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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

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- 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)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
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 - (3) Filing Party: _____
 - (4) Date Filed: _____



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

April 29, 2019

Dear Stockholder,

We cordially invite you to attend our 2019 Annual Meeting of Stockholders to be held at 9:00 a.m. Eastern Daylight Time on Monday, June 17, 2019 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 June 17, 2019.

Sincerely,

/s/ STEVEN FRUCHTMAN

Steven Fruchtmann
President and Chief Executive Officer

Onconova Therapeutics, Inc.

375 Pheasant Run
Newtown, PA 18940

Notice of 2019 Annual Meeting of Stockholders

NOTICE IS HEREBY GIVEN that the 2019 Annual Meeting (the "Annual Meeting") of Stockholders of Onconova Therapeutics, Inc., a Delaware corporation (the "Company"), will be held on:

Date: June 17, 2019

Time: 9:00 a.m. Eastern Daylight Time

Place: Offices of Morgan, Lewis & Bockius LLP
101 Park Avenue
New York, NY 10178
USA

- Purposes:**
1. To elect seven directors, each to hold office until the 2020 Annual Meeting of Stockholders and until his or her successor is elected and qualified;
 2. To consider and vote upon an amendment and restatement of the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan to increase the number of shares available under the plan and to make certain other changes;
 3. 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, 2019;
 4. To approve, on an advisory basis, the compensation of our named executive officers;
 5. To approve, on an advisory basis, the frequency of advisory votes on the compensation of our named executive officers; and
 6. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

Record Date: The Board of Directors has fixed the close of business on April 18, 2019 as the record date for determining stockholders entitled to notice of, and to vote at, the Annual 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, 2018 (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/ STEVEN FRUCHTMAN

Steven Fruchtman
President and Chief Executive Officer

Newtown, PA
April 29, 2019

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Onconova Therapeutics, Inc.

375 Pheasant Run
Newtown, PA 18940

**PROXY STATEMENT
ANNUAL MEETING OF STOCKHOLDERS TO BE HELD JUNE 17, 2019**

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 2019 Annual Meeting of Stockholders (the "Annual Meeting"). The Annual Meeting is scheduled to be held at 9:00 a.m. Eastern Daylight Time on Monday, June 17, 2019, 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 29, 2019.

At the Annual Meeting, stockholders will be asked to consider and vote upon: (1) the election of seven directors, each to hold office until the 2020 Annual Meeting of Stockholders and until his or her successor is elected and qualified; (2) an amendment and restatement of the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan (the "2018 Plan") to increase the number of shares available under the plan and to make certain other changes; (3) the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019; (4) approval, on an advisory basis, of the compensation of our named executive officers; (5) approval, on an advisory basis, of the frequency of advisory votes on the compensation of our named executive officers; and (6) 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 18, 2019 has been fixed as the record date for the determination of stockholders entitled to receive notice of and to vote at the Annual Meeting. As of the close of business on such date, we had outstanding and entitled to vote 5,895,004 shares of our common stock, par value \$0.01 per share. Holders of the Company's Series A Convertible Preferred Stock or Series B Convertible Preferred Stock are not entitled to vote at the Annual Meeting. You may vote your shares of common stock 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 Annual 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.

Election of Directors

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 this proposal, 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 seven 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.

Amendment and Restatement of the 2018 Plan

The approval of the amendment and restatement of the 2018 Plan requires the affirmative vote of a majority of the votes cast at the Annual Meeting. With respect to this proposal, shareholders may (i) vote "For" the proposal, (ii) vote "Against" the proposal, or (iii) abstain from voting. Abstentions are not considered to be votes cast and will have no effect on the outcome of the vote. If you are a stockholder of record and you return your signed and dated proxy card without providing specific voting instructions on the Amendment and Restatement of the 2018 Plan proposal, or do not specify your vote on the Amendment and Restatement of the 2018 Plan proposal when voting using the telephone or internet, your shares will be voted "For" the Amendment and Restatement of the 2018 Plan proposal in accordance with the recommendations of the Board of Directors. If you are a stockholder of record and you fail to return your proxy card, or to vote at all using the telephone or internet, it will have no effect.

Approval of the Amendment and Restatement of the 2018 Plan 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 this proposal, then you should instruct on how to vote the shares using the voting instructions provided. Broker non-votes will have no effect on the outcome of the proposal.

Ratification of Independent Public Accounting Firm

The affirmative vote of a majority of the votes cast is required to approve the proposal to ratify the selection of our independent registered public accounting firm. Abstentions are not considered to be votes cast and will have no effect on the outcome of the vote. If you are a stockholder of record and you return your signed and dated proxy card without providing specific voting instructions on this proposal, or do not specify your vote on this proposal when voting using the telephone or internet, your shares will be voted "For" the ratification of the selection of our independent registered public accounting firm in accordance with the recommendations of the Board of Directors. If you are a stockholder of record and you fail to return your proxy card, or to vote at all using the telephone or internet, it will have no effect.

We believe that the proposal to ratify the selection of our independent registered public accounting firm is deemed to be a "routine" matter. Therefore, if you are a beneficial owner of shares registered in the name of your broker or other nominee and you fail to provide instructions to your broker or nominee as to how to vote your shares on this proposal, your broker or nominee will have the discretion to vote your shares on this proposal.

Advisory Vote on Executive Compensation

The approval, on an advisory basis, of the compensation of our named executive officers requires the affirmative vote of a majority of the votes cast at the Annual Meeting. With respect to this proposal, shareholders may (i) vote "For" the proposal, (ii) vote "Against" the proposal, or (iii) abstain from voting. Abstentions are not considered to be votes cast and will have no effect on the outcome of the vote. If you are a stockholder of record and you return your signed and dated proxy card without providing specific voting instructions on the advisory vote on executive compensation proposal, or do not specify your vote on the on the advisory vote on executive compensation proposal when voting using the telephone or internet, your shares will be voted "For" the approval, on an advisory basis, of the compensation of our named executive officers proposal in accordance with the recommendations of the Board of Directors. If you are a stockholder of record and you fail to return your proxy card, or to vote at all using the telephone or internet, it will have no effect.

The advisory vote on executive compensation 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 this proposal, then you should instruct on how to vote the shares using the voting instructions provided. Broker non-votes will have no effect on the outcome of the proposal.

Advisory Vote on the Frequency of Advisory Vote on Executive Compensation

The approval, on an advisory basis, of the frequency of advisory vote on the compensation of our named executive officer requires the affirmative vote of a majority of the votes cast at the Annual Meeting.. Because this vote is non-binding, our Board of Directors may determine the frequency of future advisory votes on the compensation of our named executive officers in its discretion. With respect to this proposal, stockholders have the choice to vote (i) "every year", (ii) "every two years", (iii) "every three years," or (iv) abstain from voting. Abstentions are not considered to be votes cast and will have no effect on the outcome of the vote. If you are a stockholder of record and you return your signed and dated proxy card without providing specific voting instructions on this proposal, or do not specify your vote on this proposal when voting using the telephone or internet, your shares will be voted "For" the approval of a frequency of "every three years" in accordance with the recommendations of the Board of Directors. If you are a stockholder of record and you fail to return your proxy card, or to vote at all using the telephone or internet, it will have no effect.

The advisory vote on the frequency of the advisory votes on executive compensation 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 this proposal, then you should instruct on how to vote the shares using the voting instructions provided. Broker non-votes will have no effect on the outcome of the proposal.

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, **FOR** the approval of the amendment and restatement of the 2018 Plan, **FOR** the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019, **FOR** the approval, on an advisory basis, of the compensation of our named

executive officers, and **FOR** the approval, on an advisory basis, of a frequency of "every three years" on the advisory votes of our named executive officer compensation.

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.

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

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.

Our Board of Directors currently consists of seven directors. Our Board of Directors has nominated the seven persons listed in the table below for election as directors with terms expiring at the 2020 Annual Meeting of Stockholders. Accordingly, our stockholders may not vote their shares for a greater number of persons than the nominees named below. Unless a contrary direction is indicated, it is intended that proxies received will be voted for the election as directors of the seven nominees, each to hold office until the 2020 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 UNANIMOUSLY 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.

<u>Name</u>	<u>Age</u>	<u>Position(s) with Onconova Therapeutics, Inc.</u>	<u>Served as Director From</u>
Jerome E. Groopman, M.D.	67	Director	2013
Steven M. Fruchtman, M.D.	68	Director, President and Chief Executive Officer	2019
Michael B. Hoffman	68	Chairman of the Board of Directors	2002
Viren Mehta	69	Director	2004
James J. Marino	69	Director	2015
E. Premkumar Reddy, Ph.D.	75	Director	1999
Jack E. Stover	66	Director	2016

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.

Steven M. Fruchtman, M.D. Dr. Fruchtman was appointed as a member of our Board of Directors and as our Chief Executive Officer on January 15, 2019. He was appointed President in June 2018 and continues to serve as President. Dr. Fruchtman served as our Chief Medical Officer and Senior Vice President, Research and Development from January 2015 to November 2018. 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 Therapeutics, 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.

Our Board of Directors believes Dr. Fruchtman's perspective and experience as our Chief Medical Officer, President and Chief Executive Officer, as well as his depth of experience in the healthcare industry and 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. Mr. Hoffman is a founder and managing partner of Stone Capital Partners, since July 2018. From 2003 to 2018, Mr. Hoffman was a partner of Riverstone Holdings LLC, or Riverstone, where he was 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 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, and is chairman and founder of Curative Biotherapeutics, which develops immune-oncology compounds for AML. 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.

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 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 board affiliations include BlinkBio, Yisheng Biopharma, 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 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 Sicom, 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.

<u>Name</u>	<u>Age</u>	<u>Position(s) with Onconova Therapeutics, Inc.</u>
Richard C. Woodman, M.D.	64	Chief Medical Officer, and Senior Vice President, Research and Development
Manoj Maniar, Ph.D.	56	Senior Vice President, Product Development
Mark P. Guerin	50	Chief Financial Officer
Abraham N. Oler, J.D	43	Vice President, Corporate Development and General Counsel

Richard C. Woodman, M.D. Dr. Woodman has served as our Chief Medical Officer and Senior Vice President, Research and Development since November 2018. Prior to joining us, Dr. Woodman was employed at Novartis, Inc. from 2006 to 2018. He was Senior Vice President and Head of US Oncology Clinical Development and Medical Affairs from September 2015 to March 2018. He was Vice President, Global Medical Affairs from 2012 to 2015 and held various Medical Director positions from 2006 to 2012. Prior to Novartis, Inc., Dr. Woodman was a Senior Medical Director at Johnson and Johnson, Ortho Biotech from 2002 to 2006. Prior to Ortho Biotech, Dr. Woodman held academic appointments as Professor in the Departments of Medicine and Oncology at the University of Calgary in Canada where he joined the faculty in 1990. Dr. Woodman received his medical degree from the University of Calgary and his B.P.E. from the University of British Columbia.

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.

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.

Abraham N. Oler, J.D. Mr. Oler has served as our Vice President, Corporate Development and General Counsel since December 2018. Prior to joining us, from 2010 to 2018, Mr. Oler was Vice President of Operations at Spectrum Pharmaceuticals, Inc., where he headed the legal function and worked in corporate development. Additionally, he served as Chief of Staff to the CEO and corporate secretary. He was also an officer and director for several Spectrum Pharmaceuticals Inc. subsidiary companies. From 2007 to 2010, Mr. Oler was a corporate attorney at the international law firm of Kirkland & Ellis LLP. Mr. Oler received his J.D. and an M.B.A. from Northwestern University. He received an M.Sc. in Politics of the World Economy from the London School of Economics and a B.S. in Economics and a B.A. in International Relations from the University of Pennsylvania.

Director Compensation

The following table summarizes compensation paid to our non-employee directors in fiscal 2018.

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Stock Option Awards \$(1)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Jerome E. Groopman, M.D.	33,500	26,617	—	60,117
Michael B. Hoffman	78,500	26,617	—	105,117
James J. Marino	41,750	26,617	—	68,367
Viren Mehta	47,250	26,617	—	73,867
E. Premkumar Reddy, Ph.D.	30,000	26,617	—	56,617
Jack E. Stover	56,750	26,617	—	83,367

- (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, 2018, the aggregate number of outstanding stock option awards held by each non-employee director was: Dr. Groopman—6,540; Mr. Hoffman—7,160; Mr. Marino—6,199; Dr. Mehta—6,197; Dr. Reddy—6,322; and Mr. Stover—6,132.

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 June 2018, the Board of Directors revised the policy to change the retainer amounts and the number of options members of our Board of Directors would receive, based on a benchmarking study comparing our director compensation to a group of comparable peer companies. In accordance with this policy, each non-employee director receives an annual base retainer of \$40,000. 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 \$30,000;
- each member of our audit, compensation and nominating and corporate governance committees receives an additional retainer of \$7,500, \$5,000 and \$4,000, 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 \$8,000, 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 11,666 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 5,833 shares of our common stock, which vests on the first anniversary of the grant, subject to the director's continued service on the Board of Directors.

All of our directors are eligible to receive additional discretionary awards under the 2018 Plan, subject to the annual limit set forth in the 2018 Plan.

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 seven members. Our Board of Directors has undertaken a review of the independence of our directors and has determined that all directors except Steven M. Fruchman, M.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 of Directors 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.

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 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 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, 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 2018. 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;
- 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, as a smaller reporting company, 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 the average of our total assets at year end for the last two completed fiscal years, 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 of Directors 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 of Directors 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 2018. 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;
- 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 four times during fiscal 2018. 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 of Directors 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
- 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 nine meetings during fiscal 2018. During fiscal 2018, 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. All of our directors attended the 2018 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 members of our Board of Directors 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 Directors' 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, 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 2018 in a timely manner, except for one Form 4 for Manoj Maniar which was inadvertently filed late to report an option grant.

PROPOSAL TWO

AMENDMENT AND RESTATEMENT OF THE 2018 OMNIBUS INCENTIVE COMPENSATION PLAN

The Board of Directors is asking stockholders to approve the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan, as amended and restated (the "Amended Plan"). On April 24, 2019, acting on the recommendation of our Compensation Committee (the "Compensation Committee"), the Board of Directors unanimously approved the Amended Plan, subject to stockholder approval and, accordingly, the Board of Directors directed that the Amended Plan be submitted to the Company's stockholders for approval at the Annual Meeting.

The Amended Plan is an amendment and restatement of the 2018 Plan. The 2018 Plan replaced the Onconova Therapeutics, Inc. 2013 Equity Incentive Plan (the "2013 Plan"). No further awards have been or will be made under the 2013 Plan after the effective date of the 2018 Plan on June 27, 2018. Awards granted under the 2013 Plan will continue in effect in accordance with the terms of the applicable award agreement and the terms of the 2013 Plan in effect when the awards were granted.

Stockholder approval of the Amended Plan is being sought in order to (i) meet NASDAQ listing requirements, (ii) extend the term of the Amended Plan and (iii) allow for incentive stock options to meet the requirements of the Internal Revenue Code of 1986, as amended (the "Code").

The principal changes made to the Amended Plan are to:

- Increase the number of shares of common stock reserved for issuance by an additional 589,500 shares.
- Clarify that no dividends or dividend equivalents will vest and be paid unless the underlying grant vests and is paid.
- Provide that the maximum number of shares of common stock for which any awards may be made to any employee or consultant or advisor in any calendar year will not exceed 300,000 shares, subject to adjustment described in the Amended Plan.
- Extend the term of the Amended Plan until June 16, 2029.
- Make appropriate clarifying and updating changes to comply with current law and best practices.

The Amended Plan will enable the Company to continue its compensation program that is intended to attract, motivate and retain experienced, highly-qualified directors, employees, consultants and advisors of the Company who will contribute to the Company's success, and will align the interests of the directors, employees, consultants and advisors of the Company with those of its stockholders through the ability to grant a variety of stock-based awards. If the stockholders approve the Amended Plan, awards granted under the Amended Plan will be governed by the terms of the Amended Plan.

Determination of the Number of Shares Available for Awards under the Amended Plan

As of April 10, 2019, 118,890 shares remain available for grant under the 2018 Plan. The Board of Directors and the Compensation Committee believe that attracting and retaining employees, non-employee directors, and consultants and advisors of high quality has been and will continue to be essential to the Company's growth and success. Consistent with this view, the Board of Directors and its Compensation Committee believe that the number of shares currently available for issuance under the 2018 Plan is not sufficient for future grants in light of our compensation structure and strategy.

If this Proposal Two is approved by our stockholders at the Annual Meeting, subject to adjustments as described in the Amended Plan, the maximum aggregate number of shares of our common stock that may be issued under the Amended Plan with respect to awards made on and after

June 17, 2019 will be 708,390, which is equal to the sum of (i) 589,500 shares of our common stock, plus (ii) 118,890 shares, which is the number of shares of our common stock reserved for issuance under the 2018 Plan that remained available as of April 10, 2019. In addition, subject to adjustments as described in the Amended Plan, shares of common stock subject to outstanding awards under the 2013 Plan and shares of common stock subject to outstanding awards under the 2018 Plan that terminate, expire, or are cancelled, forfeited, exchanged, or surrendered without having been exercised, vested, or paid in shares after April 10, 2019 (up to 353,227 shares) will be available for issuance under the Amended Plan. The number in clause (ii) above will be reduced by any awards granted under the 2018 Plan between April 10, 2019 and the effective date of the Amended Plan.

In determining the number of shares to be authorized for issuance under the Amended Plan, the Board of Directors considered a number of factors, including the number of shares available under the 2018 Plan, our past share usage (burn rate), the number of shares needed for future awards, a dilution analysis, competitive data from relevant peer companies, the current and future accounting expenses associated with our equity award practices, and input from our stockholders.

Dilution Analysis

As of April 10, 2019, the Company's capital structure consisted of 5,895,004 shares of common stock outstanding. As described above, 118,890 shares remain available for grant of awards under the 2018 Plan as of April 10, 2019. The proposed share authorization is a request for 589,500 new shares to be available for awards under the Amended Plan. The table below shows our potential dilution (referred to as "overhang") levels based on our fully diluted shares of common stock and our request for 708,390 shares to be available for awards under the Amended Plan. The 589,500 new shares represent 8.47% of fully diluted shares of our common stock, including all shares that will be authorized under the Amended Plan, as described in the table below. The Board of Directors believes that this number of shares of common stock under the Amended Plan represents a reasonable amount of potential equity dilution, which will allow the Company to continue awarding equity awards, and that equity awards are an important component of the Company's equity compensation program.

Potential Overhang with 589,500 Additional Shares

Stock Options Outstanding as of April 10, 2019(1)	353,227
Weighted Average Exercise Price of Stock Options Outstanding as of April 10, 2019	\$ 71.81
Weighted Average Remaining Term of Stock Options Outstanding as of April 10, 2019	8.92 years
Total Equity Awards Outstanding as of April 10, 2019(1)	353,227
Shares Available for Grant under the 2018 Plan as of April 10, 2019	118,890
New Shares Requested under the Amended Plan	589,500
Total Shares Requested under the Amended Plan(2)	708,390
Total Potential Overhang under the Amended Plan (and the 2013 Plan)	1,061,617
Shares of Common Stock Outstanding as of April 10, 2019	5,895,004
Fully Diluted Shares of Common Stock(3)	6,956,621
Potential Dilution of 589,500 shares as a Percentage of Fully Diluted Shares of Common Stock	8.47%

- (1) Represents the number of outstanding stock options under the 2013 Plan and the 2018 Plan, which are the only type of awards outstanding under the 2013 Plan and 2018 Plan. No additional awards have been or will be made under the 2013 Plan after June 27, 2018. The number of shares subject to outstanding awards under the 2013 Plan and the 2018 Plan that could again become available under the Amended Plan is 353,227 shares, subject to adjustments as described in the Amended Plan. There are no awards outstanding under any plan, arrangement or agreement, other than the 2013 Plan and the 2018 Plan.

- (2) Total shares to be available under the Amended Plan will be reduced by the number of shares subject to any awards granted after April 10, 2019 under the 2018 Plan and prior to the effective date of the Amended Plan.
- (3) The Fully Diluted Shares of Common Stock in the foregoing table consist of the Shares of Common Stock Outstanding as of April 10, 2019, plus the Total Potential Overhang under the Amended Plan (and the 2013 Plan).

Based on our historic and projected future usage patterns, the Board of Directors estimates that the shares reserved under the Amended Pan will be sufficient to provide awards under the Amended Plan for approximately two to four years, although the number of awards granted for any year could vary as our Compensation Committee deems appropriate. This is only an estimate, and circumstances could cause the share reserve to be used more quickly or more slowly. These circumstances include, but are not limited to, the future price of our common stock, the mix of cash, options and full value awards provided as long-term incentive compensation, award amounts provided by our competitors, hiring activity, and promotions during the next few years.

Burn Rate

The table below sets forth the following information regarding the awards granted under the 2013 Plan and the 2018 Plan: (i) the burn rate for each of the last three calendar years and (ii) the average burn rate over the last three calendar years. The burn rate for a year has been calculated as follows:

- (i) all stock options granted in the applicable year,

divided by

- (ii) the weighted average number of shares of common stock outstanding for the applicable year.

Burn Rate

<u>Element</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Stock Options Granted	335,383	198,811	311,210
Weighted Average Shares of Common Stock Outstanding as of December 31	4,124,073	9,000,326	4,426,639
Burn Rate	8.13%	2.21%	7.03%

The burn rate means that the Company used an annual average of 5.79% of the weighted average shares outstanding for awards granted over the past three years under the 2013 Plan and the 2018 Plan.

The Board of Directors believes that the current number of shares that may be issued under the 2018 Plan is not sufficient in light of our compensation structure and strategy. Equity incentives form an integral part of the compensation paid to many of our employees, particularly those in positions of key importance. Equity incentives also are a major part of our non-employee director annual retainer compensation. The Board of Directors has concluded that our ability to attract, retain and motivate top quality employees, non-employee directors, and consultants and advisors is critical to our success and growth, and would be enhanced by our continued ability to grant awards under the Amended Plan. In addition, the Board of Directors believes that our interests and the interests of our stockholders will be advanced if the Company can continue to offer employees, non-employee directors and consultants and advisors the opportunity to acquire or increase their proprietary interests in the Company. The Board of Directors believes that adopting the Amended Plan will ensure that the Company continues to have a sufficient number of shares with which to achieve our compensation strategy and to allow for growth.

Summary of the Amended Plan

The material terms of the Amended Plan are summarized below. A copy of the full text of the Amended Plan is attached to this Proxy Statement as Appendix A. This summary of the Amended Plan is not intended to be a complete description of the Amended Plan and is qualified in its entirety by the actual text of the Amended Plan to which reference is made.

Purpose and Types of Awards

The purpose of the Amended Plan is to attract and retain employees, non-employee directors and consultants, and advisors. The Amended Plan provides for the issuance of incentive stock options, non-qualified stock options, stock awards, stock units, stock appreciation rights and other stock-based awards. The Amended Plan is intended to provide an incentive to participants to contribute to our economic success by aligning the economic interests of participants with those of our stockholders.

Administration

The Amended Plan will be administered by our Compensation Committee, and our Compensation Committee will determine all of the terms and conditions applicable to awards under the Amended Plan. Our Compensation Committee will also determine who will receive awards under the Amended Plan and the number of shares of common stock that will be subject to awards. Our Compensation Committee may delegate authority under the Amended Plan to one or more subcommittees as it deems appropriate. Our Compensation Committee will consist of "non-employee directors" as defined under Rule 16b-3 promulgated under the Exchange Act and "independent directors," as determined in accordance with the independence standards established by the stock exchange on which our common stock is at the time primarily traded. Subject to compliance with applicable law and the applicable stock exchange rules, our Board of Directors, in its discretion, may perform any action of our Compensation Committee under the Amended Plan. Subject to compliance with applicable law and applicable stock exchange requirements, the Compensation Committee (or our Board of Directors or a subcommittee, as applicable) may delegate all or part of its authority to our Chief Executive Officer, as it deems appropriate, with respect to awards to employees or consultants or advisors who are not executive officers or directors under Section 16 of the Exchange Act. Our Compensation Committee, our Board of Directors, any subcommittee or the Chief Executive Officer, as applicable, that has authority with respect to a specific award will be referred to as "the committee" in this description of the Amended Plan.

Shares Subject to the Amended Plan

Subject to adjustment, the maximum aggregate number of shares of common stock that may be issued or transferred under the Amended Plan with respect to awards made on and after the effective date of the Amended Plan is 708,390 shares, which is equal to the sum of (i) 589,500 shares of our common stock, plus (ii) 118,890 shares, which is the number of shares of our common stock reserved for issuance under the 2018 Plan that remain available as of April 10, 2019. In addition, the number of shares of common stock subject to outstanding awards under the 2013 Plan and the 2018 Plan that terminate, expire, or are cancelled, forfeited, exchanged, or surrendered without having been exercised, vested, or paid in shares under the 2013 Plan or the 2018 Plan, as applicable, after April 10, 2019 will be available for issuance under the Amended Plan (up to 353,227 shares). The number in clause (ii) above will be reduced by any awards granted under the 2018 Plan between April 10, 2019 and the effective date of the Amended Plan.

If any options or stock appreciation rights, including outstanding options granted under our 2013 Plan or 2018 Plan, terminate, expire, or are canceled, forfeited, exchanged, or surrendered without having been exercised, or if any stock awards, stock units or other stock-based awards are forfeited,

terminated, or otherwise not paid in full, the shares of our common stock subject to such awards will again be available for purposes of the Amended Plan. Shares of our common stock that are surrendered in payment of the exercise price of an option (including an option granted under the 2013 Plan) or a stock appreciation right will not be available for issuance under the Amended Plan. Shares of our common stock that are withheld in satisfaction of the withholding taxes, or surrendered for the payment of taxes, incurred in connection with the issuance, vesting or exercise of any award (including an option granted under the 2013 Plan), or the issuance of our common stock will not be available for issuance under the Amended Plan. When stock appreciation rights are granted, the full number of shares subject to the stock appreciation rights will be considered issued under the Amended Plan regardless of the number of shares issued upon exercise of the stock appreciation rights. If we repurchase shares of our common stock on the open market with the proceeds from the exercise price we receive from options (including options granted under the 2013 Plan), the repurchased shares will not be available for issuance under the Amended Plan. If any awards are paid in cash, and not in shares of our common stock, any shares of our common stock subject to such awards will also be available for future awards. In addition, shares of our common stock issued under awards made pursuant to assumption, substitution, or exchange of previously granted awards of a company that we acquire will not reduce the number of shares of our common stock available under the Amended Plan. Available shares under a stockholder approved plan of an acquired company may be used for awards under the Amended Plan and will not reduce the share reserve, subject to compliance with the applicable stock exchange and the Code.

The maximum number of shares of our common stock that may be subject to option, stock appreciation right, stock award stock unit and other stock-based awards made to employees, consultants and advisors under the Amended Plan in any calendar year will not exceed 300,000 shares of our common stock in the aggregate, subject to adjustments as described below. The maximum aggregate grant date value of shares of common stock subject to awards made to any non-employee member of our Board of Directors during any calendar year for services rendered as a non-employee director, including any cash fees earned for services rendered as a non-employee director during the calendar year, will not exceed \$300,000 in total value. In determining this dollar limit, the value of awards will be calculated based on the grant date fair value of the awards for financial reporting purposes. For awards that are made to newly hired employees on around the date of hire, the limit applicable to employees as described in this paragraph is doubled such that the maximum number of shares of our common stock that may be subject to an award to a newly hired employee is 600,000 shares, subject to adjustments as described below.

Adjustments

In connection with stock splits (reverse stock splits), stock dividends, recapitalizations, and certain other events affecting our common stock, the committee will make adjustments as it deems appropriate in the maximum number of shares of common stock reserved for issuance as awards or for which individuals may receive awards in any year; the number and kind of shares covered by outstanding awards; the kind of shares that may be issued or transferred under the Amended Plan; the price per share or market value of any outstanding awards; the exercise price of options; the base amount of stock appreciation rights; and the performance goals or other terms; and conditions as the committee deems appropriate.

Eligibility

All of our employees are eligible to receive awards under the Amended Plan. In addition, our non-employee directors and consultants or advisors who perform services for us may receive awards under the Amended Plan. Incentive stock options may be granted only to our employees.

As of April 10, 2019, approximately 20 employees, six non-employee directors and 30 consultants and/or advisors (other than our non-employee directors) would be eligible to participate in the Amended Plan. The committee, in its discretion, selects the persons to whom awards may be granted, determines the type of awards, determines the times at which awards will be made, determines the number of shares subject to each such award (or the dollar value of certain performance awards), and determines the other terms and conditions relating to the awards. For this reason, it is not possible to determine the benefits or amounts that will be received by any particular person in the future. Because our executives and non-employee directors are eligible to receive awards under the Amended Plan, they may be deemed to have a personal interest in the approval of this Proposal Two.

Vesting

The committee determines the vesting and exercisability terms of awards granted under the Amended Plan. Awards granted under the Amended Plan shall include vesting schedules that provide that no portion of an award will vest earlier than one year from the date of grant. However, up to 5% of the shares reserved under the Amended Plan as of the effective date of the Amended Plan (subject to adjustment as set forth in the Amended Plan) may be granted without regard to this minimum vesting requirement. Except in connection with a change in control, as described below, the committee may accelerate vesting of any award in its discretion. Dividends and dividend equivalents granted in connection with any awards made under the Amended Plan will vest and be paid only if and to the extent the underlying awards vest and are paid.

At the committee's discretion, performance objectives for awards may be based on the attainment of specified levels of one or more performance goals established by the committee. If the committee so determines, the vesting of any such award subject to performance objectives may be described in terms of company-wide objectives or objectives that are related to the performance of the individual participant or the subsidiary, division, department or function within the company or subsidiary in which the participant is employed. Performance objectives may be measured on an absolute or relative basis. Relative performance may be measured by a group of peer companies or by a financial market index. Performance objectives may include: specified levels of or increases in our, a division's or a subsidiary's return on capital, equity or assets; earnings measures/ratios (on a gross, net, pre-tax or post-tax basis), including basic earnings per share, diluted earnings per share, total earnings, operating earnings, earnings growth, earnings before interest and taxes and earnings before interest, taxes, depreciation and amortization; net economic profit (which is operating earnings minus a charge to capital); net income; operating income; sales; sales growth; gross margin; direct margin; costs; share price (including but not limited to growth measures and total stockholder return); operating profit; per period or cumulative cash flow (including but not limited to operating cash flow and free cash flow) or cash flow return on investment (which equals net cash flow divided by total capital); inventory turns; financial return ratios; market share; balance sheet measurements such as receivable turnover; improvement in or attainment of expense levels; improvement in or attainment of working capital levels; debt reduction; strategic innovation; customer or employee satisfaction; the consummation of one or more acquisitions of a certain size as measured by one or more of the financial criteria listed above; individual objectives; regulatory body approval for commercialization of a product; implementation or completion of critical projects (including, but not limited to, milestones such as clinical trial enrollment targets, commencement of phases of clinical trials and completion of phases of clinical trials); and any combination of the foregoing.

Options

Under the Amended Plan, the committee will determine the exercise price of the options granted and may grant options to purchase shares of common stock in such amounts as it determines. The committee may grant options that are intended to qualify as incentive stock options under Section 422

of the Code, or non-qualified stock options, which are not intended to so qualify. Incentive stock options may only be granted to our employees. Anyone eligible to participate in the Amended Plan may receive a grant of non-qualified stock options. The exercise price of a stock option granted under the Amended Plan cannot be less than the fair market value of a share of our common stock on the date the option is granted. If an incentive stock option is granted to a 10% stockholder, the exercise price cannot be less than 110% of the fair market value of a share of our common stock on the date the option is granted. The aggregate number of shares of common stock that may be issued or transferred under the Amended Plan on and after June 27, 2019 pursuant to incentive stock options under Section 422 of the Code may not exceed 708,390 shares of common stock. The fair market value of our common stock is generally equal to the closing price for the common stock on the date the option is granted (or if there was no closing price on that date, on the last preceding date on which a closing price was reported).

The exercise price for any option is generally payable in cash. In certain circumstances as permitted by the committee, the exercise price may be paid by the surrender of shares of our common stock with an aggregate fair market value on the date the option is exercised equal to the exercise price; by payment through a broker in accordance with procedures established by the Federal Reserve Board; by withholding shares of common stock subject to the exercisable option which have a fair market value on the date of exercise equal to the aggregate exercise price; or by such other method as the committee approves.

The term of an option cannot exceed ten years from the date of grant, except that if an incentive stock option is granted to a 10% stockholder, the term cannot exceed five years from the date of grant. In the event that on the last day of the term of a non-qualified stock option, the exercise is prohibited by applicable law, including a prohibition on purchases or sales of our common stock under our insider trading policy, the term of the non-qualified option will be extended for a period of 30 days following the end of the legal prohibition, unless the committee determines otherwise.

Except as provided in the award agreement, an option may only be exercised while a participant is employed by or providing service to us. The committee will determine in the award agreement under what circumstances and during what time periods a participant may exercise an option after termination of employment.

Stock Appreciation Rights

Under the Amended Plan, the committee may grant stock appreciation rights, which may be granted separately or in tandem with any option. Stock appreciation rights granted with a non-qualified stock option may be granted either at the time the non-qualified stock option is granted or any time thereafter while the option remains outstanding. Stock appreciation rights granted with an incentive stock option may be granted only at the time the grant of the incentive stock option is made. The committee will establish the base amount of the stock appreciation right at the time the stock appreciation right is granted, which will be equal to or greater than the fair market value of a share of our common stock as of the date of grant.

If a stock appreciation right is granted in tandem with an option, the number of stock appreciation rights that are exercisable during a specified period will not exceed the number of shares of our common stock that the participant may purchase upon exercising the related option during such period. Upon exercising the related option, the related stock appreciation rights will terminate, and upon the exercise of a stock appreciation right, the related option will terminate to the extent of an equal number of shares of our common stock. Generally, stock appreciation rights may only be exercised while the participant is employed by, or providing services to, us. When a participant exercises a stock appreciation right, the participant will receive the excess of the fair market value of the underlying

common stock over the base amount of the stock appreciation right. The appreciation of a stock appreciation right will be paid in shares of our common stock, cash or both.

The term of a stock appreciation right cannot exceed ten years from the date of grant. In the event that on the last day of the term of a stock appreciation right, the exercise is prohibited by applicable law, including a prohibition on purchases or sales of our common stock under our insider trading policy, the term of the stock appreciation right will be extended for a period of 30 days following the end of the legal prohibition, unless the committee determines otherwise.

Stock Awards

Under the Amended Plan, the committee may grant stock awards. A stock award is an award of our common stock that may be subject to restrictions as the committee determines. The restrictions, if any, may lapse over a specified period of employment or based on the satisfaction of pre-established criteria, in installments or otherwise, as the committee may determine. Except to the extent restricted under the award agreement relating to the stock award, a participant will have all of the rights of a stockholder as to those shares, including the right to vote and the right to receive dividends or distributions on the shares; provided, however, that dividends with respect to stock awards shall vest and be paid if and to the extent that the underlying stock award vests and is paid. All unvested stock awards are forfeited if the participant's employment or service is terminated for any reason, unless the committee determines otherwise.

Stock Units

Under the Amended Plan, the committee may grant restricted stock units to anyone eligible to participate in the Amended Plan. Restricted stock units are phantom units that represent shares of our common stock. Stock units become payable on terms and conditions determined by the committee and will be payable in cash or shares of our stock as determined by the committee. All unvested restricted stock units are forfeited if the participant's employment or service is terminated for any reason, unless the committee determines otherwise.

Other Stock-Based Awards

Under the Amended Plan, the committee may grant other types of awards that are based on, measured by, or payable to, anyone eligible to participate in the Amended Plan in shares of our common stock. The committee will determine the terms and conditions of such awards. Other stock-based awards may be payable in cash, shares of our common stock, or a combination of the two.

Dividend Equivalents

Under the Amended Plan, the committee may grant dividend equivalents in connection with awards of stock units or other stock-based awards made under the Amended Plan. Dividend equivalents entitle the participant to receive amounts equal to ordinary dividends that are paid on the shares underlying an award while the award is outstanding. Dividend equivalents may be paid in cash, in shares of our common stock, or in a combination of the two. The committee will determine the terms and conditions of the dividend equivalent awards, including whether the awards are payable upon the achievement of specific performance goals; provided, however, that dividend equivalents shall vest and be paid only if and to the extent that the underlying stock units or other stock-based awards vest and are paid. For the avoidance of doubt, no dividends or dividend equivalents will be granted with respect to stock options or stock appreciation rights.

Change in Control

If we experience a change in control where we are not the surviving corporation (or survive only as a subsidiary of another corporation), all outstanding awards that are not exercised or paid at the time of the change in control will be assumed by, or replaced with awards that have comparable terms by, the surviving corporation (or a parent or subsidiary of the surviving corporation). In the event that the surviving corporation (or a parent or subsidiary of the surviving corporation) does not assume or replace awards with grants that have comparable terms, outstanding options and stock appreciation rights will accelerate and become fully exercisable and the restrictions and conditions on outstanding stock awards, stock units, other stock-based awards and dividend equivalents immediately lapse, provided that if the vesting of any such awards is based, in whole or in part, on performance, such awards shall vest based on the greater of (i) actual performance as of the change in control or (ii) target performance, pro-rated based on the period elapsed between the beginning of the applicable performance period and the date of the change in control. At the committee's discretion, if a participant incurs an involuntary termination of employment or service on or after a change in control, the participant's outstanding awards may become vested, in whole or in part, as of the date of termination; provided that if the vesting of any such award is based, in whole or in part, on performance, such awards shall vest only based on the greater of (i) actual performance as of the change in control or (ii) target performance, pro-rated based on the period elapsed between the beginning of the applicable performance period and the date of the termination.

If there is a change in control and all outstanding awards are not assumed by, or replaced with awards that have comparable terms by, the surviving corporation, the committee may take any of the following action without the consent of any participant:

- pay participants, in an amount and form determined by the committee, in settlement of outstanding stock units, other stock-based awards or dividend equivalents;
- require that participants surrender their outstanding stock options, stock appreciation rights or any other exercisable award, in exchange for a payment by us, in cash or shares of our common stock, equal to the difference between the exercise price and the fair market value of the underlying shares of common stock; provided, however, if the per share fair market value of the common stock does not exceed the per share stock option exercise price or stock appreciation right base amount, as applicable, we will not be required to make any payment to the participant upon surrender of the stock option or stock appreciation right; or
- after giving participants an opportunity to exercise all of their outstanding stock options and stock appreciation rights, terminate any unexercised stock options and stock appreciation rights on the date determined by the committee.

In general terms, a change in control under the Amended Plan includes:

- the acquisition, directly or indirectly, by a person of more than 50% of the combined voting power of our voting securities entitled to vote generally in the election of directors; provided, however, that the following acquisitions of voting securities shall not constitute a change in control: (a) any acquisition by or from us or any of our subsidiaries, or by any employee benefit plan (or related trust) sponsored or maintained by us or any of our subsidiaries, (b) any acquisition by any underwriter in any firm commitment underwriting of securities to be issued by us, or (c) any acquisition by any corporation (or other entity) if, immediately following such acquisition, 50% or more of the then outstanding shares of common stock (or other equity unit) of such corporation (or other entity) and the combined voting power of the then outstanding voting securities of such corporation (or other entity), are beneficially owned, directly or indirectly, by all or substantially all of the individuals or entities who, immediately prior to such acquisition, were the beneficial owners of our then outstanding shares of common stock and the

voting securities in substantially the same proportions, respectively, as their ownership immediately prior to the acquisition of our stock and voting securities;

- the consummation of the sale or other disposition of all or substantially all of our assets, other than to a wholly-owned subsidiary or to a holding company of which we are a direct or indirect wholly owned subsidiary prior to such transaction;
- the consummation of a reorganization, merger or consolidation of our company, other than a reorganization, merger or consolidation which would result in our voting securities outstanding immediately prior to the transaction continuing to represent (whether by remaining outstanding or by being converted to voting securities of the surviving entity) 65% or more of the voting securities or the voting power of the voting securities of such surviving entity outstanding immediately after such transaction;
- the consummation of a plan for our complete liquidation; or
- the following individuals cease for any reason to constitute a majority of our Board of Directors: individuals who, as of the effective date of the Amended Plan, constitute our Board of Directors and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including, but not limited to, a consent solicitation relating to the election of our directors) whose appointment or election by the Board of Directors or nomination for election by our stockholders was approved and recommended by a vote of at least two-thirds of the directors then still in office who either were directors on the effective date of the Amended Plan or whose appointment, election or nomination for election was previously so approved or recommended.

Notwithstanding the above, in the case of a distribution under the Amended Plan of an amount which is subject to Section 409A of the Code, only an event which constitutes a "change in control event" as defined under Section 409A of the Code shall constitute a "change in control" for purposes of the payment provisions under the Amended Plan.

Deferrals

The committee may permit or require participants to defer receipt of the payment of cash or the delivery of shares of common stock that would otherwise be due to the participant in connection with an award under the Amended Plan. The committee will establish the rules and procedures applicable to any such deferrals, consistent with the requirements of Section 409A of the Code.

Withholding

All awards under the Amended Plan are subject to applicable U.S. federal (including FICA), state and local, foreign, or other tax withholding requirements. We may require participants or other persons receiving awards or exercising awards to pay an amount sufficient to satisfy such tax withholding requirements with respect to such awards, or we may deduct from other wages and compensation paid by us the amount of any withholding taxes due with respect to such award.

The committee may permit or require that our tax withholding obligation with respect to awards paid in our common stock will be paid by having shares withheld up to an amount that does not exceed the participant's applicable withholding tax rate for U.S. federal (including FICA), state and local, foreign, or other tax liabilities. In addition, the committee may, in its discretion, and subject to such rules as the committee may adopt, allow participants to elect to have such share withholding applied to all or a portion of the tax withholding obligation arising in connection with any particular award.

Transferability

Except as permitted by the committee with respect to non-qualified stock options, only a participant may exercise rights under an award during the participant's lifetime. Upon death, the personal representative or other person entitled to succeed to the rights of the participant may exercise such rights. A participant cannot transfer those rights except by will or by the laws of descent and distribution or, with respect to awards other than incentive stock options, pursuant to a domestic relations order. The committee may provide in an award agreement that a participant may transfer non-qualified stock options to family members, or one or more trusts or other entities for the benefit of or owned by family members, consistent with applicable securities laws.

Amendment; Termination

Our Board of Directors may amend or terminate the Amended Plan at any time, except that our stockholders must approve an amendment if such approval is required in order to comply with the Code, applicable laws, or applicable stock exchange requirements. Unless terminated sooner by our Board of Directors or extended with stockholder approval, the Amended Plan will terminate on the day immediately preceding the tenth anniversary of the effective date of the Amended Plan.

Stockholder approval is required to amend the terms of outstanding options or stock appreciation rights to reduce the exercise price or base price of options or stock appreciation rights, respectively, cancel outstanding options or stock appreciation rights in exchange for options or stock appreciation rights with an exercise price or base price, as applicable, that is (1) less than the exercise price or base price of the original options or stock appreciation rights or (2) above the current stock price in exchange for cash or other securities. However, such stockholder approval is not required in connection with certain corporate transactions or other actions with respect to our securities, such as a stock split, extraordinary cash dividend, recapitalization, change in control, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of shares of our common stock.

Establishment of Sub-Plans

Our Board of Directors may, from time to time, establish one or more sub-plans under the Amended Plan to satisfy applicable blue sky, securities, or tax laws of various jurisdictions. Our Board of Directors may establish such sub-plans by adopting supplements to the Amended Plan setting forth limitations on the committee's discretion and such additional terms and conditions not otherwise inconsistent with the Amended Plan as our Board of Directors will deem necessary or desirable. All such supplements will be deemed part of the Amended Plan, but each supplement will only apply to participants within the affected jurisdiction.

Clawback

Subject to applicable law, the committee may provide in any award agreement that if a participant breaches any restrictive covenant agreement between the participant and us, or otherwise engages in activities that constitute cause either while employed by, or providing services to, us or within the applicable period of time thereafter, all awards held by the participant will terminate, and we may rescind any exercise of an option or stock appreciation right and the vesting of any other award and delivery of shares upon such exercise or vesting, as applicable on such terms as the committee will determine, including the right to require that in the event of any rescission:

- the participant must return the shares received upon the exercise of any option or stock appreciation right or the vesting and payment of any other awards; or
- if the participant no longer owns the shares, the participant must pay to us the amount of any gain realized or payment received as a result of any sale or other disposition of the shares (if the

participant transferred the shares by gift or without consideration, then the fair market value of the shares on the date of the breach of the restrictive covenant agreement or activity constituting cause), net of the price originally paid by the participant for the shares.

The committee may also provide for clawbacks pursuant to a clawback policy, which our Board of Directors may in the future adopt and amend from time to time. Payment by the participant will be made in such manner and on such terms and conditions as may be required by the committee. We will be entitled to set off against the amount of any such payment any amounts that we otherwise owe to the participant.

Federal Income Tax Consequences

The following discussion summarizes certain federal income tax considerations of awards under the Amended Plan. However, it does not purport to be complete and does not describe the state, local or foreign tax considerations or the consequences for any particular individual.

Stock Options. A participant does not realize ordinary income on the grant of a stock option. Upon exercise of a non-qualified stock option, the participant will realize ordinary income equal to the excess of the fair market value of the shares of common stock over the option exercise price. The cost basis of the shares acquired for capital gain treatment is their fair market value at the time of exercise. Upon exercise of an incentive stock option, the excess of the fair market value of the shares of common stock acquired over the option exercise price will be an item of tax preference to the participant, which may be subject to an alternative minimum tax for the year of exercise. If no disposition of the shares is made within two years from the date of granting of the incentive stock option or within one year after the transfer of the shares to the participant, the participant does not realize taxable income as a result of exercising the incentive stock option; the tax basis of the shares received for capital gain treatment is the option exercise price; any gain or loss realized on the sale of the shares is long-term capital gain or loss. If the participant disposes of the shares within the two-year or one-year periods referred to above, the participant will realize ordinary income at that time in an amount equal to the excess of the fair market value of the shares at the time of exercise (or the net proceeds of disposition, if less) over the option exercise price. For capital gain treatment on such a disposition, the tax basis of the shares will be their fair market value at the time of exercise.

Stock Appreciation Rights. No ordinary income will be realized by a participant in connection with the grant of a SAR. When the SAR is exercised, the participant will realize ordinary income in an amount equal to the sum of the amount of any cash received and the fair market value of the shares of common stock or other property received upon the exercise.

Restricted Stock, Performance and Restricted Stock Unit Awards. The participant will not realize ordinary income on the grant of a restricted stock award (or a performance award if the shares of common stock are issued on grant), but will realize ordinary income when the shares subject to the award become vested in an amount equal to the excess of (i) the fair market value of the shares on the vesting date over (ii) the purchase price, if any, paid for the shares. The participant may, however, elect under Section 83(b) of the Code to include as ordinary income in the year the shares are granted an amount equal to the excess of (i) the fair market value of the shares on the date of issuance, over (ii) the purchase price, if any, paid for the shares. If the Section 83(b) election is made, the participant will not realize any additional taxable income when the shares become vested.

The participant will not realize ordinary income on the grant of a restricted stock unit award (or a performance award under which shares of common stock are not issued on grant), but will realize ordinary income when the shares subject to the award are issued to the participant after they become vested. The amount of ordinary income will be equal to the excess of (i) the fair market value of the shares on the date they are issued over (ii) the purchase price, if any, paid for the award.

Upon disposition of shares of common stock acquired under a restricted stock award, performance award or restricted stock unit award, the participant will realize a capital gain or loss equal to the difference between the selling price and the sum of the amount paid for the shares plus any amount realized as ordinary income upon grant (or vesting) of the shares.

Company Tax Deduction

Prior to 2018, Section 162(m) of the Code imposed a \$1 million limit on the amount a public company may deduct for compensation paid to a company's chief executive officer or any of the company's three other most highly compensated executive officers (other than the chief financial officer) who are employed as of the end of the year. This limitation did not apply to compensation that meets the tax code requirements for "qualified performance-based" compensation (*i.e.*, compensation paid only if the individual's performance meets pre-established objective goals based on performance criteria approved by stockholders, including stock options).

The performance-based compensation exemption and the exemption of the chief financial officer from Section 162(m)'s deduction limit have been repealed, among other changes, effective for taxable years beginning after December 31, 2017, such that awards paid to our covered executive officers (including our chief executive officer) in excess of \$1 million will not be deductible in future years, unless it qualifies for transition relief applicable to certain arrangements that were in effect as of November 2, 2017 and are not materially modified thereafter.

While deductibility of executive compensation for federal income tax purposes is among the factors the committee considers when structuring our executive compensation arrangements, it is not the sole or primary factor considered. We retain the flexibility to authorize compensation that may not be deductible if we believe it is in the best interests of the Company.

New Plan Benefits under the Amended Plan

Future benefits under the Amended Plan generally will be granted at the discretion of the Compensation Committee and are therefore not currently determinable. As of April 10, 2019, the closing price of the common stock as reported on NASDAQ was \$4.22 per share.

Vote Required for Approval

The affirmative vote of a majority of the votes cast by stockholders present, in person or by proxy, and entitled to vote at the Annual Meeting, will be required to approve the Company's 2018 Omnibus Incentive Compensation Plan, as amended and restated.

Recommendation

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE PROPOSAL TO APPROVE THE 2018 OMNIBUS INCENTIVE COMPENSATION PLAN, AS AMENDED AND RESTATED.

PROPOSAL THREE**RATIFICATION OF THE SELECTION OF ERNST & YOUNG LLP
AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
FOR THE FISCAL YEAR ENDING****DECEMBER 31, 2019**

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, 2019. 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.

<u>Fee Category</u>	<u>Fiscal 2018</u>	<u>Fiscal 2017</u>
Audit Fees(1)	\$ 244,000	\$ 270,000
Audit-Related Fees(2)	68,000	213,000
Tax Fees(3)	—	—
Total Fees	<u>\$ 312,000</u>	<u>\$ 483,000</u>

- (1) Audit fees consist of fees for the audits of fiscal 2018 and 2017 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 2018 and fiscal 2017 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 2018 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 UNANIMOUSLY 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, 2019.

PROPOSAL FOUR

ADVISORY VOTE ON EXECUTIVE COMPENSATION

Pursuant to the proxy rules under the Exchange Act and as required by Section 951 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), we are presenting to our stockholders with a non-binding, advisory vote to approve the compensation of our named executive officers as described in this proxy statement (sometimes referred to as "say-on-pay").

Accordingly, the following resolution is being presented by our Board of Directors at the Annual Meeting:

"RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the compensation tables and narrative discussion, is hereby APPROVED."

Our executive compensation program is designed to attract, motivate and retain our executive officers, who are critical to our success. As described in the "Executive Compensation" section in this proxy statement, our executive compensation program contains elements of cash and equity-based compensation. Our Board of Directors and our compensation committee believe that our compensation programs directly and substantially link rewards to measurable corporate performance and are designed to align the interests of our named executive officers with those of our stockholders and to reward our named executive officers for the achievement of our near-term and longer-term financial and strategic goals. The process for determining compensation packages requires that our Board of Directors and our compensation committee use judgment and experience to determine the optimal components and amounts of compensation for each named executive officer,

We strongly encourage our stockholders to review this proxy statement, and in particular the information contained in the "Executive Compensation" section, including the compensation tables and narrative discussion, for a more detailed discussion of our compensation philosophy, objectives and programs.

The say-on-pay vote gives you as a stockholder the opportunity to express your views regarding the compensation of our named executive officers by voting to approve or not approve such compensation as described in this proxy statement. This vote is advisory and will not be binding upon our Board of Directors or our compensation committee. However, our Board of Directors and our compensation committee value the opinion of our stockholders and will take into account the outcome of the vote when considering future executive compensation arrangements. The vote on this resolution is not intended to address any specific element of compensation, but rather relates to the overall compensation of our named executive officers, as described in this proxy statement in accordance with the compensation disclosure rules of the SEC. If Proposal Five in this proxy statement is approved in accordance with our recommendation, the next say-on-pay vote will occur in 2022.

Vote Required; Recommendation of the Board of Directors

The affirmative vote of a majority of the votes cast by stockholders present, in person or by proxy, and entitled to vote at the Annual Meeting, will be required to approve the advisory resolution on executive compensation.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE FOR THE APPROVAL, ON A NON-BINDING ADVISORY BASIS, OF THE FOLLOWING RESOLUTION:

"RESOLVED, THAT THE COMPENSATION PAID TO THE COMPANY'S NAMED EXECUTIVE OFFICERS, AS DISCLOSED PURSUANT TO ITEM 402 OF REGULATION S-K, INCLUDING THE COMPENSATION TABLES AND NARRATIVE DISCUSSION, IS HEREBY APPROVED."

PROPOSAL FIVE

ADVISORY VOTE ON THE FREQUENCY OF ADVISORY VOTES ON EXECUTIVE COMPENSATION

In accordance with Section 14A of the Exchange Act and as required by the Dodd-Frank Act, our Board of Directors is also asking our stockholders to vote, on a non-binding, advisory basis, on how frequently we should conduct an advisory stockholder vote on the compensation of our named executive officers (sometimes referred to as "say-on-frequency"). By voting on this proposal, stockholders may indicate whether they would prefer an advisory vote on the compensation of our named executive officers once every one, two or three years.

Because this proposal calls for a non-binding advisory vote, our Board of Directors and our compensation committee may determine to hold "say-on-pay" votes more or less frequently than the option approved by our stockholders (though no less frequently than once every three years). However, our Board of Directors and our compensation committee value the opinions of our stockholders and will consider the outcome of the vote when determining the frequency of future "say-on-pay" votes. In the future, we will provide a "say-on-frequency" vote at least once every six years as required by the Dodd-Frank Act.

We believe that every three years is the optimal frequency for our say-on-pay vote for several reasons. As our compensation program is designed to incent performance over not just the short term but also the long term, stockholder input on executive compensation would be most useful if the effectiveness of our compensation program is evaluated and judged over a multi-year period. Additionally, a three-year vote cycle will provide our Board of Directors and our compensation committee with time to consider the results of the advisory vote and to implement any changes to our compensation practices. By contrast, a more frequent vote might lead to a short-term perspective on executive compensation that is inconsistent with the longer-term approach taken by our Board of Directors and our compensation committee and with which we currently view our business.

Before making its recommendation, our Board of Directors considered the arguments in favor of more frequent votes, including increased opportunities for stockholder input and the belief that annual votes might promote greater accountability on executive compensation. After considering the alternatives, our Board of Directors believes that, on balance, a three-year cycle is most appropriate for us. Our compensation committee intends to periodically reassess this triennial approach and, if appropriate, may provide for a more frequent say-on-pay vote.

Stockholders may cast a vote on the frequency of our advisory vote by choosing the option of (1) every year, (2) every two years, (3) every three years or (4) abstaining from voting, in response to the resolution set forth below.

"RESOLVED, that a vote of the holders of the common stock of Onconova Therapeutics, Inc. (the "Company") to approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed pursuant to the compensation disclosure rules of the U.S. Securities and Exchange Commission, including the compensation tables and narrative discussion contained in the Company's proxy statement, to be held at an annual meeting of the stockholders, beginning with the 2019 annual meeting of stockholders, (1) every year, (2) every two years or (3) every three years."

Vote Required; Recommendation of the Board of Directors

The affirmative vote of a majority of the votes cast by stockholders present, in person or by proxy, and entitled to vote at the Annual Meeting, will be required to approve the advisory resolution on the frequency of the advisory vote on executive compensation.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE FOR THE APPROVAL, ON A NON-BINDING ADVISORY BASIS, OF A FREQUENCY OF "EVERY THREE YEARS" OF ADVISORY VOTES ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

REPORT OF AUDIT COMMITTEE

The Audit Committee has reviewed the Company's audited consolidated financial statements for the fiscal year ended December 31, 2018 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, 2018.

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

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

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 the record date 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 40 of this Proxy Statement under the heading, "2018 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 5,895,004 shares of our common stock outstanding on the record date. 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 the record date 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.

<u>Name and Address of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned</u>	<u>Percentage of Shares Beneficially Owned</u>
5% or greater stockholders:		
The Michael and Jane Hoffman 2018 Descendants Trust(1) 875 Third Avenue, 25th Fl. New York, NY 10022	380,056	6.3%
Michael B. Hoffman(2) (Includes The Michael and Jane Hoffman 2018 Descendants Trust) 875 Third Avenue, 25th Fl New York, NY 10022	382,072	6.3%
Tyndall Capital Partners, L.P.(3) 405 Park Avenue, Suite 1104 New York, NY 10022	842,314	14.3%
683 Capital Partners, L.P., 683 Capital Management LLC, and Ari Zweiman(13) 3 Columbus Circle, Suite 2205 New York, NY 10019	1,100,211	18.3%
EcoR1 Capital, LLC, Oleg Nodelman and EcoR1 Capital Fund Qualified, L.P.(14) 409 Illinois Street San Francisco, CA 94158	423,441	7.2%
Other Directors, Director Nominees and Named Executive Officers:		
Jerome E. Groopman, M.D.(5)	708	*
Ramesh Kumar, Ph.D.(6)	103,513	1.7%
Manoj Maniar, Ph.D.(7)	5,967	*
James J. Marino(8)	18,528	*
Steven M. Fruchtmann, M.D.(9)	7,583	*
Viren Mehta(10)	1,331	*
E. Premkumar Reddy, Ph.D.(4)	70,508	1.2%
Jack E. Stover(11)	6,580	*
All current executive officers, directors and director nominees as a group (11 persons)(12)	601,676	9.7%

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

- (1) Includes 173,893 shares of common stock issuable upon the exercise of warrants that are currently exercisable or exercisable within sixty days of the record date.
- (2) Includes (i) 380,056 shares of common stock beneficially owned by the Michael and Jane Hoffman 2018 Descendants Trust of which Mr. Hoffman is donor, (ii) 564 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) 1,327 shares of common stock subject to outstanding options that are exercisable within 60 days of the record date. Also includes 173,893 shares of common stock

issuable upon the exercise of warrants. Mr. Hoffman has no voting or dispositive power with regard to any of the shares held by the Michael and Jane Hoffman 2018 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 2018 Descendants Trust and the Michael and Jane Hoffman 2013 Descendants Trust (Non-GST Exempt Trust).

- (3) Based solely on a Schedule 13G/A filed with the SEC on February 25, 2019 by Tyndall Capital Partners, L.P. ("Tyndall Capital"). The Schedule 13G/A reported that, as of December 31, 2018, Tyndall Capital had sole voting power and sole dispositive power with respect to 842,314 shares of common stock. As of December 31, 2018, Tyndall Partners, L.P., a Delaware limited partnership ("Tyndall"), held 816,272 Shares and warrants to purchase up to 26,042 Shares. Tyndall Capital is the general partner of Tyndall, and possesses the sole power to vote and the sole power to direct the disposition of all shares held by Tyndall. Excludes shares of Series A Convertible Preferred Stock ("Series A Preferred Stock") of the Company (convertible into 73,334 Shares) issuable upon exercise of a warrant (the "Series A Warrant") to purchase such shares of Series A Preferred Stock of the Company and subsequent conversion of such Series A Preferred Stock into Shares. Excludes shares of Series B Convertible Preferred Stock ("Series B Preferred Stock") of the Company (convertible into 676,471 Shares) issuable upon exercise of a warrant (the "Series B Warrant") to purchase such shares of Series B Preferred Stock of the Company and subsequent conversion of such Series B Preferred Stock into Shares.
- (4) Includes 25,962 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of the record date.
- (5) Includes 707 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of the record date.
- (6) Includes (i) 2,501 shares of common stock held by the Ramesh Kumar 2012 Trust and (ii) 96,697 shares of common stock subject to outstanding warrants and options that are exercisable within 60 days of the record date. Dr. Kumar has voting and dispositive power with regard to the shares held by the Ramesh Kumar 2012 Trust.
- (7) Includes 5,963 shares of common stock issuable upon the exercise of options that are currently exercisable or exercisable within sixty days of the record date.
- (8) Includes 8,846 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of the record date.
- (9) Includes 7,157 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of the record date.
- (10) Includes (i) 190 shares of common stock held jointly with Dr. Mehta's spouse, (ii) 54 shares of common stock held by Mehta Partners, LLC, (iii) 56 shares of common stock held by Viram Foundation and (iv) 364 shares of common stock subject to outstanding options that are exercisable within 60 days of the record date. 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 Viram Foundation.
- (11) Includes 3,439 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of the record date.
- (12) Includes 328,897 shares of common stock issuable upon the exercise of warrants and options that are currently exercisable or exercisable within sixty days of the record date.

- (13) Based solely on a Schedule 13D/A filed with the SEC on May 1, 2018 by (1) 683 Capital Partners, LP, a Delaware limited partnership ("683 Partners"), (2) 683 Capital Management, LLC, a Delaware limited liability company ("683 Management"), and (3) Ari Zweiman. 683 Partners holds the shares of common stock, except the number of shares information herein was adjusted to reflect the one-for-fifteen reverse stock split which was effective September 25, 2018. 683 Capital GP, LLC, a Delaware limited liability company ("683 Capital GP"), serves as the general partner of 683 Partners. 683 Management serves as the investment manager of 683 Partners. Mr. Zweiman is the managing member of each of 683 Management and 683 Capital GP. As a result, 683 Management and Ari Zweiman may be deemed to beneficially own the shares held by 683 Partners. As of May 1, 2018, 683 Partners beneficially owned 1,100,211 shares of common stock, including 133,334 shares of common stock issuable upon the exercise of the Series A Warrant to purchase shares of Series A Convertible Preferred Stock and subsequent conversion of the Series A Preferred Stock, excluding 295,955.875 shares of Series B Convertible Preferred Stock of the Issuer (convertible into 789,216 shares of common stock) issuable upon exercise of a warrant to purchase such shares of Series B Convertible Preferred Stock of the Company, and based on 5,216,646 shares of common stock outstanding as reported in the Company's prospectus filed with the SEC on April 30, 2018 (assuming the full exercise of the Pre-Funded Warrants (as defined in the prospectus) constituting approximately 20.6% of the shares of common stock outstanding. By virtue of their respective relationships with 683 Partners, each of 683 Management and Mr. Zweiman may be deemed to beneficially own the shares of common stock owned directly by 683 Partners. 683 Management and Ari Zweiman disclaim beneficial ownership of such shares of common stock except to the extent of his or its pecuniary interest therein. 683 Partners has the sole power to vote or direct the vote of, and to dispose or direct the disposition of, the common stock owned by it. Each of 683 Management and Mr. Zweiman share the power to vote or direct the vote of, and to dispose or direct the disposition of, the common stock beneficially owned by 683 Partners.
- (14) Based solely on a Schedule 13G/A filed with the SEC on February 14, 2019 by EcoR1 Capital Fund Qualified, L.P. ("Qualified Fund"); EcoR1 Capital, LLC ("EcoR1") and Oleg Nodelman ("Nodelman") (collectively, the "EcoR1 Filers"). Qualified Fund filed jointly with the other EcoR1 Filers, but not as a member of a group and it expressly disclaims membership in a group. In addition, the Schedule 13G/A indicates that filing the Schedule 13G/A on behalf of Qualified Fund should not be construed as an admission that it is, and it disclaims that it is, a beneficial owner, as defined in Rule 13d-3 under the Exchange Act, of any of the shares covered by the Schedule 13G/A. Each EcoR1 Filer also disclaims beneficial ownership of the shares except to the extent of that person's pecuniary interest therein. The Schedule 13G/A reported that, as of December 31, 2018, (i) EcoR1 had shared voting power and shared dispositive power with respect to 423,441 shares of common stock, (ii) Nodelman had shared voting power and shared dispositive power with respect to 423,441 shares of common stock, and (iii) Qualified Fund had shared voting power and shared dispositive power with respect to 353,735 shares of common.

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 2018, to which we have been a party, in which the amount involved in the transaction exceeds the lesser of \$120,000 or 1% of the average of our total assets at year end for the last two completed fiscal years, 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, 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, 2018. Payments to Mount Sinai for the year ended December 31, 2018 were \$351,000.

We entered into a consulting agreement with E. Premkumar Reddy, Ph.D., a member of our Board of Directors, 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, 2018, 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, 2018 were \$132,000.

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.

2018 Summary Compensation Table

The following table sets forth information for the fiscal years ended December 31, 2018 and 2017 concerning compensation of our principal executive officer and the two most highly compensated

executive officers during 2018. We refer to these three executive officers as our "named executive officers."

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus \$(1)</u>	<u>Option Awards \$(2)</u>	<u>All Other Compensation \$(3)</u>	<u>Total (\$)</u>
Ramesh Kumar, Ph.D.(4)	2018	569,448	135,980	441,854	27,253	1,174,535
Chief Executive Officer	2017	538,150	—	81,890	23,581	643,621
Steven M. Fruchtmann, M.D.(5)	2018	460,840	322,304	164,361	22,580	970,085
President and Chief Medical Officer	2017	436,154	—	49,105	19,315	504,574
Manoj Maniar, Ph.D.	2018	410,290	109,114	131,349	25,438	676,191
Senior Vice President, Product Development	2017	388,977	—	36,108	14,410	439,495

- (1) Represents discretionary annual bonus amounts paid. For Steven M. Fruchtmann also includes a \$200,000 signing bonus related to his promotion to president in June 2018.
- (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 10 of the Notes to Consolidated Financial Statements for the fiscal year ended December 31, 2018 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.
- (4) Dr. Kumar resigned as our Chief Executive Officer and a director on January 15, 2019.
- (5) Dr. Fruchtmann was appointed as our Chief Executive Officer and a director on January 15, 2019.

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.

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.

Resignation of Ramesh Kumar, Ph.D.

On January 15, 2019, Ramesh Kumar, Ph.D., resigned as the Chief Executive Officer of the Company and as a member of the Board of Directors. Dr. Kumar's last day of employment with the Company was February 17, 2019 (the "Termination Date"), after which Dr. Kumar is serving as a consultant to the Company pursuant to a Consulting Agreement between the Company and Dr. Kumar.

In connection with Dr. Kumar's resignation, the Company entered into a Separation and Release Agreement (the "Separation Agreement") with Dr. Kumar, dated as of January 15, 2019. Under the Separation Agreement, Dr. Kumar is entitled to the severance payments and benefits as set forth in the Separation Agreement, which supersedes severance payments and benefits under Dr. Kumar's employment agreement with the Company, effective as of July 1, 2015.

The severance payments and benefits under the Separation Agreement include, without limitation, the following:

- **Severance Payments.** Under severance payments provisions, which remain the same as those in the employment agreement, the Company will pay Dr. Kumar a severance amount equal to \$933,774, which is the sum of (x) \$602,435, 12 months of base salary at the rate in effect immediately prior to January 15, 2019 and (y) \$331,339, 55% of the base salary amount referred to in the preceding sentence. The severance amount will be paid in installments in accordance

with the Company's normal payroll practices over the 12-month period following the Termination Date.

- Stock Option Acceleration and Extension. The stock option acceleration provision remains the same as that under the employment agreement, and under this provision, all stock options (the "Outstanding Options") held by Dr. Kumar will vest on the Termination Date. Dr. Kumar is also entitled to a stock option extension provision, under which the Company will amend the post-termination exercise periods set forth in the agreements reflecting the Outstanding Options such that Dr. Kumar will have until the earlier of (i) January 15, 2022 and (ii) the last day of the applicable ten-year term of the applicable Outstanding Option to exercise the Outstanding Options.
- Change in Control Protection Period. The definition of "Change in Control Protection Period" as defined in the employment agreement, will be amended to read as follows: "Change in Control Protection Period" shall mean the period that commences six (6) months prior to and ends twelve (12) months following a Change in Control." The commencement date of the six-month period prior to a Change in Control is January 15, 2019, the date on which Dr. Kumar ceased to be the Chief Executive Officer of the Company.
- Other Benefits. Dr. Kumar will also receive accrued benefits and certain health benefits; and the enhanced benefits include, among other things, a COBRA (Consolidated Omnibus Budget Reconciliation Act) reimbursement extension, under which if Dr. Kumar remains on COBRA coverage for the entire 12-month period following the Termination Date, the Company will continue to pay Dr. Kumar COBRA reimbursements for an additional six-month period following the expiration of the 12-month period, subject to certain terms and conditions.

Under the Separation Agreement, Dr. Kumar has agreed that the non-compete covenant in the employment agreement will apply for 24 months instead of 12 months.

Steven Fruchtmann, M.D.

We entered into an employment agreement with Dr. Fruchtmann on June 19, 2018, 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 \$510,000, subject to adjustment upon annual review, and subject to the compensation committee's sole discretion, an annual bonus, based on the performance of Dr. Fruchtmann and the Company, of up to 50% 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. Fruchtmann 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. Fruchtmann'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. Fruchtmann for reasonable expenses including certain commuting costs to the Company's offices.

If Dr. Fruchtmann's employment is terminated due to his death, disability, by us for "cause" or by Dr. Fruchtmann without "good reason" during the term of his employment agreement, we will pay to Dr. Fruchtmann 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. Fruchtmann's employment is terminated by us without "cause" or by Dr. Fruchtmann for "good reason," other than during a change in control protection period, Dr. Fruchtmann 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. Fruchtmann 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. Fruchtmann for a portion of his medical insurance costs and all of Dr. Fruchtmann's 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 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 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 the 2018 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.

The following table contains certain information regarding equity awards held by the named executive officers as of December 31, 2018:

Outstanding Equity Awards at 2018 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	625	—	864.00	3/17/2020
	350	—	919.50	12/10/2020
	68	—	919.50	12/5/2021
	1,250	—	1,992.00	12/18/2022
	699	—	2,250.00	7/25/2023
	900	—	2,022.00	12/20/2023
	1,166	—	597.00	12/18/2024
	534(1)	49	348.00	4/16/2025
	473(1)	110	222.00	9/25/2025
	976	—	97.50	1/26/2026
	2,200(2)	733	48.60	9/1/2026
	563(2)	281	39.75	12/15/2026
	1,875(2)	1,060	40.50	1/17/2027
	1,321(3)	3,004	22.50	1/3/2028
	4,881	—	16.35	2/23/2028
—(4)	71,040	6.90	7/26/2028	
Steven Fruchtman	783(1)	17	655.50	1/12/2025
	213(1)	20	372.00	4/20/2025
	216(1)	50	222.00	9/25/2025
	827	—	97.50	1/26/2026
	1,250(2)	416	48.60	9/1/2026
	337(2)	169	39.75	12/15/2026
	1,124(2)	636	40.50	1/17/2027
	888(3)	2,020	22.50	1/3/2028
	—(4)	26,666	6.90	7/26/2028
Manoj Maniar	375	—	864.00	3/17/2020
	175	—	919.50	12/10/2020
	25	—	919.50	12/5/2021
	200	—	1,992.00	12/18/2022
	33	—	2,250.00	7/25/2023
	266	—	2,022.00	12/20/2023
	400	—	597.00	12/18/2024
	244(1)	22	348.00	4/16/2025
	216(1)	50	222.00	9/25/2025
	689	—	97.50	1/26/2026
	850(2)	283	48.60	9/1/2026
	248(2)	124	39.75	12/15/2026
	826(2)	468	40.50	1/17/2027
	582(3)	1,325	22.50	1/3/2028
	—(4)	20,000	6.90	7/26/2028
—(5)	5,000	3.41	12/12/2028	

- (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.
- (4) Shares vest over three years, one-third on the first anniversary of the date of grant and thereafter in 24 equal monthly installments over the following two years.
- (5) Shares vest 100% on the first anniversary of the date of grant.

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, 2018 or (ii) if a Change in Control, as defined in the applicable employment agreement or plan, occurred on December 31, 2018 and the named executive officer's employment had been subsequently terminated on the same date.

Acceleration of Equity Awards in connection with a Change in Control

Pursuant to the terms of each named executive officer's option agreements reflecting options granted under the 2013 Plan, 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 Plan) with us, all stock options granted pursuant to such option agreement shall fully vest and become exercisable. Pursuant to the terms of each named executive officer's option agreements reflecting options granted under the 2018 Plan, in the event of a "Change in Control" in which the Company is not the surviving corporation (or survives only as a subsidiary of another corporation) and the options are assumed by, or replaced with awards with comparable terms by, the surviving corporation (or parent or subsidiary of the surviving corporation) and the named executive officer's employment or service is terminated without "Cause" or the named executive officer terminates his employment for "Good Reason" (as such terms are defined in the applicable option grant agreement), all such stock options granted pursuant to such option agreement shall fully vest and become exercisable upon termination of employment or service. In the event that the surviving corporation (or a parent or subsidiary of the surviving corporation) does not assume or replace the options with grants that have comparable terms, and named executive officer is employed by, or providing services to, the Company and its subsidiaries on the date of the Change in Control, all stock options granted pursuant to such option agreement shall fully vest and become exercisable.

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 under the caption "—Employment Agreements" 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, 2018.

All of the outstanding awards listed below were granted under our 2013 Equity Compensation Plan and 2018 Plan. See "Stock Option and Other Compensation Plans" above for a summary of the 2018 Plan.

<u>Plan Category</u>	<u>Number of Shares to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</u>	<u>Number of Shares Remaining Available for Future Issuance Under the Equity Compensation Plan (Excluding Shares in First Column)</u>
Equity compensation plans approved by stockholders	379,328	\$ 76.33	95,264
Equity compensation plans not approved by stockholders	—	—	—

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 Annual 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 2020 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 2020 Annual Meeting of Stockholders, the written proposal must be received at our principal executive offices on or before December 31, 2019. 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 2020 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 Annual 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 February 18, 2020 and no later than March 19, 2020 (except that in the event that the date of the 2020 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 2020 Annual Meeting of Stockholders and not later than the close of business on the later of (A) the 90th day prior to the 2020 Annual Meeting of Stockholders or (B) the tenth day following the day on which public disclosure of the date of the 2020 Annual Meeting of Stockholders was made.

The notice should include a brief description of the business desired to be brought before the 2020 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 2018 Annual 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, 2018, without charge, by writing to Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown, PA 18940.**

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/ STEVEN FRUCHTMAN

President and Chief Executive Officer

Dated: April 29, 2019

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.

Appendix A

ONCONOVA THERAPEUTICS, INC.

2018 OMNIBUS INCENTIVE COMPENSATION PLAN

(As amended and restated, effective June 17, 2019)

The purpose of the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan (the "*Plan*") is to provide employees of Onconova Therapeutics, Inc. (the "*Company*") and its subsidiaries, certain consultants and advisors who perform services for the Company or its subsidiaries, and non-employee members of the Board of Directors of the Company with the opportunity to receive grants of incentive stock options, nonqualified stock options, stock appreciation rights, stock awards, stock units and other stock-based awards. The Plan was originally effective as of the Original Effective Date and is hereby amended and restated effective as of the Restatement Effective Date.

The Plan is a successor to the Onconova Therapeutics, Inc. 2013 Equity Incentive Plan (the "*Prior Plan*"). No additional grants have been or will be made under the Prior Plan on and after the Original Effective Date. Outstanding grants under the Prior Plan shall continue in effect according to their terms, and the shares with respect to outstanding grants under the Prior Plan shall be issued or transferred under the Prior Plan.

The Company believes that the Plan will encourage the participants to contribute materially to the growth of the Company, thereby benefitting the Company's stockholders, and will align the economic interests of the participants with those of the stockholders.

Section 1. Definitions

The following terms shall have the meanings set forth below for purposes of the Plan:

- (a) "*Award*" shall mean an Option, SAR, Stock Award, Stock Unit or Other Stock-Based Award granted under the Plan.
- (b) "*Award Agreement*" shall mean the written agreement that sets forth the terms and conditions of an Award, including all amendments thereto.
- (c) "*Board*" shall mean the Board of Directors of the Company.

(d) "*Cause*" shall have the meaning given to that term in any written employment agreement, offer letter, consulting agreement or severance agreement between the Employer and the Participant, or if no such agreement exists or if such term is not defined therein, and unless otherwise defined in the Award Agreement, "*Cause*" shall mean a finding by the Committee of conduct involving one or more of the following: (i) the substantial and continuing failure of the Participant, after notice thereof, to render services to the Company or its subsidiaries in accordance with the terms or requirements of his or her employment, engagement as a Non-Employee Director or a Key Advisor; (ii) disloyalty, gross negligence, willful misconduct, dishonesty or breach of fiduciary duty to the Company or a Subsidiary; (iii) the commission of an act of embezzlement or fraud; (iv) deliberate disregard of the rules or policies of the Company or a Subsidiary which results in direct or indirect loss, damage or injury to the Company or a Subsidiary; (v) the unauthorized disclosure of any trade secret or confidential information of the Company or a Subsidiary; or (vi) the Participant's breach of any written non-competition, non-solicitation, invention assignment or confidentiality agreement between the Participant and the Company or any of its subsidiaries.

- (e) "*CEO*" shall mean the Chief Executive Officer of the Company.

(f) A "*Change in Control*" shall be deemed to have occurred if:

(i) the acquisition, directly or indirectly, by a "person" (within the meaning of Section 13(d)(3) of the Exchange Act) (a "*Person*") of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of more than 50% of the combined voting power of the voting securities of the Company entitled to vote generally in the election of directors (the "*Voting Securities*"); provided, however, that the following acquisitions of Voting Securities shall not constitute a Change in Control: (A) any acquisition by or from the Company or any of its subsidiaries, or by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its subsidiaries, (B) any acquisition by any underwriter in any firm commitment underwriting of securities to be issued by the Company, or (C) any acquisition by any corporation (or other entity) if, immediately following such acquisition, 50% or more of the then outstanding shares of common stock (or other equity unit) of such corporation (or other entity) and the combined voting power of the then outstanding voting securities of such corporation (or other entity), are beneficially owned, directly or indirectly, by all or substantially all of the individuals or entities who, immediately prior to such acquisition, were the beneficial owners of the then outstanding shares of Common Stock and the Voting Securities in substantially the same proportions, respectively, as their ownership immediately prior to the acquisition of the shares of Common Stock and Voting Securities; or

(ii) the consummation of the sale or other disposition of all or substantially all of the assets of the Company, other than to a wholly-owned subsidiary of the Company or to a holding company of which the Company is a direct or indirect wholly owned subsidiary prior to such transaction; or

(iii) the consummation of a reorganization, merger or consolidation of the Company, other than a reorganization, merger or consolidation, which would result in the Voting Securities outstanding immediately prior to the transaction continuing to represent (whether by remaining outstanding or by being converted to voting securities of the surviving entity) 65% or more of the Voting Securities or the voting power of the voting securities of such surviving entity outstanding immediately after such transaction; or

(iv) the consummation of a plan of complete liquidation of the Company; or

(v) the following individuals cease for any reason to constitute a majority of the Board: individuals who, as of the Original Effective Date, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including, but not limited to, a consent solicitation relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's stockholders was approved and recommended by a vote of at least two-thirds of the directors then still in office who either were directors on the Original Effective Date or whose appointment, election or nomination for election was previously so approved or recommended.

Notwithstanding the foregoing, if an Award constitutes deferred compensation subject to section 409A of the Code and the Award provides for payment upon a Change in Control, then, for purposes of such payment provisions, no Change in Control shall be deemed to have occurred upon an event described in items (i)—(v) above unless the event would also constitute a change in ownership or effective control of, or a change in the ownership of a substantial portion of the assets of, the Company under section 409A of the Code.

(g) "*Code*" shall mean the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

(h) "*Committee*" shall mean the Compensation Committee of the Board or another committee appointed by the Board to administer the Plan. The Committee shall also consist of directors who are "non-employee directors" as defined under Rule 16b-3 promulgated under the Exchange Act and "independent directors," as determined in accordance with the independence standards established by the stock exchange on which the Common Stock is at the time primarily traded.

(i) "*Common Stock*" shall mean common stock of the Company.

(j) "*Company*" shall mean Onconova Therapeutics, Inc. and shall include its successors.

(k) "*Disability*" or "*Disabled*" shall mean, unless otherwise set forth in the Award Agreement, a Participant's becoming disabled within the meaning of the Employer's long-term disability plan applicable to the Participant, or, if there is no such plan, a physical or mental condition that prevents the Participant from performing the essential functions of the Participant's position (with or without reasonable accommodation) for a period of six consecutive months.

(l) "*Dividend Equivalent*" shall mean an amount determined by multiplying the number of shares of Common Stock subject to a Stock Unit or Other Stock-Based Award by the per-share cash dividend paid by the Company on its outstanding Common Stock, or the per-share Fair Market Value of any dividend paid on its outstanding Common Stock in consideration other than cash. If interest is credited on accumulated dividend equivalents, the term "Dividend Equivalent" shall include the accrued interest.

(m) "*Employee*" shall mean an employee of the Employer (including an officer or director who is also an employee), but excluding any person who is classified by the Employer as a "contractor" or "consultant," no matter how characterized by the Internal Revenue Service, other governmental agency or a court. Any change of characterization of an individual by the Internal Revenue Service or any court or government agency shall have no effect upon the classification of an individual as an Employee for purposes of this Plan, unless the Committee determines otherwise.

(n) "*Employed by, or providing service to, the Employer*" shall mean employment or service as an Employee, Key Advisor or member of the Board (so that, for purposes of exercising Options and SARs and satisfying conditions with respect to Stock Awards, Stock Units and Other Stock-Based Awards, a Participant shall not be considered to have terminated employment or service until the Participant ceases to be an Employee, Key Advisor and member of the Board), unless the Committee determines otherwise. If a Participant's relationship is with a subsidiary of the Company and that entity ceases to be a subsidiary of the Company, the Participant will be deemed to cease employment or service when the entity ceases to be a subsidiary of the Company, unless the Participant transfers employment or service to an Employer.

(o) "*Employer*" shall mean the Company and its subsidiaries.

(p) "*Exchange Act*" shall mean the Securities Exchange Act of 1934, as amended.

(q) "*Exercise Price*" shall mean the per share price at which shares of Common Stock may be purchased under an Option, as designated by the Committee.

(r) "*Fair Market Value*" shall mean:

(i) If the Common Stock is publicly traded, the Fair Market Value per share shall be determined as follows: (A) if the principal trading market for the Common Stock is a national securities exchange, the closing sales price during regular trading hours on the relevant date or, if there were no trades on that date, the latest preceding date upon which a sale was reported, or (B) if the Common Stock is not principally traded on any such exchange, the last

reported sale price of a share of Common Stock during regular trading hours on the relevant date, as reported by the OTC Bulletin Board.

(ii) If the Common Stock is not publicly traded or, if publicly traded, is not subject to reported transactions as set forth above, the Fair Market Value per share shall be determined by the Committee through any reasonable valuation method authorized under the Code.

(s) "*Incentive Stock Option*" shall mean an Option that is intended to meet the requirements of an incentive stock option under section 422 of the Code.

(t) "*Key Advisor*" shall mean a consultant or advisor of the Employer.

(u) "*Non-Employee Director*" shall mean a member of the Board who is not an Employee.

(v) "*Nonqualified Stock Option*" shall mean an Option that is not intended to be taxed as an incentive stock option under section 422 of the Code.

(w) "*Option*" shall mean an option to purchase shares of Common Stock, as described in Section 6.

(x) "*Original Effective Date*" shall mean June 27, 2018.

(y) "*Other Stock-Based Award*" shall mean any Award based on, measured by or payable in Common Stock (other than an Option, Stock Unit, Stock Award, or SAR), as described in Section 10.

(z) "*Participant*" shall mean an Employee, Key Advisor or Non-Employee Director designated by the Committee to participate in the Plan.

(aa) "*Performance Objectives*" shall mean the performance objectives established in the sole discretion of the Committee for Participants who are eligible to receive Awards under the Plan. Performance Objectives may be described in terms of Company-wide objectives or objectives that are related to the performance of the individual Participant or the subsidiary, division, department or function within the Company or one of its subsidiaries in which the Participant is employed. Performance Objectives may be measured on an absolute or relative basis. Relative performance may be measured by a group of peer companies or by a financial market index. Any Performance Objectives may include: specified levels of or increases in the Company's, a division's or a subsidiary's return on capital, equity or assets; earnings measures/ratios (on a gross, net, pre-tax or post-tax basis), including basic earnings per share, diluted earnings per share, total earnings, operating earnings, earnings growth, earnings before interest and taxes and earnings before interest, taxes, depreciation and amortization; net economic profit (which is operating earnings minus a charge to capital); net income; operating income; sales; sales growth; gross margin; direct margin; costs; stock price (including but not limited to growth measures and total stockholder return); operating profit; per period or cumulative cash flow (including but not limited to operating cash flow and free cash flow) or cash flow return on investment (which equals net cash flow divided by total capital); inventory turns; financial return ratios; market share; balance sheet measurements such as receivable turnover; improvement in or attainment of expense levels; improvement in or attainment of working capital levels; debt reduction; strategic innovation; customer or employee satisfaction; the consummation of one or more acquisitions of a certain size as measured by one or more of the financial criteria listed above; individual objectives; regulatory body approval for commercialization of a product; implementation or completion of critical projects (including, but not limited to, milestones such as clinical trial enrollment targets, commencement of phases of clinical trials and completion of phases of clinical trials); and any combination of the foregoing.

(bb) "*Plan*" shall mean this Onconova Therapeutics, Inc. Amended and Restated 2018 Omnibus Incentive Compensation Plan, as in effect from time to time.

(cc) "*Prior Plan*" shall mean Onconova Therapeutics, Inc. 2013 Equity Incentive Plan.

(dd) "*Restatement Effective Date*" shall mean June 17, 2019, provided stockholder approval of the Plan as herein amended and restated is received on or around such date

(ee) "*Restriction Period*" shall have the meaning given that term in Section 7(a).

(ff) "*SAR*" shall mean a stock appreciation right, as described in Section 9.

(gg) "*Stock Award*" shall mean an award of Common Stock, as described in Section 7.

(hh) "*Stock Unit*" shall mean an award of a phantom unit representing a share of Common Stock, as described in Section 8.

(ii) "*Substitute Awards*" shall have the meaning given that term in Section 4(c).

Section 2. Administration

(a) *Committee.* The Plan shall be administered and interpreted by the Committee. The Committee may delegate authority to one or more subcommittees, as it deems appropriate. Subject to compliance with applicable law and the applicable stock exchange rules, the Board, in its discretion, may perform any action of the Committee hereunder. To the extent that the Board, the Committee, a subcommittee or the CEO, as described below, administers the Plan, references in the Plan to the "*Committee*" shall be deemed to refer to the Board, the Committee or such subcommittee or the CEO.

(b) *Delegation to CEO.* Subject to compliance with applicable law and applicable stock exchange requirements, the Committee may delegate all or part of its authority and power to the CEO, as it deems appropriate, with respect to Awards to Employees or Key Advisors who are not executive officers or directors under section 16 of the Exchange Act.

(c) *Committee Authority.* The Committee shall have the sole authority to (i) determine the individuals to whom Awards shall be made under the Plan, (ii) determine the type, size, terms and conditions of the Awards to be made to each such individual, (iii) determine the time when the Awards will be made and the duration of any applicable exercise or restriction period, including the criteria for exercisability and the acceleration of exercisability, (v) amend the terms of any previously issued Award, subject to the provisions of Section 17 below, and (vi) deal with any other matters arising under the Plan.

(d) *Committee Determinations.* The Committee shall have full power and express discretionary authority to administer and interpret the Plan, to make factual determinations and to adopt or amend such rules, regulations, agreements and instruments for implementing the Plan and for the conduct of its business as it deems necessary or advisable, in its sole discretion. The Committee's interpretations of the Plan and all determinations made by the Committee pursuant to the powers vested in it hereunder shall be conclusive and binding on all persons having any interest in the Plan or in any awards granted hereunder. All powers of the Committee shall be executed in its sole discretion, in the best interest of the Company, not as a fiduciary, and in keeping with the objectives of the Plan and need not be uniform as to similarly situated individuals.

(e) *Indemnification.* No member of the Committee or the Board, and no employee of the Company shall be liable for any act or failure to act with respect to the Plan, except in circumstances involving his or her bad faith or willful misconduct, or for any act or failure to act hereunder by any other member of the Committee or employee or by any agent to whom duties in connection with the administration of this Plan have been delegated. The Company shall indemnify members of the Committee and the Board and any agent of the Committee or the Board who is an employee of the

Company or a subsidiary against any and all liabilities or expenses to which they may be subjected by reason of any act or failure to act with respect to their duties on behalf of the Plan, except in circumstances involving such person's bad faith or willful misconduct.

Section 3. Awards

(a) *General.* Awards under the Plan may consist of Options as described in Section 6, Stock Awards as described in Section 7, Stock Units as described in Section 8, SARs as described in Section 9 and Other Stock-Based Awards as described in Section 10. All Awards shall be subject to the terms and conditions set forth herein and to such other terms and conditions consistent with this Plan as the Committee deems appropriate and as are specified in writing by the Committee to the individual in the Award Agreement. All Awards shall be made conditional upon the Participant's acknowledgement, in writing or by acceptance of the Award, that all decisions and determinations of the Committee shall be final and binding on the Participant, his or her beneficiaries and any other person having or claiming an interest under such Award. Awards under a particular Section of the Plan need not be uniform as among the Participants. Notwithstanding anything to the contrary herein, any dividends or Dividend Equivalents granted in connection with Awards under the Plan shall vest and be paid only if and to the extent the underlying Awards vest and are paid.

(b) *Minimum Vesting.* Awards granted under the Plan shall include vesting schedules that provide that no portion of an Award will vest earlier than one year from the date of grant. However, subject to adjustments made in accordance with Section 4(e) below, up to five percent (5%) of the shares of Common Stock subject to the share reserve set forth in Section 4(a) as of the Restatement Effective Date may be granted without regard to the minimum vesting requirement.

Section 4. Shares Subject to the Plan

(a) *Shares Authorized.* Subject to adjustment as described below in Sections 4(b) and 4(e), the maximum aggregate number of shares of Common Stock that may be issued or transferred under the Plan with respect to Awards made on and after the Restatement Effective Date shall be 708,390 shares, which is equal to the sum of the following: (i) 589,500 shares of Common Stock, plus (ii) 118,890 shares, which is the number of shares of Common Stock reserved for issuance under the Plan that remain available for grant under the Plan as of April 10, 2019. In addition, and subject to adjustment as described below in Sections 4(b) and 4(e), shares of Common Stock subject to outstanding Awards granted under the Plan prior to April 10, 2019 and shares of Common Stock subject to outstanding grants under the Prior Plan that terminate, expire or are cancelled, forfeited, exchanged or surrendered without having been exercised, vested or paid in shares after April 10, 2019 (up to 353,227 shares) shall be added to the share reserve under the Plan. The number of shares set forth in clause (ii) above will be reduced by the number of shares subject to Awards made under the Plan after April 10, 2019 and before the Restatement Effective Date. The aggregate number of shares of Common Stock that may be issued or transferred under the Plan pursuant to Incentive Stock Options granted on and after the Restatement Effective Date shall not exceed 708,390 shares of Common Stock.

(b) *Source of Shares; Share Counting.* Shares issued or transferred under the Plan may be authorized but unissued shares of Common Stock or reacquired shares of Common Stock, including shares purchased by the Company on the open market for purposes of the Plan. If and to the extent Options or SARs granted under the Plan or options granted under the Prior Plan terminate, expire or are canceled, forfeited, exchanged or surrendered without having been exercised, or if any Stock Awards, Stock Units, or Other Stock-Based Awards are forfeited, terminated or otherwise not paid in full, the shares subject to such Awards shall again be available for purposes of the Plan. Shares surrendered in payment of the Exercise Price of an Option (including an option granted under the Prior Plan that is exercised on or after the Original Effective Date) shall not be available for re-issuance under the Plan. Shares of Common Stock withheld or surrendered for payment of taxes with respect to Awards (including options granted under the Prior Plan) shall not be available for

re-issuance under the Plan. If SARs are granted, the full number of shares subject to the SARs shall be considered issued under the Plan, without regard to the number of shares issued upon exercise of the SARs. To the extent any Awards are paid in cash, and not in shares of Common Stock, any shares previously subject to such Awards shall again be available for issuance or transfer under the Plan. For the avoidance of doubt, if shares are repurchased by the Company on the open market with the proceeds of the Exercise Price of Options (including options granted under the Prior Plan), such shares may not again be made available for issuance under the Plan

(c) *Substitute Awards.* Shares issued or transferred under Awards made pursuant to an assumption, substitution or exchange for previously granted awards of a company acquired by the Company in a transaction ("*Substitute Awards*") shall not reduce the number of shares of Common Stock available under the Plan and available shares under a stockholder approved plan of an acquired company (as appropriately adjusted to reflect the transaction) may be used for Awards under the Plan and shall not reduce the Plan's share reserve (subject to applicable stock exchange listing and Code requirements).

(d) *Individual Limits.* Subject to adjustment as described below in Section 4(e), the following Award limitations shall apply:

(i) For Options, SARs, Stock Awards, Stock Units and Other Stock-Based Awards (whether payable in Common Stock, cash or a combination of the two), the maximum number of shares of Common Stock for which such Awards may be made to any Employee or Key Advisor in any calendar year shall not exceed 300,000 shares of Common Stock in the aggregate.

(ii) The maximum aggregate grant date value of shares of Common Stock subject to Awards granted to any Non-Employee Director during any calendar year for services rendered as a Non-Employee Director, taken together with any cash fees earned by such Non-Employee Director for services rendered as a Non-Employee Director during the calendar year, shall not exceed \$300,000 in total value. For purposes of this limit, the value of such Awards shall be calculated based on the grant date fair value of such Awards for financial reporting purposes.

(iii) Notwithstanding the foregoing, the individual limit described in subsection (i) shall be increased to two times the otherwise applicable limit with respect to Awards that are made on or around the date of hire to a newly hired Employee.

(e) *Adjustments.* If there is any change in the number or kind of shares of Common Stock outstanding by reason of (i) a stock dividend, spinoff, recapitalization, stock split, reverse stock split or combination or exchange of shares, (ii) a merger, reorganization or consolidation, (iii) a reclassification or change in par value, or (iv) any other extraordinary or unusual event affecting the outstanding Common Stock as a class without the Company's receipt of consideration, or if the value of outstanding shares of Common Stock is substantially reduced as a result of a spinoff or the Company's payment of an extraordinary dividend or distribution, the maximum number and kind of shares of Common Stock available for issuance under the Plan, the maximum number and kind of shares of Common Stock for which any individual may receive Awards in any year, the kind and number of shares covered by outstanding Awards, the kind and number of shares issued and to be issued under the Plan, and the price per share or the applicable market value of such Awards shall be equitably adjusted by the Committee to reflect any increase or decrease in the number of, or change in the kind or value of, the issued shares of Common Stock to preclude, to the extent practicable, the enlargement or dilution of rights and benefits under the Plan and such outstanding Awards; provided, however, that any fractional shares resulting from such adjustment shall be eliminated. In addition, in the event of a Change in Control, the provisions of Section 12 of the Plan shall apply. Any adjustments to outstanding Awards shall be consistent with section 409A or 424 of the Code, to the extent applicable. Subject to Section 17(b) below, the adjustments of Awards under this Section 4(e) shall include adjustment of

shares, Exercise Price of Stock Options, base amount of SARs, Performance Objectives or other terms and conditions, as the Committee deems appropriate. The Committee shall have the sole discretion and authority to determine what appropriate adjustments shall be made and any adjustments determined by the Committee shall be final, binding and conclusive.

Section 5. Eligibility for Participation

(a) *Eligible Persons.* All Employees and Non-Employee Directors shall be eligible to participate in the Plan. Key Advisors shall be eligible to participate in the Plan if the Key Advisors render bona fide services to the Employer, the services are not in connection with the offer and sale of securities in a capital-raising transaction and the Key Advisors do not directly or indirectly promote or maintain a market for the Company's securities.

(b) *Selection of Participants.* The Committee shall select the Employees, Non-Employee Directors and Key Advisors to receive Awards and shall determine the number of shares of Common Stock subject to a particular Award in such manner as the Committee determines.

Section 6. Options

The Committee may grant Options to an Employee, Non-Employee Director or Key Advisor upon such terms as the Committee deems appropriate. The following provisions are applicable to Options:

(a) *Number of Shares.* The Committee shall determine the number of shares of Common Stock that will be subject to each Award of Options to Employees, Non-Employee Directors and Key Advisors.

(b) *Type of Option and Exercise Price.*

(i) The Committee may grant Incentive Stock Options or Nonqualified Stock Options or any combination of the two, all in accordance with the terms and conditions set forth herein. Incentive Stock Options may be granted only to employees of the Company or its parent or subsidiary corporations, as defined in section 424 of the Code. Nonqualified Stock Options may be granted to Employees, Non-Employee Directors and Key Advisors.

(ii) The Exercise Price of Common Stock subject to an Option shall be determined by the Committee and shall be equal to or greater than the Fair Market Value of a share of Common Stock on the date the Option is granted. However, an Incentive Stock Option may not be granted to an Employee who, at the time of grant, owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, or any parent or subsidiary corporation of the Company, as defined in section 424 of the Code, unless the Exercise Price per share is not less than 110% of the Fair Market Value of a share of Common Stock on the date of grant.

(c) *Option Term.* The Committee shall determine the term of each Option. The term of any Option shall not exceed ten years from the date of grant. However, an Incentive Stock Option that is granted to an Employee who, at the time of grant, owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, or any parent or subsidiary corporation of the Company, as defined in section 424 of the Code, may not have a term that exceeds five years from the date of grant. Notwithstanding the foregoing, in the event that on the last business day of the term of an Option (other than an Incentive Stock Option), the exercise of the Option is prohibited by applicable law, including a prohibition on purchases or sales of Common Stock under the Company's insider trading policy, the term of the Option shall be extended for a period of 30 days following the end of the legal prohibition, unless the Committee determines otherwise.

(d) *Exercisability of Options.* Subject to Section 3(b), Options shall become exercisable in accordance with such terms and conditions, consistent with the Plan, as may be determined by the Committee and specified in the Award Agreement. Subject to the limitations set forth in Section 12, the Committee may accelerate the exercisability of any or all outstanding Options at any time for any reason.

(e) *Awards to Non-Exempt Employees.* Notwithstanding the foregoing, Options granted to persons who are non-exempt employees under the Fair Labor Standards Act of 1938, as amended, may not be exercisable for at least six months after the date of grant (except that such Options may become exercisable, as determined by the Committee, upon the Participant's death, Disability or retirement, or upon a Change in Control or other circumstances permitted by applicable regulations).

(f) *Termination of Employment or Service.* Except as provided in the Award Agreement, an Option may only be exercised while the Participant is employed by, or providing services to, the Employer. The Committee shall determine in the Award Agreement under what circumstances and during what time periods a Participant may exercise an Option after termination of employment or service.

(g) *Exercise of Options.* A Participant may exercise an Option that has become exercisable, in whole or in part, by delivering a notice of exercise to the Company. The Participant shall pay the Exercise Price for an Option as specified by the Committee (i) in cash or by check, (ii) unless the Committee determines otherwise, by delivering shares of Common Stock owned by the Participant and having a Fair Market Value on the date of exercise at least equal to the Exercise Price or by attestation (on a form prescribed by the Committee) to ownership of shares of Common Stock having a Fair Market Value on the date of exercise at least equal to the Exercise Price, (iii) by payment through a broker in accordance with procedures permitted by Regulation T of the Federal Reserve Board, (iv) if permitted by the Committee, by withholding shares of Common Stock subject to the exercisable Option, which have a Fair Market Value on the date of exercise equal to the Exercise Price, or (v) by such other method as the Committee may approve. Shares of Common Stock used to exercise an Option shall have been held by the Participant for the requisite period of time necessary to avoid adverse accounting consequences to the Company with respect to the Option. Payment for the shares to be issued or transferred pursuant to the Option, and any required withholding taxes, must be received by the Company by the time specified by the Committee depending on the type of payment being made, but in all cases prior to the issuance or transfer of such shares.

(h) *Limits on Incentive Stock Options.* Each Incentive Stock Option shall provide that, if the aggregate Fair Market Value of the Common Stock on the date of the grant with respect to which Incentive Stock Options are exercisable for the first time by a Participant during any calendar year, under the Plan or any other stock option plan of the Company or a parent or subsidiary, exceeds \$100,000, then the Option, as to the excess, shall be treated as a Nonqualified Stock Option.

Section 7. Stock Awards

The Committee may issue or transfer shares of Common Stock to an Employee, Non-Employee Director or Key Advisor under a Stock Award, upon such terms as the Committee deems appropriate. The following provisions are applicable to Stock Awards:

(a) *General Requirements.* Shares of Common Stock issued pursuant to Stock Awards may be issued for consideration or for no consideration, and subject to restrictions or no restrictions, as determined by the Committee. Subject to Section 3(b), the Committee may, but shall not be required to, establish conditions under which restrictions on Stock Awards shall lapse over a period of time or according to such other criteria as the Committee deems appropriate, including, without

limitation, restrictions based upon the achievement of specific Performance Objectives. The period of time during which the Stock Awards will remain subject to restrictions will be designated in the Award Agreement as the "*Restriction Period*."

(b) *Number of Shares.* The Committee shall determine the number of shares of Common Stock to be issued or transferred pursuant to a Stock Award and the restrictions applicable to such shares.

(c) *Requirement of Employment or Service.* If the Participant ceases to be employed by, or provide service to, the Employer during a period designated in the Award Agreement as the Restriction Period, or if other specified conditions are not met, the Stock Award shall terminate as to all shares covered by the Award as to which the restrictions have not lapsed, and those shares of Common Stock must be immediately returned to the Company. Subject to the limitations set forth in Section 12, the Committee may, however, provide for complete or partial exceptions to this requirement as it deems appropriate.

(d) *Restrictions on Transfer and Legend on Stock Certificate.* During the Restriction Period, a Participant may not sell, assign, transfer, pledge or otherwise dispose of the shares of a Stock Award except under Section 15 below. Unless otherwise determined by the Committee, the Company will retain possession of certificates for shares of Stock Awards until all restrictions on such shares have lapsed. Each certificate for a Stock Award, unless held by the Company, shall contain a legend giving appropriate notice of the restrictions in the Award. The Participant shall be entitled to have the legend removed from the stock certificate covering the shares subject to restrictions when all restrictions on such shares have lapsed. The Committee may determine that the Company will not issue certificates for Stock Awards until all restrictions on such shares have lapsed.

(e) *Right to Vote and to Receive Dividends.* Unless the Committee determines otherwise, during the Restriction Period, the Participant shall have the right to vote shares of Stock Awards and to receive any dividends or other distributions paid on such shares, subject to any restrictions deemed appropriate by the Committee, including, without limitation, the achievement of specific Performance Objectives; provided, however, that dividends shall vest and be paid only if and to the extent that the underlying Stock Award vests and is paid.

(f) *Lapse of Restrictions.* All restrictions imposed on Stock Awards shall lapse upon the expiration of the applicable Restriction Period and the satisfaction of all conditions, if any, imposed by the Committee. The Committee may determine, as to any or all Stock Awards, that the restrictions shall lapse without regard to any Restriction Period.

Section 8. Stock Units

The Committee may grant Stock Units, each of which shall represent one hypothetical share of Common Stock, to an Employee, Non-Employee Director or Key Advisor upon such terms and conditions as the Committee deems appropriate. The following provisions are applicable to Stock Units:

(a) *Crediting of Units.* Each Stock Unit shall represent the right of the Participant to receive a share of Common Stock or an amount of cash based on the value of a share of Common Stock, if and when specified conditions are met. All Stock Units shall be credited to bookkeeping accounts established on the Company's records for purposes of the Plan.

(b) *Terms of Stock Units.* Subject to Section 3(b), the Committee may grant Stock Units that vest and are payable if specified Performance Objectives or other conditions are met, or under other circumstances. Stock Units may be paid at the end of a specified performance period or other period, or payment may be deferred to a date authorized by the Committee. Subject to the

limitations set forth in Section 12, the Committee may accelerate vesting or payment, as to any or all Stock Units at any time for any reason, provided such acceleration complies with section 409A of the Code. The Committee shall determine the number of Stock Units to be granted and the requirements applicable to such Stock Units.

(c) *Requirement of Employment or Service.* If the Participant ceases to be employed by, or provide service to, the Employer prior to the vesting of Stock Units, or if other conditions established by the Committee are not met, the Participant's Stock Units shall be forfeited. The Committee may, however, provide for complete or partial exceptions to this requirement as it deems appropriate.

(d) *Payment With Respect to Stock Units.* Payments with respect to Stock Units shall be made in cash, Common Stock or any combination of the foregoing, as the Committee shall determine.

Section 9. Stock Appreciation Rights

The Committee may grant SARs to an Employee, Non-Employee Director or Key Advisor separately or in tandem with any Option. The following provisions are applicable to SARs:

(a) *General Requirements.* The Committee may grant SARs to an Employee, Non-Employee Director or Key Advisor separately or in tandem with any Option (for all or a portion of the applicable Option). Tandem SARs may be granted either at the time the Option is granted or at any time thereafter while the Option remains outstanding; provided, however, that, in the case of an Incentive Stock Option, SARs may be granted only at the time of the grant of the Incentive Stock Option. The Committee shall establish the base amount of the SAR at the time the SAR is granted. The base amount of each SAR shall be equal to or greater than the Fair Market Value of a share of Common Stock as of the date of grant of the SAR. The term of any SAR shall not exceed ten years from the date of grant. Notwithstanding the foregoing, in the event that on the last business day of the term of a SAR, the exercise of the SAR is prohibited by applicable law, including a prohibition on purchases or sales of Common Stock under the Company's insider trading policy, the term shall be extended for a period of 30 days following the end of the legal prohibition, unless the Committee determines otherwise.

(b) *Tandem SARs.* In the case of tandem SARs, the number of SARs granted to a Participant that shall be exercisable during a specified period shall not exceed the number of shares of Common Stock that the Participant may purchase upon the exercise of the related Option during such period. Upon the exercise of an Option, the SARs relating to the Common Stock covered by such Option shall terminate. Upon the exercise of SARs, the related Option shall terminate to the extent of an equal number of shares of Common Stock.

(c) *Exercisability.* Subject to Section 3(b), an SAR shall be exercisable during the period specified by the Committee in the Award Agreement and shall be subject to such vesting and other restrictions as may be specified in the Award Agreement. Subject to the limitations set forth in Section 12, the Committee may accelerate the exercisability of any or all outstanding SARs at any time for any reason. SARs may only be exercised while the Participant is employed by, or providing service to, the Employer or during the applicable period after termination of employment or service as specified by the Committee. A tandem SAR shall be exercisable only during the period when the Option to which it is related is also exercisable.

(d) *Grants to Non-Exempt Employees.* Notwithstanding the foregoing, SARs granted to persons who are non-exempt employees under the Fair Labor Standards Act of 1938, as amended, may not be exercisable for at least six months after the date of grant (except that such SARs may become exercisable, as determined by the Committee, upon the Participant's death, Disability or

retirement, or upon a Change in Control or other circumstances permitted by applicable regulations).

(e) *Value of SARs.* When a Participant exercises SARs, the Participant shall receive in settlement of such SARs an amount equal to the value of the stock appreciation for the number of SARs exercised. The stock appreciation for an SAR is the amount by which the Fair Market Value of the underlying Common Stock on the date of exercise of the SAR exceeds the base amount of the SAR as described in subsection (a).

(f) *Form of Payment.* The appreciation in an SAR shall be paid in shares of Common Stock, cash or any combination of the foregoing, as the Committee shall determine. For purposes of calculating the number of shares of Common Stock to be received, shares of Common Stock shall be valued at their Fair Market Value on the date of exercise of the SAR.

Section 10. Other Stock-Based Awards

The Committee may grant Other Stock-Based Awards, which are awards (other than those described in Sections 6, 7, 8 and 9 of the Plan) that are based on or measured by Common Stock, to any Employee, Non-Employee Director or Key Advisor, on such terms and conditions as the Committee shall determine. Subject to Section 3(b), Other Stock-Based Awards may be awarded subject to the achievement of Performance Objectives or other criteria or other conditions and may be payable in cash, Common Stock or any combination of the foregoing, as the Committee shall determine.

Section 11. Dividend Equivalents

The Committee may grant Dividend Equivalents in connection with Stock Units or Other Stock-Based Awards. Subject to Section 3(b), Dividend Equivalents may be payable in cash or shares of Common Stock, and upon such terms and conditions as the Committee shall determine; provided that Dividend Equivalents shall vest and be paid only if and to the extent the underlying Stock Units or Other Stock-Based Awards vest and are paid. For the avoidance of doubt, no dividends or Dividend Equivalents will be granted in connection with Stock Options or SARs.

Section 12. Consequences of a Change in Control

(a) *Assumption of Outstanding Awards.* Upon a Change in Control where the Company is not the surviving corporation (or survives only as a subsidiary of another corporation), all outstanding Awards that are not exercised or paid at the time of the Change in Control shall be assumed by, or replaced with grants that have comparable terms by, the surviving corporation (or a parent or subsidiary of the surviving corporation). In the event that the surviving corporation (or a parent or subsidiary of the surviving corporation) does not assume or replace Awards with grants that have comparable terms, outstanding Stock Options and SARs shall automatically accelerate and become fully exercisable and the restrictions and conditions on outstanding Stock Awards, Stock Units, Other Stock-Based Awards and Dividend Equivalents shall immediately lapse, provided that if the vesting of any such Awards is based, in whole or in part, on performance, such Awards shall vest based on the greater of (i) actual performance as of the Change in Control or (ii) target performance, pro-rated based on the period elapsed between the beginning of the applicable performance period and the date of the Change in Control. After a Change in Control, references to the "Company" as they relate to employment matters shall include the successor employer in the transaction, subject to applicable law.

(b) *Vesting Upon Certain Terminations of Employment.* At the Committee's discretion, if Awards are assumed by, or replaced with grants that have comparable terms by, the surviving corporation (or a parent or subsidiary of the surviving corporation) and if a Participant incurs an involuntary termination of employment or service on or after a Change in Control, the

Participant's outstanding Awards may become vested, in whole or in part, as of the date of such termination; provided that if the vesting of any such Awards is based, in whole or in part, on performance, such Awards shall vest only based on the greater of (i) actual performance as of the date of Change in Control or (ii) target performance, pro-rated based on the period elapsed between the beginning of the applicable performance period and the date of the termination.

(c) *Other Alternatives.* In the event of a Change in Control, if any outstanding Awards are not assumed by, or replaced with grants that have comparable terms by, the surviving corporation (or a parent or subsidiary of the surviving corporation), the Committee may take any of the following actions with respect to any or all outstanding Awards, without the consent of any Participant: (i) the Committee may determine that Participants shall receive a payment in settlement of outstanding Stock Units, Other Stock-Based Awards or Dividend Equivalents, in such amount and form as may be determined by the Committee; (ii) the Committee may require that Participants surrender their outstanding Stock Options and SARs in exchange for a payment by the Company, in cash or Common Stock as determined by the Committee, in an amount equal to the amount, if any, by which the then Fair Market Value of the shares of Common Stock subject to the Participant's unexercised Stock Options and SARs exceeds the Stock Option Exercise Price or SAR base amount, and (iii) after giving Participants an opportunity to exercise all of their outstanding Stock Options and SARs, the Committee may terminate any or all unexercised Stock Options and SARs at such time as the Committee deems appropriate. Such surrender, termination or payment shall take place as of the date of the Change in Control or such other date as the Committee may specify. Without limiting the foregoing, if the per share Fair Market Value of the Common Stock does not exceed the per share Stock Option Exercise Price or SAR base amount, as applicable, the Company shall not be required to make any payment to the Participant upon surrender of the Stock Option or SAR.

Section 13. Deferrals

The Committee may permit or require a Participant to defer receipt of the payment of cash or the delivery of shares that would otherwise be due to such Participant in connection with any Award. If any such deferral election is permitted or required, the Committee shall establish rules and procedures for such deferrals and may provide for interest or other earnings to be paid on such deferrals. The rules and procedures for any such deferrals shall be consistent with applicable requirements of section 409A of the Code.

Section 14. Withholding of Taxes

(a) *Required Withholding.* All Awards under the Plan shall be subject to applicable United States federal (including FICA), state and local, foreign country or other tax withholding requirements. The Employer may require that the Participant or other person receiving Awards or exercising Awards pay to the Employer an amount sufficient to satisfy such tax withholding requirements with respect to such Awards, or the Employer may deduct from other wages and compensation paid by the Employer the amount of any withholding taxes due with respect to such Awards.

(b) *Share Withholding.* The Committee may permit or require the Employer's tax withholding obligation with respect to Awards paid in Common Stock to be satisfied by having shares withheld up to an amount that does not exceed the Participant's applicable withholding tax rate for United States federal (including FICA), state and local, foreign country or other tax liabilities. The Committee may, in its discretion, and subject to such rules as the Committee may adopt, allow Participants to elect to have such share withholding applied to all or a portion of the tax withholding obligation arising in connection with any particular Award. Unless the Committee determines otherwise, share withholding for taxes shall not exceed the Participant's minimum applicable tax withholding amount.

Section 15. Transferability of Awards

(a) *Nontransferability of Awards.* Except as described in subsection (b) below, only the Participant may exercise rights under an Award during the Participant's lifetime. A Participant may not transfer those rights except (i) by will or by the laws of descent and distribution or (ii) with respect to Awards other than Incentive Stock Options, pursuant to a domestic relations order. When a Participant dies, the personal representative or other person entitled to succeed to the rights of the Participant may exercise such rights. Any such successor must furnish proof satisfactory to the Company of his or her right to receive the Award under the Participant's will or under the applicable laws of descent and distribution.

(b) *Transfer of Nonqualified Stock Options.* Notwithstanding the foregoing, the Committee may provide, in an Award Agreement, that a Participant may transfer Nonqualified Stock Options to family members, or one or more trusts or other entities for the benefit of or owned by family members, consistent with the applicable securities laws, according to such terms as the Committee may determine; provided that the Participant receives no consideration for the transfer of an Option and the transferred Option shall continue to be subject to the same terms and conditions as were applicable to the Option immediately before the transfer.

Section 16. Requirements for Issuance or Transfer of Shares

No Common Stock shall be issued or transferred in connection with any Award hereunder unless and until all legal requirements applicable to the issuance or transfer of such Common Stock have been complied with to the satisfaction of the Committee. The Committee shall have the right to condition any Award on the Participant's undertaking in writing to comply with such restrictions on his or her subsequent disposition of the shares of Common Stock as the Committee shall deem necessary or advisable, and certificates representing such shares may be legended to reflect any such restrictions. Certificates representing shares of Common Stock issued or transferred under the Plan may be subject to such stop-transfer orders and other restrictions as the Committee deems appropriate to comply with applicable laws, regulations and interpretations, including any requirement that a legend be placed thereon.

Section 17. Amendment and Termination of the Plan

(a) *Amendment.* The Board may amend or terminate the Plan at any time; provided, however, that the Board shall not amend the Plan without stockholder approval if such approval is required in order to comply with the Code or other applicable law, or to comply with applicable stock exchange requirements.

(b) *No Repricing of Options or SARs.* Except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, distribution (whether in the form of cash, Common Stock, other securities or property), stock split, extraordinary cash dividend, recapitalization, change in control, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of shares of Common Stock or other securities, or similar transactions), the Company may not, without obtaining stockholder approval, (i) amend the terms of outstanding Stock Options or SARs to reduce the Exercise Price of such outstanding Stock Options or base price of such SARs, (ii) cancel outstanding Stock Options or SARs in exchange for Stock Options or SARs with an Exercise Price or base price, as applicable, that is less than the Exercise Price or base price of the original Stock Options or SARs or (iii) cancel outstanding Stock Options or SARs with an Exercise Price or base price, as applicable, above the current stock price in exchange for cash or other securities.

(c) *Termination of Plan.* The Plan shall terminate on the day immediately preceding the tenth anniversary of its Restatement Effective Date, unless the Plan is terminated earlier by the Board or is extended by the Board with the approval of the stockholders.

(d) *Termination and Amendment of Outstanding Awards.* A termination or amendment of the Plan that occurs after an Award is made shall not materially impair the rights of a Participant unless the Participant consents or unless the Committee acts under Section 18(f) below. The termination of the Plan shall not impair the power and authority of the Committee with respect to an outstanding Award. Whether or not the Plan has terminated, an outstanding Award may be terminated or amended under Section 18(f) below or may be amended by agreement of the Company and the Participant consistent with the Plan, provided that the Participant's consent is not required if any termination or amendment to the Participant's outstanding Award does not materially impair the rights or materially increase the obligations of the Participant.

Section 18. Miscellaneous

(a) *Awards in Connection with Corporate Transactions and Otherwise.* Nothing contained in the Plan shall be construed to (i) limit the right of the Committee to make Awards under the Plan in connection with the acquisition, by purchase, lease, merger, consolidation or otherwise, of the business or assets of any corporation, firm or association, including Awards to employees thereof who become Employees, or (ii) limit the right of the Company to grant stock options or make other awards outside of the Plan. The Committee may make an Award to an employee of another corporation who becomes an Employee by reason of a corporate merger, consolidation, acquisition of stock or property, reorganization or liquidation involving the Company, in substitution for a stock option or stock award granted by such corporation. Notwithstanding anything in the Plan to the contrary, the Committee may establish such terms and conditions of the new Awards as it deems appropriate, including setting the Exercise Price of Options or the base price of SARs at a price necessary to retain for the Participant the same economic value as the prior options or rights.

(b) *Governing Document.* The Plan shall be the controlling document. No other statements, representations, explanatory materials or examples, oral or written, may amend the Plan in any manner. The Plan shall be binding upon and enforceable against the Company and its successors and assigns.

(c) *Funding of the Plan.* The Plan shall be unfunded. The Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any Awards under the Plan.

(d) *Rights of Participants.* Nothing in the Plan shall entitle any Employee, Non-Employee Director, Key Advisor or other person to any claim or right to receive an Award under the Plan. Neither the Plan nor any action taken hereunder shall be construed as giving any individual any rights to be retained by or in the employ of the Employer or any other employment rights.

(e) *No Fractional Shares.* No fractional shares of Common Stock shall be issued or delivered pursuant to the Plan or any Award. Except as otherwise provided under the Plan, the Committee shall determine whether cash, other awards or other property shall be issued or paid in lieu of such fractional shares or whether such fractional shares or any rights thereto shall be forfeited or otherwise eliminated.

(f) *Compliance with Law.*

(i) The Plan, the exercise of Options and SARs and the obligations of the Company to issue or transfer shares of Common Stock under Awards shall be subject to all applicable laws and regulations, and to approvals by any governmental or regulatory agency as may be required. With respect to persons subject to section 16 of the Exchange Act, it is the intent of the Company that the Plan and all transactions under the Plan comply with all applicable provisions of Rule 16b-3 or its successors under the Exchange Act. In addition, it is the intent of the Company that Incentive Stock Options comply with the applicable provisions of section 422 of the Code, and that, to the extent applicable, Awards comply with the

requirements of section 409A of the Code. To the extent that any legal requirement of section 16 of the Exchange Act or section 422, or 409A of the Code as set forth in the Plan ceases to be required under section 16 of the Exchange Act or section 422 or 409A of the Code, that Plan provision shall cease to apply. The Committee may revoke any Award if it is contrary to law or modify an Award to bring it into compliance with any valid and mandatory government regulation. The Committee may also adopt rules regarding the withholding of taxes on payments to Participants. The Committee may, in its sole discretion, agree to limit its authority under this Section.

(ii) The Plan is intended to comply with the requirements of section 409A of the Code, to the extent applicable. Each Award shall be construed and administered such that the Award either (A) qualifies for an exemption from the requirements of section 409A of the Code or (B) satisfies the requirements of section 409A of the Code. If an Award is subject to section 409A of the Code, (I) distributions shall only be made in a manner and upon an event permitted under section 409A of the Code, (II) payments to be made upon a termination of employment or service shall only be made upon a "separation from service" under section 409A of the Code, (III) unless the Award specifies otherwise, each installment payment shall be treated as a separate payment for purposes of section 409A of the Code, and (IV) in no event shall a Participant, directly or indirectly, designate the calendar year in which a distribution is made except in accordance with section 409A of the Code.

(iii) Any Award that is subject to section 409A of the Code and that is to be distributed to a Key Employee (as defined below) upon separation from service shall be administered so that any distribution with respect to such Award shall be postponed for six months following the date of the Participant's separation from service, if required by section 409A of the Code. If a distribution is delayed pursuant to section 409A of the Code, the distribution shall be paid within 15 days after the end of the six-month period. If the Participant dies during such six-month period, any postponed amounts shall be paid within 90 days of the Participant's death. The determination of Key Employees, including the number and identity of persons considered Key Employees and the identification date, shall be made by the Committee or its delegate each year in accordance with section 416(i) of the Code and the "specified employee" requirements of section 409A of the Code.

(iv) Notwithstanding anything in the Plan or any Award agreement to the contrary, each Participant shall be solely responsible for the tax consequences of Awards under the Plan, and in no event shall the Company or any subsidiary or affiliate of the Company have any responsibility or liability if an Award does not meet any applicable requirements of section 409A of the Code. Although the Company intends to administer the Plan to prevent taxation under section 409A of the Code, the Company does not represent or warrant that the Plan or any Award complies with any provision of federal, state, local or other tax law.

(g) *Establishment of Subplans.* 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 shall establish such sub-plans by adopting supplements to the Plan setting forth (i) such limitations on the Committee'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 shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Employer shall not be required to provide copies of any supplement to Participants in any jurisdiction that is not affected.

(h) *Clawback Rights.* Subject to the requirements of applicable law, the Committee may provide in any Award Agreement that, if a Participant breaches any restrictive covenant agreement

between the Participant and the Employer (which may be set forth in any Award Agreement) or otherwise engages in activities that constitute Cause either while employed by, or providing service to, the Employer or within the applicable period of time thereafter, all Awards held by the Participant shall terminate, and the Company may rescind any exercise of an Option or SAR and the vesting of any other Award and delivery of shares upon such exercise or vesting (including pursuant to dividends and Dividend Equivalents), as applicable on such terms as the Committee shall determine, including the right to require that in the event of any such rescission, (i) the Participant shall return to the Company the shares received upon the exercise of any Option or SAR and/or the vesting and payment of any other Award (including pursuant to dividends and Dividend Equivalents) or, (ii) if the Participant no longer owns the shares, the Participant shall pay to the Company the amount of any gain realized or payment received as a result of any sale or other disposition of the shares (or, in the event the Participant transfers the shares by gift or otherwise without consideration, the Fair Market Value of the shares on the date of the breach of the restrictive covenant agreement or activity constituting Cause), net of the price originally paid by the Participant for the shares. Payment by the Participant shall be made in such manner and on such terms and conditions as may be required by the Committee. The Employer shall be entitled to set off against the amount of any such payment any amounts otherwise owed to the Participant by the Employer. In addition, all Awards under the Plan shall be subject to any applicable clawback or recoupment policies, share trading policies and other policies that may be implemented by the Board from time to time.

(i) *Governing Law.* The validity, construction, interpretation and effect of the Plan and Award Agreements issued under the Plan shall be governed and construed by and determined in accordance with the laws of the State of Delaware, without giving effect to the conflict of laws provisions thereof.



Shareowner Services
P.O. Box 64945
St. Paul, MN 55164-0945

Address Change? Mark box, sign, and indicate changes below:

TO VOTE BY INTERNET OR TELEPHONE, SEE REVERSE SIDE OF THIS PROXY CARD.

The Board of Directors Recommends a Vote FOR the election of all director nominees (Proposal 1), FOR Proposals 2, 3, and 4, and for "3 Years" (Proposal 5).

- | | | | | |
|---------------------------|-------------------------|-----------------------|---|--|
| 1. Election of directors: | 01 Jerome E. Groopman | 05 Viren Mehta | <input type="checkbox"/> Vote FOR all nominees (except as marked) | <input type="checkbox"/> Vote WITHHELD from all nominees |
| | 02 Michael B. Hoffman | 06 E. Premkumar Reddy | | |
| | 03 Steven M. Fruchtmann | 07 Jack E. Stover | | |
| | 04 James J. Marino | | | |

⏴ Please fold here – Do not separate ⏵

(Instructions: To withhold authority to vote for any indicated nominee, write the number(s) of the nominee(s) in the box provided to the right.)

- | | | | | |
|--|---------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 2. Proposal to amend and restate the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan to increase the number of shares available under the plan and to make certain other changes; | <input type="checkbox"/> For | <input type="checkbox"/> Against | <input type="checkbox"/> Abstain | |
| 3. Ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019; | <input type="checkbox"/> For | <input type="checkbox"/> Against | <input type="checkbox"/> Abstain | |
| 4. Proposal to approve, on an advisory basis, the compensation of our named executive officers; and | <input type="checkbox"/> For | <input type="checkbox"/> Against | <input type="checkbox"/> Abstain | |
| 5. Proposal to approve, on an advisory basis, the frequency of advisory votes on the compensation of our named executive officers. | <input type="checkbox"/> 1 year | <input type="checkbox"/> 2 years | <input type="checkbox"/> 3 years | <input type="checkbox"/> Abstain |

NOTE: Such other business as may properly come before the meeting or any adjournment thereof.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, WILL BE VOTED AS THE BOARD RECOMMENDS.

Date _____

Signature(s) in Box

Please sign exactly as your name(s) appears on Proxy. If held in joint tenancy, all persons should sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the Proxy.

ONCONOVA THERAPEUTICS, INC.

ANNUAL MEETING OF STOCKHOLDERS

Monday, June 17, 2019
9:00 a.m.

Offices of Morgan, Lewis & Bockius LLP
101 Park Avenue
New York, NY 10178



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

proxy

This proxy is solicited by the Board of Directors for use at the Annual Meeting on June 17, 2019.

The undersigned hereby appoints Mark Guerin and Steven M. Fruchtman, and each of them, with full power of substitution, to vote, as designated below, all the shares of Onconova Therapeutics, Inc. common stock held of record by the undersigned at the close of business on April 18, 2019, at the annual meeting of stockholders, to be held June 17, 2019, and at any and all adjournments or postponements thereof. The undersigned hereby revokes any and all earlier dated proxies with respect to such annual meeting. This proxy, when properly executed, will be voted in the manner directed herein by the undersigned. If no direction is made, this proxy will be voted **FOR** the election of each of board's director nominees, **FOR** the proposal to amend and restate the Onconova Therapeutics, Inc. 2018 Omnibus Incentive Compensation Plan to increase the number of shares available under the plan and to make certain other changes, **FOR** the ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2019, **FOR** the proposal to approve, on an advisory basis, the compensation of our named executive officers, and **"3 Years"** with respect to the proposal to approve, on an advisory basis, the frequency of advisory votes on the compensation of our named executive officers.

Should a director nominee be unable to serve as a director, an event the Onconova Therapeutics, Inc. does not currently anticipate, the persons named in this proxy reserve the right, in their discretion to vote for a substitute nominee designated by the board of directors.

If any other business is presented at the annual meeting, including matters incidental to the conduct of the meeting or otherwise, this proxy will be voted by those named in this proxy in their best judgment. At the present time, the board of directors knows of no other business to be presented at the meeting.

Vote by Internet, Telephone or Mail 24 Hours a Day, 7 Days a Week

Your phone or Internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card.



INTERNET/MOBILE

www.proxypush.com/ontx

Use the Internet to vote your proxy until 11:59 p.m. (CT) on June 16, 2019.



PHONE

1-866-883-3382

Use a touch-tone telephone to vote your proxy until 11:59 p.m. (CT) on June 16, 2019.



MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope provided.

If you vote your proxy by Internet or by Telephone, you do NOT need to mail back your Proxy Card.