered under the Plan until: (i) the Company is satisfied that all legal matters in connection with the issuance and delivery of such shares have been addressed and resolved; (ii) if the outstanding Stock is at the time of delivery listed on any stock exchange or national market system, the shares to be delivered have been listed or authorized to be listed on such exchange or system upon official notice of issuance; and (iii) all conditions of the Award have been satisfied or waived. The Company may require, as a condition to exercise of the Award or delivery of shares of Stock under an Award, such representations or agreements as counsel for the Company

may consider appropriate to avoid violation of such the Securities Act of

1933, as amended, or any applicable state or non-U.S. securities law. Any Stock required to be issued to Participants under the Plan will be evidenced in such manner as the Administrator may deem appropriate, including book-entry registration or delivery of stock certificates. In the event that the Administrator determines that stock certificates will be issued to Participants under the Plan, the Administrator may require that certificates evidencing Stock issued under the Plan bear an appropriate legend reflecting any restriction on transfer applicable to such Stock, and the Company may hold the certificates pending lapse of the applicable restrictions.

9. AMENDMENT AND TERMINATION

The Administrator may at any time or times amend the Plan or any outstanding Award for any purpose which may at the time be permitted by law, and may at any time terminate the Plan as to any future grants of Awards; *provided*, that except as otherwise expressly provided in the Plan the Administrator may not, without the Participant s consent, alter the terms of an Award so as to affect materially and adversely the Participant s rights under the Award, unless the Administrator expressly reserved the right to do so at the time of the Award. Any amendments to the Plan shall be conditioned upon stockholder approval only to the extent, if any, such approval is required by law (including the Code and applicable stock exchange requirements), as determined by the Administrator. For the avoidance of doubt, no amendment to the Plan shall be effective unless approved by stockholders, to the extent stockholder approval is required under the rules of the applicable stock exchange on which the Stock is admitted to trading, if it would reduce the exercise price of any Stock Option previously granted hereunder or otherwise constitute a repricing and, without the receipt of such approval (to the extent so required), the Administrator shall not approve a repurchase by the Company for cash or other property of Stock Options or SARs for which the exercise price or base price, as applicable, exceeds the fair market value of a share of Stock as of the date of such repurchase.

10. OTHER COMPENSATION ARRANGEMENTS

The existence of the Plan or the grant of any Award will not in any way affect the Company s right to award a person bonuses or other compensation in addition to Awards under the Plan.

11. MISCELLANEOUS

(a) Waiver of Jury Trial. By accepting an Award under the Plan, each Participant waives any right to a trial by jury in any action, proceeding or counterclaim concerning any rights under the Plan and any Award, or under any amendment, waiver, consent, instrument, document or other agreement delivered or which in the future may be delivered in connection therewith, and agrees that any such action, proceedings or counterclaim shall be tried before a court and not before a jury. By accepting an Award under the Plan, each Participant certifies that no officer, representative, or attorney of the Company has represented, expressly or otherwise, that the Company would not, in the event of any action, proceeding or counterclaim, seek to enforce the foregoing waivers.

(b) Limitation of Liability. Notwithstanding anything to the contrary in the Plan, neither the Company, nor any Affiliate, nor the Administrator, nor any person acting on behalf of the Company, any Affiliate, or the Administrator, shall be liable to any Participant or to the estate or beneficiary of any Participant or to any other holder of an Award by reason of any acceleration of income, or any additional tax (including any interest and penalties), asserted by reason of the failure of an Award to satisfy the requirements of Section 422 or Section 409A or by reason of Section 4999 of the Code, or otherwise asserted with respect to the Award; *provided*, that nothing in this Section 11(b) shall limit the ability of the Administrator or the Company, in its discretion, to provide by separate express written agreement with a Participant for a gross-up payment or other payment in connection with any such acceleration of income or additional tax.

12. ESTABLISHMENT OF SUB-PLANS

The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable blue sky, securities or tax laws of various jurisdictions. The Board will establish such sub-plans by

adopting supplements to the Plan setting forth (i) such limitations on the Administrator s discretion under the Plan as the Board deems necessary or desirable and (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board deems necessary or desirable. All supplements adopted by the Board will be deemed to be part of the Plan, but each supplement will apply only to Participants within the affected jurisdiction and the Company will not be required to provide copies of any supplement to Participants in any jurisdiction that is not affected.

13. GOVERNING LAW

Except as otherwise provided by the express terms of an Award agreement or under a sub-plan described in Section 12, the provisions of the Plan and of Awards under the Plan and all claims or disputes arising out of our based upon the Plan or any Award under the Plan or relating to the subject matter hereof or thereof will be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the domestic substantive laws of the State of Delaware without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

EXHIBIT A

Definition of Terms

The following terms, when used in the Plan, will have the meanings and be subject to the provisions set forth below:

Administrator: The Compensation Committee, except that the Compensation Committee may delegate (i) to one or more of its members (or one or more other members of the Board, including the full Board) such of its duties, powers and responsibilities as it may determine; (ii) to one or more officers of the Company the power to grant Awards to the extent permitted by Section 157(c) of the Delaware General Corporation Law; and (iii) to such Employees or other persons as it determines such ministerial tasks as it deems appropriate.

Affiliate: Any corporation or other entity that stands in a relationship to the Company that would result in the Company and such corporation or other entity being treated as one employer under Section 414(b) and Section 414(c) of the Code, except that in determining eligibility for the grant of a Stock Option or SAR by reason of service for an Affiliate, Sections 414(b) and 414(c) of the Code shall be applied by substituting at least 50% for at least 80% under Section 1563(a)(1), (2) and (3) of the Code and Treas. Regs. § 1.414(c)-2; provided, that to the extent permitted under Section 409A, at least 20% shall be used in lieu of at least 50%; and further provided, that the lower ownership threshold described in this definition (50% or 20% as the case may be) shall apply only if the same definition of affiliation is used consistently with respect to all compensatory stock options or stock awards (whether under the Plan or another plan). The Company may at any time by amendment provide that different ownership thresholds (consistent with Section 409A) apply but any such change shall not be effective for twelve (12) months.

Award: Any or a combination of the following:

- (i) Stock Options.
- (ii) SARs.
- (iii) Restricted Stock.
- (iv) Unrestricted Stock.
- (v) Stock Units, including Restricted Stock Units.

(vi) Performance Awards.

(vii) Cash Awards.

(viii) Awards (other than Awards described in (i) through (vii) above) that are convertible into or otherwise based on Stock.

Board: The Board of Directors of the Company; *provided*, however, that if the Company is a direct or indirect subsidiary of a publicly held corporation, it shall mean the Board of Directors of the publicly held corporation.

Cash Award: An Award denominated in cash.

Code: The U.S. Internal Revenue Code of 1986 as from time to time amended and in effect, or any successor statute as from time to time in effect.

Compensation Committee: In the event that the Company is a direct or indirect subsidiary of a publicly held corporation, the Compensation Committee shall mean the Compensation Committee of the Board of the publicly held corporation; otherwise, Compensation Committee shall mean the Compensation Committee of the Board.

Company: RXi Pharmaceuticals Corporation.

Covered Transaction: Any of (i) a consolidation, merger, or similar transaction or series of related transactions, including a sale or other disposition of stock, in which the Company is not the surviving corporation or which results in the acquisition of all or substantially all of the Company s then outstanding common stock by a single person or entity or by a group of persons and/or entities acting in concert, (ii) a sale or transfer of all or substantially all the Company s assets, or (iii) a dissolution or liquidation of the Company. Where a Covered Transaction involves a tender offer that is reasonably expected to be followed by a merger described in clause (i) (as determined by the Administrator), the Covered Transaction shall be deemed to have occurred upon consummation of the tender offer.

Employee: Any person who is employed by the Company or an Affiliate.

Employment : A Participant s employment or other service relationship with the Company and its Affiliates. Employment will be deemed to continue, unless the Administrator expressly provides otherwise, so long as the Participant is employed by, or otherwise is providing services in a capacity described in Section 5 to the Company or its Affiliates. If a Participant s employment or other service relationship is with an Affiliate and that entity ceases to be an Affiliate, the Participant s Employment will be deemed to have terminated when the entity ceases to be an Affiliate unless the Participant transfers Employment to the Company or its remaining Affiliates. Notwithstanding the foregoing and the definition of Affiliate above, in construing the provisions of any Award relating to the payment of nonqualified deferred compensation (subject to Section 409A) upon a termination or cessation of Employment, references to termination or cessation of employment, separation from service, retirement or similar or correlative terms shall be construed to require a separation from service (as that term is defined in Section 1.409A-1(h) of the Treasury Regulations) from the Company and from all other corporations and trades or businesses, if any, that would be treated as a single service recipient with the Company under Section 1.409A-1(h)(3) of the Treasury Regulations. The Company may, but need not, elect in writing, subject to the applicable limitations under Section 409A, any of the special elective rules prescribed in Section 1.409A-1(h) of the Treasury Regulations for purposes of determining whether a separation from service has occurred. Any such written election shall be deemed a part of the Plan.

Equity Award: Awards other than Cash Awards.

ISO: A Stock Option intended to be an incentive stock option within the meaning of Section 422. Each option granted pursuant to the Plan will be treated as providing by its terms that it is to be a non-incentive stock option unless, as of the date of grant, it is expressly designated as an ISO.

Participant: A person who is granted an Award under the Plan.

Performance Award: An Award subject to Performance Criteria. The Committee in its discretion may grant Performance Awards that are intended to qualify as exempt performance-based compensation under Section 162(m) and Performance Awards that are not intended so to qualify.

Performance Criteria: For a Performance Period, specified criteria, other than the mere continuation of Employment or the mere passage of time, the satisfaction of which is a condition for the grant, exercisability, vesting or full enjoyment of an Award. For purposes of Awards that are intended to qualify for the performance-based compensation exception under Section 162(m), a Performance Criterion will mean an objectively determinable measure of performance relating to any or any combination of the following (measured either absolutely or by reference to an index or indices and determined either on a consolidated basis or, as the context permits, on a divisional, subsidiary, line of business, project or geographical basis or in combinations thereof): sales; revenues; assets; expenses; earnings before or after deduction for all or any portion of interest, taxes, depreciation, or amortization, whether or not on a continuing operations or an aggregate or per share basis; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow; stock price; stockholder return; sales of particular products or services; customer acquisition or retention; acquisitions and divestitures (in whole or in part); joint ventures and strategic alliances; spin-offs, split-ups and the like; reorganizations; or recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings. A Performance Criterion and any targets with respect thereto determined by the Administrator need not be based upon an increase, a positive or improved result or avoidance of loss. To the extent consistent with the requirements for satisfying the performance-based compensation exception under Section 162(m), the Administrator may establish that in the case of any Award intended to qualify for such exception that one or more of the Performance Criteria applicable to such Award will be adjusted in an objectively determinable manner to reflect events (for example, the impact of charges for restructurings, discontinued operations, mergers, acquisitions, extraordinary items, and other unusual or non-recurring items, and the cumulative effects of tax or accounting changes, each as defined by U.S. generally accepted accounting principles) occurring during the Performance Period that affect the applicable Performance Criterion or Criteria.

Plan: The RXi Pharmaceuticals Corporation 2012 Long Term Incentive Plan as from time to time amended and in effect.

Restricted Stock: Stock subject to restrictions requiring that it be redelivered or offered for sale to the Company if specified conditions are not satisfied.

Restricted Stock Unit: A Stock Unit that is, or as to which the delivery of Stock or cash in lieu of Stock is, subject to the satisfaction of specified performance or other vesting conditions.

SAR: A right entitling the holder upon exercise to receive an amount (payable in cash or in shares of Stock of equivalent value) equal to the excess of the fair market value (as defined in Section 6(b)) of the shares of Stock subject to the right over the base value from which appreciation under the SAR is to be measured.

Section 409A: Section 409A of the Code.

Section 422: Section 422 of the Code.

Section 162(m): Section 162(m) of the Code.

Stock: Common stock of the Company, par value \$0.0001 per share.

Stock Option: An option entitling the holder to acquire shares of Stock upon payment of the exercise price.

B-11

Stock Unit: An unfunded and unsecured promise, denominated in shares of Stock, to deliver Stock or cash measured by the value of Stock in the future.

Substitute Awards: Awards that are the result of converting, replacing, or adjusting equity awards of an acquired company in connection with the acquisition.

Unrestricted Stock: Stock not subject to any restrictions under the terms of the Award.

First Amendment to RXi Pharmaceuticals Corporation 2012 Long Term Incentive Plan

(Adopted June 7, 2013)

The reference in Section 4(a) of the RXi Pharmaceuticals Corporation 2012 Incentive Plan (the Plan) to the maximum number of shares of Stock (as defined) that may be delivered in satisfaction of Awards (as defined) under the Plan shall be 500,000 shares. All related Plan information shall also be amended accordingly.

Proposed Second Amendment to RXi Pharmaceuticals Corporation 2012 Long Term Incentive Plan

Section 4(a) of the RXi Pharmaceuticals Corporation 2012 Long Term Incentive Plan is hereby amended and restated as follows and all related Plan information shall be amended accordingly:

(a) Number of Shares. The maximum number of shares of Stock that may be delivered upon satisfaction of Equity Awards under the Plan shall be 1,250,000 shares of Stock. Up to the total number of shares of Stock set forth in the preceding sentence may be issued in satisfaction of ISOs, but nothing in this Section 4(a) shall be construed as requiring that any, or any fixed number of, ISOs be awarded under the Plan. The number of shares of Stock delivered in satisfaction of Equity Awards shall, for purposes of this Section 4(a), be determined net of shares of Stock withheld by the Company in payment of the exercise price of the Award or in satisfaction of tax withholding requirements with respect to the Award and, for the avoidance of doubt, without including any shares of Stock underlying Awards settled in cash or which otherwise expire or become unexercisable without having been exercised or are forfeited to or repurchased by the Company due to failure to vest. The limits set forth in this Section 4(a) shall be construed to comply with Section 422. To the extent consistent with the requirements of Section 422 and with other applicable legal requirements (including applicable stock exchange requirements, if any), Stock issued under Substitute Awards shall not reduce the number of shares available for Awards under the Plan. The shares which may be delivered under Substitute Awards shall be in addition to the limitations set forth in this Section 4(a) on the number of shares available for issuance under the Plan, and such Substitute Awards shall not be subject to the per Participant Award limits described in Section 4(c) below.

RXi Pharmaceuticals Corporation			
Using a black ink pen, mark your votes with an X as shown in this example. Please do not write outside			
the designated areas. Electronic Voting Instructions			
Available 24 hours a day, 7 days a week!			
Instead of mailing your proxy, you may choose one of the voting methods outlined below to vote your proxy.			
VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR.			
Proxies submitted by the Internet or telephone must be received by 11:59 p.m., Eastern Time, on December 14, 2016.			
Vote by Internet			

Or scan the QR code with your smartphone

Follow the steps outlined on the secure website

Vote by telephone

Call toll free 1-800-652-VOTE (8683) within the USA, US territories & Canada on a touch tone telephone

Follow the instructions provided by the recorded message

${\bf q}$ IF YOU HAVE NOT VOTED VIA THE INTERNET <u>OR</u> TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ${\bf q}$

A Proposals The Board of Directors recommends that you vote FOR the following proposals:

1. Election of For Withhold Directors:	For Withhold	For Withhold +
	- Robert J. " " 03 - Keith L. Brownlie	
	- Curtis A. " " ckshin, Ph.D.	
For Ag	gainst Abstain	For Against Abstain
2. Ratification of BDO USA, LLP as independent registered public accounting firm for the fiscal year ending December 31, 2016.	" 3. To approve, in a non-binding advisory vote, executive compensation.	
4. To approve an increase in the number of shares available for issuance under the RXi Pharmaceuticals Corporation Employee Stock Purchase Plan.	" 5. To approve an increase in the number of shares available for issuance under the 2012 RXi Pharmaceuticals Corporation Long Term Incentive Plan.	
B Non-Voting Items Change of Address Please print your naddress below.	new Comments Please print your comments below.	Meeting Attendance
		Mark the box to the "right if you plan to

attend the Annual Meeting.

C Authorized Signatures This section must be completed for your vote to be counted. Date and Sign Below Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Date (mm/dd/yyyy) Please print date Signature 1 Please keep signature Signature 2 Please keep signature below. Signature 2 within the box.

/ /

q IF YOU HAVE NOT VOTED VIA THE INTERNET <u>OR</u> TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. q

Proxy RXi PHARMACEUTICALS CORPORATION

Annual Meeting of Stockholders

December 15, 2016 10:00 a.m.

This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint Geert Cauwenbergh as proxy with the power to appoint his substitute, and hereby authorize him to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of RXi Pharmaceuticals Corporation that the stockholder(s) is/are entitled to vote at the 2016 Annual Meeting of Stockholders to be held on December 15, 2016 at 200 Park Avenue, New York, New York 10166 10:00 a.m. local time, and at any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors recommendations and in the discretion of the proxy holders on all other matters that may come before the meeting.

Continued and to be signed on reverse side