Onconova Therapeutics, Inc.
Form DEF 14A
April 12, 2017

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

SCHEDULE 14A

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

Filed by the Registrant ý

Filed by a Party other than the Registrant o

Check the appropriate box:

o Preliminary Proxy Statement

o **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

ý Definitive Proxy Statement

o Definitive Additional Materials

o Soliciting Material under §240.14a-12

ONCONOVA THERAPEUTICS, INC.

(Name of Registrant as Specified In Its Charter)

NOT APPLICABLE

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

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ý No fee required.

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(1) Title of each class of securities to which transaction applies:

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Onconova Therapeutics, Inc.
375 Pheasant Run
Newtown, PA 18940 USA

April 12, 2017

Dear Stockholder,

We cordially invite you to attend our 2017 Annual Meeting of Stockholders to be held at 10:00 a.m. Eastern Daylight Time on Wednesday, May 17, 2017 at the offices of Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, NY 10178. The attached Notice of Annual Meeting and Proxy Statement describes the business we will conduct at the meeting and provides information about Onconova Therapeutics, Inc. that you should consider when you vote your shares.

Your vote is very important, regardless of the number of shares you hold. Whether or not you plan to attend the meeting, please carefully review the enclosed proxy statement and then cast your vote.

We hope that you will join us on May 17, 2017.

Sincerely,

/s/ RAMESH KUMAR PH.D.

Ramesh Kumar
President and Chief Executive Officer

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Onconova Therapeutics, Inc.

375 Pheasant Run
Newtown, PA 18940
Notice of 2017 Annual Meeting of Stockholders

NOTICE IS HEREBY GIVEN that the 2017Annual Meeting of Stockholders of Onconova Therapeutics, Inc., a Delaware corporation (the "Company"), will be held on:

Date:	May 17, 2017
Time:	10:00 a.m. Eastern Daylight Time
Place:	Offices of Morgan, Lewis & Bockius LLP 101 Park Avenue New York, NY 10178 USA
Purposes:	1. To elect eight directors, each to hold office until the 2018 Annual Meeting of Stockholders and until his or her successor is elected and qualified; 2. To consider and vote upon the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017; 3. To transact such other business as may properly come before the meeting or any adjournments or postponements thereof.
Record Date:	The Board of Directors has fixed the close of business on April 4, 2017 as the record date for determining stockholders entitled to notice of, and to vote at, the meeting or any adjournment or postponement thereof.

The Company has enclosed a copy of the proxy statement, the proxy card and the Company's annual report to stockholders for the year ended December 31, 2016 (the "Annual Report"). The proxy statement, the proxy card and the Annual Report are also available on the Company's website at *www.onconova.com* . If you plan on attending the Annual Meeting and voting your shares in person, you will need to bring photo identification in order to be admitted to the Annual Meeting. To obtain directions to the Annual Meeting, please call the Company at 267-759-3680 .

FOR THE BOARD OF DIRECTORS

/s/ RAMESH KUMAR

Ramesh Kumar
President and Chief Executive Officer

Newtown, PA
April 12, 2017

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All common stock, stock option, share and per share amounts have been retroactively adjusted to reflect a one-for-ten reverse stock split which was effective May 31, 2016.

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Onconova Therapeutics, Inc.

375 Pheasant Run
Newtown, PA 18940

PROXY STATEMENT
ANNUAL MEETING OF STOCKHOLDERS TO BE HELD MAY 17, 2017

GENERAL INFORMATION

This Proxy Statement is furnished to stockholders of Onconova Therapeutics, Inc., a Delaware corporation ("we," "us," or the "Company"), in connection with the solicitation by our board of directors of proxies for use at our 2017 Annual Meeting of Stockholders (the "Annual Meeting"). The Annual Meeting is scheduled to be held at 10:00 a.m. Eastern Daylight Time on Wednesday, May 17, 2017, at the offices of Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, NY 10178. We anticipate that this Proxy Statement and the enclosed form of proxy will be mailed to stockholders on or about April 12, 2017.

At the Annual Meeting, stockholders will be asked to consider and vote upon: (1) the election of eight directors, each to hold office until the 2018 Annual Meeting of Stockholders and until his or her successor is elected and qualified; (2) the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017; and (3) such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

Voting Rights and Votes Required

The close of business on April 4, 2016 has been fixed as the record date for the determination of stockholders entitled to receive notice of and to vote at the Meeting. As of the close of business on such date, we had outstanding and entitled to vote 6,772,659 shares of our common stock, par value $0.01 per share. You may vote your shares of common stock by in person or by proxy. You may submit your proxy by telephone, via the Internet or by completing the enclosed proxy card and mailing it in the envelope provided. Stockholders who hold shares in "street name" should refer to their proxy card or the information forwarded by their bank, broker or other nominee for instructions on the voting options available to them.

The presence at the Annual Meeting, whether in person or by valid proxy, of a majority of the shares of our common stock entitled to vote will constitute a quorum, permitting us to conduct our business at the meeting. The record holder of each share of common stock entitled to vote at the Annual Meeting will have one vote for each share so held. Abstentions and broker non-votes will count for quorum purposes.

If a broker that is a record holder of common stock does not return a signed proxy, the shares of common stock represented by such proxy will not be considered present at the Annual Meeting and will not be counted toward establishing a quorum. If a broker that is a record holder of common stock does return a signed proxy, but is not authorized to vote on one or more matters (with respect to each such matter, a "broker non-vote"), the shares of common stock represented by such proxy will be considered present at the Annual Meeting for purposes of determining the presence of a quorum. A broker that is a member of the New York Stock Exchange is prohibited, unless the stockholder provides the broker with written instructions, from giving a proxy on non-routine matters. Consequently, your brokerage firm or other nominee will have discretionary authority to vote your shares with respect to routine matters but may not vote your shares with respect to non-routine matters. The routine matter included in this proxy statement is the ratification of Ernest & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017.

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Election of directors is a non-routine matter and brokers do not have discretionary authority to vote on this matter. If you hold shares in a brokerage account and wish to vote those shares on these proposals, then you should instruct on how to vote the shares using the voting instructions provided.

Directors are elected by a plurality of the votes cast when a quorum is present. Stockholders may not cumulate their votes. The eight candidates receiving the highest number of votes will be elected. Because directors are elected by a plurality of the votes, votes withheld from a director nominee and broker non-votes will have no effect on the outcome of the vote.

The affirmative vote of a majority of the votes cast is required to ratify the selection of our independent registered public accounting firm. In tabulating the votes with respect to this proposal, abstentions and any broker non-votes will not be considered as votes cast and, therefore, will have no effect on the outcome of the vote.

Voting of Proxies

Most stockholders have three ways to submit a proxy: by telephone, via the Internet or by completing the enclosed proxy card and mailing it in the envelope provided. To submit a proxy by telephone or via the Internet, follow the instructions set forth on each proxy card you receive. To submit a proxy by mail, sign and date each proxy card you receive, mark the boxes indicating how you wish to vote and return the proxy card in the postage-paid envelope provided. Do not return the proxy card if you submit your proxy via the Internet or by telephone.

Our board of directors recommends a vote **FOR** the election of each director nominee and **FOR** ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017.

Revocation of Proxies

Any proxy given pursuant to this solicitation may be revoked by a stockholder at any time before it is exercised by providing written notice to our Secretary at Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown PA 18940, by delivery to us of a properly executed proxy bearing a later date, or by voting in person at the Annual Meeting.

Solicitation of Proxies

We will bear the cost of this solicitation, including amounts paid to banks, brokers and other nominees to reimburse them for their expenses in forwarding solicitation materials regarding the Annual Meeting to beneficial owners of our common stock. The solicitation will be by mail, with the materials being forwarded to stockholders of record and certain other beneficial owners of our common stock, and by our officers and other regular employees (at no additional compensation). Our officers and employees may also solicit proxies from stockholders by personal contact, by telephone, or by other means if necessary in order to assure sufficient representation at the Annual Meeting.

Wells Fargo Shareowner Services, our transfer agent, has been retained to act as inspector of elections at the Annual Meeting. We will pay Wells Fargo $1,500 for these services.

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PROPOSAL ONE ELECTION OF DIRECTORS

Pursuant to our bylaws, our directors are elected at each Annual Meeting of stockholders, and serve until their successors are elected and qualified at the next Annual Meeting of stockholders, or until their prior death, resignation, retirement, disqualification or other removal.

The eight persons listed in the table below have been nominated by our board of directors for election as directors with terms expiring at the 2018 Annual Meeting of Stockholders. Unless a contrary direction is indicated, it is intended that proxies received will be voted for the election as directors of the eight nominees, each to hold office until the 2018 Annual Meeting of Stockholders and until his or her successor is elected and qualified.

Each of the nominees has consented to being named in this Proxy Statement and to serve as a director if elected. In the event any nominee for director declines or is unable to serve, the proxies may be voted for a substitute nominee selected by the Board of Directors.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" *ALL* NOMINEES.

All of our directors bring to our Board of Directors executive leadership experience from their service as executives and/or directors of our Company and/or other entities. The biography of each of the nominees below contains information regarding the person's business experience, director positions held currently or at any time during the last five years, and the experiences, qualifications, attributes and skills that caused the Nominating and Corporate Governance Committee and our Board of Directors to determine that the person should serve as a director, given our business and structure.

Name	Age	Position(s) with Onconova Therapeutics, Inc.	Served as Director From
Henry S. Bienen, Ph.D.	78	Director	2009
Jerome E. Groopman, M.D.	65	Director	2013
Michael B. Hoffman	66	Chairman of the Board of Directors	2002
Ramesh Kumar, Ph.D.	61	Director, President and Chief Executive Officer	1998
Viren Mehta	67	Director	2004
James J. Marino	66	Director	2015
E. Premkumar Reddy, Ph.D.	73	Director	1999
Jack E. Stover	63	Director	2016

Henry S. Bienen, Ph.D. Dr. Bienen has served as a member of our board of directors since May 2009. He currently serves as the chairman of Rasmussen College, has served as the president emeritus of Northwestern University since August 2009 and served as the president of Northwestern University from 1995 to 2009. Dr. Bienen was the James S. McDonnell Distinguished University Professor and Dean of the Woodrow Wilson School of Public and International Affairs at Princeton University prior to his appointment at Northwestern. Dr. Bienen began his association with Princeton University in 1966, advancing from assistant professor to professor of politics and international affairs, and was then appointed the William Stewart Tod Professor of Politics and International Affairs in 1981 and the James S. McDonnell Distinguished University Professor in 1985. Dr. Bienen has served as a director of the Grosvenor Registered Multi Strategy Fund (TI 1), LLC, the Grosvenor Registered Multi Strategy Fund (TI 2), LLC, the Grosvenor Registered Multi Strategy Fund (TE), LLC and the Grosvenor Registered Multi Strategy Master Fund, LLC since April 2011. Dr. Bienen serves on the board of directors of Ryan Specialty Group and previously served on the boards of directors of The Bear Stearns Companies Inc., until its purchase by JP Morgan Chase & Co. in 2008, SPSS Inc. from 2007 until 2009, when the company was sold to IBM Corporation, and Gleacher & Company, a publicly held investment banking firm, from May 2010 to April 2013. Dr. Bienen also currently chairs the advisory board of The Vistria Group, a private equity firm, and served on the Chicago Board of Education.

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Dr. Bienen received his Bachelor's Degree with honors from Cornell University and both his Master's Degree and Ph.D., from the University of Chicago. Dr. Bienen is currently President of the Poetry Foundation.

Our board of directors believes Dr. Bienen's perspective and extensive experience as a director of a public company and familiarity with public company governance, as well as his educational background, provide him with the qualifications and skills to serve as a director.

Jerome E. Groopman, M.D. Dr. Groopman has served as a member of our board of directors since July 2013. Dr. Groopman has served as the Dina and Raphael Recanati Professor of Medicine at Harvard Medical School since January 1992. He has also served as Attending Hematologist/Oncologist at Beth Israel Deaconess Medical Center since July 1996. Dr. Groopman received an M.D. from Columbia University College of Physicians and Surgeons, and a B.A. in Political Philosophy from Columbia College.

Our board of directors believes Dr. Groopman's perspective and experience in the healthcare industry, as well as his educational background, provide him with the qualifications and skills to serve as a director.

Michael B. Hoffman. Mr. Hoffman has served as Chairman of the Board of Directors since 2006 and as a member of our board of directors since December 2002. Since 2003, Mr. Hoffman has been a partner of Riverstone Holdings LLC, or Riverstone, where he is principally responsible for investments in power and renewable energy. Before joining Riverstone, Mr. Hoffman was senior managing director and head of the mergers and acquisitions advisory business of The Blackstone Group L.P., or Blackstone, where he also served on the firm's principal group investment committee as well as its executive committee. Prior to joining Blackstone, Mr. Hoffman was managing director and co-head of the mergers and acquisitions department at Smith Barney, Harris Upham & Co. Mr. Hoffman currently serves as a director of Pattern Energy, Inc., Talen Energy Corporation, and the general partner of Enviva Partners. Mr. Hoffman also serves on the board of directors of QR Pharma, Inc., a private specialty pharmaceutical company founded to develop novel treatments for Alzheimer's Disease, Parkinson's disease and other neurodegenerative disorders, Curative Biotherapeutics, Inc. and various private companies sponsored by Riverstone. His non-profit board affiliations include Rockefeller University. Mr. Hoffman received his Bachelor's and Master's Degrees from Northwestern University and his M.B.A. from the Harvard Business School.

Our board of directors believes Mr. Hoffman's perspective and experience as an investor, as well as his educational background, provide him with the qualifications and skills to serve as a director.

Ramesh Kumar, Ph.D. Dr. Kumar is one of our co-founders, and is currently our President and Chief Executive Officer, a position he has held since 1998, as well as a member of our board of directors. Prior to our founding, Dr. Kumar held positions in research and development or management at Princeton University, Bristol-Myers Squibb Company, or Bristol-Myers Squibb, DNX Corp. (later Nextran Corp., a subsidiary of Baxter International Inc.) and Kimeragen, Inc. (later ValiGen Inc.), a genomics company, where he was President of the Genomics and Transgenics Division. Dr. Kumar received his Ph.D. in Molecular Biology from the University of Illinois, Chicago, and trained at the National Cancer Institute. Additionally, Dr. Kumar received his B.Sc. and M.Sc., both with honors, in Microbiology from Panjab University.

Our board of directors believes Dr. Kumar's perspective and experience as our co-founder, President and Chief Executive Officer, as well as his depth of operating and senior management experience in our industry, provide him with the qualifications and skills to serve as a director.

James J. Marino. Mr. Marino has served as a member of our board of directors since July 2015. Prior to July 2015, Mr. Marino was a Partner at the global law firm of Dechert LLP for 28 years, where

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he served as Managing Partner of the Princeton Office. Mr. Marino served as the outside counsel for Onconova from its inception through and including its initial public offering. On March 8, 2017, Mr. Marino was appointed to the board of directors and as chairperson of the compensation committee of Celldex Therapeutics, Inc., a public company which is developing targeted therapeutics to address devastating diseases for which available treatments are inadequate. Previously, he served on the board of directors of Pharmacopeia Drug Discovery, Inc. from 2000 to 2006 and has worked in advisory capacities and on the boards of multiple non-profit organizations, including Robert Wood Johnson University Hospital. He currently serves on the Board of Trustees of Wake Forest University and Wake Forest University Baptist Medical Center. Mr. Marino received his B.A., J.D. and MBA from Rutgers University.

Our board of directors believes that Mr. Marino's perspective and experience advising Onconova and numerous other leading life science companies in connection with financings, acquisitions and strategic alliances, provide him with the qualifications and skills to serve as a director.

Viren Mehta. Dr. Mehta has served as a member of our board of directors since February 2004. Dr. Mehta has been a managing member of Mehta Partners since 1997. Mehta Partners provides strategic advisory services to the biotechnology and pharmaceutical companies worldwide. Prior to founding Mehta Partners, Dr. Mehta co-founded Mehta and Isaly in 1989, and prior to that was a part of the strategic planning team of the International Division at Merck & Co. Dr. Mehta earned a Doctor of Pharmacy at the University of Southern California, and an M.B.A. from the Anderson School of Business at the University of California, Los Angeles. His non-profit board affiliations include Project Hope and the Venice Family Clinic.

Our board of directors believes Dr. Mehta's perspective and experience in the life sciences industry as a biopharma fund manager, fund consultant and a strategic advisor to senior managers in the biopharma industry, as well as his educational background, provide him with the qualifications and skills to serve as a director.

E. Premkumar Reddy, Ph.D. Dr. Reddy is one of our scientific founders and has served as a member of our board of directors since February 1999. Since March 2010, Dr. Reddy has served as a Professor at Mount Sinai School of Medicine, or Mount Sinai and Director of the Experimental Cancer Therapeutics Program at the Tisch Cancer Institute at Mount Sinai. From 1992 to February 2010, Dr. Reddy served as a Professor and Director of the Fels Institute for Cancer Research of Temple University. He was the founder and co-editor of the international journal of cancer research, Oncogene, published by Nature Publishing Group. Dr. Reddy received his B.Sc., M.Sc. and Ph.D. from Osmania University.

Our board of directors believes Dr. Reddy's perspective and experience as our co-founder, his educational background, as well as his experience in research and product development, provide him with the qualifications and skills to serve as a director.

Jack E. Stover. From May 2012 through May 2013, we engaged Mr. Stover, through JE Stover Consulting, LLC, to assist us in preparing for our initial public offering. Since December 2015, Mr. Stover has served as Interim President and CEO of Interpace Diagnostics Group, Inc., formerly known as "PDI, Inc.", and has served on their board of directors since August 2005. He was the chair of PDI's audit committee from August 2005 until December 2015. Mr. Stover has been Chief Executive Officer of Zebec Therapeutics LLC ("Zebec") since April 2014. Zebec is the successor to Quadrant Pharmaceuticals LLC, which Mr. Stover co-founded and was President and Director of from September 2013. From June 2016 to December 2016, Mr. Stover was chairman of the audit committee and a member of the board of directors of Viatar CTC Solutions, Inc. From 2009 to February 2012, Mr. Stover served as the executive chairman of Targeted Nano Therapeutics LLC, a privately held biotechnology company focused on targeted delivery of peptides and proteins. Mr. Stover was also

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chairman of the audit committee and a member of the board of directors of Arbios Systems Inc. from 2005 to 2008 and a member of the board of directors of Influmedix, Inc. from 2010 to 2011. From 2004 to 2008, he served as chief executive officer, president and director of Antares Pharma, Inc., a publicly held specialty pharmaceutical company then listed on the American Stock Exchange. Prior to that, Mr. Stover was executive vice president and chief financial officer of Sicor, Inc., a publicly held company which manufactured and marketed injectable pharmaceutical products, and which was acquired by Teva Pharmaceutical Industries. Prior to that, Mr. Stover was executive vice president and director of a proprietary women's pharmaceutical company, Gynetics, *Inc*. ("Gynetics"), and before Gynetics, he was senior vice president and director of B. Braun Medical, Inc., a private global medical device and pharmaceutical company. For more than five years prior to that, Mr. Stover was a partner with PricewaterhouseCoopers (then Coopers and Lybrand), working in the bioscience industry division in New Jersey. Mr. Stover received his B.A. in Accounting from Lehigh University and is a Certified Public Accountant.

Our board of directors believes that Mr. Stover's experience holding senior leadership positions in the life sciences industry, his specific experience and skills in the areas of general operations, and financial operations and administration, and his extensive experience in accounting and as an audit committee member and chair of various public companies in the life sciences industry, provide him with the qualifications and skills to serve as a director.

Executive Officers

The following table sets forth certain information regarding our executive officers who are not also directors.

Name	Age	Position(s) with Onconova Therapeutics, Inc.
Steven M. Fruchtman, M.D.	66	Chief Medical Officer, and Senior Vice President, Research and Development
Manoj Maniar, Ph.D.	54	Senior Vice President, Product Development
Mark P. Guerin	48	Chief Financial Officer

Steven M. Fruchtman, M.D. Dr. Fruchtman has served as our Chief Medical Officer and Senior Vice President, Research and Development since January 2015. Dr. Fruchtman is a board certified hematologist with extensive industry experience in clinical research for myelodysplastic syndromes, hematologic malignancies and solid tumors. From June 2014 to January 2015, Dr. Fruchtman was a hematology oncology drug development consultant. From September 2013 to June 2014, Dr. Fruchtman served as Chief Medical Officer at Syndax Pharmaceuticals, Inc., a biopharmaceutical company. From July 2011 to July 2013, Dr. Fruchtman was the Chief Medical Officer and Senior Vice President of Research and Regulatory Affairs at Spectrum Pharmaceuticals. From February 2011 to June 2011, he was Vice President of Research at Spectrum Pharmaceuticals, Inc., a biopharmaceutical company. From February 2009 to January 2011, Dr. Fruchtman was Vice President, Clinical Research at Allos Therpeutics, Inc., a biopharmaceutical company. Prior to this, Dr. Fruchtman held senior positions at Novartis and Ortho Biotech Products. Dr. Fruchtman was on the faculty of the Mount Sinai School of Medicine and was the Director of the Stem Cell Transplantation and Myeloproliferative Disorder Programs at Mount Sinai Hospital in New York City. Dr. Fruchtman received his medical degree from New York Medical College and his B.A. from Cornell University.

Mark P. Guerin Mr. Guerin has served as our Chief Financial Officer since September 1, 2016. Previously he served as Vice President Financial Planning & Accounting, and Chief Accounting Officer since May 2014, and as Vice President Financial Planning & Accounting from September 2013 to May 2014. He has also served as our principal financial officer since February 12, 2016. Between January 2012 and September 2013, Mr. Guerin was self-employed as a financial and accounting consultant. For more than six years, through December 2011, Mr. Guerin was employed by CardioKine, Inc. and served as Chief Financial Officer from mid-2009 through December 2011. Mr. Guerin received his B.A. in Accounting from DeSales University.

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Manoj Maniar, Ph.D. Dr. Maniar has served as our Senior Vice President, Product Development since August 2005. Prior to joining us, Dr. Maniar was with SRI International, Inc., a nonprofit research institute, where he served as Senior Director, Formulations and Drug Delivery. Dr. Maniar received his B.S. in Pharmacy from Bombay College of Pharmacy and his Ph.D. in Pharmaceutics from the University of Connecticut.

Director Compensation

The following table summarizes compensation paid to our non-employee directors in fiscal 2016.

Name	Fees Earned or Paid in Cash ($)	Stock Option Awards ($)(1)	All Other Compensation ($)	Total ($)
Henry S. Bienen, Ph.D.	41,000	3,383		44,383
Jerome E. Groopman, M.D.	33,000	3,383		36,383
Michael B. Hoffman	68,000	4,398		72,398
James J. Marino	41,000	4,398		45,398
Viren Mehta	45,000	3,383		48,383
E. Premkumar Reddy, Ph.D.	30,000	3,383	131,000(2)	164,383
Anne M. VanLent(4)	35,311			35,311
Jack E. Stover	20,689	10,385		31,074

(1) Represents the fair value of the shares and options on the date of grant, calculated in accordance with Accounting Standards Codification (ASC) No. 718, *Compensation Stock Compensation* (ASC 718).

(2) Represents consulting fees paid to Dr. Reddy. See "Certain Relationships and Related Person Transactions."

(3) At December 31, 2016, the aggregate number of outstanding stock option awards held by each non-employee director was: Dr. Bienen 7,775; Dr. Groopman 10,028; Mr. Hoffman 23,577; Mr. Marino 3,990; Dr. Mehta 4,000; Dr. Reddy 5,875; and Mr. Stover 3,000.

(4) Ms. VanLent served as a director until May 18, 2016.

In June 2013, our board of directors approved a non-employee director compensation policy, which became effective for all non-employee directors in July 2013. In December 2016, the board of directors revised the policy to change the number of options board members would receive. In accordance with this policy, each non-employee director receives an annual base retainer of $30,000. In addition, our non-employee directors receive the following cash compensation for board services, as applicable:

- the chairman of our board of directors receives an additional annual retainer of $20,000;
- each member of our audit, compensation and nominating and corporate governance committees receives an additional retainer of $6,000, $5,000 and $3,000, respectively; and
- each chairperson of our audit, compensation and nominating and corporate governance committees receives an additional annual retainer of $15,000, $10,000 and $6,000, respectively, in addition to the retainer received for service as a member of such committee.

All amounts are paid in quarterly installments.

In addition, newly appointed non-employee directors receive a one-time initial award of options to purchase 2,000 shares of our common stock, which vests annually over a three-year period subject to the director's continued service on the board of directors. Thereafter, each

non-employee director receives an annual award of options to purchase 1,500 shares of our common stock, which vests monthly over a twelve-month period subject to the director's continued service on the board of

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directors. The chairman of our board of directors additionally receives an annual award of options to purchase 500 shares of our common stock, which vests monthly over a twelve-month period subject to the director's continued service on the board of directors.

All of our directors are eligible to receive additional discretionary awards under our 2013 Equity Compensation Plan, provided that non-employee directors may not receive incentive stock options.

We reimburse each non-employee director for out-of-pocket expenses incurred in connection with attending our board of directors and committee meetings. Compensation for our directors, including cash and equity compensation, is determined, and remains subject to adjustment, by our board of directors.

Corporate Governance

Board Composition

Our board of directors currently consists of eight members. Our board of directors has undertaken a review of the independence of our directors and has determined that all directors except Ramesh Kumar, Ph.D. and E. Premkumar Reddy, Ph.D. are independent within the meaning of Section 5605(a)(2) of the NASDAQ Stock Market listing rules and Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our Tenth Amended and Restated Certificate of Incorporation, as amended, provides that our board of directors will consist of not less than three nor more than 11 directors, as such number of directors may from time to time be fixed by our board of directors. Each director shall be elected to the board to hold office until the next annual meeting of stockholders and until his or her successor is elected and qualified.

Board Leadership Structure and Role in Risk Oversight

Our board of directors 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, particularly as the board of directors' oversight responsibilities continue to grow. We believe that, at present, separating these positions allows our chief executive officer to focus on our day-to-day business, while allowing our chairman to lead the board of directors in its fundamental role of providing advice to, and independent oversight of, management. Our board of directors 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 of directors.

While our bylaws do not require that our chairman and chief executive officer positions be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including but not limited to risks relating to limited cash resources, need to raise additional funds, product candidate development, technological uncertainty, dependence on collaborative partners and other third parties, uncertainty regarding patents and proprietary rights, comprehensive government regulations, having no commercial manufacturing experience, marketing or sales capability or experience and dependence on key personnel. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed. The board of directors periodically consults with management regarding the Company's risks.

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Our board of directors is actively involved in oversight of risks that could affect us. This oversight is conducted primarily through the audit committee of our board of directors, but the full board of directors has retained responsibility for general oversight of risks.

Board Committees

Our board of directors has established three standing committees: the audit committee, the compensation committee and the nominating and corporate governance committee. The current members of our audit committee are Henry S. Bienen, Ph.D., James J. Marino, Viren Mehta and Jack E. Stover, with Jack E. Stover serving as chairperson. The current members of our compensation committee are Michael B. Hoffman, James J. Marino and Jack E. Stover with Michael B. Hoffman serving as chairperson. The current members of our nominating and corporate governance committee are Michael B. Hoffman, Viren Mehta and Jerome E. Groopman, M.D., with Viren Mehta serving as chairperson.

Our board of directors has determined that Henry S. Bienen, Ph.D., James J. Marino, Viren Mehta and Jack E. Stover meet the additional test for independence for audit committee members imposed by Securities and Exchange Commission ("SEC") regulations and Section 5605(c)(2)(A) of the NASDAQ Stock Market listing rules and that Michael B. Hoffman, Henry S. Bienen, Ph.D, James J. Marino and Jack E. Stover meet the additional test for independence for compensation committee members imposed by Section 5605(d)(2)(A) of the NASDAQ Stock Market listing rules.

Audit Committee

The primary purpose of our audit committee is to assist the board of directors in the oversight of the integrity of our accounting and financial reporting process, the audits of our consolidated financial statements, and our compliance with legal and regulatory requirements. Our audit committee met four times during fiscal 2016. The functions of our audit committee include, among other things:

- hiring the independent registered public accounting firm to conduct the annual audit of our consolidated financial statements and monitoring its independence and performance;
- reviewing and approving the planned scope of the annual audit and the results of the annual audit;
- pre-approving all audit services and permissible non-audit services provided by our independent registered public accounting firm;
- reviewing the significant accounting and reporting principles to understand their impact on our consolidated financial statements;
- reviewing our internal financial, operating and accounting controls with management, our independent registered public accounting firm and our internal audit provider;
- reviewing with management and our independent registered public accounting firm, as appropriate, our financial reports, earnings announcements and our compliance with legal and regulatory requirements;
- periodically reviewing and discussing with management the effectiveness and adequacy of our system of internal controls;
- in consultation with management and the independent auditors, reviewing the integrity of our financial reporting process and adequacy of disclosure controls;
- reviewing potential conflicts of interest under and violations of our code of conduct;

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- establishing procedures for the treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters and confidential submissions by our employees of concerns regarding questionable accounting or auditing matters;
- reviewing and approving related-party transactions; and
- reviewing and evaluating, at least annually, our audit committee's charter.

With respect to reviewing and approving related-party transactions, our audit committee reviews related-party transactions for potential conflicts of interests or other improprieties. Under SEC rules, related-party transactions are those transactions to which we are or may be a party in which the amount involved exceeds the lesser of $120,000 or 1% of total assets, and in which any of our directors or executive officers or any other related person had or will have a direct or indirect material interest, excluding, among other things, compensation arrangements with respect to employment and board membership. Our audit committee could approve a related-party transaction if it determines that the transaction is in our best interests. Our directors are required to disclose to this committee or the full board of directors any potential conflict of interest, or personal interest in a transaction that our board is considering. Our executive officers are required to disclose any related-party transaction to the audit committee. We also poll our directors on an annual basis with respect to related-party transactions and their service as an officer or director of other entities. Any director involved in a related-party transaction that is being reviewed or approved must recuse himself or herself from participation in any related deliberation or decision. Whenever possible, the transaction should be approved in advance and if not approved in advance, must be submitted for ratification as promptly as practical.

The financial literacy requirements of the SEC require that each member of our audit committee be able to read and understand fundamental financial statements. In addition, at least one member of our audit committee must qualify as an audit committee financial expert, as defined in Item 407(d)(5) of Regulation S-K promulgated under the Securities Act, and have financial sophistication in accordance with the NASDAQ Stock Market listing rules. Our board of directors has determined that Jack E. Stover qualifies as an audit committee financial expert.

Both our independent registered public accounting firm and management periodically will meet privately with our audit committee.

The board of directors has adopted a charter for the audit committee, which is available in the corporate governance section of our website at *http://www.onconova.com.*

Compensation Committee

The primary purpose of our compensation committee is to assist our board of directors in exercising its responsibilities relating to compensation of our executive officers and employees and to administer our equity compensation and other benefit plans. In carrying out these responsibilities, this committee reviews all components of executive officer and employee compensation for consistency with its compensation philosophy, as in effect from time to time. Our compensation committee met six times during fiscal 2016. The functions of our compensation committee include, among other things:

- designing and implementing competitive compensation, retention and severance policies to attract and retain key personnel;
- reviewing and formulating policy and determining the compensation of our Chief Executive Officer, our other executive officers and employees;
- reviewing and recommending to our board of directors the compensation of our non-employee directors;
- reviewing and evaluating our compensation risk policies and procedures;

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- administering our equity incentive plans and granting equity awards to our employees, consultants and directors under these plans;
- administering our performance bonus plans and granting bonus opportunities to our employees, consultants and non-employee directors under these plans;
- if required from time to time, preparing the analysis or reports on executive officer compensation required to be included in our annual proxy statement;
- engaging compensation consultants or other advisors it deems appropriate to assist with its duties; and
- reviewing and evaluating, at least annually, our compensation committee's charter.

The board of directors has adopted a charter for the compensation committee, which is available in the corporate governance section of our website at *http://www.onconova.com.*

The compensation committee has utilized Radford ("Radford"), an Aon Hewitt company, as its executive compensation consultant. Radford reports directly to the compensation committee. The compensation committee may replace Radford or hire additional consultants at any time. Upon request by the compensation committee or its chair, a representative of Radford attends meetings of the compensation committee and is available to discuss compensation issues in between meetings.

In connection with its work for the compensation committee, Radford provided various executive compensation services to the compensation committee pursuant to a written consulting agreement. Generally, these services included advising the compensation committee on the principal aspects of our executive compensation program and evolving industry practices and providing market information and analysis regarding the competitiveness of our program design and our award values in relation to performance.

The compensation committee retains sole authority to hire any compensation consultant, approve such consultant's compensation, determine the nature and scope of its services, evaluate its performance, and terminate its engagement. We assessed the independence of Radford pursuant to SEC rules and determined that no known conflict of interest existed that would prevent Radford from serving as an independent consultant to the compensation committee.

The compensation committee has reviewed our compensation policies and practices for all employees, including our named executive officers, as they relate to risk management practices and risk-taking incentives, and has determined that there are no risks arising from these policies and practices that are reasonably likely to have a material adverse effect on us.

Nominating and Corporate Governance Committee

The primary purpose of our nominating and corporate governance committee is to assist our board of directors in promoting the best interest of our company and our stockholders through the implementation of sound corporate governance principles and practices. Our nominating and corporate governance committee met two times during fiscal 2016. The functions of our nominating and corporate governance committee include, among other things:

- identifying, reviewing and evaluating candidates to serve on our board of directors;
- determining the minimum qualifications for service on our board of directors;
- developing and recommending to our board an annual self-evaluation process for our board of directors and overseeing the annual self-evaluation process;

developing, as appropriate, a set of corporate governance principles, and reviewing and recommending to our board of directors any changes to such principles; and

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periodically reviewing and evaluating our nominating and corporate governance committee's charter.

The board of directors has adopted a charter for the nominating and corporate governance committee, which is available in the corporate governance section of our website at *http://www.onconova.com.*

Code of Conduct for Employees, Executive Officers and Directors

We have adopted a code of conduct applicable to all of our employees, executive officers and directors. The code of conduct is available in the corporate governance section of our website at *http://www.onconova.com.*

The audit committee of our board of directors is responsible for overseeing the code of conduct and must approve any waivers of the code of conduct for employees, executive officers or directors.

Meetings of the Board of Directors

The board of directors held 11 meetings during fiscal 2016. During fiscal 2016, each director attended at least 75 percent of the aggregate of the total number of meetings of the board of directors and the committees on which such director served.

Directors are encouraged, but not required, to attend the annual meeting of stockholders. Michael B. Hoffman, Ramesh Kumar, Ph.D., Jerome E. Groopman, James J. Marino, Viren Mehta, E. Premkumar Reddy, Ph.D., and Jack E. Stover (nominee) attended the 2016 Annual Meeting of Stockholders.

Director Nomination Process

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the nominating and corporate governance committee and the board of directors.

In determining whether to recommend any particular candidate for inclusion in the board of director's slate of recommended director nominees, our nominating and corporate governance committee considers the composition of the board of directors with respect to depth of experience, balance of professional interests, required expertise and other factors. The nominating and corporate governance committee considers the value of diversity when recommending candidates. The committee views diversity broadly to include diversity of experience, skills and viewpoint. The nominating and corporate governance committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. Our board of directors believe that the backgrounds and qualifications of its directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow it to fulfill its responsibilities.

Stockholders may recommend individuals to our nominating and corporate governance committee for consideration as potential director candidates. The nominating and corporate governance committee will evaluate stockholder-recommended candidates by following the same process and applying the same criteria as it follows for candidates submitted by others.

Stockholders may directly nominate a person for election to our board of directors by complying with the procedures set forth in Section 2.2(A) of our bylaws, and with the rules and regulations of the SEC. Under our bylaws, only persons nominated in accordance with the procedures set forth in the bylaws will be eligible to serve as directors. In order to nominate a candidate for service as a director,

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you must be a stockholder at the time you give the board of directors notice of your nomination, and you must be entitled to vote for the election of directors at the meeting at which your nominee will be considered. In addition, the stockholder must have given timely notice in writing to our Secretary. To be timely, a stockholder's notice must be delivered to the Secretary at our principal executive offices not later than the 90th day, nor earlier than the 120th day, prior to the first anniversary of the prior year's annual meeting of stockholders (provided, however, that in the event that the date of the annual meeting is more than 30 days before or 60 days after such anniversary date, notice by the stockholder must be delivered no earlier than the 120th day prior to the annual meeting and no later than the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such annual meeting is first made by us). Your notice must set forth (i) the name, age, business address and, if known, residence address of the nominee, (ii) the principal occupation or employment of the nominee, (iii) the class and number of shares of stock of the Company directly or indirectly, owned beneficially or of record by the nominee, (iv) a description of all arrangements or understandings between you and the nominee and any other person or persons (naming such person or persons) pursuant to which the nomination is to be made by you, and (v) all other information relating to the nominee that is required to be disclosed in solicitations of proxies for the election of directors in an election contest, or is otherwise required, in each case, pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder. Nominations for director must be accompanied by the nominee's written consent to being named in the proxy statement as a nominee and to serving as a director if elected.

Stockholder Communications with the Board

You can contact our board of directors to provide comments, to report concerns, or to ask a question, at the following address.

President
Onconova Therapeutics, Inc.
375 Pheasant Run
Newtown, PA 18940
United States

You may submit your concern anonymously or confidentially by postal mail. You may also indicate whether you are a stockholder, customer, supplier, or other interested party.

Communications are distributed to our board of directors, or to any individual directors, as appropriate, depending on the facts and circumstances outlined in the communication.

Section 16(a) Beneficial Ownership Reporting Compliance

Pursuant to Section 16(a) of the Exchange Act and the rules issued thereunder, our executive officers, directors and beneficial owners of more than ten percent of our common stock are required to file with the SEC reports of holdings of and transactions in our securities. Copies of such reports are required to be furnished to us. Based solely on a review of the copies of such reports furnished to us, or written representations that no other reports were required, we believe that all required reports were filed in fiscal 2016 in a timely manner, except that, one Form 4 each for Steven M. Fruchtman, M.D. and Jerome E. Groopman, M.D., related to an exercise of stock options were filed late, and a Form 3/A was filed for Jack E. Stover to amend his initial Section 16 (a) filing upon becoming a new board Member.

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PROPOSAL TWO RATIFICATION OF THE SELECTION OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2017

Our board of directors, acting upon the recommendation of the audit committee, has selected Ernst & Young LLP to audit our consolidated financial statements for the fiscal year ending December 31, 2017. Ernst & Young LLP has audited our consolidated financial statements since fiscal 2012.

Although stockholder approval of the selection of Ernst & Young LLP is not required by law, our board of directors and the audit committee believe it is advisable to give stockholders an opportunity to ratify this selection. If this proposal is not approved at the annual meeting, the audit committee may reconsider its selection of Ernst & Young LLP. Additionally, we are considering various actions to reduce our operating expenses. Even if this proposal is approved, the audit committee may reconsider its selection of Ernst & Young LLP as part of our expense reduction efforts.

We expect representatives of Ernst & Young LLP to attend the annual meeting, to be available to respond to appropriate questions from stockholders, and to have the opportunity to make a statement if so desired.

Fees of Independent Registered Public Accounting Firm

The following table summarizes the fees of Ernst & Young LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years.

Fee Category	Fiscal 2016	Fiscal 2015
Audit Fees(1)	$ 277,000	$ 338,000
Audit-Related Fees(2)	148,000	85,000
Tax Fees(3)	42,000	65,000
Total Fees	$ 467,000	$ 488,000

(1) Audit fees consist of fees for the audits of fiscal 2016 and 2015 and quarterly reviews of our consolidated financial statements and other professional services provided in connection with statutory and regulatory filings or engagements.

(2) Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit and the review of our consolidated financial statements and which are not reported under "Audit Fees."

(3) Tax fees for fiscal 2016 and fiscal 2015 include fees for tax advice, tax return preparation assistance and review.

Pre-Approval Policies and Procedures

Our audit committee's policy is that all audit services and all non-audit services to be provided to us by our independent registered public accounting firm must be approved in advance by the audit committee. The audit committee's approval procedures include the review and approval of engagement letters from our independent registered public accounting firm that document the fees for all audit services and non-audit services, primarily tax advice and tax return preparation and review.

All audit services and all non-audit services in fiscal 2016 were pre-approved by our audit committee. Our audit committee has determined that the provision of the non-audit services for which these fees were rendered is compatible with maintaining the independent auditor's independence.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE PROPOSAL TO RATIFY THE SELECTION OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2017.

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REPORT OF AUDIT COMMITTEE

The Audit Committee has reviewed the Company's audited consolidated financial statements for the fiscal year ended December 31, 2016 and discussed them with the Company's management and the Company's independent registered public accounting firm.

The Audit Committee has also received from, and discussed with, the Company's independent registered public accounting firm various communications that the Company's independent registered public accounting firm is required to provide to the Audit Committee, including the matters required to be discussed by Auditing Standard No. 1301, *Communications with Audit Committees*, as adopted by the Public Company Accounting Oversight Board.

The Audit Committee has received the written disclosures and the letter from the Company's independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the Audit Committee concerning independence, and has discussed with the Company's independent registered public accounting firm their independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the Company's Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

By the Audit Committee of the Board of Directors of Onconova Therapeutics, Inc.

Jack E. Stover, *Chairperson*
Henry S. Bienen
James J. Marino
Viren Mehta

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of our common stock as of March 1, 2017 by (a) each person known by us to be the beneficial owner of more than 5% of the outstanding shares of our common stock, (b) each named executive officer identified on page 19 of this proxy statement under the heading, "2016 Summary Compensation Table," (c) each of our directors, and (d) all of our executive officers and directors as a group.

The percentage of common stock outstanding is based on 6,772,659 shares of our common stock outstanding on March 1, 2017. For purposes of the table below, and in accordance with the rules of the SEC, we deem shares of common stock subject to warrants and options that are currently exercisable or exercisable within sixty days of March 1, 2017 to be outstanding and to be beneficially owned by the person holding the warrants and options for the purpose of computing the percentage ownership of that person, but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person. Except as otherwise noted, each of the persons or entities in this table has sole voting and investing power with respect to all of the shares of common stock beneficially owned by him, her or it, subject to community property laws, where applicable. Except as otherwise noted below, the street address of each beneficial owner is c/o Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown, PA 18940.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% or greater stockholders:		
The Michael and Jane Hoffman 2013 Descendants Trust(1) 712 Fifth Avenue, 51st Fl. New York, NY 10019	1,377,306	19.2%
Michael B. Hoffman(2) (Includes The Michael and Jane Hoffman 2013 Descendants Trust) 712 Fifth Avenue, 51st Fl New York, NY 10019	1,411,103	19.6%
Tyndall Capital Partners, L.P.(3) 405 Park Avenue, Suite 1104 New York, NY 10022	911,456	12.7%
E. Premkumar Reddy, Ph.D.(4)	372,325	5.4%
Other Directors, Director Nominees and Named Executive Officers:		
Henry S. Bienen, Ph.D.(5)	22,169	*
Jerome E. Groopman, M.D.(6)	9,954	*
Ramesh Kumar, Ph.D.(7)	220,615	3.2%
Manoj Maniar, Ph.D.(8)	39,569	*
James J. Marino(9)	44,614	*
Steven M. Fruchtman, M.D.(10)	41,480	*
Viren Mehta(11)	18,418	*
Jack E. Stover(12)	926	*
All current executive officers, directors and director nominees as a group (11 persons)(13)	2,209,484	29.1%

* Represents a beneficial ownership of less than one percent of our outstanding common stock.

(1) Includes 396,633 shares of common stock issuable upon the exercise of warrants that are currently exercisable or exercisable within sixty days of March 1, 2017.

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(2)

Includes (i) 1,377,306 shares of common stock beneficially owned by the Michael and Jane Hoffman 2013 Descendants Trust of which Mr. Hoffman is donor, (ii) 8,453 shares of common stock held by the Michael and Jane Hoffman 2013 Descendants Trust (Non-GST Exempt Trust) of which Mr. Hoffman is donor and (iii) 23,468 shares of common stock subject to outstanding options that are exercisable within 60 days of March 1, 2017. Mr. Hoffman has no voting or dispositive power with regard to any of the shares held by the Michael and Jane Hoffman 2013 Descendants Trust and the Michael and Jane Hoffman 2013 Descendants Trust (Non-GST Exempt Trust). A.J. Agarwal and Jane Hoffman, Mr. Hoffman's spouse, as trustees, have voting and dispositive power with regard to the shares held by the Michael and Jane Hoffman 2013 Descendants Trust and the Michael and Jane Hoffman 2013 Descendants Trust (Non-GST Exempt Trust).

(3)

Based on a Schedule 13G filed with the SEC on August 18, 2016. The Schedule 13G was filed on behalf of Tyndall Capital Partners, L.P. As of July 29, 2016, Tyndall Partners, L.P., a Delaware limited partnership held, 520,832 shares of common stock and 390,624 shares of common stock subject to outstanding warrants that are exercisable within 60 days of March 1, 2017. Tyndall Capital Partners, L.P. is the general partner of Tyndall Partners, L.P. and possesses the sole power to vote and the sole power to direct the disposition of all the shares and warrants. Jeffrey Management, LLC is the general partner of Tyndall Capital Partners, L.P. Jeffrey S. Hallis is the manager of Jeffrey Management, LLC.

(4)

Includes 105,541 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(5)

Includes 13,255 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(6)

Includes 9,944 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(7)

Includes (i) 37,510 shares of common stock held by the Ramesh Kumar 2012 Trust and (ii) 142,198 shares of common stock subject to outstanding warrants and options that are exercisable within 60 days of March 1, 2017. Dr. Kumar has voting and dispositive power with regard to the shares held by the Ramesh Kumar 2012 Trust.

(8)

Includes 39,519 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(9)

Includes 20,199 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(10)

Includes 35,104 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(11)

Includes (i) 2,844 shares of common stock held jointly with Dr. Mehta's spouse, (ii) 806 shares of common stock held by Mehta Partners, LLC, (iii) 174 shares of common stock held by Mehta Partners, LLC FBO Jean Marie Kiss IRA, (iv) 830 shares of common stock held by Viram Foundation and (v) 3,916 shares of common stock subject to outstanding options that are exercisable within 60 days of March 1, 2017. Dr. Mehta, as managing member, has voting and dispositive power with regard to the shares held by Mehta Partners, LLC. Dr. Mehta, as trustee, has voting and dispositive power with regard to the shares held by Mehta Partners, LLC FBO Jean Marie Kiss IRA. Dr. Mehta, as trustee has voting and dispositive power with regard to the shares held by Viram Foundation.

(12)

Includes 916 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of March 1, 2017.

(13)

Includes 815,278 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of March 1, 2017.

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CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Review and Approval of Related Person Transactions

The audit committee of our board of directors is charged with the responsibility of reviewing and approving all related person transactions (as defined in SEC regulations), and periodically reassessing any related person transaction that we enter to ensure continued appropriateness. This responsibility is set forth in our audit committee charter. A related party transaction will only be approved if the audit committee determines that the transaction is in the best interests of the Company. If a director is involved in the transaction, he or she will recuse himself or herself from all decisions regarding the transaction.

The following is a description of transactions during fiscal 2016, to which we have been a party, in which the amount involved in the transaction exceeds the lesser of $120,000 or 1% of total assets, and in which any of our current directors, executive officers or to our knowledge, beneficial owners of more than 5% of our capital stock or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest, other than the employment relationships with our executive officers and the related compensation solely resulting from those employment relationships.

On May 3, 2010, as subsequently amended, we entered into a research agreement with the Mount Sinai School of Medicine ("Mount Sinai"), with which E. Premkumar Reddy, Ph.D., a member of our board of directors and the beneficial owner of more than 5% of our capital stock, is associated. The research is undertaken by Mount Sinai on our behalf. Mount Sinai, in connection with us, will prepare applications for patents generated from the research. Results from all projects will belong exclusively to Mount Sinai, but we will have an exclusive option to license any inventions. The initial term of the research agreement was one year with options to extend by mutual agreement. The term of the agreement has been extended through July 4, 2017. Payments to Mount Sinai for the year ended December 31, 2016 were $548,000.

We entered into a consulting agreement with E. Premkumar Reddy, Ph.D., a member of our board of directors and the beneficial owner of more than 5% of our capital stock, effective as of January 1, 2012 for consulting services rendered in addition to his membership on our board of directors. The consulting agreement provided for a term of one year, unless renewed by mutual agreement of the parties. The current term has been extended through December 31, 2017, unless sooner terminated in accordance with the terms of the agreement. The board member provides consulting services to the Company on the terms set forth in the agreement. Payments to this board member for the year ended December 31, 2016 were $131,000.

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EXECUTIVE COMPENSATION

Overview of Executive Compensation

The compensation committee of our board of directors is responsible for overseeing the compensation of all of our executive officers. In this capacity, our compensation committee annually reviews and approves the compensation of our chief executive officer and other executive officers, including such goals and objectives relevant to the executive officers' compensation that the committee, in its discretion, determines are appropriate, evaluates their performance in light of those goals and objectives, and sets their compensation based on this evaluation.

2016 Summary Compensation Table

The following table sets forth information for the fiscal years ended December 31, 2016 and 2015 concerning compensation of our principal executive officer and the two most highly compensated executive officers during 2016. We refer to these three executive officers as our "named executive officers."

Name and Principal Position	Year	Salary ($)	Bonus ($)(1)	Option Awards ($)(2)	All Other Compensation ($)(3)	Total ($)
Ramesh Kumar, Ph.D.	2016	413,172	254,028	177,729	19,707	864,636
President and Chief Executive Officer	2015	542,810		224,056	12,960	779,826
Steven M. Fruchtman, M.D.	2016	421,784	142,800	119,283	7,179	691,046
Chief Medical Officer and Senior Vice President, Research and Development	2015	395,769	50,000	459,904	7,528	913,201
Manoj Maniar, Ph.D.	2016	371,453	126,186	89,703	11,930	599,272
Senior Vice President, Product Development	2015	370,695		102,425	20,000	493,120

(1) Represents discretionary annual bonus amounts paid.

(2) The entries in the option awards column reflect the grant date fair value of the awards, as calculated for financial statement reporting purposes in accordance with Accounting Standards Codification (ASC) No. 718, *Compensation Stock Compensation.* The option values were calculated using the Black-Scholes option pricing model. These amounts do not represent the actual value realized by the named executive officers. See Note 8 of the Notes to Consolidated Financial Statements for the fiscal year ended December 31, 2016 for a discussion of the relevant assumptions used to determine the valuation of our stock options for accounting purposes.

(3) Includes amounts paid for insurance premiums on behalf of the named executive officer and matching funds paid pursuant to our 401(k) Plan.

Employment Agreements

We have entered into employment agreements with each of our named executive officers, and the compensation of our named executive officers is determined, in large part, by the terms of those employment agreements. Following are descriptions of the material terms of each named executive officer's employment agreement.

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Ramesh Kumar, Ph.D.

We entered into an employment agreement with Dr. Kumar on July 1, 2015, which supersedes any prior employment agreements. The employment agreement continues indefinitely, unless terminated in accordance with the terms of the agreement.

The employment agreement provided for an initial base salary of $543,375, subject to adjustment upon annual review by our board of directors, and an annual bonus of up to 55% of such base salary, payable upon our achievement of revenue or profit objectives, specific business plan goals or other performance milestones mutually agreed to by Dr. Kumar and our board of directors, provided that Dr. Kumar remain employed by us throughout the performance year. The bonus may be paid in the form of cash, stock options, shares of our common stock, or a combination thereof, at our compensation committee's discretion. Dr. Kumar may also be entitled to additional compensation in recognition of extraordinary contributions, at the sole discretion of our compensation committee. On February 12, 2016, we entered into a letter agreement with Dr. Kumar pursuant to which Dr. Kumar agreed to a voluntary reduction in his base salary from $543,375 to $407,531, effective as of January 1, 2016. For purposes of severance and other benefits calculated based upon base salary, however, Dr. Kumar's base salary was deemed to remain at $543,375. On December 9, 2016, our board of directors approved the termination of the voluntary salary reduction effective January 1, 2017. Pursuant to this approval, on March 27, 2017, we entered into a letter agreement with Dr. Kumar under which the voluntary salary reduction was terminated effective January 1, 2017.

Dr. Kumar is entitled to participate in all of our employee benefit plans and programs that are made generally available from time to time to our executive officers and is entitled to vacation benefits. Pursuant to his employment agreement, Dr. Kumar is entitled to term life insurance coverage in a face amount that is not less than his base salary, a reasonable transportation allowance if we relocate our research facility more than 40 miles from its present location, and up to $10,000 annually for educational programs related to the performance of his duties. If Dr. Kumar dies during his employment, we will be entitled to a $1 million death benefit under a "key man" life insurance policy. Dr. Kumar's employment agreement contains non-solicitation, non-competition, confidentiality and inventions assignment provisions that, among other things, prevent him from competing with us during the term of his employment and for a specified time thereafter.

If Dr. Kumar's employment is terminated due to his death, disability, by us for "cause" or by Dr. Kumar without "good reason" during the term of his employment agreement, we will pay to Dr. Kumar or his spouse or estate the balance of his accrued and unpaid salary, unreimbursed expenses, and unused accrued vacation time through the termination date.

If Dr. Kumar's employment is terminated by us without "cause" or by Dr. Kumar for "good reason," other than during a change in control protection period, Dr. Kumar will be entitled to receive severance equal to his current base salary and target bonus for the fiscal year during which his employment ceases. If the termination is during a change in control protection period, Dr. Kumar will be entitled to receive severance equal to two times the sum of his current base salary and target bonus for the fiscal year during which his employment ceases, less any severance previously paid. A change in control protection period commences three months prior to and ends twelve months following a change in control. The Company will also reimburse Dr. Kumar for a portion of his medical insurance costs and all of Dr. Kumar's incentive stock options that are unvested as of the date of such termination would fully vest as of the date of termination.

Steven Fruchtman, M.D.

We entered into an employment agreement with Dr. Fruchtman on July 1, 2015, which supersedes any prior employment agreements. The employment agreement continues indefinitely, unless terminated in accordance with the terms of the agreement.

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The employment agreement provides for an initial base salary of $420,000, subject to adjustment upon annual review, and subject to the compensation committee's sole discretion, an annual bonus, based on the performance of Dr. Fruchtman and the Company, of up to 40% of such base salary. The bonus may be paid in the form of cash, stock options, shares of our common stock, or a combination thereof, at our compensation committee's discretion.

Dr. Fruchtman is entitled to participate in all of our employee benefit plans and programs that are made generally available from time to time to our executive officers and is entitled to vacation benefits. Dr. Fruchtman's employment agreement contains non-solicitation, non-competition, confidentiality and inventions assignment provisions that, among other things, prevent him from competing with us during the term of his employment and for a specified time thereafter. The Company will reimburse Dr. Fruchtman for reasonable expenses including certain commuting costs to the Company's offices.

If Dr. Fruchtman's employment is terminated due to his death, disability, by us for "cause" or by Dr. Fruchtman without "good reason" during the term of his employment agreement, we will pay to Dr. Fruchtman or his spouse or estate the balance of his accrued and unpaid salary, unreimbursed expenses, and unused accrued vacation time through the termination date.

If Dr. Fruchtman's employment is terminated by us without "cause" or by Dr. Fruchtman for "good reason," other than during a change in control protection period, Dr. Fruchtman will be entitled to receive severance equal to the sum of his current base salary and target bonus for the fiscal year during which his employment ceases. If the termination is during a change in control protection period, Dr. Fruchtman will be entitled to receive severance equal to the sum of his current base salary and target bonus for the fiscal year during which his employment ceases. A change in control protection period is the twelve months following a change in control. The Company will also reimburse Dr. Fruchtman for a portion of his medical insurance costs and all of Dr. Fruchtman's incentive stock options that are unvested as of the date of such termination would fully vest as of the date of termination.

Manoj Maniar, Ph.D.

We entered into an employment agreement with Dr. Maniar on July 1, 2015, which supersedes any prior employment agreements. The employment agreement continues indefinitely, unless terminated in accordance with the terms of the agreement.

The employment agreement provides for an initial base salary of $371,135, subject to adjustment upon annual review by our board of directors, and subject to the compensation committee's sole discretion, an annual bonus, based on the performance of Dr. Maniar and the Company, of up to 40% of such base salary. The bonus may be paid in the form of cash, stock options, shares of our common stock, or a combination thereof, at our compensation committee's discretion.

Dr. Maniar is entitled to participate in all of our employee benefit plans and programs that are made generally available from time to time to our executive officers and is entitled to vacation benefits. Dr. Maniar's employment agreement contains non-solicitation, non-competition, confidentiality and inventions assignment provisions that, among other things, prevent him from competing with us during the term of his employment and for a specified time thereafter.

If Dr. Maniar's employment is terminated due to his death, disability, by us for "cause" or by Dr. Maniar without "good reason" during the term of his employment agreement, we will pay to Dr. Maniar or his spouse or estate the balance of his accrued and unpaid salary, unreimbursed expenses, and unused accrued vacation time through the termination date.

If Dr. Maniar's employment is terminated by us without "cause" or by Dr. Maniar for "good reason," other than during a change in control protection period, Dr. Maniar will be entitled to receive severance equal to nine-twelfths of the sum of his current base salary and target bonus for the fiscal

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year during which his employment ceases. If the termination is during a change in control protection period, Dr. Maniar will be entitled to receive severance equal to the sum of his current base salary and target bonus for the fiscal year during which his employment ceases. A change in control protection period is the twelve months following a change in control. The Company will also reimburse Dr. Maniar for a portion of his medical insurance costs and all of Dr. Maniar's incentive stock options that are unvested as of the date of such termination would fully vest as of the date of termination.

Stock Option and Other Compensation Plans

We maintain our 2013 Equity Compensation Plan for the purpose of attracting key employees, directors and consultants, inducing them to remain with us and encouraging them to increase their efforts to make our business more successful. The plan provides for awards of stock options, stock appreciation rights, restricted stock, restricted stock units, deferred shares and other equity-based awards.

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The following table contains certain information regarding equity awards held by the named executive officers as of December 31, 2016:

Outstanding Equity Awards at 2016 Fiscal Year-End

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Ramesh Kumar	1,674		60.00	4/6/2017
	9,376		57.60	3/16/2020
	5,251		61.30	12/9/2020
	1,033		61.30	12/4/2021
	18,754		132.80	12/18/2022
	10,426(1)	74	150.00	7/25/2023
	10,125(2)	3,375	134.80	12/20/2023
	8,750(2)	8,750	39.80	12/17/2024
	3,645(2)	5,105	23.20	4/15/2025
	2,734(2)	6,016	14.80	9/24/2025
	14,644		6.50	1/25/2026
	3,666(3)	40,334	3.24	9/1/2026
	(3)	12,673	2.65	12/15/2026
Steven Fruchtman	5,750(2)	6,250	43.70	1/11/2025
	1,458(2)	2,042	24.80	4/19/2025
	1,250(2)	2,750	14.80	9/24/2025
	12,410		6.50	1/25/2026
	2,083(3)	22,917	3.24	9/1/2026
	(3)	7,599	2.65	12/15/2026
Manoj Maniar	1,125		60.00	7/31/2017
	5,625		57.60	3/16/2020
	2,625		61.30	12/9/2020
	378		61.30	12/4/2021
	3,000		132.80	12/18/2022
	426(1)	74	150.00	7/25/2023
	3,000(2)	1,000	134.80	12/20/2023
	3,000(2)	3,000	39.80	12/17/2024
	1,666(2)	2,334	23.20	4/15/2025
	1,250(2)	2,750	14.80	9/24/2025
	10,340		6.50	1/25/2026
	1,416(3)	15,584	3.24	9/1/2026
	(3)	5,587	2.65	12/15/2026

(1) 25% of the total shares underlying this option vested on July 25, 2014. The remaining shares vest 1/36th monthly over 36 months thereafter, subject to continued service to us through each vesting date.

(2) Shares vest in equal monthly installments over four years, 1/48th per month. The first shares vest one month after the date of grant.

(3) Shares vest in equal monthly installments over three years, 1/36th per month. The first shares vest one month after the date of grant.

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Potential Payments Upon Termination of Employment or Change in Control

As discussed under the caption " Employment Agreements" above, we have agreements with our named executive officers pursuant to which they will receive severance payments upon certain termination events. The information below describes certain compensation that would be available under our existing plans and arrangements if (i) the named executive officer was terminated as of December 31, 2016 or (ii) if a Change in Control, as defined herein, occurred on December 31, 2016 and the named executive officer's employment had been subsequently terminated on the same date.

Acceleration of Equity Awards

Pursuant to the terms of each named executive officer's option agreements, in the event of a "Change in Control" that occurs during any time prior to such named executive officer's Termination of Service (as such terms are defined in our 2013 Equity Compensation Plan) with us, all stock options granted pursuant to such option agreement shall fully vest.

Termination Other than for Cause, Death or Disability; Resignation for Good Reason

The payments and benefits to which each named executive officer would be entitled in the event the named executive officer's employment is terminated for any reason other than for cause, death, or disability, or if the named executive officer resigns for good reason, whether or not following a "change in control" is described above.

Equity Compensation Plan Information

The following table summarizes the total number of outstanding options and shares available for other future issuances of options under all of our equity compensation plans as of December 31, 2016. All of the outstanding awards listed below were granted under our 2013 Equity Compensation Plan. See "Stock Option and Other Compensation Plans 2013 Equity Compensation Plan" above for a summary of the 2013 Equity Compensation Plan.

Plan Category	Number of Shares to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Shares Remaining Available for Future Issuance Under the Equity Compensation Plan (Excluding Shares in First Column)
Equity compensation plans approved by stockholders	746,353	$ 26.75	6,275
Equity compensation plans not approved by stockholders			

In accordance with the terms of the 2013 Equity Compensation Plan, on January 1, 2017, the maximum aggregate number of shares of our common stock that may be issued under the plan was automatically increased by 200,000 shares, such that immediately after such increase the number of shares remaining available for future issuance under the plan was 206,275.

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OTHER MATTERS

Other Business

As of the date of this Proxy Statement, our board of directors knows of no business to be presented at the Meeting other than as set forth herein. If other matters properly come before the Meeting, the persons named as proxies will vote on such matters in their discretion.

Stockholder Proposals for 2018 Annual Meeting of Stockholders

In order for a stockholder proposal, including a director nomination, to be considered for inclusion in our proxy statement for the 2018 Annual Meeting of Stockholders, the written proposal must be received at our principal executive offices on or before December 13, 2017. The proposal should be addressed to Secretary, Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown PA 18940. The proposal must comply with SEC regulations regarding the inclusion of stockholder proposals in company-sponsored proxy materials.

In accordance with Section 2.2 of our bylaws, a stockholder who wishes to present a proposal for consideration at the 2018 Annual Meeting of Stockholders must deliver a notice of the matter the stockholder wishes to present to our principal executive offices in Newtown, PA, at the address identified in the preceding paragraph, not less than 90 nor more than 120 days prior to the first anniversary of the date of the Meeting. Accordingly, any notice given by or on behalf of a stockholder pursuant to these provisions of our bylaws (and not pursuant to Rule 14a-8 of the SEC) must be received no earlier than January 17, 2018 and no later than February 16, 2018 (except that in the event that the date of the 2018 Annual Meeting of Stockholders is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the meeting of stockholders, a stockholder's notice must be so received no earlier than the 120th day prior to the 2018 Annual Meeting of Stockholders and not later than the close of business on the later of (A) the 90th day prior to the 2018 Annual Meeting of Stockholders or (B) the tenth day following the day on which public disclosure of the date of the 2018 Annual Meeting of Stockholders was made.

The notice should include a brief description of the business desired to be brought before the 2018 Annual Meeting of Stockholders, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend these bylaws, the language of the proposed amendment), the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and any other information concerning such matter that must be disclosed in proxy solicitations pursuant to Regulation 14A under the Exchange Act, as if the matter had been proposed, or intended to be proposed, by the board of directors. As to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made, the notice should include the information required by Section 2.2(A)(3)(c) of our bylaws.

Annual Report

Our 2016Annual Report on Form 10-K is concurrently being mailed to stockholders. The Annual Report contains our consolidated financial statements and the report thereon of Ernst & Young LLP, independent registered public accounting firm. **Stockholders may obtain an additional copy of our Annual Report on Form 10-K filed with the Securities and Exchange Commission for the year ended December 31, 2016, without charge, by writing to Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown, PA 18940.**

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Householding of Annual Meeting Materials

Certain banks, brokers, broker-dealers and other similar organizations acting as nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of this Proxy Statement and our Annual Report on Form 10-K may have been sent to multiple stockholders in your household. If you would prefer to receive separate copies of a proxy statement or Annual Report on Form 10-K for other stockholders in your household, either now or in the future, please contact your bank, broker, broker-dealer or other similar organization serving as your nominee. Upon written or oral request to our Secretary at Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown PA 18940, or via telephone to our Corporate Secretary at 267-759-3680, we will promptly provide separate copies of our Annual Report on Form 10-K and/or this Proxy Statement. Stockholders sharing an address who are receiving multiple copies of this proxy statement and/or Annual Report on Form 10-K and who wish to receive a single copy of these materials in the future will need to contact their bank, broker, broker-dealer or other similar organization serving as their nominee to request that only a single copy of each document be mailed to all stockholders at the shared address in the future.

BY ORDER OF THE BOARD OF DIRECTORS

/s/ RAMESH KUMAR

President and Chief Executive Officer

Dated: April 12 , 2017

IT IS IMPORTANT THAT PROXIES BE RETURNED PROMPTLY. THEREFORE, STOCKHOLDERS ARE URGED TO COMPLETE, SIGN, DATE AND RETURN THE ACCOMPANYING FORM OF PROXY IN THE ENCLOSED ENVELOPE.