

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 Rule 14a-12

Molecular Templates, Inc.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

2) Aggregate number of securities to which transaction applies:

3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

4) Proposed maximum aggregate value of transaction:

5) Total fee paid:

Fee paid previously with preliminary materials.

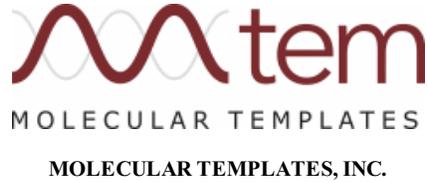
Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing:

1) Amount previously paid:

2) Form, Schedule or Registration Statement No:

3) Filing party:

4) Date Filed:



April 26, 2019

To Our Stockholders:

You are cordially invited to attend the 2019 annual meeting of stockholders of Molecular Templates, Inc. to be held at 8:30 a.m. ET on Wednesday, May 29, 2019 at Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311.

Details regarding the meeting, the business to be conducted at the meeting, and information about Molecular Templates, Inc. that you should consider when you vote your shares are described in this proxy statement.

At the annual meeting, three persons will be elected to our Board of Directors. In addition, we will ask stockholders to ratify the selection of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ending 2019, to approve by an advisory vote the compensation of our named executive officers, as disclosed in this proxy statement, and to vote on the frequency of the advisory vote on the compensation of our named executive officers. The Board of Directors recommends the approval of each of these proposals as set forth in this proxy statement. Such other business will be transacted as may properly come before the annual meeting.

We hope you will be able to attend the annual meeting. Whether you plan to attend the annual meeting or not, it is important that you cast your vote either in person or by proxy. You may vote over the Internet as well as by telephone or by mail. When you have finished reading this proxy statement, you are urged to vote in accordance with the instructions set forth in this proxy statement. We encourage you to vote by proxy so that your shares will be represented and voted at the meeting, whether or not you can attend.

Thank you for your continued support of Molecular Templates, Inc. We look forward to seeing you at the annual meeting.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Poma', written over a horizontal line.

Eric E. Poma, Ph.D.
Chief Executive Officer and Chief Scientific Officer



MOLECULAR TEMPLATES, INC.
9301 Amberglen Blvd., Suite 100
Austin, TX 78729
(512) 869-1555

April 26, 2019

NOTICE OF 2019 ANNUAL MEETING OF STOCKHOLDERS

TIME: 8:30 a.m. ET
DATE: Wednesday, May 29, 2019
PLACE: Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311

PURPOSES:

1. To elect three directors to serve three-year terms expiring in 2022;
2. To ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending 2019;
3. To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in the accompanying proxy statement;
4. To approve, on an advisory basis, the frequency of holding an advisory vote on the compensation of the Company's named executive officers; and
5. To transact such other business that is properly presented at the annual meeting and any adjournments or postponements thereof.

WHO MAY VOTE:

You may vote if you were the record owner of Molecular Templates, Inc. common stock at the close of business on April 8, 2019.

A list of stockholders of record will be available at the annual meeting and, during the 10 days prior to the annual meeting, at our principal executive offices located at 9301 Amberglen Blvd., Suite 100, Austin, TX 78729.

All stockholders are cordially invited to attend the annual meeting. **Whether you plan to attend the annual meeting or not, we urge you to vote and submit your proxy by the Internet, telephone or mail in order to ensure the presence of a quorum.** You may change or revoke your proxy at any time before it is voted at the meeting.

BY ORDER OF THE BOARD OF DIRECTORS

A handwritten signature in black ink, appearing to read "Adam Cutler".

Adam Cutler
Chief Financial Officer, Treasurer and Secretary

TABLE OF CONTENTS

	<u>PAGE</u>
Important Information About the Annual Meeting and Voting	3
Security Ownership of Certain Beneficial Owners and Management	8
Section 16(a) Beneficial Ownership Reporting Compliance	12
Board of Directors, Management and Corporate Governance	13
Executive Officer and Director Compensation	23
Equity Compensation Plan Information	32
Report of Audit Committee	33
Certain Relationships and Related Person Transactions	34
Proposal No. 1 Election of Directors	38
Proposal No. 2 Ratification of Appointment of Independent Registered Public Accounting Firm	39
Proposal No. 3 Advisory Vote on Approval of Executive Compensation as Disclosed in this Proxy Statement	41
Proposal No. 4 Advisory Vote on Approval of the Frequency of Holding an Advisory Vote on The Compensation of our Named Executive Officers	42
Code of Business Conduct and Ethics	43
Other Matters	43
Stockholder Proposals and Nominations For Director	43

MOLECULAR TEMPLATES, INC.
9301 Amberglenn Blvd., Suite 100
Austin, Texas 78729
(512) 869-1555

PROXY STATEMENT FOR MOLECULAR TEMPLATES, INC.
2019 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 29, 2019

This proxy statement, along with the accompanying notice of the 2019 annual meeting of stockholders, contains information about the 2019 annual meeting of stockholders of Molecular Templates, Inc., including any adjournments or postponements of the annual meeting. We are holding the annual meeting at 8:30 a.m. ET on Wednesday, May 29, 2019, at Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311.

In this proxy statement, we refer to Molecular Templates, Inc. as “MTEM,” “the Company,” “we” and “us.”

This proxy statement relates to the solicitation of proxies by our Board of Directors (the “Board” or “the Board of Directors”) for use at the annual meeting.

On or about May 1, 2019, we began sending this proxy statement, the attached Notice of Annual Meeting of Stockholders and the enclosed proxy card to all stockholders entitled to vote at the annual meeting.

Although not part of this proxy statement, we are also sending, along with this proxy statement, our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which includes our financial statements for the fiscal year ended December 31, 2018.

EXPLANATORY NOTE

On August 1, 2017, Molecular Templates, Inc., formerly known as Threshold Pharmaceuticals, Inc. (“Threshold”), completed its business combination with Molecular Templates OpCo, Inc., or what was then known as “Molecular Templates, Inc.” (“Private Molecular”), in accordance with the terms of the Agreement and Plan of Merger and Reorganization, dated as of March 16, 2017, by and among Molecular, Trojan Merger Sub, Inc. (“Merger Sub”), our wholly owned subsidiary, and Private Molecular, pursuant to which Merger Sub merged with and into Private Molecular, with Private Molecular surviving as our wholly owned subsidiary, now “Molecular Templates OpCo, Inc.” (the “Merger”).

In this proxy statement, unless the context specifically indicates otherwise, “the Company”, “we”, “us”, “our” and “Molecular” refer to Public Molecular and its subsidiaries following the Merger, effective on August 1, 2017, and to Private Molecular and its subsidiaries prior to the Merger. References to “Pre-Merger Threshold” means Threshold prior to the Merger effective on August 1, 2017.

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE
STOCKHOLDER MEETING TO BE HELD ON WEDNESDAY, MAY 29, 2019 AT 8:30 A.M. ET**

This proxy statement and our 2018 annual report to stockholders are available electronically for viewing, printing and downloading at www.proxydocs.com/mtem. To view these materials please have your 12-digit control number(s) available that appears on your proxy card. On this website, you can also elect to receive future distributions of our proxy statements and annual reports to stockholders by electronic delivery.

Additionally, you can find a copy of our Annual Report on Form 10-K, which includes our financial statements, for the fiscal year ended December 31, 2018 on the website of the Securities and Exchange Commission, or the SEC, at www.sec.gov, or in the “SEC Filings” section of the “Investors” section of our website at www.mtem.com. You may also obtain a printed copy of our Annual Report on Form 10-K, including our financial statements, free of charge, from us by sending a written request to: Secretary, Molecular Templates, Inc., 9301 Amberglen Blvd., Suite 100, Austin, Texas 78729. Exhibits will be provided upon written request and payment of an appropriate processing fee.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Why is the Company Soliciting My Proxy?

The Board is soliciting your proxy to vote at the 2019 annual meeting of stockholders to be held at Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311, on Wednesday, May 29, 2019, at 8:30 a.m. ET and any adjournments of the meeting, which we refer to as the annual meeting. The proxy statement along with the accompanying Notice of Annual Meeting of Stockholders summarizes the purposes of the meeting and the information you need to know to vote at the Annual Meeting.

We have sent you this proxy statement, the Notice of Annual Meeting of Stockholders, the proxy card and a copy of our Annual Report on Form 10-K for the fiscal year ended 2018 because you owned shares of Molecular Templates, Inc. common stock on the record date. The Company intends to commence distribution of the proxy materials to stockholders on or about May 1, 2019.

Who Can Vote?

Only stockholders who owned our common stock at the close of business on April 8, 2019 are entitled to vote at the annual meeting. On this record date, there were 36,761,651 shares of our common stock outstanding and entitled to vote. Our common stock is our only class of voting stock.

You do not need to attend the annual meeting to vote your shares. Shares represented by valid proxies, received in time for the annual meeting and not revoked prior to the annual meeting, will be voted at the annual meeting. For instructions on how to change or revoke your proxy, see “May I Change or Revoke My Proxy?” below.

How Many Votes Do I Have?

Each share of our common stock that you own entitles you to one vote.

How Do I Vote?

Whether you plan to attend the annual meeting or not, we urge you to vote by proxy. All shares represented by valid proxies that we receive through this solicitation, and that are not revoked, will be voted in accordance with your instructions on the proxy card or as instructed via Internet or telephone. You may specify whether your shares should be voted for, against or abstain for each nominee for director, whether your shares should be voted for, against or abstain with respect to each of the other proposals and whether your shares should be voted for one year, two years, three years or abstain with respect to the frequency of voting on the compensation of our named executive officers. If you properly submit a proxy without giving specific voting instructions, your shares will be voted in accordance with the Board’s recommendations as noted below. Voting by proxy will not affect your right to attend the annual meeting. If your shares are registered directly in your name through our stock transfer agent, Computershare Trust Company, N.A., or you have stock certificates registered in your name, you may vote:

- **By Internet or by telephone.** Follow the instructions on the proxy card to vote by Internet or telephone.
- **By mail.** If you received a proxy card by mail, you can vote by mail by completing, signing, dating and returning the proxy card as instructed on the card. If you sign the proxy card but do not specify how you want your shares voted, they will be voted in accordance with the Board’s recommendations as noted below.
- **In person at the meeting.** If you attend the meeting, you may deliver a completed proxy card in person or you may vote by completing a ballot, which will be available at the meeting.

[Table of Contents](#)

[Important Information About the Annual Meeting and Voting](#)

Telephone and Internet voting facilities for stockholders of record will be available 24 hours a day and will close at 11:59 p.m. Eastern Time on May 28, 2019.

If your shares are held in “street name” (held in the name of a bank, broker or other holder of record), you will receive instructions from the holder of record. You must follow the instructions of the holder of record in order for your shares to be voted. Telephone and Internet voting also will be offered to stockholders owning shares through certain banks and brokers. If your shares are not registered in your own name and you plan to vote your shares in person at the annual meeting, you should contact your broker or agent to obtain a legal proxy or broker’s proxy card and bring it to the annual meeting in order to vote.

How Does the Board of Directors Recommend That I Vote on the Proposals?

The Board of Directors recommends that you vote as follows:

- “**FOR**” the election of the nominees for director;
- “**FOR**” the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2019;
- “**FOR**” the compensation of our named executive officers, as disclosed in this proxy statement; and
- “**FOR**” holding an advisory vote on the compensation of our named executive officers every year.

If any other matter is presented at the annual meeting, your proxy provides that your shares will be voted by the proxy holder listed in the proxy in accordance with his best judgment. At the time this proxy statement was first made available, we knew of no matters that needed to be acted on at the annual meeting, other than those discussed in this proxy statement.

May I Change or Revoke My Proxy?

If you give us your proxy, you may change or revoke it at any time before the annual meeting. You may change or revoke your proxy in any one of the following ways:

- if you received a proxy card, by signing a new proxy card with a date later than your previously delivered proxy and submitting it as instructed above;
- by re-voting by Internet or by telephone as instructed above;
- by notifying Molecular Templates, Inc.’s Secretary in writing before the annual meeting that you have revoked your proxy; or
- by attending the annual meeting in person and voting in person. Attending the annual meeting in person will not in and of itself revoke a previously submitted proxy. You must specifically request at the annual meeting that it be revoked.

Your most current vote, whether by telephone, Internet or proxy card is the one that will be counted.

What if I Receive More Than One Proxy Card?

You may receive more than one proxy card if you hold shares of our common stock in more than one account, which may be in registered form or held in street name. Please vote in the manner described above under “How Do I Vote?” for each account to ensure that all of your shares are voted.

Will My Shares be Voted if I Do Not Vote?

If your shares are registered in your name or if you have stock certificates, they will not be counted if you do not vote as described above under “How Do I Vote?” If your shares are held in street name and you do not provide voting instructions to the bank, broker or other nominee that holds your shares as described above, the bank, broker or other nominee that holds your shares has the authority to vote your unvoted shares only on the ratification of the appointment of our independent registered public accounting firm (proposal No. 2 of this proxy statement) without receiving instructions from you. Therefore, we encourage you to provide voting instructions to your bank, broker or other nominee. This ensures your shares will be voted at the annual meeting and in the manner you desire. A “broker non-vote” will occur if your broker cannot vote your shares on a particular matter because it has not received instructions from you and does not have discretionary voting authority on that matter or because your broker chooses not to vote on a matter for which it does have discretionary voting authority.

What Vote is Required to Approve Each Proposal and How are Votes Counted?

Proposal 1: Elect Directors

The affirmative vote of a majority of the votes cast with respect to each director nominee at the annual meeting is required to elect directors (the number of votes cast “for” the election of a director nominee must exceed the number of votes cast “against” such nominee). Abstentions will have no effect on the results of this vote. Brokerage firms do not have authority to vote customers’ unvoted shares held by the firms in street name for the election of directors. As a result, any shares not voted by a customer will be treated as a broker non-vote and such broker non-votes will have no effect on the results of this vote.

Proposal 2: Ratify Appointment of Independent Registered Public Accounting Firm

The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting is required to ratify the selection of our independent registered public accounting firm. Abstentions will be treated as votes against this proposal. Brokerage firms do not have authority to vote customers’ unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a broker non-vote. Such broker non-votes will have no effect on the results of this vote. We are not required to obtain the approval of our stockholders to select our independent registered public accounting firm. However, if our stockholders do not ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2019, our Audit Committee of our Board of Directors will reconsider its selection.

[Table of Contents](#)

Important Information About the Annual Meeting and Voting

Proposal 3: Approve an Advisory Vote on the Compensation of our Named Executive Officers

The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting is required to approve, on an advisory basis, the compensation of our named executive officers, as described in this proxy statement. Abstentions will be treated as votes against this proposal. Brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a broker non-vote. Such broker non-votes will have no effect on the results of this vote. Although the advisory vote is non-binding, the Compensation Committee and the Board of Directors will review the voting results and take them into consideration when making future decisions regarding executive compensation.

Proposal 4: Approve an Advisory Vote on the Frequency of Holding an Advisory Vote on the Compensation of our Named Executive Officers

The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting is required to approve, on an advisory basis, the frequency of future advisory votes on the compensation of our named executive officers. Abstentions will be treated as votes against this proposal. Brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a broker non-vote. Such broker non-votes will have no effect on the results of this vote. Although the advisory vote is non-binding, the Compensation Committee and the Board of Directors will review the voting results and take them into consideration when making future decisions regarding the frequency of future advisory votes on executive compensation.

Is Voting Confidential?

We will keep all the proxies, ballots and voting tabulations private. We only let our Inspectors of Election, a representative of Mediant Communications, Inc., examine these documents. Management will not know how you voted on a specific proposal unless it is necessary to meet legal requirements. We will, however, forward to management any written comments you make, on the proxy card or otherwise provide.

Where Can I Find the Voting Results of the Annual Meeting?

The preliminary voting results will be announced at the annual meeting, and we will publish preliminary, or final results if available, in a Current Report on Form 8-K within four business days of the annual meeting. If final results are unavailable at the time we file the Form 8-K, then we will file an amended report on Form 8-K to disclose the final voting results within four business days after the final voting results are known. In addition, we are required to file on a Current Report on Form 8-K no later than the earlier of one hundred fifty calendar days after the annual meeting or sixty calendar days prior to the

deadline for submission of stockholder proposals set forth on page 39 of this proxy statement under the heading “Stockholder Proposals and Nominations for Director” our decision on how frequently we will include a stockholder vote on the compensation of our named executive officers in our proxy materials.

What Are the Costs of Soliciting these Proxies?

We will pay all of the costs of soliciting these proxies. Our directors and employees may solicit proxies in person or by telephone, fax or email. We will pay these employees and directors no additional compensation for these services. We will ask banks, brokers and other institutions, nominees and fiduciaries to forward these proxy materials to their principals and to obtain authority to execute proxies. We will then reimburse them for their expenses.

What Constitutes a Quorum for the Annual Meeting?

The presence, in person or by proxy, of the holders of a majority of the voting power of all outstanding shares of our common stock entitled to vote at the annual meeting is necessary to constitute a quorum at the annual meeting. Votes of stockholders of record who are present at the annual meeting in person or by proxy, abstentions, and broker non-votes are counted for purposes of determining whether a quorum exists.

Attending the Annual Meeting

The annual meeting will be held at 8:30 a.m. ET on Wednesday, May 29, 2019 at our offices at Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311. When you arrive at our offices, signs will direct you to the appropriate meeting rooms. You need not attend the annual meeting in order to vote.

Householding of Annual Disclosure Documents

SEC rules concerning the delivery of annual disclosure documents allow us or your broker to send a single Notice or, if applicable, a single set of our proxy materials to any household at which two or more of our stockholders reside, if we or your broker believe that the stockholders are members of the same family. This practice, referred to as “householding,” benefits both you and us. It reduces the volume of duplicate information received at your household and helps to reduce our expenses. The rule applies to our Notices, annual reports, proxy statements and information statements. Once you receive notice from your broker or from us that communications to your address will be “household,” the practice will continue until you are otherwise notified or until you revoke your consent to the practice. Stockholders who participate in householding will continue to have access to and utilize separate proxy voting instructions.

If your household received a single Notice or, if applicable, a single set of proxy materials this year, but you would prefer to receive your own copy, please contact our transfer agent, Computershare Trust Company, N.A., by calling their toll free number, 1-888-451-0183.

If you do not wish to participate in “householding” and would like to receive your own Notice or, if applicable, set of Molecular Templates, Inc.’s proxy materials in future years, follow the instructions described below. Conversely, if you share an address with another Molecular Templates, Inc. stockholder and together both of you would like to receive only a single Notice or, if applicable, set of proxy materials, follow these instructions:

- If your Molecular Templates, Inc. shares are registered in your own name, please contact our transfer agent, Computershare Trust Company, N.A., and inform them of your request by calling them at 1-888-451-0183 or writing them at PO BOX 505000, Louisville, KY 40233-5000.
- If a broker or other nominee holds your Molecular Templates, Inc. shares, please contact the broker or other nominee directly and inform them of your request. Be sure to include your name, the name of your brokerage firm and your account number.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of April 8, 2019 for:

- the executive officers named in the Summary Compensation Table on page 21 of this proxy statement,
- each of our directors and director nominees,
- all of our current directors and executive officers as a group, and
- each stockholder known by us to own beneficially more than 5% of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. We deem shares of common stock that may be acquired by an individual or group within 60 days of April 8, 2019 pursuant to the exercise of options or warrants to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them based on information provided to us by these stockholders. Percentage of ownership is based on 36,761,651 shares of common stock outstanding on April 8, 2019.

Name and Address of Beneficial Owner**	Shares Beneficially Owned	
	Number	Percent
Five Percent Stockholders:		
BVF Partners, L.P. (1) 44 Montgomery St., 40th Floor San Francisco, California 94104	3,364,421	9.2%
Longitude Venture Partners III, L.P. (2) 2740 Sand Hill Road, 2 nd Floor Menlo Park, CA 94025	4,709,802	12.3%
Perceptive Advisors LLC (3) 51 Astor Place, 10th Floor New York, NY 10003	2,164,133	5.9%
Entities affiliated with SHV Management Services LLC (4) 300 W. 6 th Street, Suite 2300 Austin, TX 78701	8,786,100	23.9%
Takeda Pharmaceutical Company Limited (5) 35 Landsdowne Street Cambridge, MA 02139	2,922,993	8.0%

Name and Address of Beneficial Owner**	Shares Beneficially Owned	
	Number	Percent
Named Executive Officers and Directors:		
Eric E. Poma, Ph.D. (6)	753,310	2.0%
Jason S. Kim (7)	279,799	*
Adam D. Cutler (8)	109,375	*
David Hirsch, M.D. Ph.D. (9)	4,737,302	12.4%
David R. Hoffmann (10)	40,225	*
Kevin M. Lalande (11)	8,813,600	23.9%
Jonathan Lanfear	—	*
Scott Morenstein (12)	1,851,741	5.0%
Harold E. Selick (13)	376,937	1.0%
All directors and current executive officers as a group (9 persons) (14)	16,962,289	42.6%

* Represents beneficial ownership of less than 1% of the outstanding shares of our common stock.

** Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Molecular Templates, Inc., 9301 Amberglen Blvd., Suite 100, Austin TX 78729.

- (1) This information is based solely on a Schedule 13D/A filed with SEC on February 14, 2019. Consists of (i) 1,576,712 shares of common stock beneficially owned by Biotechnology Value Fund, L.P. (“BVF”), (ii) 1,241,549 shares of common stock beneficially owned by Biotechnology Value Fund II, L.P. (“BVF2”), (iii) 245,704 shares of common stock beneficially owned by Biotechnology Value Trading Fund OS LP (“Trading Fund OS”), and (iv) 300,456 shares of common stock held through certain Partners managed accounts (the “Partners Managed Accounts”). BVF Partners OS Ltd. (“Partners OS”), as the general partner of Trading Fund OS, may be deemed to beneficially own the 245,704 shares of common stock beneficially owned by Trading Fund OS. BVF Partners, L.P. (“Partners”) as the general partner of BVF, BVF2, the investment manager of Trading Fund OS, and the sole member of Partners OS, may be deemed to beneficially own the 3,364,421 shares of common stock beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and the Partners Managed Accounts. BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 3,364,421 shares of Common Stock owned by Partners. Mark N. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 3,364,421 shares of Common Stock beneficially owned by BVF Inc. The foregoing excludes (i) warrants to purchase 168,508 additional shares of common stock held by BVF (ii) warrants to purchase 108,536 additional shares of common stock held by BVF2, (iii) warrants to purchase 30,190 additional shares of common stock held by Trading Funds OS, and (iv) warrants to purchase 54,830 additional shares of Common Stock held by the Partners Managed Accounts, due to a beneficial ownership limitation. These warrants have an exercise price of \$6.8423 per share and expire on August 1, 2024, but are only exercisable to the extent that the holder, together with its affiliates and any other person or entity acting as a group, would not beneficially own more than 4.99% of the outstanding shares of Common Stock after giving effect to such exercise, as such percentage ownership

Table of Contents

Security Ownership of Certain Beneficial Owners and Management

is determined in accordance with the terms of the warrants. Partners OS disclaims beneficial ownership of the shares of Common Stock beneficially owned by Trading Fund OS. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares of common stock beneficially owned by BVF, BVF2, Trading Fund OS, and the Partners Managed Accounts.

- (2) This information is based solely on a Schedule 13D/A filed with SEC on September 26, 2018. Consists of (i) 3,261,535 shares of common stock held by Longitude Venture Partners III, L.P. (“Longitude Venture III”) and (ii) 1,448,267 shares of common stock issuable upon exercise of warrants held by Longitude Venture III. Such securities are held by Longitude Venture III and may be deemed to be beneficially owned by Longitude Capital Partners III, LLC (“Longitude Capital III”), David Hirsch, Ph.D., a member of the Company’s Board (“Dr. Hirsch”), Patrick G. Enright (“Mr. Enright”), and Juliet Tammenoms Bakker (“Ms. Bakker”). Longitude Capital III is the general partner of Longitude Venture III and may be deemed to share voting and investment power over our securities held by Longitude Venture III. Dr. Hirsch, Mr. Enright and Ms. Bakker are members of Longitude Capital III and Mr. Enright and Ms. Bakker are the managing members of Longitude Capital III, and all of them may be deemed to share voting and investment power over our securities held by Longitude Venture III. Each of Longitude Capital III, Dr. Hirsch, Mr. Enright and Ms. Bakker disclaims beneficial ownership of these securities except to the extent of its, his or her pecuniary interest therein.
- (3) This information is based solely on a Schedule 13G/A filed with SEC on February 14, 2019. Consists of (i) 1,974,133 shares of common stock held by Perceptive Life Sciences Master Fund, Ltd. (“Master Fund”) and (ii) 190,000 shares of common stock issuable upon exercise of warrants held by Perceptive Advisors LLC (“Perceptive Advisors”). Perceptive Advisors serves as the investment manager to the Master Fund and may be deemed to beneficially own the securities directly held by the Master Fund. Joseph Edelman is the managing member of Perceptive Advisors and may be deemed to beneficially own the securities directly held by the Master Fund. Each of Master Fund, Perceptive Advisors and Mr. Edelman disclaims beneficial ownership of these securities except to the extent of its, his or her pecuniary interest therein.
- (4) This information is based solely on a Schedule 13D filed with the SEC on August 14, 2017. Consists of (i) 864,665 shares of common stock held by Santé Health Ventures I Annex Fund, L.P., (ii) 4,827 shares of common stock issuable upon exercise of warrants held by Santé Health Ventures I Annex Fund, L.P., (iii) 7,897,298 shares of common stock held by Santé Health Ventures I, L.P., (iv) 19,310 shares of common stock issuable upon exercise of warrants held by Santé Health Ventures I, L.P. The securities held by Santé Health Ventures I Annex Fund, L.P. and Santé Health Ventures I, L.P. may be deemed to be beneficially owned by Kevin Lalande, a member of our Board, Joe Cunningham, M.D. and Douglas D. French, who are managing directors (the “SHV Directors”) of SHV Management Services, LLC (“SHV Management”). SHV Management is the general partner of SHV Annex Services, LP, which is the general partner of Santé Health Ventures I Annex Fund, L.P. SHV Management is also the general partner of SHV Management Services, LP, which is the general partner of Santé Health Ventures I, L.P. Each of the SHV Directors, SHV Management, SHV Annex Services, LP and SHV Management Services, LP disclaims beneficial ownership of these securities except to the extent of its or his pecuniary interest therein.
- (5) This information is based solely on a Schedule 13D filed with SEC on August 10, 2017. Consists of 2,922,993 shares of common stock held by Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited. These shares may be deemed to be beneficially owned by (i) Takeda Pharmaceutical Company Limited, (ii) Takeda Pharmaceuticals U.S.A., Inc., (iii) Takeda Pharmaceuticals International AG, (iv) Takeda Pharma A/S, (v) Takeda A/S, and (vi) Takeda Europe Holdings B.V.
- (6) Consists of 239,896 shares of common stock held by Dr. Poma and 513,414 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Poma exercisable within 60 days of April 8, 2019.

- (7) Consists of 279,799 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Kim exercisable within 60 days of April 8, 2019.
- (8) Consists of 109,375 shares of common stock issuable upon exercise of options to purchase common stock held by Mr. Cutler exercisable within 60 days of April 8, 2019.
- (9) Shares reported as beneficially owned by Dr. Hirsch consists of (i) 3,261,535 outstanding shares of common stock held directly by Longitude Venture III, (ii) 1,448,267 shares of common stock issuable upon exercise of warrants held by Longitude Venture Partners III, and (iii) 27,500 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Hirsch exercisable within 60 days of April 8, 2019. Dr. Hirsch is a member of Longitude Capital Partners III, LLC, the general partner of Longitude Venture Partners III, and therefore may be deemed to share voting and investment power over the shares held directly by Longitude Venture III. Dr. Hirsch disclaims beneficial ownership of the securities held by Longitude Venture III except to the extent of his pecuniary interest therein.
- (10) Consists of 40,225 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Hoffmann exercisable within 60 days of April 8, 2019.
- (11) Shares reported as beneficially owned by Mr. Lalande include (i) 864,665 shares of common stock held by Santé Health Ventures I Annex Fund, L.P., (ii) 4,827 shares of common stock issuable upon exercise of warrants held by Santé Health Ventures I Annex Fund, L.P., (iii) 7,897,298 shares of common stock held by Santé Health Ventures I, L.P., (iv) 19,310 shares of common stock issuable upon exercise of warrants held by Santé Health Ventures I, L.P. and (v) 27,500 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Lalande exercisable within 60 days of April 8, 2019. The securities held by Santé Health Ventures I, L.P. and Santé Health Ventures I Annex Fund, L.P. may be deemed to be beneficially owned by Mr. Lalande, who is a managing director of SHV Management Services, LLC, which is the general partner of SHV Management Services, LP, which is the general partner of Santé Health Ventures I, L.P., and SHV Annex Services, LP, which is the general partner of Santé Health Ventures I Annex Fund, L.P. As a managing director of SHV Management Services, LLC, Mr. Lalande may be deemed to share voting and investment power over these securities held by Santé Health Ventures I, L.P. and Santé Health Ventures I Annex Fund, L.P. Mr. Lalande disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein.
- (12) Shares reported as beneficially owned by Mr. Morenstein include (i) 1,559,241 shares of common stock held by CDK Associates L.L.C. (“CDK”), (ii) a warrant to purchase 506,893 shares of common stock held by CDK, and (iii) 27,500 shares of common stock issuable upon the exercise of options to purchase common stock held by Mr. Morenstein exercisable within 60 days of April 8, 2019. Mr. Morenstein, a director of the Company, is a Managing Director of Caxton Alternative Management LP, the investment manager of CDK. Mr. Morenstein disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein. The ownership of shares of common stock by CDK is subject to a 4.99% ownership blocker, pursuant to which shares of common stock may not be issued pursuant to the warrant, to the extent such issuance would cause CDK to beneficially own more than 4.99% of our outstanding common stock. The share ownership numbers and percentages for Mr. Morenstein in the table above reflect this 4.99% blocker.
- (13) Consists of 40,806 shares of our common stock held by Dr. Selick and 336,131 shares of our common stock issuable upon the exercise of options to purchase common stock within 60 days of April 8, 2019.
- (14) See footnotes (6) through (13) above.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Our records reflect that all reports which were required to be filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, as amended, were filed on a timely basis, except that (i) two reports covering an aggregate of three transactions, were filed late by Eric E. Poma, (ii) one Form 4 report covering one transaction, was filed late by Jason Kim and (iii) one Form 3 initial report of ownership was filed late by Jonathan Lanfear.

BOARD OF DIRECTORS, MANAGEMENT AND CORPORATE GOVERNANCE

The Board of Directors

Our certificate of incorporation, as amended, provides that our business is to be managed by or under the direction of a classified board of directors. The means our board of directors (our “Board” or “Board of Directors”) is divided into three classes for purposes of election, with each class having as nearly as possible an equal number of directors. One class is elected at each annual meeting of stockholders to serve for a three-year term. The term of service of each class of directors is staggered so that the term of one class expires at each annual meeting of stockholders.

Our Board currently consists of seven (7) members, classified into three classes as follows:

- Class III is comprised of David Hirsch, M.D., Ph.D., David R. Hoffmann and Kevin Lalande, with a term ending at the 2019 annual meeting of stockholders;
- Class I is comprised of Eric E. Poma, Ph.D. and Harold E. Selick, Ph.D., with a term ending at the 2020 annual meeting of stockholders; and
- Class II is comprised of Jonathan Lanfear and Scott Morenstein, with a term ending at the 2021 annual meeting of stockholders.

Our certificate of incorporation and bylaws, each as amended, provide that the authorized number of directors may be changed only by resolution of a majority of the Board of Directors. The Board of Directors make an effort to distribute additional directorships resulting from an increase in the number of directors among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our Board of Directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of our Company. Our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of our outstanding voting stock entitled to vote in the election of directors. Any vacancy on our Board of Directors, including a vacancy resulting from an enlargement of our Board of Directors, may be filled only by vote of a majority of our directors then in office.

In selecting Board members, our Board may consider many factors, such as personal and professional integrity; ethics and values; experience in corporate management, such as serving as an officer or former officer of a publicly held company; experience as a Board member or executive officer of another publicly held company; diversity of expertise and experience in substantive matters pertaining to our business relative to other Board members; and diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience.

On March 22, our Board accepted the recommendation of the Nominating and Corporate Governance Committee and voted to nominate David Hirsch, M.D., Ph.D. David R. Hoffmann and Kevin Lalande, for election at the annual meeting for a term of three years to serve until the 2022 annual meeting of stockholders, and until their respective successors have been elected and qualified.

Set forth below are the names of the persons nominated for election as directors and directors whose terms do not expire this year, their ages, their offices in the Company, if any, their principal occupations or employment for at least the past five years, the length of their tenure as directors and the names of other public companies in which such persons hold or have held directorships during the past five

Table of Contents

Board of Directors, Management and Corporate Governance

years. Additionally, information about the specific experience, qualifications, attributes or skills that led to our Board's conclusion at the time of filing of this proxy statement that each person listed below should serve as a director is set forth below:

Name	Age	Position with the Company
Eric E. Poma, Ph.D.	47	Chief Executive Officer and Chief Scientific Officer, Director
Harold E. Selick, Ph.D.	65	Chairman of the Board
David Hirsch, M.D., Ph.D.(1)(2)(3)	48	Director
David R. Hoffmann(1)	74	Director
Kevin M. Lalande(2)(3)	46	Director
Jonathan Lanfear	50	Director
Scott Morenstein(1)	43	Director

(1) *Member of the Audit Committee*

(2) *Member of the Compensation Committee*

(3) *Member of the Nominating and Corporate Governance Committee*

Nominees for Class III Directors

David Hirsch, M.D., Ph.D., age 48, has been a director of the Company since August 2017, effective as of the Merger. Since 2007, Dr. Hirsch has served as a Founder and Managing Director at Longitude Capital, where he focuses on investments in biotechnology. From 2005 to 2006, Dr. Hirsch was Vice President of Pequot Capital Management, where he worked in the life sciences practice. Prior to Pequot Capital Management, Dr. Hirsch was an Engagement Manager in the pharmaceutical practice of McKinsey & Company. While at McKinsey & Company, he worked with many large pharmaceutical companies across a range of projects including clinical and commercial strategies, M&A evaluations, portfolio prioritization and managed care strategy. Dr. Hirsch currently serves on the board of directors of Collegium Pharmaceutical, Inflazome, Poseida Therapeutics, Rapid Micro Biosystems, Inc., Tricida, Inc., and Veliccept Therapeutics, Inc., and previously served on the board of directors of Civitas Therapeutics, Inc., Precision Therapeutics, Inc. and Zavante Therapeutics, Inc. Dr. Hirsch holds a Ph.D. in Biology from the Massachusetts Institute of Technology, an M.D. from Harvard Medical School and a B.A. in Biology from The Johns Hopkins University. Our Board has concluded that Dr. Hirsch should serve as a director of the Company based on Dr. Hirsch's perspective and experience as an investor and board member in the life sciences industry, as well as his strong medical and scientific background.

David R. Hoffmann, age 74, has been a director of the Company since August 2017, effective as of the Merger, and served as a Pre-Merger director of Threshold since April 2007. Mr. Hoffmann is retired from ALZA Corporation (now a Johnson & Johnson company) where he held the positions of Vice President and Treasurer from 1992 to until his retirement in October 2002, Vice President of Finance from 1982 to 1992 and Director of Accounting/Finance from 1976 to 1982. Since 2003, Mr. Hoffmann has served as the Chief Executive Officer of Hoffmann Associates, a multi-group company specializing in cruise travel and financial and benefit consulting. He serves as Chairman of the board of directors of DURECT Corporation. Mr. Hoffmann holds a B.S. in Business Administration from the University of Colorado. Our Board has concluded that Mr. Hoffmann should serve as a director of the Company based on Mr. Hoffmann's financial expertise and industry experience. Our Board has determined that Mr. Hoffmann qualifies as an "audit committee financial expert" as defined by the rules of the SEC.

Kevin M. Lalande, age 46, has been a director of the Company since August 2017, effective as of the Merger. Mr. Lalande served on the board of directors of Private Molecular since 2009. Mr. Lalande is a founder and Managing Director of Santé Ventures, a venture capital firm. Prior to founding Santé Ventures in 2006, Mr. Lalande spent seven years with Austin Ventures. Before joining Austin Ventures, Mr. Lalande was a management consultant with McKinsey & Company. Mr. Lalande holds a B.S. in Electrical and Computer Engineering from Brigham Young University and an M.B.A. with Highest Distinction from the Harvard Business School. Our Board has concluded that Mr. Lalande should serve as a director of the Company based on his substantial experience as a venture capitalist and as a director of a number of privately-held companies.

Directors Continuing in Office

Class I Directors

Eric E. Poma, Ph.D., age 47, has been a director of the Company since August 2017, effective as of the Merger. Dr. Poma is the Chief Executive Officer and Chief Scientific Officer of the Company and founded Private Molecular in February 2009, serving on its board of directors since its inception. From March 2005 until September 2008, Dr. Poma was Vice President of Business Development of Innovive Pharmaceuticals (acquired by Cytrx Corporation), a biotechnology company. From 2001 to 2005, he served as the Associate Vice President of Business Development at ImClone Systems, Inc. (now Eli Lilly and Company), a biotechnology company focused on antibody therapeutics. As the founder of Private Molecular and in his role as Chief Scientific Officer, he led the invention of technology underlying the Company's platform technology and what constitutes the whole of the Company's current lead and preclinical pipeline candidates. Dr. Poma received his Ph.D. in Microbiology and Immunology and B.A. in Biology from the University of North Carolina at Chapel Hill and his M.B.A. from New York University. Our Board has concluded that Dr. Poma should serve as a director of the Company based on Dr. Poma's direct involvement in the creation of, and knowledge of, our technology platform and extensive experience in the industry, which provides invaluable insight to our Board on matters involving the Company and its future goals. Our Board has concluded that having the Chief Executive Officer as a director is an optimal way of ensuring the most efficient execution and development of the Company's business goals and strategies.

Harold E. "Barry" Selick, Ph.D., age 64, is chairman of the Company's Board, and has served as a director of the Company since August 2017, effective as of the Merger, and served as a Pre-Merger director of Threshold since June 2002. He is currently the Vice Chancellor of Business Development, Innovation and Partnerships at the University of California, San Francisco, a position that he has held since April 2017. Previously, Dr. Selick served as Pre-Merger Threshold's Chief Executive Officer from June 2002 until March 2017. From June 2002 until July 2007, Dr. Selick was also a Venture Partner of Sofinnova Ventures, Inc., a venture capital firm. From January 1999 to April 2002, he was Chief Executive Officer of Camitro Corporation and its wholly-owned subsidiary, Camitro UK, Ltd, biotechnology companies. From 1992 to 1999, he was at Affymax Research Institute, the drug discovery technology development center for Glaxo Wellcome plc, most recently as Vice President of Research. Prior to working at Affymax he held scientific positions at Protein Design Labs, Inc. and Anergis, Inc. As a staff scientist at Protein Design Labs, Inc. (now PDL BioPharma, Inc., or PDL) he co-invented the technology underlying the creation of fully humanized antibody therapeutics and applied that to PDL's first product, Zenapax (daclizumab), which was initially developed and commercialized by Roche for the prevention of kidney transplant rejection and more recently developed by Biogen and AbbVie and approved as Zinbryta for treatment of adults with relapsing forms of multiple sclerosis. Dr. Selick serves as lead director of PDL, a public company, and is chairman of the board of directors of Catalyst Biosciences and Protagonist Therapeutics, both public drug discovery and development companies. Dr. Selick received his B.A. in Biophysics and Ph.D. in Biology from the University of Pennsylvania and was a Damon Runyon-Walter Winchell Cancer Fund Fellow and an American Cancer Society Senior Fellow at the

[Table of Contents](#)

Board of Directors, Management and Corporate Governance

University of California, San Francisco. Our Board has concluded that Dr. Selick should serve as a director of the Company based on Dr. Selick's extensive experience and industry knowledge.

Class II Directors

Jonathan Lanfear, age 50, has been a director of the Company since May 2018. Mr. Lanfear is the Vice President and Global Head of Oncology & Neuroscience Business Development at Takeda Pharmaceuticals International. Prior to joining Takeda in December 2011, Mr. Lanfear spent approximately 8 years at Pfizer Inc. as a Senior Director and Transactions Lead in the Worldwide Business Development, Strategy, & Innovation group. Mr. Lanfear previously served in a biotechnology equity research position at AG Edwards/Wachovia and in a business development position at Searle/Pharmacia where he worked on several significant licensing transactions prior to the company's acquisition. Mr. Lanfear holds a B.S. in Chemical Engineering and a Master's degree in Bioengineering, both from the University of Michigan (Ann Arbor), and an MBA from Washington University (St. Louis). Mr. Lanfear currently serves on the board of directors of Aquinnah Pharmaceuticals, a privately-held neurodegeneration-focused company. Our Board has concluded that Mr. Lanfear should serve as a director of the Company based on Mr. Lanfear's industry perspective and experience.

Scott Morenstein, age 43, has been a director of the Company since August 2017, effective as of the Merger. Mr. Morenstein serves as Managing Director of CAM Capital, where he leads healthcare investing. CAM Capital was established in 2012 by Bruce Kovner following his retirement from Caxton Associates, the macro hedge fund he founded and managed from 1983 to 2011. Prior to joining CAM Capital in 2013, Mr. Morenstein served as Managing Director at Valence Life Sciences and before that Principal at Caxton Advantage Venture Partners, which he joined in 2007. Prior to joining Caxton Advantage, Mr. Morenstein served as an investment banking associate and founding member of Seaview Securities. Mr. Morenstein began his career at Lehman Brothers as a healthcare investment banker and equity research analyst. Mr. Morenstein has more than 15 years' experience in biopharmaceutical investing, equity research and investment banking. Mr. Morenstein led CAM's investment in and served as a director of Celator Pharmaceuticals until its acquisition by Jazz Pharmaceuticals in July 2016. He was nominated a director of Synta Pharmaceuticals to advise the company as it explored strategic alternatives ultimately leading to a merger with Madrigal Pharmaceuticals. He served as a member of Gemin X's board of directors until its acquisition by Cephalon. He currently serves as a director of Veliccept Therapeutics and Antios Therapeutics. Mr. Morenstein received an M.B.A. from Harvard Business School and a B.A. from the University of Pennsylvania with a degree in the Biological Basis of Behavior with a Concentration in the Physiology of Neural Systems. Our Board has concluded that Mr. Morenstein should serve as a director of the Company based on Mr. Morenstein's industry and financial expertise and experience.

Director Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"). Under Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our Board of Directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit

committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

Compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. In order to be considered independent for purposes of Rule 10C-1, a board must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our Board has reviewed the composition of our Board and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our Board of Directors has determined that each of our directors, with the exception of Eric E. Poma, Ph.D., is an "independent director" as defined under Rule 5606(a)(2) of the Nasdaq Listing Rules. Our Board of Directors determined that David R. Hoffmann, David Hirsch, M.D., Ph.D. and Scott Morenstein, who comprise our Audit Committee, and Kevin Lalande and David Hirsch, M.D, Ph.D., who comprise our Compensation Committee, satisfy the independence standards for such committees established by the SEC and the Nasdaq Listing Rules, as applicable. In making such determinations, our Board of Directors considered the relationships that each such non-employee director has with our Company and all other facts and circumstances our Board of Directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director. Specifically, with respect to determination of audit committee independence, the Board has determined that Dr. Hirsch, M.D., Ph.D., is independent even though he falls outside the "safe harbor" definition set forth in Rule 10A-3(e)(1)(ii) under the Exchange Act because Longitude Venture Partners III, L.P. and its affiliates own in excess of 10% of our common stock. Among other things, the board considered Dr. Hirsch's history of service and the percentage of common stock held by others, and it determined that he is not an "affiliated person" of our Company who would be ineligible to serve on the Audit Committee.

Committees of the Board of Directors and Meetings

During the fiscal year ended December 31, 2018, there were five meetings of our Board, and the various committees of the Board met a total of fourteen times. None of our directors attended fewer than 75% of the total number of meetings of the Board and of committees of the Board on which he or she served during fiscal 2018, except for Mr. Lanfear, who attended two of the four applicable meetings of the Board and committees of the Board on which Mr. Lanfear served that were held during the 2018 period after which Mr. Lanfear was appointed as a director. The Board has adopted a policy under which each member of the Board is strongly encouraged to attend each annual meeting of our stockholders. Seven directors attended our annual meeting of stockholders held in 2018.

We have established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Each of these committees operates under a charter that has been approved by our Board of Directors and satisfies the applicable rules and regulations of the SEC and the applicable listing standards of the Nasdaq Stock Market. Members will serve on these committees until their resignation or as otherwise determined by our Board of Directors.

[Table of Contents](#)

Board of Directors, Management and Corporate Governance

Audit Committee. Our Audit Committee met six times during fiscal 2018. This committee currently has three members, David R. Hoffmann (Chairman), David Hirsch, M.D., Ph.D., and Scott Morenstein. The board has determined that Mr. Hoffmann is an “audit committee financial expert,” as the SEC has defined that term in Item 407 of Regulation S-K. Please also see the report of the Audit Committee set forth elsewhere in this proxy statement. Our Audit Committee’s role and responsibilities are set forth in the Audit Committee’s written charter and include, among others:

- appointing, evaluating, retaining, overseeing, and if need be, terminating the engagement of any independent auditor;
- assessing the qualification, performance and independence of our independent auditor;
- pre-approving all audit and non-audit services to be performed by our independent auditor;
- reviewing our financial statements and related disclosures;
- reviewing the adequacy and effectiveness of our accounting and financial reporting processes, systems of internal control and disclosure controls and procedures;
- reviewing our overall risk management framework;
- overseeing procedures for the treatment of complaints on accounting, internal accounting controls, or audit matters;
- reviewing and discussing with management and the independent auditor the results of our annual audit, reviews of our quarterly financial statements and our publicly filed reports;
- reviewing and approving related person transactions; and
- preparing the audit committee report that the SEC requires in our annual proxy statement.

A copy of the Audit Committee’s written charter is publicly available on our website at www.mtem.com.

Please also see the Report of Audit Committee set forth elsewhere in this proxy statement.

Compensation Committee. Our Compensation Committee met six times during fiscal 2018. This committee currently has two members, Kevin Lalande (Chairman) and David Hirsch, M.D., Ph.D. Our Compensation Committee’s role and responsibilities are set forth in the Compensation Committee’s written charter and include:

- reviewing, approving and making recommendations regarding our compensation policies, practices and procedures to ensure that legal and fiduciary responsibilities of the Board are carried out and that such policies, practices and procedures contribute to our success;
- appointing, evaluating, retaining, overseeing, and if need be, terminating the engagement of any compensation consultant;
- evaluating and administering our equity-based plans, including our 2018 Equity Incentive Plan, 2014 Equity Incentive Plan, as amended, our 2009 Stock Plan, as amended, our 2004 Amended and Restated Equity Incentive Plan, and our Amended and Restated 2004 Employee Stock Purchase Plan; reviewing the elements and amount of total compensation for all executive officers and reviewing and approving any changes in such compensation;
- reviewing and making recommendations to our Board of Directors regarding director compensation; and

- reviewing and approving, or recommending to our Board of Directors for approval, the compensation of our chief executive officer, conducting this decision making process without the chief executive officer present.

As noted above, the Compensation Committee has the authority to directly retain the services of independent consultants and other experts to assist in fulfilling its responsibilities. The Compensation Committee has engaged the services of Haigh & Company, a national executive compensation consulting firm, to review and provide recommendations concerning all of the components of the Company's executive compensation program. Haigh & Company performs services solely on behalf of the Compensation Committee and has no relationship with the Company or management except as it may relate to performing such services. Haigh & Company assists the Committee in defining the appropriate market of the Company's peer companies for executive compensation and practices and in benchmarking our executive compensation program against the peer group each year. Haigh & Company also assists the Committee in benchmarking our director compensation program and practices against those of our peers.

The Compensation Committee has authorized Haigh & Company to interact with management on behalf of the Compensation Committee, as needed in connection with advising the Compensation Committee, and Haigh & Company is included in discussions with management and, when applicable, the Compensation Committee's outside legal counsel on matters being brought to the Compensation Committee for consideration.

It is the Compensation Committee's policy that the Chair of the Compensation Committee or the full Compensation Committee pre-approve any additional services provided to management by our independent compensation consultant. In fiscal year 2018, Haigh & Company only did work for the Compensation Committee. In compliance with the SEC and the corporate governance rules of The Nasdaq Stock Market, Haigh & Company provided the Compensation Committee with a letter addressing each of the six independence factors. Their responses affirm the independence of Haigh & Company and the partners, consultants, and employees who service the Compensation Committee on executive compensation matters and governance issues.

A copy of the Compensation Committee's written charter is publicly available on our website at www.mtem.com.

Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee met two times during fiscal 2018. The committee currently has two members, Kevin Lalande (Chairman) and David Hirsch. The Nominating and Corporate Governance Committee's responsibilities are set forth in the Nominating and Corporate Governance Committee's written charter and include:

- evaluating and making recommendations to the full Board as to the composition, organization and governance of the Board and its committees;
- evaluating and making recommendations as to director candidates;
- overseeing the evaluation of the Board;
- overseeing the process for chief executive officer and other executive officer succession planning; and
- developing and recommending the corporate governance guidelines for the Company.

Generally, our Nominating and Corporate Governance Committee considers candidates recommended by stockholders as well as from other sources such as other directors or officers, third party

[Table of Contents](#)

Board of Directors, Management and Corporate Governance

search firms or other appropriate sources. Once identified, the Nominating and Corporate Governance Committee will evaluate a candidate's qualifications in accordance with the criteria set forth in our Corporate Governance Guidelines. Our Corporate Governance Guidelines provide that the background and qualifications of the members of our Board of Directors considered as a group should provide a significant breadth of experience, knowledge, and ability to assist our Board of Directors in fulfilling its responsibilities. In considering whether to recommend any particular candidate for inclusion in our Board's slate of recommended director nominees, our Nominating and Corporate Governance Committee applies the criteria set forth in our corporate governance guidelines. Consistent with these criteria, our Nominating and Corporate Governance Committee expects every nominee to have the following attributes or characteristics: integrity, business acumen, good judgment, and a commitment to understand our business and industry. We also value experience on other public company boards of directors and board committees.

The biography for each of the director nominees included herein indicates each nominee's experience, qualifications, attributes and skills that led our Nominating and Corporate Governance Committee and our Board of Directors to conclude each such director should continue to serve as a director of our Company. Our Nominating and Corporate Governance Committee and our Board believe that each of the nominees has the individual attributes and characteristics required of each of our directors, and the nominees as a group possess the skill sets and specific experience desired of our Board as a whole.

Our Nominating and Corporate Governance Committee does not have a policy (formal or informal) with respect to diversity, but believes that our Board, taken as a whole, should embody a diverse set of skills, experiences and backgrounds. In this regard, the committee also takes into consideration the value of diversity (with respect to gender, race, national origin and other factors) of our Board members. The committee does not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors.

Stockholders may recommend individuals to our Nominating and Corporate Governance Committee for consideration as potential director candidates by following the procedures described in our Bylaws and in "Stockholder Proposals and Nominations For Director" at the end of this proxy statement. In general, persons recommended by stockholders will be considered in accordance with our Corporate Governance Guidelines. Any such recommendation should be made in writing to the Nominating and Corporate Governance Committee, care of our Corporate Secretary at our principal office and should be accompanied by the following information concerning each recommending stockholder and the beneficial owner, if any, on whose behalf the nomination is made:

- all information relating to such person that would be required to be disclosed in a proxy statement;
- certain biographical and share ownership information about the stockholder and any other proponent, including a description of any derivative transactions in the Company's securities;
- a description of certain arrangements and understandings between the proposing stockholder and any beneficial owner and any other person in connection with such stockholder nomination; and
- a statement whether or not either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of voting shares sufficient to carry the proposal.

The recommendation must also be accompanied by the following information concerning the proposed nominee:

- certain biographical information concerning the proposed nominee;
- all information concerning the proposed nominee required to be disclosed in solicitations of proxies for election of directors; and
- written consent to serving as a director if elected from the proposed nominee.

Corporate Governance Guidelines. Our Board has adopted Corporate Governance Guidelines to assist in the exercise of its duties and responsibilities and to serve the best interests of the Company and our stockholders. The guidelines provide that:

- our Board’s principal responsibility is to oversee the management of our Company;
- except as required by Nasdaq rules, a majority of the members of our Board must be independent directors;
- the independent directors meet in executive session at least twice a year;
- directors have full and free access to management and, as necessary, independent advisors; and
- our Nominating and Corporate Governance Committee will oversee periodic self-evaluations of the board to determine whether it and its committees are functioning effectively.

Copies of the Nominating and Corporate Governance Committee’s written charter and our Corporate Governance Guidelines are publicly available on the Company’s website at www.mtem.com.

Board Leadership Structure and Role in Risk Oversight

Our Corporate Governance Guidelines provide our Board with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer and/or to implement the role of Lead Independent Director in accordance with its determination that utilizing one or the other structure would be in the best interests of our Company. Our current Board leadership structure separates the positions of Chief Executive Officer and Board Chairman. The Board believes that this separation is appropriate for the organization at this time because it allows for a division of responsibilities and a sharing of ideas between individuals having different perspectives. Our Chief Executive Officer, who is also a member of our Board, is primarily responsible for our operations and strategic direction, while our Board Chairman, who is an independent member of the Board, is primarily focused on matters pertaining to corporate governance, including management oversight. While the Board believes that this is the most appropriate structure at this time, the Board retains the authority to change the Board structure, including the possibility of combining the Chief Executive Officer and Board Chairman position, if it deems such a change to be appropriate in the future.

Our Board of Director’s Role in Risk Oversight

The Board of Directors’ role in risk oversight includes receiving periodic department reports from the functional head of each department, which highlights areas of material risk identified by each department head. The report prepared by our internal program management department highlights risks that pertain to our most advanced programs, and includes the probability of risk occurrence, the likely impact of the risk and any mitigating steps being taken. In addition to providing these periodic reports, representatives from company management are typically invited to participate in Board meetings and provide updates on identified risks at such meetings. Pursuant to the Audit Committee charter, the Board has delegated to the Audit Committee the duty to inquire of management and the independent auditors about significant risks or exposures facing the company. The Audit Committee reports to the full Board the outcome of risk-related inquiries, to the extent that such risks had not been previously identified to the Board through periodic reports or at Board meetings.

Stockholder Communications to the Board

Generally, stockholders who have questions or concerns should contact our Investor Relations department at info@mtem.com. However, any stockholders who wish to address questions regarding our

[Table of Contents](#)

Board of Directors, Management and Corporate Governance

business directly with the Board, or any individual director, should direct his or her questions in writing to the Chairman of the Board at 9301 Amberglen Blvd., Suite 100, Austin, Texas 78729. Communications will be distributed to the Board, or to any individual director or directors as appropriate, depending on the facts and circumstances outlined in the communications. Items that are unrelated to the duties and responsibilities of the Board may be excluded, such as junk mail and mass mailings, resumes and other forms of job inquiries, surveys, and solicitations or advertisements.

In addition, any material that is unduly hostile, threatening, or illegal in nature may be excluded, provided that any communication that is filtered out will be made available to any outside director upon request.

Executive Officers

The following table sets forth certain information regarding our executive officers who are not also directors. We have employment agreements with all of our executive officers, and all of our executive officers are at-will employees.

Dr. Poma is a member of our Board of Directors. See "Management and Corporate Governance – The Board of Directors" for more information about Dr. Poma.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Jason S. Kim	44	President and Chief Operating Officer
Adam D. Cutler	44	Chief Financial Officer, Treasurer and Secretary

Jason S. Kim

Jason S. Kim, 44, is President and Chief Operating Officer of the Company. Mr. Kim joined Private Molecular in February 2010 and served as its President and Chief Financial Officer until the completion of the Merger. From 2009 to 2011, Mr. Kim served as Director, Business and Corporate Development for OSI Pharmaceuticals (now Astellas Pharma US, Inc.), an oncology focused biotechnology company. Prior to 2009, Mr. Kim served as an Investment Associate for Domain Associates, LLC, a venture capital firm focused on investments in the biotechnology industry. From 2003 to 2006, Mr. Kim also served as Director, Business Development for ImClone Systems Incorporated (now Eli Lilly and Company), a biotechnology company focused on antibody therapeutics. Mr. Kim received his B.A. in neuroscience and behavior from Wesleyan University and an M.B.A. from the Wharton School, University of Pennsylvania.

Adam D. Cutler

Adam D. Cutler, 44, is the Chief Financial Officer, Treasurer and Secretary of the Company since his appointment in November 2017. From March 2015 to November 2017, Mr. Cutler was Senior Vice President of Corporate Affairs for Arbutus Biopharma, where he was responsible for investor relations and contributed to the company's business development and corporate finance efforts. From June 2012 to February 2015, Mr. Cutler was a Managing Director for The Trout Group LLC and Trout Capital LLC, where he executed financings and advised public and private life science companies on investor relations and capital raising strategies. From 2000 to 2012, Mr. Cutler worked as a biotechnology equity research analyst for Credit Suisse, Canaccord Genuity, JMP Securities, and Bank of America Securities. Mr. Cutler also worked in healthcare consulting as an Analyst at The Frankel Group and a Consultant for Ernst & Young LLP. Mr. Cutler currently serves on the Board of Directors for InMed Pharmaceuticals and Navidea Biopharmaceuticals. Mr. Cutler earned his Bachelor of Arts degree in Economics from Brandeis University.

EXECUTIVE OFFICER AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table shows the total compensation paid or accrued during the last three fiscal years ended December 31, 2018, 2017 and 2016 to (1) our Chief Executive Officer, and (2) our two next most highly compensated executive officers who earned more than \$100,000 during the fiscal year ended 2018.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards \$(1)	All Other Compensation \$(2)(6)	Total (\$)
Eric E. Poma, Ph.D., <i>Chief Executive Officer and Chief Scientific Officer</i> (3)	2018	500,000	200,000	3,057,927	9,750	3,767,677
	2017	448,167	230,583	2,162,738	450	2,841,938
Jason S. Kim, <i>President and Chief Operating Officer</i> (4)	2018	390,000	127,920	1,025,157	9,250	1,552,327
	2017	357,365	143,884	1,081,369	442	1,583,060
Adam D. Cutler, <i>Chief Financial Officer</i> (5)	2018	380,000	159,060 (7)	522,610	9,250	1,070,920
	2017	51,885	72,167 (7)	1,515,375	—	1,639,427

- (1) These amounts represent the aggregate grant date fair value of options granted to each officer in 2018 computed in accordance with FASB ASC Topic 718. A discussion of the assumptions used in determining grant date fair value may be found in Note 13 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2018.
- (2) In 2018, this amount represents life insurance premiums paid, and discretionary 401k matching contributions paid by the Company. In 2017, this amount represents life insurance premiums paid.
- (3) Dr. Poma became Chief Executive Officer of the Company on August 1, 2017, effective as of the effective time of the Merger.
- (4) Mr. Kim became President and Chief Operating Officer of the Company on August 1, 2017, effective as of the effective time of the Merger.
- (5) Mr. Cutler commenced employment on November 13, 2017.
- (6) In 2018, Dr. Poma, Mr. Kim and Mr. Cutler earned other income of discretionary 401k matching contributions.
- (7) On November 30, 2017, we awarded a cash bonus of \$50,000 to Mr. Cutler, as part of a \$100,000 signing bonus, 50% of which was due and paid in fiscal year 2017, and another 50%, or \$50,000 was due and paid in fiscal year 2018. Mr. Cutler's 2017 bonus was prorated based on his start date of November 13, 2017.

Narrative Disclosure to Summary Compensation Table

Eric E. Poma, Ph.D.

Effective as of the effective time of the Merger, the Company's Board appointed Dr. Poma as Chief Executive Officer and Chief Scientific Officer of the Company. Prior to the completion of the Merger, Dr. Poma was Chief Executive Officer and Chief Scientific Officer of Private Molecular. Private Molecular entered into an employment agreement with Dr. Poma on April 22, 2016. The agreement provided for a base salary of \$412,000 and an annual cash incentive bonus targeted at between 35% to 50% of his base salary awarded at the discretion of the Company's Board. In October 2017, Dr. Poma's base salary was increased to \$500,000 effective as of August 1, 2017 and his annual cash incentive bonus target for October 1, 2017 through December 31, 2017 was changed to 50% of his new base salary. On January 31, 2018, the Company

[Table of Contents](#)

Executive Officer and Director Compensation

awarded a cash bonus of \$230,583 to Dr. Poma, which represented 103% of his target bonus. No changes were made to Dr. Poma's base salary or cash incentive bonus target in 2018. On February 6, 2019, the Company awarded a cash bonus of \$200,000 to Dr. Poma, which represents 80% of his target bonus. Dr. Poma is also eligible to participate in the employee benefit plans available to the Company's employees, subject to the terms of those plans.

The Company granted an option to purchase 275,000 shares of common stock on October 9, 2017 to Dr. Poma. This grant vests 25% on October 9, 2018, then in equal installments over the 36 following months, fully vesting on October 9, 2021. The Company granted an option to purchase 585,126 shares of common stock on May 31, 2018 to Dr. Poma. This grant vests 25% on May 31, 2019, then in equal installments over the 36 following months, fully vesting on May 31, 2022.

Dr. Poma is entitled to certain benefits in connection with a termination of his employment or a change of control as discussed below under "—Potential Payments upon Termination or Change of Control."

Jason S. Kim

Mr. Kim joined Private Molecular in February 2010 and served as its President and Chief Financial Officer until the completion of the Merger. Following the Merger, he became President and Chief Operating Officer of the Company. Private Molecular entered into an employment agreement with Mr. Kim on April 22, 2016. The agreement provided for a base salary of \$334,750 in 2017 and an annual cash incentive bonus targeted at 35% of his base salary awarded at the discretion of the Company's Board. In October 2017, Mr. Kim's base salary was increased to \$390,000 effective as of August 1, 2017 and his annual cash incentive bonus target for October 1, 2017 through December 31, 2017 was increased to 40% of his new base salary. On January 31, 2018, the Company awarded a cash bonus of \$143,884 to Mr. Kim, which represented 101% of his target bonus. No changes were made to Mr. Kim's base salary or cash incentive bonus target in 2018. On February 6, 2019, the Company awarded a cash bonus of \$127,920 to Mr. Kim, which represents 82% of his target bonus. Mr. Kim is also eligible to participate in the employee benefit plans available to the Company's employees, subject to the terms of those plans.

The Company granted an option to purchase 137,500 shares of common stock on October 9, 2017 to Mr. Kim. This grant vests 25% on October 9, 2018, then in equal installments over the 36 following months, fully vesting on October 9, 2021. The Company granted an option to purchase 196,161 shares of common stock on May 31, 2018 to Mr. Kim. These grants vest 25% on May 31, 2019, then in equal installments over the 36 following months, fully vesting on May 31, 2022.

Mr. Kim is entitled to certain benefits in connection with a termination of his employment or a change of control as discussed below under "—Potential Payments upon Termination or Change of Control."

Adam D. Cutler

The Company entered into an employment agreement with Mr. Cutler on November 13, 2017. The agreement provides for an initial base salary of \$380,000, and Mr. Cutler is eligible to receive a target discretionary annual bonus of 35% of his base salary, which was prorated for 2017. On November 30, 2017, the Company awarded a cash bonus of \$50,000 to Mr. Cutler, as part of a \$100,000 signing bonus, 50% of which was due and paid in fiscal year 2017. The remaining 50%, or \$50,000 was awarded to Mr. Cutler on May 31, 2018. On January 31, 2018, the Company awarded a cash bonus of \$22,167 to Mr. Cutler, which represents 133% of his target bonus. On February 6, 2019, the Company awarded a cash bonus of \$109,060 to Mr. Cutler, which represents 82% of his target bonus. Mr. Cutler is also eligible to participate in the employee benefit plans available to the Company's employees, subject to the terms of those plans.

In connection with the commencement of his employment, the Company granted an option to purchase 225,000 shares of common stock on November 13, 2017 to Mr. Cutler. This grant vests 25% on November 13, 2018, then in equal installments over the 36 following months, fully vesting on November 13, 2021. The Company granted an option to purchase 100,000 shares of common stock on May 31, 2018 to Mr. Cutler. This grant vests 25% on May 31, 2019, then equally over the 36 following months, fully vesting on May 31, 2022.

Mr. Cutler is entitled to certain benefits in connection with a termination of his employment or a change of control as discussed below under “—Potential Payments upon Termination or Change of Control.”

Outstanding Equity Awards at 2018 Fiscal Year-End

The following table shows grants of stock options outstanding on the last day of the fiscal year ended December 31, 2018, to each of the executive officers named in the Summary Compensation Table.

Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Option Exercise Price (\$) (e)	Option Expiration Date (f)
Eric E. Poma, Ph.D.	3,563 (1)	—	0.71	7/11/2021
	34,156 (2)	—	0.71	7/9/2022
	220,560 (3)	—	1.27	11/18/2024
	80,208 (4)	194,792	9.40	10/8/2027
	— (5)	585,126	6.31	5/30/2028
Jason S. Kim	54,136 (6)	—	0.42	3/8/2020
	32,038 (7)	—	0.71	7/11/2021
	12,089 (8)	—	0.71	7/9/2022
	78,069 (9)	—	1.27	11/18/2024
	40,104 (4)	97,396	9.40	10/8/2027
	— (5)	196,161	6.31	5/30/2028
Adam D. Cutler	60,937 (10)	164,063	8.05	11/12/2027
	— (5)	100,000	6.31	5/30/2028

- (1) On July 12, 2011, Dr. Poma was granted an option to purchase 127,904 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.50 per share. In connection with the Merger, this option was converted into an option to purchase 90,514 shares of the Company’s common stock at a per share exercise price of \$0.71. This award was fully vested on July 12, 2016.
- (2) On July 10, 2012, Dr. Poma was granted an option to purchase 48,266 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.50 per share. In connection with the Merger, this option was converted into an option to purchase 34,156 shares of the Company’s common stock at a per share exercise price of \$0.71. This award was fully vested on December 5, 2016.
- (3) On November 19, 2014, Dr. Poma was granted an option to purchase 311,670 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.90 per share. In

Table of Contents

Executive Officer and Director Compensation

- connection with the Merger, this option was converted into an option to purchase 220,560 shares of the Company's common stock at a per share exercise price of \$1.27. This award was fully vested on September 19, 2017.
- (4) Messrs. Poma and Kim were granted options to purchase 275,000 and 137,500 shares of common stock, respectively, on October 9, 2017. These awards each vested 25% on October 9, 2018, and vested and will continue to vest 2.1% monthly thereafter through October 9, 2021, provided that at the relevant vesting dates the executive continues his service to the Company.
 - (5) Dr. Poma, Mr. Kim and Mr. Cutler were granted options to purchase 585,126, 196,161 and 100,000 shares of common stock, respectively, on May 31, 2018. These awards each vest 25% on May 31, 2019, and 2.1% monthly thereafter through May 31, 2022, provided that at the relevant vesting dates the executive continues his service to the Company.
 - (6) On March 9, 2010, Mr. Kim was granted an option to purchase 76,500 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.30 per share. In connection with the Merger, this option was converted into an option to purchase 54,136 shares of the Company's common stock at a per share exercise price of \$0.42. This award was fully vested on March 20, 2013.
 - (7) On July 12, 2011, Mr. Kim was granted an option to purchase 45,273 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.50 per share. In connection with the Merger, this option was converted into an option to purchase 32,038 shares of the Company's common stock at a per share exercise price of \$0.71. This award was fully vested on July 12, 2016.
 - (8) On July 10, 2012, Mr. Kim was granted an option to purchase 17,084 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.50 per share. In connection with the Merger, this option was converted into an option to purchase 12,089 shares of the Company's common stock at a per share exercise price of \$0.71. This award was fully vested on December 5, 2016.
 - (9) On November 19, 2014, Mr. Kim was granted an option to purchase 110,319 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$0.90 per share. In connection with the Merger, this option was converted into an option to purchase 78,069 shares of the Company's common stock at a per share exercise price of \$1.27. This award was fully vested on September 19, 2017.
 - (10) Mr. Cutler was awarded an option to purchase 225,000 shares of common stock on November 13, 2017. These awards vested 25% on November 13, 2018, and 2.1% monthly thereafter through November 13, 2021, provided that at the relevant vesting dates the executive continues his service to the Company.

Option Exercises in 2018

The following table shows information regarding exercises of options to purchase our common stock held by each executive officer named in the Summary Compensation Table during the fiscal year ended December 31, 2018.

Name (a)	Option awards	
	Number of shares acquired on exercise (#) (b)	Value realized on exercise (\$)(1) (c)
Eric E. Poma, Ph.D.	239,896	1,001,539
Jason S. Kim	—	—
Adam D. Cutler	—	—

- (1) Amounts shown in this column do not necessarily represent actual value realized from the sale of the shares acquired upon exercise of options because in many cases the shares are not sold on exercise but continue to be held by the executive officer exercising the option. The amounts shown represent the difference between the option exercise price and the market price on the date of exercise, which is the amount that would have been realized if the shares had been sold immediately upon exercise.

Potential Payments upon Termination or Change-In-Control

Eric E. Poma, Ph.D.

Pursuant to Dr. Poma's employment agreement, if Dr. Poma's employment is terminated for Cause, death, Disability, or non-renewal or expiration of the employment term, or if Dr. Poma voluntarily resigns without Good Reason, he shall be entitled to: (i) his base salary through the effective date of termination; (ii) the right to continue health care benefits under COBRA, at his cost, to the extent required and available by law; (iii) reimbursement of expenses for which he is entitled to be reimbursed, but for which he has not yet been reimbursed; and (iv) no other severance or benefits of any kind, unless required by law or pursuant to any other Company plans or policies, as then in effect. "Disability" means that Dr. Poma, at the time notice is given, has been unable to substantially perform his duties under the employment agreement for not less than 120 work days within a 12 consecutive month period as a result of his incapacity due to a physical or mental condition and, if reasonable accommodation is required by law, after any reasonable accommodation.

If Dr. Poma is terminated by the Company involuntarily without Cause (excluding any termination due to death or Disability) or if Dr. Poma resigns with Good Reason, then he shall be entitled to receive: (A) his base salary through the date of termination; (B) continuing severance pay at a rate equal to 100% of his base salary, as then in effect (less applicable withholding), for a period of nine months from the date of such termination, to be paid periodically in accordance with the Company's normal payroll practices; (C) reimbursement of all expenses for which he is entitled to be reimbursed, but for which he has not yet been reimbursed; (D) the right to continue health care benefits under COBRA, at his cost, to the extent required and available by law; and (E) no other severance or benefits of any kind, unless required by law or pursuant to any written Company plans or policies, as then in effect.

As defined in Dr. Poma's employment agreement, "Cause" means (i) Dr. Poma's continued failure to substantially perform the duties and obligations under the employment agreement (for reasons other than death or Disability); (ii) the commission by Dr. Poma of (x) an act of dishonesty or act constituting common law fraud, embezzlement or a felony, or (y) any violation of federal or state law, tortious act, unlawful act or malfeasance which causes or reasonably could cause material harm to the Company's standing, condition or reputation; (iii) the Executive's violation of, or a plea of nolo contendere or guilty to, a felony under the laws of the United States or any state; or (iv) the Executive's material breach of the terms of this Agreement or the EPIA. With respect to subsection (i) above, before the Company can terminate Executive for Cause for the continued failure to substantially perform his duties, the Company must provide Executive with written notice of the grounds for Cause and provide Executive no less than thirty (30) days from the date of the notice (the "Cure Period") to cure the deficiencies in his performance and avoid termination. If Executive cures the conditions giving rise to Cause for termination within the Cure Period but the Company terminates Executive's employment during or at the end of the Cure Period, Executive will be entitled to the severance payments and/or benefits contemplated by his employment agreement.

As defined in Dr. Poma's employment agreement, "Good Reason" means, without Dr. Poma's written consent: (i) there is a material reduction in his base salary (except where there is a general reduction applicable to the management team generally), (ii) there is a material reduction in his overall responsibilities or

[Table of Contents](#)

Executive Officer and Director Compensation

authority, title, or scope of duties; (iii) a requirement by the Company that he perform an act or not perform an act that he reasonably believes violates a law, rule or regulation or constitutes fraud or violates a clear mandate of public policy or clear principle of professional ethics or (iv) a material change in the geographic location at which he must perform his services; provided, that in no instance will the relocation of Dr. Poma to a facility or a location of 50 miles or less from his then current office location be deemed material for purposes of the employment agreement.

Jason S. Kim

Pursuant to Mr. Kim's employment agreement, if Mr. Kim's employment is terminated for Cause, death, Disability, or non-renewal or expiration of the employment term, or if Mr. Kim voluntarily resigns without Good Reason, he shall be entitled to: (i) his base salary through the effective date of termination; (ii) the right to continue health care benefits under COBRA, at his cost, to the extent required and available by law; (iii) reimbursement of expenses for which he is entitled to be reimbursed, but for which he has not yet been reimbursed; and (iv) no other severance or benefits of any kind, unless required by law or pursuant to any other Company plans or policies, as then in effect. "Disability" means that Mr. Kim, at the time notice is given, has been unable to substantially perform his duties under the employment agreement for not less than 120 work days within a 12 consecutive month period as a result of his incapacity due to a physical or mental condition and, if reasonable accommodation is required by law, after any reasonable accommodation.

If Mr. Kim is terminated by the Company involuntarily without Cause (excluding any termination due to death or Disability) or if Mr. Kim resigns with Good Reason, then he shall be entitled to receive: (A) his base salary through the date of termination; (B) continuing severance pay at a rate equal to 100% of his base salary, as then in effect (less applicable withholding), for a period of nine months from the date of such termination, to be paid periodically in accordance with the Company's normal payroll practices; (C) reimbursement of all expenses for which he is entitled to be reimbursed, but for which he has not yet been reimbursed; (D) the right to continue health care benefits under COBRA, at his cost, to the extent required and available by law; and (E) no other severance or benefits of any kind, unless required by law or pursuant to any written Company plans or policies, as then in effect.

As defined in Mr. Kim's employment agreement, "Cause" means (i) Mr. Kim's continued failure to substantially perform the duties and obligations under the employment agreement (for reasons other than death or Disability); (ii) the commission by Mr. Kim of (x) an act of dishonesty or act constituting common law fraud, embezzlement or a felony, or (y) any violation of federal or state law, tortious act, unlawful act or malfeasance which causes or reasonably could cause material harm to the Company's standing, condition or reputation; (iii) the Executive's violation of, or a plea of nolo contendere or guilty to, a felony under the laws of the United States or any state; or (iv) the Executive's material breach of the terms of this Agreement or the EPIA. With respect to subsection (i) above, before the Company can terminate Executive for Cause for the continued failure to substantially perform his duties, the Company must provide Executive with written notice of the grounds for Cause and provide Executive no less than 30 days from the date of the notice (the "Cure Period") to cure the deficiencies in his performance and avoid termination. If Executive cures the conditions giving rise to Cause for termination within the Cure Period but the Company terminates Executive's employment during or at the end of the Cure Period, Executive will be entitled to the severance payments and/or benefits contemplated by his employment agreement.

As defined in Mr. Kim's employment agreement, "Good Reason" means, without Mr. Kim's written consent: (i) there is a material reduction in his base salary (except where there is a general reduction applicable to the management team generally), (ii) there is a material reduction in his overall responsibilities or authority, title, or scope of duties; (iii) a requirement by the Company that he perform an act or not perform an act that he reasonably believes violates a law, rule or regulation or constitutes fraud or violates a

clear mandate of public policy or clear principle of professional ethics or (iv) a material change in the geographic location at which he must perform his services; provided, that in no instance will the relocation of Mr. Kim to a facility or a location of 50 miles or less from his then current office location be deemed material for purposes of the employment agreement.

Adam D. Cutler

Pursuant to Mr. Cutler’s employment agreement, if Mr. Cutler’s employment is terminated by the Company for any reason other than for “cause” (as defined in the Company’s 2014 Equity Incentive Plan) or by Mr. Cutler for “good reason” (as defined in his employment agreement), he will be entitled to receive as severance (i) 100% of his base salary, as then in effect, for a period of nine months from the date of such termination, to be paid periodically in accordance with the Company’s normal payroll practices, (ii) a prorated annual target bonus for the year of termination, (iii) nine months payment of COBRA for continued health care benefits, and (iv) full acceleration of the vesting of all then outstanding equity awards. In the event that Mr. Cutler’s employment is terminated by the Company for any reason other than for “cause” or by Mr. Cutler for “good reason” three months prior or twelve months following a change in control (as defined in his employment agreement), he will be entitled to receive as severance (i) a lump sum payment equal to his base salary, as then in effect, (ii) an annual target bonus for the year of termination, and (iii) full acceleration of the vesting of all time-based outstanding equity awards.

As defined in Mr. Cutler’s employment agreement, “good reason” means, without Mr. Cutler’s written consent: (i) there is a material reduction in his Base Salary (except where there is a general reduction applicable to the management team generally); (ii) there is a material reduction in his overall responsibilities or authority, title, reporting relationships, or scope of duties; (iii) there is a requirement by the Company that he perform an act or not perform an act that he reasonably believes violates a law, rule or regulation or constitutes fraud or violates a clear mandate of public policy or clear principle of professional ethics; (iv) there is a failure by the Company to comply with any of the provisions of this letter or to pay or award any sums or awards due under this letter; or (v) there is a material change in the geographic location at which he must perform his services; provided, that in no instance will the relocation of Mr. Cutler to a facility or a location of 30 miles or less from his then current office location be deemed material for purposes of the employment agreement.

Director Compensation

The following table shows the total compensation paid or accrued during the fiscal year ended December 31, 2018 to each of non-employee director of the Company. Directors who are employed by us are not compensated for their service on our Board.

Name	Fees Earned or Paid in Cash (\$)	Option Awards \$(1)(4)	Total (\$)
Harold E. Selick, Ph.D.	70,000	76,289	146,289
Jonathan Lanfear (2)	—	—	—
David Hirsch, M.D., Ph.D.	56,500	76,289	132,789
David R. Hoffmann	55,000	76,289	131,289
Kevin Lalande (3)	58,000	76,289	134,289
Scott Morenstein	47,500	76,289	123,789

(1) These amounts represent the aggregate grant date fair value of options granted to each director in 2018 computed in accordance with FASB ASC Topic 718. A discussion of the assumptions used in

[Table of Contents](#)

Executive Officer and Director Compensation

determining grant date fair value may be found in Note 13 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2018.

- (2) Mr. Lanfear became a board member in May of 2018. Mr. Lanfear is an unpaid member of the board, and has neither earned nor received any compensation, or stock option grants to date.
- (3) Mr. Lalande is a Managing Member of SHVMS, LLC and is obligated to transfer any shares issued to him by the Company, or the economic benefits thereof, to SHVMS, LLC.
- (4) As of December 31, 2018 the aggregate number of options held by each of our non-employee directors was as follows (representing both exercisable and unexercisable option awards, none of which have been exercised):

Name	Number of Shares Underlying Outstanding Stock Options
Harold E. Selick, Ph.D.	354,994
David Hirsch, M.D., Ph.D.	40,000
David R. Hoffmann	54,543
Kevin Lalande	40,000
Scott Morenstein	40,000
Jonathan Lanfear	—

Director Compensation Policy

The following is a description of the standard compensation arrangements under which our non-employee directors are compensated for their service as directors, including as members of the various committees of our Board.

The Company generally provides its non-employee directors with cash and equity compensation for their service on the Board. The Board is responsible for considering and approving the compensation paid to the Company's non-employee directors, upon recommendation from the Compensation Committee. The Compensation Committee reviews the compensation paid to the Company's non-employee directors with input and market data provided by the Compensation Committee's outside compensation consultant. In this regard, in March 2015, the Board of Pre-Merger Threshold approved a non-employee director compensation policy, or the director compensation policy, that set forth the terms of the cash and equity compensation to be paid to the Company's non-employee directors beginning in 2015. In October 2017 and in May 2018, the Board amended and restated the director compensation policy. Directors who are also our employees, such as Dr. Poma, will not receive additional compensation for their services as directors.

On October 9, 2017 and reaffirmed on May 31, 2018, our director compensation policy was amended to establish the annual cash retainers as follows: each non-employee director is paid an annual cash retainer of \$30,000 or \$40,000 in the case of the chairman, for their services. Committee members receive additional annual cash retainers as follows:

Committee	Type of Fee	Amount (Per Year)
Audit Committee	Chair Retainer Fee	\$ 15,000
	Non-Chair Retainer Fee	\$ 7,500
Compensation Committee	Chair Retainer Fee	\$ 10,000
	Non-Chair Retainer Fee	\$ 5,000
Nominating and Corporate Governance Committee	Chair Retainer Fee	\$ 8,000
	Non-Chair Retainer Fee	\$ 4,000

Pursuant to our director compensation policy in effect since October 9, 2017 and affirmed on May 31, 2018, in each year of a non-employee director's tenure, the director is granted a nonstatutory stock option to purchase 15,000 shares of our common stock on the date of our annual meeting of stockholders, provided that such individual has served as a non-employee director for at least six months prior to the date of such annual meeting. Upon the initial election or appointment to the Board, new non-employee directors are granted a nonstatutory stock option to purchase 25,000 shares of our common stock. Each initial option grant will vest and become exercisable as to 50% of the shares of common stock subject to the option on each of the first and second anniversaries of the date of grant, subject to the non-employee director's continuous service (as defined in our director compensation policy) through such dates. Each annual option grant will vest and become exercisable on the first anniversary of the date of grant, subject to the non-employee director's continuous service through such dates. All annual and initial stock option grants to our non-employee directors under the director compensation policy fully vest immediately prior to a fundamental transaction or change in control, as such terms are defined in our director compensation policy.

Each non-employee director is entitled to reimbursement from the Company for all reasonable out-of-pocket expenses incurred by the non-employee director in connection with his or her attendance at Board and Committee meetings.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides certain aggregate information with respect to all of the Company’s equity compensation plans in effect as of December 31, 2018.

Plan category	(a)	(b)	(c)
	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders (1)	3,495,345	\$ 11.79	608,460
Equity compensation plans not approved by security holders (2)	507,654	\$ 1.11	—
Total	4,002,999	\$ 10.43	608,460

- (1) These plans consist of the 2018 Equity Incentive Plan, the 2014 Equity Incentive Plan, as amended; the 2004 Amended and Restated Equity Incentive Plan; and the Amended and Restated 2004 Employee Stock Purchase Plan. As of May 31, 2018, the 2014 Equity Incentive Plan; and the 2004 Equity Incentive Plan were terminated, and no further shares will be granted from those plans.
- (2) In August 2017, the Company assumed the Private Molecular 2009 Stock Plan as part of the Merger. The 2009 Stock Plan permits the granting to full or part-time officers, employees, directors, consultants and other key persons as selected from time to time by the administrator in its discretion of (i) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and (ii) options that do not so qualify. The option exercise price of each option is determined by the administrator but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option is fixed by the administrator and may not exceed 10 years from the date of grant. The administrator determines at what time or times each option may be exercised. In addition, the 2009 Stock Plan permits the granting of restricted stock. As of May 31, 2018, the Private Molecular 2009 Stock Plan was terminated, and no further shares will be granted from this plan.

REPORT OF AUDIT COMMITTEE

The Audit Committee of the Board, which consists entirely of directors who meet the independence and experience requirements of The Nasdaq Stock Market, has furnished the following report:

The Audit Committee assists the Board in overseeing and monitoring the integrity of our financial reporting process, compliance with legal and regulatory requirements and the quality of internal and external audit processes. This committee's role and responsibilities are set forth in our charter adopted by the Board, which is available on our website at www.mtem.com. This committee reviews and reassesses our charter annually and recommends any changes to the Board for approval. The Audit Committee is responsible for overseeing our overall financial reporting process, and for the appointment, compensation, retention, and oversight of the work of Ernst & Young LLP. In fulfilling its responsibilities for the financial statements for fiscal year 2018, the Audit Committee took the following actions:

- Reviewed and discussed the audited financial statements for the fiscal year ended 2018 with management and Ernst & Young LLP, our independent registered public accounting firm;
- Discussed with Ernst & Young LLP the matters required to be discussed in accordance with Auditing Standard No. 1301- *Communications with Audit Committees*; and
- Received written disclosures and the letter from Ernst & Young LLP regarding its independence as required by applicable requirements of the Public Company Accounting Oversight Board regarding Ernst & Young LLP communications with the Audit Committee and the Audit Committee further discussed with Ernst & Young LLP their independence. The Audit Committee also considered the status of pending litigation, taxation matters and other areas of oversight relating to the financial reporting and audit process that the committee determined appropriate.

Based on the Audit Committee's review of the audited financial statements and discussions with management and Ernst & Young LLP, the Audit Committee recommended to the Board that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 for filing with the SEC.

Members of the Molecular Templates, Inc. Audit Committee
David R. Hoffmann
David Hirsch
Scott Morenstein

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following describes transactions since January 1, 2017 to which we have been a party and in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers, or beneficial holders of more than 5% of our voting securities, or their affiliates or immediate family members, had or will have a direct or indirect material interest.

We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, from unrelated third parties. Compensation arrangements for our directors and named executive officers are described in “Executive Officer and Director Compensation.”

Underwritten Public Offering

On September 25, 2018, we closed its underwritten public offering (the “Public Offering”) of 9,430,000 shares of our common stock, which included the exercise in full by the underwriters of their option to purchase 1,230,000 additional shares of common stock, at a price to the public of \$5.50 per share, in which Longitude Venture Partners III, L.P. and CDK Associates, L.L.C., current stockholders of the Company, purchased 365,000 and 545,454 shares of common stock, respectively, at the public offering price. Scott Morenstein, a director of the Company is a Managing Director of Caxton Alternative Management LP, the investment manager of CDK Associates, L.L.C., David Hirsch, M.D., Ph.D., a director of the Company, is a member of Longitude Capital Partners III, LLC, the general partner of Longitude Venture Partners III, L.P.

Concurrent Financing

On August 1, 2017, the Company entered into a Securities Purchase Agreement with Longitude Venture Partners III, L.P., Sante Health Ventures I, L.P., Sante Health Ventures Annex Fund, L.P., Excel Venture Fund II, L.P., CDK Associates, L.L.C. and certain other accredited investors following the completion of the Merger, pursuant to which the Company sold an aggregate of 5,793,063 units having an aggregate purchase price of \$40.0 million, each such unit consisting of (i) one share of common stock of the Company and (ii) a warrant to purchase 0.50 shares of common stock of the Company. The financing was pursuant to equity commitment letter agreements entered into by and between the Company and each of the investors in March and June of 2017, and was approved by our stockholders at the annual meeting of stockholders held on July 31, 2017. The purchase price per unit was \$6.9048 (giving effect to the Reverse Split). The warrants are exercisable for a period of seven years from the date of their issuance at a per-share exercise price of \$6.8423 (which exercise price shall be payable in cash or through a “cashless” exercise mechanic), subject to certain adjustments as specified in the warrants. David Hirsch, a director of the Company, is a member of Longitude Capital Partners III, LLC, the general partner of Longitude Venture Partners III, L.P., Kevin Lalonde, a director of the Company is affiliated with Sante Health Ventures I, L.P. and Sante Health Ventures Annex Fund, L.P., and Scott Morenstein, a director of the Company is a Managing Director of Caxton Alternative Management LP, the investment manager of CDK Associates, L.L.C.

Convertible Notes

As of December 31, 2017, the Company had received an aggregate of approximately \$10.0 million from stockholders under secured convertible promissory notes (the “Notes”). All of the Notes were issued in 2017 and 2016 and had the same terms. The Notes were subordinate to the long-term debt due to Silicon Valley Bank and accrued interest at a rate of 5.0% per annum, which was due with all unpaid principal on the maturity date of September 7, 2017. In connection with the Merger, the holders of the Notes agreed to convert the Notes based on an agreed upon price of \$3.36 per share and no Notes remain outstanding at December 31, 2017. The principal of \$10.0 million and accrued interest \$486,900 was converted to 3,121,098 shares, which converted to 2,208,716 post-split shares in the merged entity. As a result, the Company recorded a loss on conversion of notes of \$4.6 million during the year ended December 31, 2017, since the agreed upon price was below the fair value of the Notes at the time of the Merger.

Takeda Equity Financing

In connection with the execution of a collaboration and license agreement between Private Molecular and Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Ltd., on June 23, 2017, Takeda entered into a stock purchase agreement with Pre-Merger Threshold and Private Molecular, pursuant to which Takeda agreed to purchase shares of common stock to occur following the consummation of the Merger and the Concurrent Financing. Pursuant to the Takeda Securities Purchase Agreement, on August 1, 2017, following the consummation of the Merger and the Concurrent Financing, the Company sold 2,922,993 shares of common stock to Takeda at a price per share of \$6.8423. Michael Broxson, was a director of the Company at the time and was the Vice President and Head of R&D Business Development for Takeda. Jonathan Lanfear, a director of the Company is the Vice President and Global Head of Oncology & Neuroscience Business Development at Takeda.

Takeda Research and Development Agreements

On September 18, 2018, the Company entered into a Development and License Agreement with Takeda (“Takeda Development and License Agreement”) for the development and commercialization of products incorporating or comprised of one or more CD38 SLT-A fusion proteins (“Licensed Products”) for the treatment of patients with diseases such as multiple myeloma. Pursuant the Takeda Development and License Agreement Takeda made an upfront payment of \$30.0 million to the Company in October 2018.

In addition to the upfront fee, if the Company exercises its co-development option and funds its share of development costs, it is eligible to receive pre-clinical and clinical development milestone payments of up to \$307.5 million, upon the achievement of certain development milestones and regulatory approvals; and sales milestone payments of up to \$325.0 million, upon the achievement of certain sales milestone events. If the Company does not exercise its co-development option, it is eligible to receive development milestone payments of up to \$162.5 million upon the achievement of certain development milestones and regulatory approvals; and sales milestone payments of up to \$175.0 million upon the achievement of certain sales milestone events. The Company will also be entitled to receive tiered royalties, subject to certain reductions, as percentages of annual aggregate net sales, if any, of Licensed Products. The royalty percentages would range from low double-digits to low twenties if the Company exercises its option to co-develop, and from high-single digits to low teens if the Company does not exercise its option to co-develop.

In June 2017, Private Molecular entered into a Multi-Target Collaboration and License Agreement with Takeda (“Takeda Multi-Target Agreement”) in which Molecular agreed to collaborate with Takeda to identify and generate ETBs, against two targets designated by Takeda. Takeda designated certain targets of

[Table of Contents](#)

Certain Relationships and Related Person Transactions

interest as the focus of the research. Each party granted to the other nonexclusive rights in its intellectual property for purposes of the conduct of the research, and Private Molecular agreed to work exclusively with Takeda with respect to the designated targets.

Under the Takeda Multi-Target Agreement, Takeda has an option during an option period to obtain an exclusive license under the Company's intellectual property to develop, manufacture, commercialize and otherwise exploit ETBs against the designated targets. The option period for each target ends three months after the completion of the evaluation of such designated target. Under the Takeda Multi-Target Agreement, both parties have the right to terminate the agreement, with a specified notice period.

In October 2016, Private Molecular entered into a collaboration and option agreement (the "Takeda Collaboration Agreement") with Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda, to discover and develop CD38-targeting engineered toxin bodies ("ETBs"), which includes MT-4019 for evaluation by Takeda. Under the terms of the Takeda Collaboration Agreement, Molecular is responsible for providing to Takeda (i) new ETBs generated using Takeda's proprietary fully human antibodies targeting CD38 and (ii) MT-4019 for in vitro and in vivo pharmacological and anti-tumor efficacy evaluations. Molecular granted Takeda (1) a background IP license during the term of the Takeda Collaboration Agreement, and (2) an exclusive option during the term of the Takeda Collaboration Agreement and for a period of thirty days thereafter, to negotiate and obtain an exclusive worldwide license to develop and commercialize any ETB that may result from this collaboration, including MT-4019.

In connection with the Takeda Collaboration Agreement, the Company entered into an Individual Project Agreement (the "Takeda Individual Project Agreement") with Takeda in June 2018, that was subsequently amended in July 2018. Under the Takeda Individual Project Agreement, the Company is responsible to perform certain research and development services relating to Chemistry, Manufacturing, and Controls ("CMC") work for three potential lead ETBs targeting CD38.

Michael Broxson, was a director of the Company at the time of entering into these research and development agreements, and was the Vice President and Head of R&D Business Development for Takeda. Jonathan Lanfear, a director of the Company is the Vice President and Global Head of Oncology & Neuroscience Business Development at Takeda.

Registration Rights Agreement

In connection with the Concurrent Financing and the subsequent consummation of the Takeda Equity Financing, the Company entered into a Registration Rights Agreement with each investor in the Concurrent Financing and Takeda, pursuant to which the Company is obligated, among other things, (i) to file a registration statement with the SEC within 45 days following the closing of the Concurrent Financing and the Takeda Equity Financing for purposes of registering the shares of common stock issued in the Concurrent Financing and the Takeda Financing and the shares of Common Stock issuable upon exercise of the warrants for resale by the Investors, (ii) use its commercially reasonable efforts to have the registration statement declared effective as soon as practicable after filing, and in any event no later than 120 days after the closing of the Concurrent Financing and Takeda Equity Financing, and (iii) maintain the registration until all registrable securities may be sold pursuant to Rule 144 under the Securities Act, without restriction as to volume. The Registration Rights Agreement contains customary terms and conditions for a transaction of this type, including certain customary cash penalties on the Registrant for its failure to satisfy specified filing and effectiveness time periods.

Threshold Promissory Note

On March 24, 2017, the Company received \$2.0 million from Threshold in the form of a promissory note at an interest rate of 1% per annum. The Company received an additional \$2.0 million on June 1, 2017. The note was settled as part of the Merger as a reduction to purchase consideration.

Indemnification Arrangements

Our Certificate of Incorporation and Bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by Delaware law. Further, we have entered into separate indemnification agreements with each of our directors and executive officers. Such agreements require us, among other things, to indemnify our directors and officers, other than for liabilities arising from willful misconduct of a culpable nature, and to advance their expenses incurred as a result of any proceedings against them as to which they could be indemnified.

Policies and Procedures for Related Party Transactions

We have adopted a written policy that requires all future transactions between us and any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of them, or any other related persons, as defined in Item 404 of Regulation S-K, or their affiliates, in which the amount involved is equal to or greater than \$120,000, be approved in advance by our Audit Committee. Any request for such a transaction must first be presented to our Audit Committee for review, consideration and approval. In approving or rejecting any such proposal, our Audit Committee is to consider the relevant facts and circumstances available and deemed relevant to the Audit Committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

Our Audit Committee reviews and approves in advance all related-party transactions.

PROPOSAL NO. 1

ELECTION OF DIRECTORS

On March 22, 2019, the Board nominated Kevin Lalande, David Hirsch, M.D., Ph.D. and David R. Hoffmann for election at the annual meeting. The Board currently consists of seven members, classified into three classes as follows: Eric E. Poma, Ph.D. and Harold E. Selick, Ph.D. constitute a class with a term ending in 2020; Kevin Lalande, David Hirsch, M.D., Ph.D. and David R. Hoffmann constitute a class with a term ending in 2019; and Jonathan Lanfear and Scott Morenstein constitute a class with a term ending in 2021. At each annual meeting of stockholders, directors are elected for a full term of three years to succeed those directors whose terms are expiring.

The Board has voted to nominate Kevin Lalande, David Hirsch, M.D., Ph.D. and David R. Hoffmann for election as Class III directors at the annual meeting for a term of three years to serve until the 2022 Annual Meeting of Stockholders, and until their respective successors are elected and qualified. The Class I directors (Eric E. Poma, Ph.D. and Harold E. Selick, Ph.D.) and the Class II directors (Jonathan Lanfear and Scott Morenstein) will serve until the Annual Meetings of Stockholders to be held in 2020 and 2021, respectively, and until their respective successors have been elected and qualified.

Unless authority to vote for any of these nominees is withheld, the shares represented by the enclosed proxy will be voted **FOR** the election as directors of Kevin Lalande, David Hirsch, M.D., Ph.D. and David R. Hoffmann. In the event that either nominee becomes unable or unwilling to serve, the shares represented by the enclosed proxy will be voted for the election of such other person as the Board may recommend in that nominee's place. We have no reason to believe that any nominee will be unable or unwilling to serve as a director.

The affirmative vote of a majority of the votes cast with respect to each director nominee at the annual meeting is required to elect each nominee as a director (the number of votes cast "for" the election of a director nominee must exceed the number of votes cast "against" such nominee).

THE BOARD OF DIRECTORS RECOMMENDS THE ELECTION OF KEVIN LALANDE, DAVID HIRSCH, M.D., PH.D. AND DAVID R. HOFFMANN AS DIRECTORS, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR THEREOF UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY.

PROPOSAL NO. 2

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed Ernst & Young LLP, as our independent registered public accounting firm, to audit our financial statements for the fiscal year ending 2019. Ernst & Young LLP has served as our independent registered public accounting firm since 2017. The Board proposes that the stockholders ratify this appointment. Ernst & Young LLP audited our financial statements for the fiscal year ended December 31, 2018. We expect that representatives of Ernst & Young LLP will be present at the annual meeting, will be able to make a statement if they so desire, and will be available to respond to appropriate questions.

In deciding to appoint Ernst & Young LLP, the Audit Committee reviewed auditor independence issues and existing commercial relationships with Ernst & Young LLP and concluded that Ernst & Young LLP has no commercial relationship with the Company that would impair its independence for the fiscal year ending December 31, 2019.

The following table presents fees for professional audit services rendered by Ernst & Young LLP for the audit of the Company's annual financial statements for the years ended December 31, 2018, and December 31, 2017, and fees billed for other services rendered by Ernst & Young LLP during those periods.

	2018	2017
Audit fees:(1)	476,000	357,535
Audit related fees:	—	—
Tax fees:	—	—
All other fees:(2)	3,000	—
Total	479,000	357,535

- (1) Audit fees consisted of audit services of the annual consolidated financial statements included in our Form 10-K, the quarterly reviews of financial statements included in our Form 10-Q filings, fees associated with SEC registration statements, and accounting consultations related to audit services.
- (2) All other fees consist principally of all other permissible work performed by Ernst & Young LLP that does not meet the above category descriptions.

The percentage of services set forth above in the categories that were approved by the Audit Committee pursuant to Rule 2-01(c)(7)(i)(C) (relating to the approval of a de minimis amount of non-audit services after the fact but before completion of the audit), was 100%.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-audit Services of Independent Public Accountant

Consistent with SEC policies regarding auditor independence, the Audit Committee has responsibility for appointing, setting compensation and overseeing the work of our independent registered public

[Table of Contents](#)

Proposal No. 2

accounting firm. In recognition of this responsibility, the Audit Committee has established a policy to pre-approve all audit and permissible non-audit services provided by our independent registered public accounting firm.

Prior to engagement of an independent registered public accounting firm for the next year's audit, management will submit an aggregate of services expected to be rendered during that year for each of four categories of services to the Audit Committee for approval.

1. **Audit** services include audit services traditionally performed by an independent registered accounting firm of the annual consolidated financial statements included in our Form 10-K, the quarterly reviews of financial statements included in our Form 10-Q filings, fees associated with SEC registration statements, assistance in responding to SEC comment letters and accounting consultations related to audit services.

2. **Audit-Related** services are for assurance and related services that are traditionally performed by an independent registered public accounting firm, including due diligence related to mergers and acquisitions, employee benefit plan audits, and special procedures required to meet certain regulatory requirements.

3. **Tax** services include all services performed by an independent registered public accounting firm's tax personnel except those services specifically related to the audit of the financial statements, and includes fees in the areas of tax compliance, tax planning, and tax advice.

4. **Other Fees** are those associated with services not captured in the other categories.

Prior to engagement, the Audit Committee pre-approves these services by category of service. The fees are budgeted and the Audit Committee requires our independent registered public accounting firm and management to report actual fees versus the budget periodically throughout the year by category of service. During the year, circumstances may arise when it may become necessary to engage our independent registered public accounting firm for additional services not contemplated in the original pre-approval. In those instances, the Audit Committee requires specific pre-approval before engaging our independent registered public accounting firm.

The Audit Committee may delegate pre-approval authority to one or more of its members. The member to whom such authority is delegated must report, for informational purposes only, any pre-approval decisions to the Audit Committee at its next scheduled meeting.

In the event the stockholders do not ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm, the Audit Committee will reconsider its appointment.

The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting is required to ratify the appointment of the independent registered public accounting firm.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE TO RATIFY THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR OF SUCH RATIFICATION UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

PROPOSAL NO. 3

ADVISORY VOTE ON APPROVAL OF EXECUTIVE COMPENSATION AS DISCLOSED IN THIS PROXY STATEMENT

We are seeking your advisory vote as required by Section 14A of the Securities Exchange Act of 1934, as amended, on the approval of the compensation of our named executive officers as described in the compensation tables and related material contained in this proxy statement. Because your vote is advisory, it will not be binding on our Compensation Committee or our Board. However, the Compensation Committee and the Board will review the voting results and take them into consideration when making future decisions regarding executive compensation. We have determined to hold an advisory vote to approve the compensation of our named executive officers annually, and we expect that the next such advisory vote will occur at the 2020 Annual Meeting of Stockholders.

Our compensation philosophy is designed to align each executive's compensation with Molecular Templates, Inc. short-term and long-term performance and to provide the compensation and incentives needed to attract, motivate and retain key executives who are crucial to our long-term success. Consistent with this philosophy, a significant portion of the total compensation opportunity for each of our executives is directly related to performance factors that measure our progress against the goals of our strategic and operating plans.

In accordance with the rules of the SEC, the following resolution, commonly known as a "say-on-pay" vote, is being submitted for a stockholder vote at the 2019 annual meeting:

"RESOLVED, that the compensation paid to the named executive officers of Molecular Templates, Inc., as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables and the related material disclosed in this proxy statement, is hereby APPROVED."

The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting is required to approve, on an advisory basis, this resolution.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR OF SUCH APPROVAL UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

PROPOSAL NO. 4

ADVISORY VOTE ON APPROVAL OF THE FREQUENCY OF HOLDING AN ADVISORY VOTE ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

The Dodd-Frank Act and Section 14A of the Exchange Act enable our stockholders, at least once every six years, to indicate their preference regarding how frequently we should solicit a say-on-pay vote. We are seeking your input with regard to the frequency of holding future stockholder advisory votes on the compensation of our named executive officers. In particular, we are asking whether the advisory vote on the compensation of our named executive officers should occur every year, every two years or every three years. Because your vote is advisory, it will not be binding on our Compensation committee or our Board. However, the Compensation committee and our Board will review the voting results and take them into consideration when making future decisions regarding how frequently it should present the advisory vote on the compensation of our named executive officers to our stockholders. Our Board has determined that an advisory vote on the compensation of our named executive officers that occurs every year is the most appropriate alternative for the Company and therefore our Board recommends that you vote for a one-year interval for the advisory vote on the compensation of our named executive officers.

The proxy card provides stockholders with the opportunity to choose among four options (holding the vote every one, two or three years, or abstaining) and, therefore, stockholders will not be voting to approve or disapprove our Board of Directors' recommendation. The affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon at the annual meeting — every year, every two years or every three years — will be the frequency approved, on an advisory basis, by our stockholders. However, because the vote on the frequency of holding future advisory votes on the compensation of our named executive officers is not binding, if none of the frequency options receives a majority vote, the option receiving the greatest number of votes will be considered the frequency preferred by our stockholders.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE TO APPROVE, ON AN ADVISORY BASIS, THE FREQUENCY OF HOLDING A VOTE ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS EVERY YEAR, AND PROXIES SOLICITED BY OUR BOARD WILL BE VOTED IN FAVOR OF SUCH FREQUENCY UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY CARD.

CODE OF BUSINESS CONDUCT AND ETHICS

We have adopted a code of business conduct and ethics that applies to all of our employees, including our chief executive officer and chief financial and accounting officers. The text of the code of conduct and ethics is posted on our website at www.mtem.com under our “Investors – Governance” page. Disclosure regarding any amendments to, or waivers from, provisions of the code of conduct and ethics that apply to our directors, principal executive officer and principal financial officer will be included in a Current Report on Form 8-K within four business days following the date of the amendment or waiver, unless website posting or the issuance of a press release of such amendments or waivers is then permitted by the rules of the Nasdaq Stock Market.

OTHER MATTERS

The Board knows of no other business which will be presented to the annual meeting. If any other business is properly brought before the annual meeting, proxies will be voted in accordance with the judgment of the persons named therein.

STOCKHOLDER PROPOSALS AND NOMINATIONS FOR DIRECTOR

To be considered for inclusion in the proxy statement relating to our 2020 Annual Meeting of Stockholders, we must receive stockholder proposals (other than for director nominations) no later than January 30, 2020, 120 days prior to the date that is one year from this year’s mailing date. To be considered for presentation at the 2020 Annual Meeting, although not included in the proxy statement, proposals (including director nominations that are not requested to be included in our proxy statement) must be received no earlier than December 31, 2019 and no later than January 30, 2020 (not less than 120 days and not more than 150 days prior to the date that is one year from this year’s mailing date). Proposals that are not received in a timely manner will not be voted on at the 2020 Annual Meeting. If a proposal is received on time, the proxies that management solicits for the meeting may still exercise discretionary voting authority on the proposal under circumstances consistent with the proxy rules of the SEC. All stockholder proposals should be marked for the attention of Adam Cutler, Secretary, Molecular Templates, Inc., 9301 Amberglen Blvd., Suite 100, Austin, Texas 78729.

Austin, Texas
April 26, 2019



ANNUAL MEETING OF MOLECULAR TEMPLATES, INC.

Date: Wednesday, May 29, 2019
Time: 08:30 A.M. Eastern Time
Place: Molecular Templates, Inc.
 Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311
 See Voting Instruction on Reverse Side.

Please make your marks like this: Use dark black pencil or pen only

The Board of Directors recommends a vote **FOR** the election of all director nominees in proposal 1, **FOR** proposals 2 and 3, and **FOR 1 YEAR** for proposal 4.

1: Election of Directors

Nominees:	For	Against	Abstain	Directors Recommend ↓
01 David Hirsch, M.D., Ph.D.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For
02 David R. Hoffmann	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For
03 Kevin Lalande	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For

2: Ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019.

For Against Abstain **For**

3: Approve on an advisory basis the compensation of the Company's named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission.

For Against Abstain **For**

4: Approve on an advisory basis the preferred frequency of future advisory votes on the compensation of the Company's named executive officers.

3 years 2 years 1 year Abstain **1 year**

If you plan to attend the meeting and vote your shares in person, please mark this box.

Authorized Signatures - This section must be completed for your Instructions to be executed.

Please Sign Here	Please Date Above
Please Sign Here	Please Date Above

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

↑ Please separate carefully at the perforation and return just this portion in the envelope provided. ↑



**Annual Meeting of Molecular Templates, Inc.
 to be held on Wednesday, May 29, 2019
 for Holders as of April 8, 2019**

This proxy is being solicited on behalf of the Board of Directors of the Company



Go To www.proxypush.com/MTEM

- Cast your vote online.
- View meeting documents.



866-307-0775

- OR**
- Use any touch-tone telephone.
 - **Have your Proxy Card/Voting Instruction Form ready.**
 - Follow the simple recorded instructions.



- OR**
- Mark, sign and date your Proxy Card/Voting Instruction Form.
 - Detach your Proxy Card/Voting Instruction Form.
 - Return your Proxy Card/Voting Instruction Form in the postage-paid envelope provided.

The undersigned, revoking any previous proxies relating to these shares, hereby appoints Eric E. Poma, Ph.D., and Adam D. Cutler, and each of them, as the true and lawful attorneys and proxies of the undersigned, with full power of substitution and revocation, and authorizes each of them to vote all the shares of capital stock of Molecular Templates, Inc. that the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED FOR THE ELECTION OF THE DIRECTOR NOMINEES IN PROPOSAL 1, FOR PROPOSALS 2 AND 3, AND FOR "1 YEAR" FOR PROPOSAL 4.

All votes must be received by 11:59 P.M., Eastern Time, May 28, 2019.

**PROXY TABULATOR FOR
 MOLECULAR TEMPLATES, INC.
 P.O. BOX 8016
 CARY, NC 27512-9903**



**Revocable Proxy — Molecular Templates, Inc.
Annual Meeting of Stockholders of the Company
Wednesday, May 29, 2019, 8:30 A.M. (Eastern Time)
This Proxy is Solicited on Behalf of the Board of Directors of the Company**

The undersigned, revoking any previous proxies relating to these shares, appoints Eric E. Poma, Ph.D., and Adam D. Cutler, each with full power of substitution, to act as proxies for the undersigned, and to vote all shares of common stock of Molecular Templates, Inc. that the undersigned is entitled to vote at the Annual Meeting of Stockholders of the Company to be held on Wednesday, May 29, 2019, at 08:30 A.M. ET at Molecular Templates, Inc., Harborside 5, 185 Hudson Street, Suite 1510, Jersey City, NJ 07311, and any and all adjournments thereof, as set forth on the reverse side hereof.

This proxy is revocable and will be voted as directed. However, if no instructions are specified, the proxy will be voted FOR the election of the director nominees specified in Proposal 1, FOR Proposals 2 and 3, and FOR “1 year” for Proposal 4.

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

↑ Please separate carefully at the perforation and return just this portion in the envelope provided. ↓