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 \Box
Chas	le sha amazani'ata hayu
Chec	k the appropriate box:
	Preliminary Proxy Statement
	Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
X	Definitive Proxy Statement
	Definitive Additional Materials
	Soliciting Material Under § 240.14a-12
	Molecular Templates, Inc. (Name of Registrant as Specified In Its Charter)
	(Name of Person(s) Filing Proxy Statement, if other than the Registrant)
Paym	nent of Filing Fee (Check the appropriate box):
X	No fee required.
	Fee paid previously with preliminary materials.
	Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules14a-6(i)(1) and 0-11.

Molecular Templates, Inc.

2023 Proxy Statement and Notice of Annual Meeting of Stockholders to be held on October 27, 2023





September 12, 2023

To Our Stockholders:

You are cordially invited to attend the 2023 annual meeting of stockholders of Molecular Templates, Inc. to be held at 10:00 a.m. Eastern Time on October 27, 2023 in a virtual meeting format. This year's annual meeting will be conducted solely via live audio webcast on the Internet. Holding a virtual meeting enables greater stockholder attendance and participation from any location around the world, improves meeting efficiency and our ability to communicate effectively with our stockholders, and reduces the cost and environmental impact of our annual meeting. In order to attend, you must register prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time at www.viewproxy.com/MTEMAM/2023. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the annual meeting and will permit you to submit questions. You will not be able to attend the annual meeting in person. Additional 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 2023. 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.

Under Securities and Exchange Commission rules that allow companies to furnish proxy materials to stockholders over the Internet, we have elected to deliver our proxy materials to our stockholders over the Internet. This delivery process allows us to provide stockholders with the information they need, while at the same time conserving natural resources and lowering the cost of delivery. On or about September 12, 2023, we intend to begin sending to our stockholders a Notice of Internet Availability of Proxy Materials (the "Internet Availability Notice") containing instructions on how to access our proxy statement for our 2023 annual meeting and our 2023 annual report to stockholders. The Internet Availability Notice also provides instructions on how to vote online or by telephone, how to access the virtual annual meeting and how to receive a paper copy of the proxy materials by mail.

We hope you will be able to attend the annual meeting. Whether or not you plan to attend the annual meeting, it is important that you cast your vote either at the time of the meeting 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 promptly by proxy so that your shares will be represented and voted at the virtual 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,

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

September 12, 2023

Notice of 2023 Annual Meeting of Stockholders

TIME: 10:00 a.m. Eastern Time

DATE: October 27, 2023

PLACE: Annual Meeting to be held live via the Internet - please visitwww.viewproxy.com/MTEMAM/2023 for more details*

PURPOSES:

- 1. To elect three directors to serve three-year terms expiring in 2026;
- To ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending 2023:
- To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in the accompanying proxy statement; and
- 4. To transact such other business that is properly presented at the annual meeting and any adjournments or postponements thereof.
- * We have determined that the annual meeting will be held in a virtual meeting format only, via the Internet, with no physicalin-person meeting. In order to attend, you must register prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time at www.viewproxy.com/MTEMAM/2023 and enter the control number included in the proxy card that you receive. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the annual meeting and will permit you to submit questions.

WHO MAY VOTE:

You may vote if you were the record owner of Molecular Templates, Inc. common stock at the close of business on September 7, 2023.

A list of stockholders of record will be available virtually during 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 virtually via the Internet. To participate in the annual meeting virtually via the Internet, please visit www.viewproxy.com/MTEMAM/2023. In order to attend, you must register in advance atwww.viewproxy.com/MTEMAM/2023 prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the meeting and to submit questions during the meeting. You will not be able to attend the annual meeting in person. Whether you plan to attend the annual meeting virtually or not, we urge you to vote by following the instructions on the Notice of Internet Availability that you previously received 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 annual meeting. If you participate in and vote your shares at the annual meeting, your proxy will not be used.

BY ORDER OF THE BOARD OF DIRECTORS

Michelle Iwamoto-Fan

Secretary

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

Proxy Statement for Molecular Templates, Inc. 2023 Annual Meeting of Stockholders to be Held on October 27, 2023

This proxy statement, along with the accompanying Notice of 2023 Annual Meeting of Stockholders (the "Notice"), contains information about the 2023 annual meeting of stockholders of Molecular Templates, Inc., including any adjournments or postponements of the annual meeting. We are holding the annual meeting at 10:00 a.m. Eastern Time on October 27, 2023 in a virtual format only.

We have determined that the annual meeting will be held virtually via live audio webcast on the Internet, with no physicaln-person meeting. You will be able to attend and participate in the annual meeting online by visiting www.viewproxy.com/MTEMAM/2023. In order to attend, you must register in advance at www.viewproxy.com/MTEMAM/2023 prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time and enter the control number included in the proxy card that you receive. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the meeting and will permit you to submit questions.

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 September 12, 2023, we will begin sending to our stockholders the Important Notice Regarding the Availability of Proxy Materials containing instructions on how to access our proxy statement for our 2023 annual meeting of stockholders and our 2022 annual report to stockholders..

Explanatory Note

On August 1, 2017, Molecular Templates, Inc. ("Public Molecular"), 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 Public 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 known as "Molecular Templates OpCo, Inc." (the "Merger").

On August 11, 2023, we effected a reverse stock split of the Company's common stock at a ratio off-for-15 (the "Reverse Split"). Unless otherwise noted, all references to share and per share amounts contained in this proxy statement reflect the Reverse Split.

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 October 27, 2023 at 10:00 a.m. Eastern Time

This proxy statement, the Notice, our form of proxy card and our 2022 annual report to stockholders are available electronically for viewing, printing and downloading at www.viewproxy.com/MTEMAM/2023. To view these materials please have your control number(s) available that appears on your Internet Availability Notice or 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 Form10-K, as amended by Form 10-K/A, which includes our financial statements, for the fiscal year ended December 31, 2022 on the website of the Securities and Exchange Commission (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, as amended by Form 10-K/A, 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 2023 annual meeting of stockholders to be held in a virtual meeting format on October 27, 2023, at 10:00 a.m. Eastern Time and any adjournments of the meeting, which we refer to as the annual meeting. This proxy statement along with the accompanying Notice summarizes the purposes of the meeting and the information you need to know to vote at the annual meeting.

We have made available to you on the Internet or have sent you this proxy statement, the Notice, the proxy card and a copy of our Annual Report on Form 10-K for the fiscal year ended 2022, as amended by Form 10-K/A, because you owned shares of our common stock on the record date. We intend to commence distribution of the Important Notice Regarding the Availability of Proxy Materials, which we refer to throughout this proxy statement as the Internet Availability Notice, and, if applicable, proxy materials to stockholders on or about September 12, 2023.

Why Did I Receive a Notice in the Mail Regarding the Internet Availability of Proxy Materials Instead of a Full Set of Proxy Materials?

As permitted by the rules of the SEC, we may furnish our proxy materials to our stockholders by providing access to such documents on the Internet, rather than mailing printed copies of these materials to each stockholder. Most stockholders will not receive printed copies of the proxy materials unless they request them. We believe that this process should expedite stockholders' receipt of proxy materials, lower the costs of the annual meeting and help to conserve natural resources. If you received the Internet Availability Notice by mail or electronically, you will not receive a printed or email copy of the proxy materials, unless you request one by following the instructions included in the Internet Availability Notice. Instead, the Internet Availability Notice instructs you as to how you may access and review all of the proxy materials and submit your proxy on the Internet. If you requested a paper copy of the proxy materials, you may authorize the voting of your shares by following the instructions on the proxy card, in addition to the other methods of voting described in this proxy statement.

How Do I Attend the Annual Meeting?

We have determined that the annual meeting will be held in a virtual meeting format only, with no physicaln-person meeting. The annual meeting will be held via live audio webcast on the Internet on October 27, 2023, starting at 10:00 a.m. Eastern Time. We have designed our virtual format to enhance, rather than constrain stockholder access, participation and communication. Stockholders may attend the annual meeting by registering at www.viewproxy.com/MTEMAM/2023. Stockholders may vote and submit questions while connected to the annual meeting. You need not attend the annual meeting in order to vote.

In order to attend the annual meeting, you must register in advance atwww.viewproxy.com/MTEMAM/2023 prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time. Upon completing your registration, you will receive further instructions via email, including your unique link that will allow you to access the annual meeting, vote online during the annual meeting and will permit you to submit questions during the annual meeting. You will also be permitted to submit questions at the time of registration. You may ask questions that are confined to matters properly presented at the annual meeting and of general Company concern.

The annual meeting will begin promptly at 10:00 a.m. Eastern Time. We encourage you to access the annual meeting prior to the start time. Online access will open approximately at 9:45 a.m. Eastern Time, and you should allow ample time to log in to the meeting and test your computer audio system. We recommend that you carefully review the procedures needed to gain admission in advance.

What Happens if There Are Technical Difficulties during the Annual Meeting?

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual annual meeting, voting at the annual meeting or submitting questions at the annual meeting. If you encounter any difficulties accessing the virtual annual meeting during the check-in or meeting time, please call the technical support number 1-866-612-8937 or e-mail virtualmeeting@viewproxy.com.

Will I be able to ask questions and have these questions answered during the Virtual Annual Meeting?

Stockholders may submit questions for the 2023 annual meeting after logging in. If you wish to submit a question, you may do so by logging into the virtual meeting platform using the unique join link and password provided after registration and typing your question into the questions/chat pane of the control panel. Please submit any questions before the start time of the meeting.

Important Information About the Annual Meeting and Voting

Appropriate questions related to the business of the 2023 annual meeting (the proposals being voted on) will be answered during the 2023 annual meeting, subject to time constraints. Additional information regarding the ability of stockholders to ask questions during the 2023 annual meeting, related to rules of conduct and other materials for the 2023 annual meeting will be available at www.viewproxy.com/MTEMAM/2023.

Who May Vote?

Only stockholders of record at the close of business on September 7, 2023 are entitled to vote at the annual meeting. On this record date, there were 5,374,168 shares of our common stock outstanding and entitled to vote. Our common stock is our only class of voting stock. Our Series A Convertible Preferred Stock does not have any voting rights.

If on September 7, 2023 your shares of our common stock were registered directly in your name with our transfer agent, Computershare Trust Company, N.A., then you are a stockholder of record.

If on September 7, 2023 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in "street name" and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. If you want to vote in person at the virtual annual meeting, you must register at www.viewproxy.com/MTEMAM/2023 prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time. You may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process. 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 virtual 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 with respect to each of the other proposals. 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.
- During the meeting. To vote during the live webcast of the annual meeting, you must first register atwww.viewproxy.com/MTEMAM/2023.
 Upon completing your registration, you will receive further instructions via email, including your unique link that will allow you access to the annual meeting and to submit questions during the annual meeting. Please be sure to follow instructions found on your proxy card and subsequent instructions that will be delivered to you via email.

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 October 26, 2023.

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 virtually at the annual meeting, you must register at www.viewproxy.com/MTEMAM/2023 prior to the deadline of October 26, 2023 at 11:59 p.m. Eastern Time. You may be instructed to obtain a legal proxy from your broker, bank or other nominee and to submit a copy in advance of the meeting. Further instructions will be provided to you as part of your registration process.

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 selection of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2023; and
- "FOR" the compensation of our named executive officers, as disclosed in this proxy statement.

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 the proxy holder's 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. None of our directors have any substantial interest in any matter to be acted upon except with respect to the directors so nominated. None of our Named Executive Officers have any substantial interest in any matter to be acted on other than Proposal No. 3.

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 virtual annual meeting and voting at the meeting. Attending the annual meeting webcast 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 certain of the proposals set forth in 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.

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 affirmatively or negatively at the annual meeting is required to elect directors. 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 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.

Important Information About the Annual Meeting and Voting

Proposal 2:

Ratify Appointment of Independent Registered Public Accounting Firm

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 ratify the selection of our independent registered public accounting firm. Abstentions will be treated as votes against this proposal. Brokerage firms have authority to vote customers' unvoted shares held by the firms in street name on this proposal and therefore there will be no broker non-votes on this proposal. 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 2023, the Audit Committee of our Board of Directors will reconsider its selection.

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.

Is Voting Confidential?

We will keep all the proxies, ballots and voting tabulations private. We only let our Inspector of Election, a representative of Alliance Advisors, 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 Form8-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.

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 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 virtually at the annual meeting, abstentions, and broker non-votes are counted for purposes of determining whether a quorum exists.

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 "householded," 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.

Important Information About the Annual Meeting and Voting

If your household received a single Notice or, if applicable, a single set of proxy materials, 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 the future, 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.

Molecular Templates, Inc. | 2023 Proxy Statement

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 August 18, 2023 for:

- · each of our named executive officers,
- · 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 August 18, 2023 pursuant to the conversion of our Series A Preferred Stock and exercise of options or warrants, each to the extent applicable, 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. Each share of our common stock is entitled to one vote on each matter considered at the Annual Meeting and shares of our Series A Preferred Stock do not have any voting rights, unless converted into common stock. 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 5,374,111 shares of common stock outstanding on August 18, 2023.

Name and Address of Beneficial Owner**	Shares Ben Own	
	Number	Percent
Five Percent Stockholders:		
Biotech Target N.V. (1)	1,029,821	19.2%
Ara Hill Top Building		
Unit A-5		
Pletterijwg Oost 1, Curacao		
Entities affiliated with BVF Partners L.P. (2)	537,410	9.9%
44 Montgomery St., 40th Floor		
San Francisco, CA 94104	506 120	0.00/
K2 HealthVentures Equity Trust LLC (3) 855 Boylston Street, 10th Floor	596,128	9.9%
Boston, MA 02116		
Entities affiliated with SHV Management Services, LLC (4)	467,463	9.0%
c/o Santé Ventures	107,105	2.070
201 West 5th Street, Suite 1500		
Austin, TX 78701		
Entities affiliated with SilverArc Capital Management, LLC (5)	354,608	6.6%
20 Park Plaza, 4th Floor		
Boston, MA 02116		
Longitude Venture Partners III, L.P. (6)	309,820	5.7%
2740 Sand Hill Road, 2nd Floor		
Menlo Park, CA 94025	202 545	7.40 /
Adage Capital Partners, L.P. (7)	292,765	5.4%
200 Clarendon Street, 52nd Floor Boston, MA 02116		
Entities affiliated with Laurence W. Lytton (8)	276,156	5.1%
467 Central Park West, 17-A	2/0,130	3.170
New York, NY 10025		

Name and Address of Beneficial Owner*

Shares Beneficially Owned

	Number	Percent
Named Executive Officers and Directors:		
Eric E. Poma, Ph.D. (9)	147,963	2.7%
Jason S. Kim (10)	60,660	1.1%
David R. Hoffmann (11)	7,120	*
Kevin Lalande (12)	488,929	9.1%
Jonathan Lanfear (13)	2,000	*
Corsee Sanders, Ph.D. (14)	4,666	*
Harold E. Selick, Ph.D. (15)	9,386	*
Gabriela Gruia, M.D. (16)	1,833	*
All directors and current executive officers as a group (8 persons) (17)	722,557	13.4%

- * 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) Consists of 1,029,821 shares of common stock held by Biotech Target N.V. BB Biotech AG is the sole stockholder of Biotech Target N.V. and may be deemed to share voting and investment power over our securities held by Biotech Target N.V. BB Biotech AG disclaims beneficial ownership of these securities except to the extent of its pecuniary interest therein.
- (2) Consists of (i) 283,991 shares of common stock held by Biotechnology Value Fund, L.P. ("BVF"), (ii) 215,721 shares of common stock held by Biotechnology Value Fund II, L.P. ("BVF2"), (iii) 24,806 shares of common stock held by Biotechnology Value Trading Fund OS LP ("Trading Fund OS"), (iv) 7,522 shares of common stock held by MSI BVF SPV, LLC ("MSI BVF"), and (v) 5,370 shares of Common Stock issuable upon exercise of pre-funded warrants held by BVF. BVF I GP LLC is the general partner of BVF. BVF II GP LLC is the general partner of BVF. BVF Partners OS Ltd. is the general partner of Trading Fund OS. BVF GP Holdings is the sole member of BVF I GP LLC and BVF II GP LLC. BVF Partners L.P. is the sole member of BVF Partners OS Ltd. and investment manager of BVF, BVF2, Trading Fund OS and MSI BVF. BVF Inc. is the general partner of BVF Partners L.P. Mark N. Lampert is director and officer of BVF Inc. Each of BVF I GP LLC, BVF Partners OS Ltd., BVF GP Holdings LLC, BVF Partners L.P. BVF Inc. and Mr. Lampert disclaims beneficial ownership of securities beneficially owned by the selling stockholders.
- (3) This information is based solely on a Schedule 13G filed with the SEC on June 16, 2023. Consists of the right to acquire within 60 days upon (i) exercise of warrants to purchase 187,861 shares of Common Stock at an exercise price of \$5.8785 per share, which warrants expire on June 16, 2033 directly held by K2 HealthVentures Equity Trust LLC ("K2HV Equity"), and (ii) exercise of a contingent value right to convert up to \$3,000,000 of the remaining balance of the Issuer's outstanding debt obligations to K2 Health Ventures LLC under the Loan and Security Agreement, dated as of May 21, 2020, into 408,267 shares of Common Stock to K2HV Equity in lieu of receiving cash payment.
- (4) Consists of (i) 57,644 shares of common stock held by Santé Health Ventures I Annex Fund, L.P., (ii) 406,486 shares of common stock held by Santé Health Ventures I, L.P., and (iii) 3,333 shares of common stock held by SHV Management Services, L.P. The securities held by Santé Health Ventures I Annex Fund, L.P. and Santé Health Ventures I, L.P. and SHVMS, LLC 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, L.P., 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, L.P., which is the general partner of Santé Health Ventures I, L.P. Each of the SHV Directors, SHV Management, SHV Annex Services, L.P. and SHV Management Services, L.P. disclaims beneficial ownership of these securities except to the extent of its or his pecuniary interest therein.
- (5) Consists of (i) 14,110 shares of Common Stock held by SilverArc Capital Alpha Fund I, L.P., (ii) 250,896 shares of Common Stock held by SilverArc Capital Alpha Fund II, L.P., and (iii) 89,602 shares of Common Stock held by Squarepoint Diversified Partners Fund Limited. SilverArc Capital Management, LLC is the controlling entity of SilverArc Capital Alpha Fund I, L.P., silverArc Capital Alpha Fund II, L.P. and Squarepoint Diversified Partners Fund Limited and is solely owned by Devesh Gandhi. Mr. Gandhi may be deemed to have shared voting and investment power of the securities managed by SilverArc Capital Management, LLC. Mr. Gandhi disclaims beneficial ownership of such securities, except to the extent of his pecuniary interest therein.
- (6) This information is based solely on a Schedule 13D/A filed with SEC on February 14, 2023. Consists of (i) 213,269 shares of common stock held by Longitude Venture Partners III, L.P. ("Longitude Venture III") and (ii) 96,551 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"), Patrick G. Enright, and Juliet Tammenoms 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. 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, Mr. Enright and Ms. Bakker disclaims beneficial ownership of these securities except to the extent of its, his or her pecuniary interest therein.
- (7) Consists of 292,765 shares of common stock held by Adage Capital Partners, L.P. Bob Atchinson and Phillip Gross are the managing members of Adage Capital Advisors, L.L.C., which is the managing member of Adage Capital Partners GP, L.L.C., which is the general partner of Adage Capital Partners, L.P., and each such person or entity, as the case may be, has shared voting and/or investment power over the securities held by Adage Capital Partners, L.P. and may be deemed the beneficial owner of such shares, and each such person or entity, as the case may be, disclaims beneficial ownership of such securities except to the extent of their respective pecuniary interest therein.

Security Ownership of Certain Beneficial Owners and Management

- (8) Consists of (i) 27,930 shares of common stock held by Laurence W. Lytton and (ii) 248,226 shares of common stock held by Lytton-Kambara Foundation. Laurence Lytton has voting and/or investment power over the shares held by Lytton-Kambara Foundation and may be deemed to be the beneficial owner of these shares. Mr. Lytton disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest therein.
- (9) Consists of (i) 18,507 shares of common stock held by Dr. Poma and (ii) 129,456 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Poma exercisable within 60 days of August 18, 2023.
- (10) Consists of (i) 6,366 shares of our common stock and (ii) 54,294 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Kim exercisable within 60 days of August 18, 2023.
- (11) Consists of 7,120 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Hoffmann exercisable within 60 days of August 18, 2023.
- (12) Shares reported as beneficially owned by Mr. Lalande include (i) 57,644 shares of common stock held by Santé Health Ventures I Annex Fund, L.P., (ii) 406,486 shares of common stock held by SHV Management Services, L.P., (iv) 14,800 shares of common stock held by SHVMS, LLC., and (v) 6,666 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Lalande exercisable within 60 days of August 18, 2023. The securities held by Santé Health Ventures I, L.P., Santé Health Ventures I Annex Fund, L.P. and SHVMS, LLC may be deemed to be beneficially owned by Mr. Lalande, who is a managing director of SHVMS, LLC and SHV Management Services, LLC. SHV Management Services, LLC 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, L.P. 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.
- (13) Consists of 2,000 shares of our common stock issuable upon the exercise of options to purchase common stock held by Mr. Lanfear exercisable within 60 days of August 18, 2023.
- (14) Consists of 4,666 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Sanders exercisable within 60 days of August 18, 2023.
- (15) Consists of (i) 2,720 shares of our common stock held by Dr. Selick and (ii) 6,666 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Selick exercisable within 60 days of August 18, 2023.
- (16) Consists of 1,833 shares of our common stock issuable upon the exercise of options to purchase common stock held by Dr. Gruia exercisable within 60 days of August 18, 2023.
- (17) See footnotes (9) through (16) above.

The Board of Directors

Our certificate of incorporation, as amended and restated, provides that our business is to be managed by or under the direction of a classified board of directors. This means our 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 I is comprised of Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D., with a term ending at the 2023 annual meeting
 of stockholders:
- · Class II is comprised of Jonathan Lanfear and Corsee Sanders, Ph.D, with a term ending at the 2024 annual meeting of stockholders; and
- · Class III is comprised of David R. Hoffmann and Kevin Lalande, with a term ending at the 2025 annual meeting of stockholders.

Our certificate of incorporation and bylaws, each as amended and restated, 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 makes 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 a majority 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 the 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 September 7, 2023 our Board accepted the recommendation of the Nominating and Corporate Governance Committee and voted to nominate Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D., for election at the annual meeting for a term of three years to serve until the 2026 annual meeting of stockholders, and until their respective successors have been elected and qualified. The non-management directors of the Board are therefore recommending Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D. for stockholders' consideration in this proxy statement.

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 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. 51	Chief Executive Officer and Chief Scientific Officer, Director
Harold E. Selick, Ph.D.(1)(2)(3) 69	Chairman of the Board
David R. Hoffmann(1) 79	Director

Name	Age	Position with the Company
Kevin Lalande(2)	51	Director
Jonathan Lanfear(1)	55	Director
Corsee Sanders, Ph.D.(2)(3)	66	Director
Gabriela Gruia M D	67	Interim Chief Medical Officer and 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 I Directors

Class I Directors

Eric E. Poma. Ph.D.

Chief Executive Officer and Chief Scientific Officer, Director

Age: 51

Director Since: 2017 Board Committees: None

Qualifications:

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. Additionally, having the Chief Executive Officer as a director is an optimal way, in the Company's opinion, of ensuring the most efficient execution and development of the Company's business goals and strategies.

Biographical Information:

Dr. Poma 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. 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.S. in Biology from the University of North Carolina at Chapel Hill and his M.B.A. from New York University.

Harold E. Selick, Ph.D.

Chairman of the Board

Age: 69

Director Since: 2017 Board Committees: Audit, Compensation, and Nominating and Corporate Governance

Qualifications:

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. In addition, Dr. Selick brings an understanding of our Company and business, previously serving as Pre-Merger Threshold's Chief Executive Officer.

Biographical Information:

Dr. Selick 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. Dr. Selick previously served as director of Amunix Pharmaceuticals, lead director and chairman of PDL Biopharma, chairman of the board of directors of Catalyst Biosciences and currently serves as chairman of the board of Protagonist Therapeutics, the latter two of which are currently 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 University of California, San Francisco.

Gabriela Gruia, M.D.

Interim Chief Medical Officer and Director

Age: 67

Director Since: 2022 Board Committees: None

Qualifications:

Our Board has concluded that Dr. Gruia should serve as a director of the Company because of her perspective and experience as a board member in the life sciences industry, as well as her strong medical, regulatory and scientific background, specifically in oncology and oncology drug development.

Biographical Information:

Dr. Gruia has been a director of the Company since 2022 and Interim Chief Medical Officer since August 2023. Dr. Gruia is an oncologist with over 25 years of experience in oncology drug development, spanning cell and gene therapy, bi-specifics, biologics, immunotherapy, and small molecules and currently serves as the Founder and Principal of Gabriela Gruia Consulting, LLC. From February 2020 to January 2021, Dr. Gruia served as Chief Development Officer at Ichnos Sciences, where she oversaw development activities for several key functions, including Clinical Development and Clinical Operations, Regulatory Sciences, Clinical Pharmacology, Toxicology, and Biostatistics. From August 2004 to February 2020, Dr. Gruia was Senior Vice President and Global Head of Regulatory Affairs for Novartis Oncology, where she led the world class oncology regulatory affairs organization and oversaw all regulatory activities in close partnership with research collaborators, preclinical development, development organization and senior management. While at Novartis, Dr. Gruia spearheaded the worldwide submission and approval of multiple new molecular entities, including Tasigna®, Jakavi®, Afinitor®, Signifor®, Zykadia®, Farydak®, Rydapt®, Odomzo®, Kisqali®, Kymriah®, Adakveo®, and Piqray®. Dr. Gruia serves as a member of the board of directors of TSCAN Therapeutics and Tessa Therapeutics Ltd. Dr. Gruia earned a doctorate in medicine from Bucharest Medical School in Romania and a Masters in Breast Pathology and Mammography from the Rene Huguenin/Curie Institute Cancer Center in Paris, France. She completed training in oncology and hematology at Rene Descartes University in Paris, France.

Directors Continuing in Office

Class II Directors

Jonathan Lanfear

Director

Age: 55

Director Since: 2018 Board Committees: Audit

Qualifications:

Our Board has concluded that Mr. Lanfear should serve as a director of the Company based on Mr. Lanfear's industry perspective and experience developed through his leadership roles with Takeda Pharmaceuticals as well as his industry consulting experience.

Biographical Information:

Mr. Lanfear has been a director of the Company since May 2018. Mr. Lanfear is currently Principal at Lanfear Advisors LLC, providing business development, corporate strategy and operational consulting to public and private sector biotech and biopharmaceutical companies. Additionally, Mr. Lanfear is currently the Chief Operating Officer of HiberCell, Inc. From December 2011 to September 2020, Mr. Lanfear was employed by Takeda Pharmaceuticals where he was Vice President and Global Head of R&D Business Development. 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 M.B.A. from Washington University (St. Louis). Mr. Lanfear previously served on the board of directors of Aquinnah Pharmaceuticals, a privately-held neurodegeneration-focused company and ARTham Therapeutics, Inc., a privately held clinical stage biopharmaceutical company focused on medicines that satisfy significant unmet medical

Corsee Sanders, Ph.D.

Director

Age: 66

Director Since: 2019 Board Committees:

Compensation and Nominating and Corporate Governance

Qualifications:

Our Board has concluded that Dr. Sanders should serve as a director of the Company based on Dr. Sanders's extensive background in pharmaceutical operations as well as her scientific and leadership experience

Biographical Information:

Dr. Sanders has been a director of the Company since December 2019. From November 2019 to February 2020, Dr. Sanders served as a Strategic Advisor to the Global Development Group of Bristol Myers Squibb. Previously, Dr. Sanders served as Strategic Advisor to the Office of the Celgene Chief Medical Officer, since March 2018 to November 2019, ensuring effective integration of Juno Therapeutics' Development Organization into the Celgene Organization, specifically the unique CAR T aspects, advising the label-enabling CAR T legacy Juno program (JCAR017®), and advising the Chief Medical Officer and the Chief Medical Officer's leadership team in evolving the clinical development organization. From January 2017 to March 2018, Dr. Sanders was a Member of the Juno Therapeutics Executive Committee as Head of Strategic and Development Operations, with responsibilities for strategic operations, quantitative sciences, biosample and clinical operations. Dr. Sanders was a Member of the Genentech/Roche Late-Stage Portfolio Committee from 2011 to 2017, and Global Head of the Genentech/Roche Late Stage Clinical Operations from 2012 to 2017, with responsibility for leading nearly 2,500 employees, across 5 strategic and 20 local country sites, in planning and conducting global development and local clinical trials in over 70 countries. Dr. Sanders has directly contributed and/or provided oversight in developing multiple approved pharmaceutical products including Claritin®, Rituxan®, Herceptin®, TNKase®, Cathflo®, Xolair, Avastin®, Tarceva®, Lucentis®, Zelboraf®, Perjeta®, Erivedge®, Gazyva®, Kadcyla®, Alecensa®, Cotellic®, Venclexta®, Tecentric®, Ocrevus®, Hemlibra®, and JCAR017®, a CAR T cell therapy for NHL. She currently serves as a member of the Board of Trustees for the Fred Hutchinson Cancer Research Center. Dr. Sanders currently serves as a director for biopharmaceutical companies, such as Ultragenyx Pharmaceuticals, Inc., Beigene, Ltd., AltruBio Inc. and Legend Biotech Corporation. Dr. Sanders earned her B.S. and M.S. in statistics, graduating Magna Cum Laude from the University of the Philippines, and her M.A. and Ph.D. in statistics from the Wharton Doctoral Program at the University of Pennsylvania.

Class III Directors

David R. Hoffmann

Director

Age: 79

Director Since: 2017 Board Committees: Audit

Qualifications:

Our Board has determined that Mr. Hoffmann qualifies as an "audit committee financial expert" as defined by the rules of the SEC. 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.

Biographical Information:

Mr. Hoffmann has been a director of the Company since August 2017, effective as of the Merger, and served as aPre-Merger director of Threshold since April 2007. Since 2002, 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.

Kevin Lalande

Director

Age: 51

Director Since: 2017 Board Committees: Compensation

Qualifications:

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 and public companies.

Biographical Information:

Mr. Lalande 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 the Managing Member of SHV Management Services, LLC, a multi-strategy investment partnership with over \$900 million in capital under management. Mr. Lalande currently serves as a director for a number of privately-held companies as well as Lumos Pharma, a publicly-traded biotechnology company, and previously served as a director for LDR Holding Corporation, now Zimmer Biomet, a publicly-traded medical device company. Mr. Lalande holds a B.S. in Electrical and Computer Engineering from Brigham Young University, an M.B.A. with Highest Distinction from the Harvard Business School, and a graduate certificate in Artificial Intelligence from Stanford University.

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Director Independence

Rule 5605 of the Nasdaq Stock Market LLC ("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 Rule10A-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 Rule10C-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 or her 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 and Gabriela Gruia, M.D., is an "independent director" as defined under Rule 5606(a)(2) of the Nasdaq Listing Rules. As such, our Board of Directors determined that each of David R. Hoffmann, Kevin Lalande, Jonathan Lanfear, Harold E. Selick, Ph.D., and Corsee Sanders, Ph.D. are independent. Our Board of Directors determined that David R. Hoffmann, Harold E. Selick, Ph.D. and Jonathan Lanfear, who comprise our Audit Committee, Harold E. Selick, Ph.D. and Corsee Sanders, Ph.D., who comprise our Nominating and Corporate Governance Committee and Kevin Lalande, Corsee Sanders, Ph.D., and Harold E. Selick, 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.

Committees of the Board of Directors and Meetings

Board Members	Audit	Compensation	Nominating and Corporate Governance
Harold E. Selick, Ph.D.	•	•	p
Jonathan Lanfear	•		
David R. Hoffmann	p		
Kevin Lalande		p	
Eric E. Poma, Ph.D.			
Corsee Sanders, Ph.D.		•	•
Gabriela Gruia, M.D.			

p Chair

Member

During the fiscal year ended December 31, 2022, there were five meetings of our Board, and the various committees of the Board met a total of ten 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 2022. The Board has adopted a policy under which each member of the Board is strongly encouraged to attend each annual meeting of our stockholders. Five of our directors attended our annual meeting of stockholders held in 2022.

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 Nasdaq. Members will serve on these committees until their resignation or as otherwise determined by our Board of Directors.

Audit Committee. Our Audit Committee met four times during fiscal year 2022. This committee currently has three members, David R. Hoffmann (Chairman), Harold E. Selick, Ph.D., and Jonathan Lanfear. All members of the Audit Committee satisfy the current independence standards promulgated by the SEC and by the listing standards of Nasdaq as such standards apply specifically to members of audit committees. 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 atwww.mtem.com.

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

Compensation Committee. Our Compensation Committee met five times during fiscal year 2022. This committee currently has three members, Kevin Lalande (Chairman), Corsee Sanders, Ph.D. and Harold E. Selick, Ph.D. All members of the Compensation Committee qualify as independent under the definition promulgated by the listing standards of Nasdaq. 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 and awards granted under such 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, as amended,
 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.

In establishing compensation amounts for executives, the Compensation Committee seeks to provide compensation that is competitive in light of current market conditions and industry practices. Accordingly, the Compensation Committee will generally review market data which is comprised of proxy-disclosed data from peer companies and information from nationally recognized published surveys for the biopharmaceutical industry. The market data helps the Compensation Committee gain perspective on the compensation levels and practices at peer companies and to assess the relative competitiveness of the compensation paid to the Company's executives. The market data thus guides the Compensation Committee in its efforts to set executive compensation levels and program targets at competitive levels for comparable roles in the marketplace. The Compensation Committee then considers other factors, such as the importance of each executive officer's role to the Company, individual expertise, experience, and performance, retention concerns and relevant compensation trends in the marketplace, in making its final compensation determinations.

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 for the Finance department of the Company and has no relationship with the Company or management except as it may relate to performing such services. Haigh & Company assists the Compensation 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 Compensation 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 Committeepre-approve any additional services provided to management by our independent compensation consultant. In fiscal year 2022, Haigh & Company did work for the Compensation Committee and for the Finance department of the Company. 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 alwww.mtem.com.

Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee met one time during fiscal year 2022. This committee currently has two members, Harold E. Selick, Ph.D., (Chairman) and Corsee Sanders, Ph.D. All members of the Nominating and Corporate Governance Committee qualify as independent under the definition promulgated by the listing standards of Nasdaq. 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 search firms or other appropriate sources. Once identified, by a third party search firm or otherwise, 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 accumen, 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. On a periodic basis, our Nominating and Corporate Governance Committee oversees the Board's annual assessments of its effectiveness, including the effectiveness of its committees, as well as the Board's annual assessments of the Board's composition and the skills each director possesses.

Our Nominating and Corporate Governance Committee has identified and continually refines a list of skills, attributes, and experiences that it believes will result in an effective, dynamic, and diverse Board. 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, our Nominating and Corporate Governance Committee also takes into consideration the value of diversity (with respect to gender, race, national origin and other factors) of our Board members. Our Nominating and Corporate Governance Committee does not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors. The table below provides certain information related to the composition of our Board. Each of the categories listed in the table below has the meaning as it is used in Nasdag Rule 5605(f) and related instructions.

Board Diversity Matrix (A	s of September 12, 2023)			
Total Number of Directors			7	
	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity				
Directors	2	4	-	1
Part II: Demographic Background				
African American or Black	-	-	-	-
Alaskan Native or Native American	-	-	-	-
Asian	1	-	-	-
Hispanic or Latinx	-	-	-	-
Native Hawaiian or Pacific Islander	-	-	-	-
White	1	4	-	-
Two or More Races or Ethnicities	-	-	-	-
LGBTQ+			-	
Did Not Disclose Demographic Background			1	

Stockholders may recommend individuals to our Nominating and Corporate Governance Committee for consideration as potential director candidates by following the procedures described in our Amended and Restated 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:

- all information concerning the proposed nominee required to be disclosed in solicitations of proxies for election of directors, including certain biographical information; 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.

The Board is committed to reviewing the Company's policies and processes in line with the objectives set forth in our Corporate Governance Guidelines. 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

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 management 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.

Policy Prohibiting Hedging

We maintain an Insider Trading Policy that prohibits our officers, directors, and employees from, among other things, engaging in speculative transactions in our securities, including by way of the purchase or sale of a put option, a call option or a short sale (including a short sale "against the box"), or engaging in hedging transactions, including prepaid variable forward contracts, equity swaps, collars and exchange funds.

Stockholder Communications to the Board

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

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Human Capital Management

As we work towards creating better therapies for our patients, we are simultaneously striving to create a better place for our employees to work and live, focusing on serving our local communities and ensuring our employees feel valued and feel as though they can bring their true and authentic selves to work every day.

Diversity, Equity & Inclusion

We believe it is through the nurturing of differing perspectives and by embracing our diversity we enhance our creativity and ultimately improve our decisions and outcomes. Beginning in 2020, we formed a Diversity, Equity, and Inclusion ("DE&I") Committee, which is an employee-led group focused on sharing insights, ideas and opinions from employees as to how to most effectively implement diversity, equity and inclusion strategies within the Company. Over the last two years, our DE&I Committee has focused on three areas: (1) fostering continued awareness of DE&I issues through celebrations of various cultural events and milestones during the year along with providing educational opportunities to our workforce through DE&I focused trainings and seminars; (2) reviewing the Company's policies with a DE&I lens, including our recruitment strategies and approaches to inclusive talent selection; and (3) reviewing our current workforce representation through analysis of our current workforce metrics to determine areas of opportunity and to establish goals with intentional efforts to improve diverse representation at all levels throughout the organization. We strive to provide a collegial atmosphere where teamwork and collaboration are emphasized and valued and aim to support all members of our community and work to ensure all employees feel welcomed, respected and capable of performing their best work. We are also a proud equal opportunity employer and cultivate a highly collaborative and entrepreneurial culture.

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Executive Officers

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

Name	Age	Position
Jason S. Kim	49	President and Chief Financial Officer

Jason S. Kim

President, Chief Financial Officer and Treasurer

Age: 49

Biographical Information:

Mr. Kim was appointed as the Company's Chief Financial Officer on August 1, 2023 and previously served as the Company's Interim Chief Financial Officer and Chief Operating Officer. Mr. Kim joined Private Molecular in February 2010 and served as its President and Chief Financial Officer until the completion of the Merger. Previously, Mr. Kim served in various corporate development, strategic planning, and commercial roles at OSI Pharmaceuticals, Inc. (now Astellas Pharma US, Inc.) and ImClone Systems, Inc. (now Eli Lilly and Company). 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.

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Executive Officer and Director Compensation

Summary Compensation Table

The following table shows the total compensation paid or accrued during the last two fiscal years ended December 31, 2022 and 2021 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 December 31, 2022.

		Salary	Bonus	Option Awards	Compensation	Total
Name and Principal Position	Year	(\$)	(\$)	(\$)(1)	(\$)(2)	(\$)
Eric E. Poma, Ph.D., Chief Executive Officer and Chief Scientific Officer(3)	2022	600,000	313,500	624,000	9,840	1,547,340
	2021	576,780	253,800	3,544,680	9,090	4,384,350
Jason S. Kim, President, Chief Financial Officer and Treasurer(4)	2022	443,200	189,468	260,000	7,178	899,846
	2021	424,644	168,800	1,476,950	6,971	2,077,364
Roger J. Waltzman, M.D., Former Chief Medical Officer (5)	2022	456,000	173,280	260,000	10,440	899,720
	2021	432,576	152,300	1,476,950	9,298	2,071,124

- (1) These amounts represent the aggregate grant date fair value of options granted to each officer in 2022 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 12 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2022.
- (2) This amount represents life insurance premiums paid, discretionary 401k matching contributions paid by the Company and cell phone allowances.
- (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, Chief Financial Officer and Treasurer of the Company on August 1, 2023.
- (5) Dr. Waltzman resigned from his position as Chief Medical Officer, effective as of August 4, 2023.

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 provides for a base salary, which may be modified from time to time at the discretion of the Company's Board, and an annual cash incentive bonus awarded at the discretion of the Company's Board. No changes were made to Dr. Poma's cash incentive bonus target in 2021. On January 29, 2021, the Company awarded a cash bonus of \$252,000 to Dr. Poma, which represented 90% of his target bonus of 50% of his base salary and increased his base salary to \$576,800 effective as of January 1, 2021. On January 31, 2022, the Company awarded a cash bonus of \$253,800 to Dr. Poma, which represented 88% of his target bonus of 50% of his base salary and increased his base salary to \$600,000 effective as of January 1, 2022. In 2022, Dr. Poma's cash incentive bonus target was increased to 55% of his base salary. On January 25, 2023, the Company awarded a cash bonus of \$313,500 to Dr. Poma, which represented 95% of his target bonus of 55% of his base salary and increased his base salary to \$621,000 effective as of January 1, 2023. No changes were made to Dr. Poma's cash incentive bonus target in 2023. 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 19,999 shares of common stock on February 15, 2021 to Dr. Poma. This grant vests 25% on February 15, 2022, then in equal installments over the 36 following months, fully vesting on February 15, 2025. The Company granted an option to purchase 19,999 shares of common stock on February 15, 2022 to Dr. Poma. This grant vests 25% on February 15, 2023, then in equal installments over the 36 following months, fully vesting on February 15, 2026. The Company granted an option to purchase 26,666 shares of common stock on February 15, 2023 to Dr. Poma. This grant vests 25% on February 15, 2024, then in equal installments over the 36 following months, fully vesting on February 15, 2027.

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-In-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 and effective as of January 5, 2023, he became Interim Chief Financial Officer and Treasurer in addition to his role as President and Chief Operating Officer of the Company. Effective as of August 1, 2023, Mr. Kim became President, Chief Financial Officer and Treasurer of the Company. Private Molecular entered into an employment agreement with Mr. Kim on April 22, 2016. The agreement provides for a base salary, which may be modified from time to time at the discretion of the Company's Board, and an annual cash incentive bonus awarded at the discretion of the Company's Board.

No changes were made to Mr. Kim's cash incentive bonus target in 2022 or 2021. On January 29, 2021, the Company awarded a cash bonus of \$167,600 to Mr. Kim, which represented 90% of his target bonus of 45% of his base salary and increased his base salary to \$426,200 effective as of January 1, 2021. On January 31, 2022, the Company awarded a cash bonus of \$168,800 to Mr. Kim, which represented 88% of his target bonus of 45% of his base salary and increased his base salary to \$443,200 effective as of January 1, 2022. On January 25, 2023, the Company awarded a cash bonus of \$189,468 to Mr. Kim, which represented 95% of his target bonus of 45% of his base salary and increased his base salary to \$458,712 effective as of January 1, 2023. 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 8,332 shares of common stock on February 15, 2021 to Mr. Kim. This grant vests 25% on February 15, 2022, then in equal installments over the 36 following months, fully vesting on February 15, 2025. The Company granted an option to purchase 8,332 shares of common stock on February 15, 2022 to Mr. Kim. This grant vests 25% on February 15, 2023, then in equal installments over the 36 following months, fully vesting on February 15, 2026. The Company granted an option to purchase 11,333 shares of common stock on February 15, 2023 to Mr. Kim. This grant vests 25% on February 15, 2024, then in equal installments over the 36 following months, fully vesting on February 15, 2027.

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-In-Control."

Roger J. Waltzman, M.D.

The Company entered into an employment agreement with Dr. Waltzman on January 3, 2019. The agreement provided for an initial base salary of \$400,000, and Dr. Waltzman was eligible to receive a target discretionary annual bonus of 40% of his base salary. Dr. Waltzman's cash incentive bonus target remained the same for 2022 and 2021. On January 29, 2021, the Company awarded a cash bonus of \$151,200 to Dr. Waltzman, which represented 90% of his target bonus of 40% of his base salary and increased his base salary to \$432,600 effective as of January 1, 2021. On January 31, 2022, the Company awarded a cash bonus of \$152,300 to Dr. Waltzman, which represented 88% of his target bonus of 40% of his base salary and increased his base salary to \$456,000 effective as of January 1, 2022. On January 25, 2023, the Company awarded a cash bonus of \$173,280 to Dr. Waltzman, which represented 95% of his target bonus of 40% of his base salary and increased his base salary to \$471,960 effective as of January 1, 2023. Dr. Waltzman was 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 8,332 shares of common stock on February 15, 2021 to Dr. Waltzman. This grant vests 25% on February 15, 2022, then in equal installments over the 36 following months, fully vesting on February 15, 2025. The Company granted an option to purchase 8,332 shares of common stock on February 15, 2022 to Dr. Waltzman. This grant vested 25% on February 15, 2023, then in equal installments over the 36 following months, fully vesting on February 15, 2026. The Company granted an option to purchase 11,333 shares of common stock on February 15, 2023 to Dr. Waltzman. This grant vests 25% on February 15, 2024, then in equal installments over the 36 following months, fully vesting on February 15, 2027.

Dr. Waltzman resigned from his position as Chief Medical Officer effective as of August 4, 2023. No additional compensation was paid to Dr. Waltzman in connection with his resignation. The Company has entered into a Consulting Agreement with Dr. Waltzman for his provision of medical advice on the Company's clinical programs, pursuant to which Dr. Waltzman will be paid an hourly rate for his consulting services, and the stock options granted to him as Chief Medical Officer will continue to vest during the six-month term of his Consulting Agreement (subject to extension of such agreement by mutual agreement between Dr. Waltzman and the Company).

Dr. Waltzman was 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-In-Control."

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Outstanding Equity Awards at 2022 Fiscal Year-End

The following table shows grants of stock options outstanding on the last day of the fiscal year ended December 31, 2022, to each of the executive officers named in the Summary Compensation Table.

Unexercised Unexercised Option Options Options Exercise Option (#) (#) Price Expiration
(#) (#) Frice Expiration
Exercisable Unexercisable (\$) Date
Name (a) (b) (c) (e) (f)
Eric E. Poma, Ph.D 14,704(1) — 19.05 11/18/2024
18,332(2) — 141.00 10/8/2027
39,007(3) — 94.65 5/30/2028
15,972(6) 694 69.90 2/14/2029
14,747(7) 6,086 217.50 2/13/2030
9,159(8) 10,840 210.75 2/14/2031
—(9) 19,999 41.55 2/14/2032
Jason S. Kim 5,204(4) — 19.05 11/18/2024
9,165(2) — 141.00 10/8/2027
13,076(3) — 94.65 5/30/2028
8,304(6) 362 69.90 2/14/2029
7,079(7) 2,920 217.50 2/13/2030
3,813(8) 4,519 210.75 2/14/2031
—(9) 8,332 41.55 2/14/2032
Roger J. Waltzman, M.D. 11,178(5) 488 74.40 2/27/2029
5,657(7) 2,342 217.50 2/13/2030
3,813(8) 4,519 210.75 2/14/2031
—(9) 8,332 41.55 2/14/2032

- (1) On November 19, 2014, Dr. Poma was granted an option to purchase 20,778 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$13.50 per share. In connection with the Merger, this option was converted into an option to purchase 14,704 shares of the Company's common stock at a per share exercise price of \$19.05. This award was fully vested on September 19, 2017.
- (2) Dr. Poma and Mr. Kim were granted options to purchase 18,332 and 9,165 shares of common stock, respectively, on October 9, 2017. These awards vested on October 9, 2021.
- (3) Dr. Poma and Mr. Kim were granted options to purchase 39,007 and 13,076 shares of common stock, respectively, on May 31, 2018. These awards vested on May 31, 2022.
- (4) On November 19, 2014, Mr. Kim was granted an option to purchase 7,354 shares of common stock of Private Molecular under the 2009 Stock Plan, as amended, at an exercise price of \$13.50 per share. In connection with the Merger, this option was converted into an option to purchase 5,204 shares of the Company's common stock at a per share exercise price of \$19.05. This award was fully vested on September 19, 2017.
- (5) Dr. Waltzman was granted an option to purchase 11,666 shares of common stock on February 28, 2019. These awards vested 25% on February 19, 2020, and 2.1% monthly thereafter through February 19, 2023.
- (6) Dr. Poma and Mr. Kim were granted options to purchase 16,666 and 8,666 shares of common stock, respectively, on February 15, 2019. These awards each vest 25% on February 15, 2020, and 2,1% monthly thereafter through February 15, 2023.
- vest 25% on February 15, 2020, and 2.1% monthly thereafter through February 15, 2023.

 Dr. Poma, Mr. Kim and Dr. Waltzman were granted options to purchase 20,833, 9,999 and 7,999 shares of common stock, respectively, on February 14, 2020.

 These awards each vest 25% on February 14, 2021, and 2.1% monthly thereafter through February 14, 2024, provided that at the relevant vesting dates

 Dr. Poma. Mr. Kim and Dr. Waltzman continue their respective service to the Company.
- (8) Dr. Poma, Mr. Kim and Dr. Waltzman were granted options to purchase 19,999, 8,332 and 8,332 shares of common stock, respectively, on February 15, 2021. These awards each vest 25% on February 15, 2022, and 2.1% monthly thereafter through February 15, 2025, provided that at the relevant vesting dates Dr. Poma, Mr. Kim and Dr. Waltzman continue their respective service to the Company.
- (9) Dr. Poma, Mr. Kim and Dr. Waltzman were granted options to purchase 19,999, 8,332 and 8,332 shares of common stock, respectively, on February 15, 2022. These awards each vest 25% on February 15, 2023, and 2.1% monthly thereafter through February 15, 2026, provided that at the relevant vesting dates Dr. Poma, Mr. Kim and Dr. Waltzman continue their respective service to the Company.

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, omon-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

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) Dr. Poma'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) Dr. Poma's material breach of the terms of his employment agreement or his proprietary information agreement. With respect to subsection (i) above, before the Company can terminate Dr. Poma for Cause for the continued failure to substantially perform his duties, the Company must provide Dr. Poma with written notice of the grounds for Cause and provide Dr. Poma 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 Dr. Poma cures the conditions giving rise to Cause for termination within the Cure Period but the Company terminates Dr. Poma's employment during or at the end of the Cure Period, Dr. Poma 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 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, omon-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.

Executive Officer and Director Compensation

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) Mr. Kim'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) Mr. Kim's material breach of the terms of his employment agreement or his proprietary information agreement. With respect to subsection (i) above, before the Company can terminate Mr. Kim for Cause for the continued failure to substantially perform his duties, the Company must provide Mr. Kim with written notice of the grounds for Cause and provide Mr. Kim 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 Mr. Kim cures the conditions giving rise to Cause for termination within the Cure Period but the Company terminates Mr. Kim's employment during or at the end of the Cure Period, Mr. Kim 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.

Roger J. Waltzman, M.D.

Pursuant to Dr. Waltzman's employment agreement, if Dr. Waltzman's employment were terminated by the Company for any reason he would have received (i) 100% of his base salary, as then in effect, through the date of termination, (ii) reimbursement of all expenses for which he would have been entitled to be reimbursed and (iii) if he participated in the Company's group health plans, the right to continue health care benefits under COBRA, at his cost. If Dr. Waltzman's employment were terminated without "Cause" (as defined in the Company's 2014 Equity Incentive Plan), he would have been entitled to receive as severance, 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, provided he delivered to the Company and did not revoke a separation agreement and general release within sixty days following his last day of employment, in addition to the reimbursement of all expenses and right to continue health care benefits under COBRA, described above. In the event that Dr. Waltzman's employment were terminated by the Company without Cause in connection with a Change in Control (as defined in the Company's 2014 Equity Incentive Plan), provided he delivered to the Company and did not revoke a separation agreement and general release within sixty days following his last day of employment, the Company would have (i) paid Dr. Waltzman a lump sum amount equal to one times (1x) the sum of his current base salary and his annual target bonus, in lieu of the severance described previously and (ii) accelerated the vesting of Dr. Waltzman's then-held Company time-based equity awards. In the event of such termination without Cause in connection with a Change in Control, all stock options held by Dr. Waltzman would have immediately become exercisable in full and any other stock awards held by Dr. Waltzman would have become free of restrictions.

Dr. Waltzman resigned from his position as Chief Medical Officer effective as of August 4, 2023. No additional compensation was paid to Dr. Waltzman in connection with his resignation.

As defined in the Company's 2014 Equity Incentive Plan, "Cause" means employment related dishonesty, fraud, misconduct or disclosure or misuse of confidential information, or other employment related conduct that is likely to cause significant injury to the Company, an Affiliate (as defined in the Company's 2014 Equity Incentive Plan), or any of their respective employees, officers or directors (including, without limitation, commission of a felony or similar offense), in each case as determined by the Board. "Cause" shall not require that a civil judgment or criminal conviction have been entered against or guilty plea shall have been made by the Participant (as defined in the Company's 2014 Equity Incentive Plan) regarding any of the matters referred to in the previous sentence. Accordingly, the Board shall be entitled to determine "Cause" based on the Board's good faith belief. If the Participant is criminally charged with a felony or similar offense that shall be a sufficient, but not a necessary, basis for such belief.

Executive Officer and Director Compensation

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As defined in the Company's 2014 Equity Incentive Plan, a "Change in Control" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events: (i) any Exchange Act Person (as defined in the Company's 2014 Equity Incentive Plan) becomes the Owner (as defined in the Company's 2014 Equity Incentive Plan), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (B) solely because the level of Ownership (as defined in the Company's 2014 Equity Incentive Plan) held by any Exchange Act Person (the "Subject Person") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner (as defined in the Company's 2014 Equity Incentive Plan) of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned (as defined in the Company's 2014 Equity Incentive Plan) by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur; (ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity (as defined in the Company's 2014 Equity Incentive Plan) in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction; (iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company will otherwise occur, except for a liquidation into a parent corporation; (iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or (v) individuals who, on the date this Plan is adopted by the Board, are members of the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the members of the Board; provided, however, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board. Notwithstanding the foregoing definition or any other provision of this Plan, the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company.

Advisory Vote on Executive Compensation

At our 2019 annual meeting of stockholders, our stockholders expressed a preference that our stockholders should vote on asay-on-pay" proposal every year. After careful consideration, the Board of Directors determined that an advisory vote on executive compensation that occurs every year is appropriate for the Company. As such, this proxy statement includes a say-on-pay vote as Proposal 3.

At our 2022 annual meeting of stockholders, approximately 72% of our stockholders who casted votes were in favor of our named executive officer compensation, as disclosed in our 2022 proxy statement. The Board and Compensation Committee reviewed these final vote results and determined that, given the significant level of support, no changes to our executive compensation program and processes are necessary at this time. Our Board recommends a vote "FOR" an approval of Proposal 3, to approve on a non-binding advisory basis, the compensation paid to our named executive officers, as disclosed in this proxy statement below, pursuant to the compensation disclosure rules of the SEC, including the compensation tables and the narrative discussions that accompany the compensation tables.

Director Compensation

The following table shows the total compensation paid or accrued during the fiscal year ended December 31, 2022 to each ofnon-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.	79,750	10,736	90,486
Jonathan Lanfear	45,625	10,736	56,361
David Hirsch, M.D., Ph.D. (2)	52,750	10,736	63,486
David R. Hoffmann	55,000	10,736	65,736
Kevin Lalande (3)	52,000	10,736	62,736
Scott Morenstein (5)	23,750	_	23,750
Corsee Sanders, Ph.D.	45,000	10,736	55,736
Gabriela Gruia, M.D. (6)	33,000	54,673	87,673

- (1) These amounts represent the aggregate grant date fair value of options granted to each director in 2022 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 12 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2022.
- (2) Dr. Hirsch stepped down from our Board in May 2023.
- (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, 2022, 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).
- (5) Mr. Morenstein stepped down from our Board in March 2023.
- (6) Dr. Gruia became a Board member in March 2022.

	Shares
	Underlying
	Outstanding
Name	Stock Options
Harold E. Selick, Ph.D.	6,666
Jonathan Lanfear	2,000
David Hirsch, M.D., Ph.D.	6,666
David R. Hoffmann	7,241
Kevin Lalande	6,666
Scott Morenstein	5,666
Corsee Sanders, Ph.D.	4,666
Gabriela Gruia, M.D.	2,666

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 (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, May 2018 and December 2019, the Board amended and restated the Director Compensation Policy. Directors who are also our employees, such as Dr. Poma and Dr. Gruia, will not receive additional compensation for their services as directors.

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Number of

Executive Officer and Director Compensation

On December 19, 2019, our Director Compensation Policy was amended to clarify the annual cash retainers as set forth below for service as (i) a member or chairperson of the Board, as applicable, and (ii) a member or chairperson of a committee of the Board, as applicable, with such fees to be paid on a quarterly basis:

Board or Committee	Type of Fee	Amount	Amount (Per Year)	
Board	Chair Retainer Fee	\$	70,000	
	Non-Chair Member Retainer Fee	\$	40,000	
Audit Committee	Chair Retainer Fee	\$	15,000	
	Non-Chair Member Retainer Fee	\$	7,500	
Compensation Committee	Chair Retainer Fee	\$	10,000	
	Non-Chair Member Retainer Fee	\$	5,000	
Nominating and Corporate Governance Committee	Chair Retainer Fee	\$	8,000	
	Non-Chair Member Retainer Fee	\$	4.000	

Pursuant to our current Director Compensation Policy, in each year of anon-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 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. 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. 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 reasonableout-of-pocket expenses incurred by the non-employee director in connection with his or her attendance at Board and Committee meetings.

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Pay Versus Performance

Pay Versus Performance Table

As required by Securities and Exchange Commission rules, we are providing the following information about the relationship between executive compensation actually paid to our principal executive officer ("PEO") and our other named executive officers ("Non-PEO NEOs") and certain financial performance of our company for the last two fiscal years ended December 31, 2022 and 2021, respectively.

Year	Summary Compensation Table Total for PEO (\$) (1)	Compensation Actually Paid to PEO (\$) (2)	Average Summary Compensation Table Total for Non-PEO NEOs (\$) (3)	Average Compensation Actually Paid to Non-PEO NEOs (\$) (4)	Value of Initial Fixed \$100 Investment Based On Company Total Shareholder Return (\$) (5)	Net Income (Loss) (\$) (Thousands) (6)	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
2022	1,547,34	0 273,296	899,783	359,055	3.51	(9	02,718)
2021	4,384,35	0 (824,220)	2,074,244	(73,445)	41.75	(8	33,009)

- (1) Reflects compensation amounts reported in the "Summary Compensation Table" for our PEO, Eric E. Poma, Ph.D., for the respective years shown.
- (2) "Compensation actually paid" to our PEO in each of 2022 and 2021 reflects the respective amounts set forth in column (b) of the table above, adjusted as set forth in the table below, as determined in accordance with SEC rules and calculation methodology. The dollar amounts reflected in column (c) of the table above do not reflect the actual amount of compensation earned by or paid to our PEO during the applicable year. For information regarding the decisions made by our Compensation Committee regarding the PEO's compensation for each fiscal year, please see the Narrative Disclosure to Summary Compensation Table sections of the proxy statements reporting pay for the fiscal years covered in this table.

PEO - Eric E. Poma, Ph.D.	2022	2021
SCT Total Compensation (column (b) above)		\$4,384,350
LESS Option Award Values Reported in SCT for Covered Year	(\$624,000)	(\$3,544,680)
PLUS Falr Value of Option Awards Granted in Covered Year Valued at Year-End	\$24,000	\$435,000
CHANGE in Fair Value of Outstanding Unvested Option Awards as of Year End as Compared to Valuation as of Prior Year End	(\$349,652)	(\$1,720,423)
CHANGE in Fair Value of Option Awards Granted in Prior Years that Vested in Covered Year as of the Vesting Date Compared to Valuation as of Prior		
Year End	(\$324,392)	(\$378,467)
Compensation Actually Paid	\$273,296	(\$824,220)

- (3) For both fiscal years, Non-PEO NEOs, Jason S. Kim and Roger J. Waltzman, M.D., are included in the average figures shown.
- (4) Average "compensation actually paid" for our Non-PEO NEOs in each of 2022 and 2021 reflects the respective amounts set forth in column (d) of the table above, adjusted as set forth in the table below, as determined in accordance with SEC rules and calculation methodology. The dollar amounts reflected in column (e) of the table above do not reflect the actual amount of compensation earned by or paid to our Non-PEO NEOs during the applicable year. For information regarding the decisions made by our Compensation Committee regarding the Non-PEO NEOs' compensation for each fiscal year, please see the Narrative Disclosure to Summary Compensation Table sections of the proxy statements reporting pay for the fiscal years covered in these tables.

Non-PEO NEOs - Average	2022	2021
SCT Total Compensation (column (d) above)	\$899,783	\$2,074,244
LESS Option Award Values Reported in SCT for Covered Year	(\$260,000)	(\$1,476,950)
PLUS Fair Value of Option Awards Granted in Covered Year Valued at Year-End	\$10,000	\$181,250
CHANGE in Fair Value of Outstanding Unvested Option Awards as of Year End as Compared to Valuation as of Prior Year End	(\$150,470)	(\$733,000)
CHANGE in Fair Value of Option Awards Granted in Prior Years that Vested in Covered Year as of the Vesting Date Compared to Valuation as of Prior		
Year End	(\$140,258)	(\$118,989)
Compensation Actually Paid	\$359,055	(\$73,445)

Equity Valuations: Stock option grant date fair values are calculated based on the Black-Scholes option pricing model as of date of grant. Adjustments have been made using stock option fair values as of each measurement date using the stock price as of the measurement date and updated assumptions (i.e., term, volatility, dividend yield, risk free rates) as of the measurement date.

(5) For the relevant fiscal year, represents the cumulative total shareholder return ("TSR") of Molecular Templates, Inc. common stock for the measurement periods ending on December 31 of each of 2022 and 2021, respectively, assuming \$100 invested in our common stock on December 31, 2020. The cumulative TSR amounts are calculated by dividing the difference between our share price at the end and the beginning of the measurement period by the Company's share price at the beginning of the measurement period.

PAY VERSUS PERFORMANCE

(6) Reflects "Net Income (Loss)" in the company's Consolidated Statement of Operations included in the Company's Annual Reports on Form 10-K for each of the years ended December 31, 2022 and 2021.

Analysis of Information Presented in the Pay Versus Performance Table

We design our executive compensation programs to motivate, reward and retain our senior leadership team and we strive to align our pay with our performance. We utilize several performance measures to align executive compensation with our performance, including those based on clinical development milestones, and research and development objectives, however, not all of our performance measures are presented in the Pay versus Performance table. We do not align our performance measures with "compensation actually paid" as computed in accordance with SEC rules.

In accordance with SEC rules, we are providing the following descriptions of the relationships between information presented in the Pay Versus Performance table.

Compensation Actually Paid and Net Income (Loss) Because we are not a commercial-stage company, we did not have any recurring product revenue during the periods presented, other than collaboration agreement revenue and grant revenue from time to time. Consequently, net income (loss) is not a performance measure for our executive compensation program. In 2021 and 2022, our net income (loss) has remained substantially the same while our "compensation actually paid" has increased from 2021 to 2022.

Compensation Actually Paid and Cumulative TSR We do not use TSR as a specific performance measure. In 2021 and 2022, our TSR was negative while our "compensation actually paid" has increased from 2021 to 2022. We have historically used stock options as our primary long-term incentive grant form to reward long-term performance and align our executives and employees with our shareholders, as stock options have no value if the stock price does not appreciate. The equity adjustments calculated in accordance with applicable SEC rules significantly reduces "compensation actually paid" and is aligned with our cumulative TSR as shown above.

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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, 2022

	(a)		(b)	(c)
				Number of securities
				remaining
	Number of securities			available for
	to be issued upon exercise of outstanding	exerc	ted-average ise price of	future issuance under equity compensation plans
Plan category	options, warrants and rights		ding options, its and rights	(excluding securities reflected in column (a))
Equity compensation plans approved				<u>(-))</u>
by security holders (1)	542,723	\$	119.08	187,902
Equity compensation plans not approved				
by security holders (2)	20,155	\$	19.15	_
Total	562,878	\$	115.50	187,902

- (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 listing standards of Nasdaq, 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 2022, the Audit Committee took the following actions:

- Reviewed and discussed the audited financial statements for the fiscal year ended 2022 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. 1301Communications 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, 2022 for filing with the SEC.

Members of the Molecular Templates, Inc. Audit Committee David R. Hoffmann Harold E. Selick, Ph.D. Jonathan Lanfear

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Delinquent Section 16(A) Reports

Section 16(a) of the Exchange Act requires our executive officers, directors, and persons who beneficially own more than 10% of a registered class of our common stock or other equity securities to file with the SEC certain reports of ownership and reports of changes in ownership of our securities. Executive officers, directors, and stockholders who hold more than 10% of our outstanding registered common stock are required by the SEC to furnish us with copies of all required forms filed under Section 16(a). Based solely on a review of this information and written representations from these persons that no other reports were required, we believe that, during the prior fiscal year all of our executive officers, directors, and, to our knowledge, 10% stockholders complied with the filing requirements of Section 16(a) of the Exchange Act, except for the Form 4 filings for each of SHV Management Services, LLC and Kevin M. Lalande, each of whom filed their respective Forms 4 on June 21, 2022 to report the purchase of 100,000 shares of common stock on June 13, 2022, 60,000 shares of common stock on June 14, 2022, and 62,000 shares of common stock on June 15, 2022.

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Certain Relationships and Related Person Transactions

The following describes transactions since January 1, 2021 to which we have been a party and in which:

- the amounts involved exceeded or will exceed the lesser of \$120,000 or 1% of the average of the Company's total assets atyear-end for fiscal
 year 2022 and 2021; 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."

Indemnification Arrangements

Our Amended and Restated 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.

PIPE Financing

On July 12, 2023, we entered into a Securities Purchase Agreement with certain institutional and accredited investors providing for a private placement of up to \$40 million in gross proceeds to the Company in two tranches (the "July 2023 PIPE Financing"). The participating investors included Biotech Target N.V. and entities affiliated with BVF Partners L.P., preexisting stockholders who beneficially owned in excess of 5% of our issued and outstanding shares of common stock prior to completion of the July 2023 PIPE Financing. Biotech Target N.V. purchased 4,255,319 shares of common stock and entities affiliated with BVF Partners L.P. collectively purchased 2,984,052 shares of common stock and pre-funded warrants to purchase 18,331,547 shares of common stock. The purchase price for the common stock was \$0.47 per share and the purchase price for the pre-funded warrants was \$0.469 per underlying share of common stock. The share and per share amounts do not reflect the Reverse Split.

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.

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Proposal No. 1 Election of Directors

On September 7, 2023, the Board nominated Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D. for election at the annual meeting. The Board currently consists of seven members, classified into three classes as follows: Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D. constitute a class with a term ending in 2023; Jonathan Lanfear and Corsee Sanders, Ph.D. constitute a class with a term ending in 2024; and Kevin Lalande and David R. Hoffmann constitute a class with a term ending in 2025. 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 Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D. for election as Class I directors at the annual meeting for a term of three years to serve until the 2026 annual meeting of stockholders, and until their respective successors are elected and qualified. The Class II directors (Jonathan Lanfear and Corsee Sanders, Ph.D.) and the Class III directors (Kevin Lalande and David R. Hoffmann) will serve until the annual meetings of stockholders to be held in 2024 and 2025, 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 vote**FOR** the election of Eric E. Poma, Ph.D., Harold E. Selick, Ph.D. and Gabriela Gruia, M.D. as Class I directors. In the event that any 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 affirmatively or negatively at the annual meeting is required to elect each nominee as a director. Abstentions and broker non-votes are not counted as a vote cast either "FOR" or "Against" such director's election. Pursuant to Article II, Section 1 of our Amended and Restated Bylaws, if, in an election that is not a contested election, an incumbent director nominee does not receive a majority of the votes cast regarding his or her election, such nominee will be required to submit an irrevocable resignation to the Nominating and Corporate Governance Committee of the Board, and the committee will then make a recommendation to the Board as to whether to accept or reject the resignation or whether other action should be taken. The Board will then act on the resignation, taking into account the committee's recommendation, and we will publicly disclose (by filing an appropriate disclosure with the SEC) the Board's decision regarding the resignation within 90 days following certification of the election results. The committee in making its recommendation, and the Board in making its decision, each may consider any factors and other information that they consider appropriate and relevant.

THE BOARD OF DIRECTORS RECOMMENDS THE ELECTION OF ERIC E. POMA, PH.D., HAROLD E. SELICK, PH.D. AND GABRIELA GRUIA, M.D. AS CLASS I 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 December 31, 2023. 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, 2022. 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, 2023.

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, 2022, and December 31, 2021, and fees billed for other services rendered by Ernst & Young LLP during those periods.

	2022	2021
Audit fees:(1)	579,500	465,000
Audit related fees:(2)	_	_
Tax fees:(3)	_	_
All other fees:(4)	_	
Total	579,500	465,000

- (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) Audit related fees consisted principally of fees related to the annual audit and the quarterly reviews, but outside the scope of the Audit Committee approved audit, and agreed upon procedure.
- (3) Tax fees consist principally of assistance with matters related to tax compliance and reporting, tax advice, and tax planning.
- (4) 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 toRule 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 Registered Public Accounting Firm

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 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.

Proposal No. 2 Ratification of Appointment of Independent Registered Public Accounting Firm

- 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 specificpre-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 Exchange Act, 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. Stockholders are urged to read the section titled "Executive Officer and Director Compensation" in this proxy statement, which contains tabular information and narrative discussion about the compensation of our named executive officers.

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 therefore, we expect that the next such advisory vote will occur at the 2024 annual meeting of stockholders.

Our compensation philosophy is designed to align each executive's compensation with Molecular Templates, Inc.'s 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. We believe that the components of our executive compensation programs align the interests of our named executive officers with those of our stockholders and are intended to promote long-term stockholder value creation. In addition, we believe that the objectives of our executive compensation program, as they relate to our named executive officers, are appropriate for a company of our size and stage of development and that our compensation policies and practices help meet those objectives.

The vote on this resolution is not intended to address any specific element of compensation; rather, the vote relates to the compensation of our named executive officers, as described in this proxy statement in accordance with the compensation disclosure rules of the SEC. 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 2023 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.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all directors, officers and employees. This code is intended to promote the conduct of all of the Company's business in accordance with high standards of integrity and in compliance with all applicable laws and regulations. It aligns with our Company values, including respect and integrity, and deters wrongdoing. The text of the code of business conduct and ethics is posted on our website at www.mtem.com under our "Investors – Governance – Governance Documents" page. Disclosure regarding any amendments to, or waivers from, provisions of the code of business conduct and ethics that apply to our directors, principal executive and financial officers 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 listing standards of Nasdaq.

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 2024 annual meeting of stockholders, we must receive stockholder proposals (other than for director nominations) no later than May 15, 2024, 120 days prior to the date that is one year from this year's mailing date. To be considered for presentation at the 2024 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 April 15, 2024 and no later than May 15, 2024 (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 2024 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 Michelle Iwamoto-Fan, Molecular Templates, Inc., 9301 Amberglen Blvd., Suite 100, Austin, Texas 78729.

Austin, Texas September 12, 2023

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PROXY

MOLECULAR TEMPLATES, INC.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF MOLECULAR TEMPLATES, INC. FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON FRIDAY, OCTOBER 27, 2023 AT 10:00 A.M. (EDT)

The undersigned hereby appoints Eric E. Poma, Ph.D. and Jason S. Kim as proxies, each with full power of substitution, and hereby authorizes each of them to represent and to vote, as designated on the reverse side, all shares of common stock of Molecular Templates, Inc. held of record by the undersigned at the close of business on September 7, 2023 (the "Record Date"), at the 2023 Annual Meeting of Stockholders to be held on Friday, October 27, 2023 at 10:00 a.m. (EDT) (the "Annual Meeting") and at any adjournment or postponement thereof, and further authorizes such proxies to vote in their discretion upon such other matters as may properly come before such Annual Meeting (including any motion to amend the resolutions proposed at the Annual Meeting and any motions to adjourn such meeting) and at any adjournment or postponement thereof. The Annual Meeting will be held virtually via live audio webcast on the Internet. In order to attend the Annual Meeting, you must register at http://www.viewproxy.com/MTEMAM/2023 by 11:59 p.m. (EDT) on October 26, 2023. If you have properly registered, you will receive a registration confirmation with a link to attend the virtual Annual Meeting. On the day of the Annual Meeting, if you have properly registered, you may enter the meeting by clicking on the link provided and entering the password you received via email in your registration confirmation. Further instructions on how to attend and vote at the Annual Meeting are contained in the Proxy Statement in the General Information Section under "How Do I Attend the Annual Meeting?" and "How Do I Vote?"

This proxy card, when properly executed and delivered, will be voted in the manner directed on the reverse side. If no designation is made, the shares will be voted as the Board of Directors recommends, as indicated on the reverse side, and in the discretion of the proxy upon such other matters as may properly come before the Annual Meeting.

Please mark, date, sign, and mail your proxy promptly in the envelope provided.

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲

KEEP THIS PORTION FOR YOUR RECORDS.

Address changes/comments: _	

Important Notice for Molecular Templates, Inc. Stockholders: 2023 Annual Meeting of Stockholders Friday, October 27, 10:00 a.m. Eastern Daylight Time

Important Notice Regarding the Availability of Proxy Materials: The Annual Report, Notice and Proxy Statement are available at: http://www.viewproxy.com/MTEMAM/2023

IMPORTANT: SIGNATURE REQUIRED ON THE OTHER SIDE.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" EACH OF PROPOSALS 1, 2, and 3.

Pronosal 1 To elect three directors to serve three-year terms expiring in 2026

Proposal 1. To elect three directors to serve three-year terms expiring in 2026.						
NOMINEES:	FOR	AGAINST	ABSTAIN			
(1) Eric E. Poma, Ph.D.		0				
(2) Harold E. Selick, Ph.D.		0	0			
(3) Gabriela Gruia M.D.	П	0				

Proposal 2. To ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2023.

FOR □ AGAINST □ ABSTAIN □

Proposal 3. To approve, on an advisory basis, the compensation of the Company's named executive officers.

FOR ☐ AGAINST ☐ ABSTAIN ☐

Note To transact such other business that is properly presented at the annual meeting and any adjournments or postponements thereof.

DO NOT PRINT IN THIS AREA (Stockholder Name & Address Data)

For address changes and/or comments, please check this box and write them on the back where indicated $\hfill\Box$

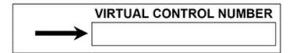
	VIRTUAL CONTROL NUMBER
\longrightarrow	

Date_			

Signature _____

Signature (Joint Owners)

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲



PROXY VOTING INSTRUCTIONS

Please have your control number ready when voting by Internet or Telephone.



INTERNET

Vote Your Proxy on the Internet: Go to www.aalvote.com/MTEMAM

Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



TELEPHONE

Vote Your Proxy by Phone: Call 1 (866) 804-9616

Use any touch-tone telephone to vote your proxy. Have your proxy card available when you call. Follow the voting instructions to vote your shares.



MAIL

Vote Your Proxy by Mail:

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