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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant \boxtimes Filed by a Party other than the Registrant \square Check the appropriate box:

□ Preliminary Proxy Statement

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

I Definitive Proxy Statement

□ Definitive Additional Materials

□ Soliciting Material under §240.14a-12

MORPHIC HOLDING, INC.

(Name of Registrant as Specified In Its Charter)

N/A

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

Payment of Filing Fee (Check all boxes that apply):

 \boxtimes No fee required.

 \Box Fee paid previously with preliminary materials

□ Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11



April 21, 2023

To My Fellow Stockholders:

You are cordially invited to attend the 2023 Annual Meeting of Stockholders of Morphic Holding, Inc. to be held virtually via a live webcast by visiting www.virtualshareholdermeeting.com/MORF2023 on Thursday, June 1, 2023 at 1:00 p.m. (Eastern Time). To provide access to our stockholders regardless of geographic location and assist in protecting the health and well-being of our stockholders and employees, we have decided to hold the Annual Meeting solely by means of remote communication via live webcast. A virtual meeting lowers costs and enables participation from our global community, providing greater access to those who may want to attend.

It is important that you retain a copy of the control number found on the proxy card, voting instruction form or Notice of Internet Availability, as such number will be required in order for stockholders to gain access to the virtual Annual Meeting.

The Securities and Exchange Commission rules allow companies to furnish proxy materials to stockholders over the internet. We have elected to do so, thus reducing the environmental impact and lowering the costs of printing and distributing proxy materials without impacting your timely access to this important information. On or about April 21, 2023, we expect to mail a Notice of Internet Availability of Proxy Materials (Notice of Internet Availability) containing instructions on how to access our proxy statement for our 2023 Annual Meeting of Stockholders and our 2022 Annual Report on Form 10-K to stockholders. The Notice of Internet Availability also provides instructions on how to vote and includes instructions on how to receive paper copies of the proxy materials by mail, or an electronic copy of the proxy materials by email, if desired.

The matters to be acted upon at the meeting are described in the accompanying notice of Annual Meeting and proxy statement.

Your vote is important.

Whether or not you plan to attend the meeting virtually, please vote on the internet or by telephone, or request, sign and return a proxy card to ensure that your shares are represented at the meeting.

Sincerely,

Praveen P. Tipirneni, M.D. Chief Executive Officer

MORPHIC HOLDING, INC. NOTICE OF 2023 ANNUAL MEETING OF STOCKHOLDERS

The 2023 Annual Meeting of Stockholders of Morphic Holding, Inc. will be held virtually via a live webcast at www.virtualshareholdermeeting.com/MORF2023 on Thursday, June 1, 2023 at 1:00 p.m. (Eastern Time). During the live webcast you will be able to participate, vote and ask questions. It is important that you retain a copy of the control number found on the proxy card, voting instruction form or Notice of Internet Availability, as such number will be required in order for stockholders to gain access to the virtual Annual Meeting.

We are holding the meeting for the following purposes, which are more fully described in the accompanying proxy statement:

- 1. To elect three Class I directors, each to serve a three-year term through the third annual meeting of stockholders following this meeting and until a successor has been elected and qualified or until earlier resignation or removal.
- 2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023.
- 3. To approve, on a non-binding advisory basis, the compensation paid to the Company's Named Executive Officers.
- 4. To approve an amendment to the Company's certificate of incorporation to permit the exculpation of officers in certain circumstances permitted under Delaware law.

In addition, stockholders may be asked to consider and vote upon such other business as may properly come before the meeting or any adjournment or postponement thereof.

Only stockholders of record at the close of business on April 10, 2023 are entitled to receive notice of, and to vote at, the meeting and any adjournments thereof. For ten days prior to the meeting, a complete list of the stockholders entitled to vote at the meeting will be available for examination by any stockholder for any purpose relating to the meeting by inspection at our offices at 35 Gatehouse Drive A2, Waltham, MA 02451. If you are a current stockholder and would like to review the list, please contact our Investor Relations department at 781-996-0955 or, if you are a registered holder, our transfer agent, Computershare Trust Company, N.A. by email through their website at www.computershare.com or by phone at 1-800-736-3001.

Your vote as a Morphic Holding, Inc. stockholder is very important. Each share of common stock that you own represents one vote.

Whether or not you expect to attend the meeting, we encourage you to read the proxy statement and vote through the internet or by telephone, or to request, sign and return your proxy card as soon as possible, so that your shares may be represented at the meeting. For specific instructions on how to vote your shares, please refer to the section entitled "General Proxy Information" in the proxy statement and the instructions on the Notice of Internet Availability of Proxy Materials.

By Order of the Board of Directors,

Millo Dellar

William D. DeVaul Corporate Secretary 35 Gatehouse Drive A2 Waltham, Massachusetts 02451 April 21, 2023

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be held on June 1, 2023: the Proxy Statement and our 2022 Annual Report on Form 10-K are available at https://morphictx.gcs-web.com/sec-filings.

MORPHIC HOLDING, INC.

PROXY STATEMENT FOR 2023 ANNUAL MEETING OF STOCKHOLDERS

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MORPHIC HOLDING, INC. 35 Gatehouse Drive, A2 Waltham, Massachusetts 02451

PROXY STATEMENT FOR THE 2023 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD JUNE 1, 2023

INFORMATION ABOUT SOLICITATION AND VOTING

The accompanying proxy is solicited on behalf of the Board of Directors of Morphic Holding, Inc., or the Company, for use at the Company's 2023 Annual Meeting of Stockholders, or Annual Meeting, to be held virtually via a live webcast at www.virtualshareholdermeeting.com/MORF2023 on Thursday, June 1, 2023 at 1:00 p.m. (Eastern Time). To provide access to our stockholders regardless of geographic location and assist in protecting the health and well-being of our stockholders and employees, we have decided to hold the Annual Meeting solely by means of remote communication via live webcast. A virtual meeting lowers costs and enables participation from our global community, providing greater access to those who may want to attend. It is important that you retain a copy of the control number found on the proxy card, voting instruction form or Notice of Internet Availability of Proxy Materials (Notice of Internet Availability), as such number will be required in order for stockholders to gain access to the virtual Annual Meeting.

INTERNET AVAILABILITY OF PROXY MATERIALS

Under rules adopted by the Securities and Exchange Commission, or SEC, we are furnishing proxy materials to our stockholders primarily via the internet, instead of by mailing printed copies to each stockholder. On or about April 21, 2023, we expect to send to our stockholders a Notice of Internet Availability containing instructions on how to access our proxy materials, including our proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2022. The Notice of Internet Availability also provides instructions on how to vote and includes instructions on how to receive paper copies of the proxy materials by mail, or an electronic copy of the proxy materials by email.

This process is designed to reduce our environmental impact and lower the costs of printing and distributing our proxy materials while providing our stockholders timely access to this important information. If you would prefer to receive printed proxy materials, please follow the instructions included in the Notice of Internet Availability.

GENERAL INFORMATION ABOUT THE MEETING

Purpose of the Meeting

At the meeting, stockholders will act upon the proposals described in this proxy statement. In addition, we will consider any other matters that are properly presented for a vote at the meeting. We are not aware of any other matters to be submitted for consideration at the meeting. If any other matters are properly presented for a vote at the meeting, the persons named in the proxy, who are officers of the company, have the authority in their discretion to vote the shares represented by the proxy.

Record Date; Quorum

Only holders of record of common stock at the close of business on April 10, 2023, the record date, will be entitled to vote at the meeting. At the close of business on April 10, 2023, 39,641,462 shares of common stock were outstanding and entitled to vote.

The holders of a majority of the voting power of the shares of stock entitled to vote at the meeting as of the record date must be present or represented by proxy at the meeting in order to hold the meeting and conduct business. This presence is called a quorum. Your shares are counted as present at the meeting if you are present and vote in person at the meeting or if you have properly submitted a proxy.

GENERAL PROXY INFORMATION

Voting Rights; Required Vote

Each holder of shares of common stock is entitled to one vote for each share of common stock held as of the close of business on April 10, 2023, the record date. You may vote all shares owned by you as of such date, including (1) shares held directly in your name as the stockholder of record and (2) shares held for you as the beneficial owner in street name through a broker, bank, trustee or other nominee. Dissenters' rights are not applicable to any of the matters being voted on.

Stockholder of Record: Shares Registered in Your Name. If on April 10, 2023, your shares were registered directly in your name with our transfer agent, Computershare Trust Company, N.A., then you are considered the stockholder of record with respect to those shares. As a stockholder of record, you may vote at the meeting, or vote in advance through the internet or by telephone, or if you request to receive paper proxy materials by mail, by filling out and returning the proxy card.

Beneficial Owner: Shares Registered in the Name of a Broker or Nominee. If on April 10, 2023, your shares were held in an account with a brokerage firm, bank or other nominee, then you are the beneficial owner of the shares held in street name. As a beneficial owner, you have the right to direct your broker on how to vote the shares held in your account, and your broker has enclosed or provided voting instructions for you to use in directing it on how to vote your shares. Because the brokerage firm, bank or other nominee that holds your shares is the stockholder of record, if you wish to attend the meeting and vote your shares, you must obtain a valid proxy from the firm that holds your shares giving you the right to vote the shares at the meeting.

Each director will be elected by a plurality of the votes cast at the meeting. This means that the three individuals nominated for election to the Board of Directors at the meeting receiving the highest number of "FOR" votes will be elected. You may not cumulate votes in the election of directors. Approval of the ratification of the appointment of our independent registered public accounting firm will be obtained if the holders of a majority of the votes cast at the meeting vote "FOR" the proposal. Advisory approval of the compensation of our Named Executive Officers will be obtained if the holders of a majority of the votes cast at the meeting vote "FOR" the proposal. This vote is advisory and non-binding in nature. The approval of the amendment to our restated certificate of incorporation will be obtained if the holders of a majority of our outstanding shares entitled to vote at the meeting vote "FOR" the proposal.

A proxy submitted by a stockholder may indicate that the shares represented by the proxy are not being voted (stockholder withholding) with respect to Proposal No. 1. For Proposal No. 1 (election of directors), you may vote "FOR ALL", "WITHHOLD ALL" or vote "FOR ALL EXCEPT" one or more of the nominees you specify. In addition, a broker may not be permitted to vote on shares held in street name on a particular matter in the absence of instructions from the beneficial owner of the stock (broker non-vote). The shares subject to a proxy which are not being voted on a particular matter because of either stockholder withholding or broker non-votes will count for purposes of determining the presence of a quorum, but are not treated as votes cast and, therefore, will have no effect on the election of directors, the ratification of the appointment of Ernst & Young LLP, the non-binding advisory vote on the compensation of our Named Executive Officers, or the vote on the amendment to the certificate of incorporation.

Under Delaware law (under which the Company is incorporated) and our bylaws, abstentions are counted as shares present and entitled to vote, but are counted neither "for" nor "against", and, therefore, will have no effect on, Proposal No. 1 (election of directors), Proposal No. 2 (ratification of the appointment of Ernst & Young LLP) or, Proposal No. 3 (non-binding advisory vote on the compensation of our Named Executive Officers). However, in the vote for Proposal No. 4 (approval of the amendment to our restated certificate of incorporation), abstentions are treated the same as voting "against" this proposal under Delaware law and our bylaws.

Recommendations of the Board of Directors on Each of the Proposals Scheduled to be Voted on at the Meeting

The Board of Directors recommends that you vote **FOR ALL** nominees in the election of the Class I directors named in this proxy statement (Proposal No. 1), **FOR** the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023 (Proposal No. 2), **FOR** the non-binding advisory resolution approving the compensation of the Company's Named Executive Officers (Proposal No. 3), and **FOR** the amendment to the Company's restated certificate of incorporation (Proposal No. 4).

None of the directors or executive officers has any substantial interest in any matter to be acted upon, other than elections to office with respect to the directors nominated in Proposal 1.

Voting Instructions; Voting of Proxies

If you are a stockholder of record, you may:

- vote through the internet or by telephone in order to do so, please follow the instructions shown on your proxy card; or
- vote online at the Annual Meeting attend the Annual Meeting online and follow the instructions posted at www.virtualshareholdermeeting.com/MORF2023. You will need the control number included on your proxy card; or
- vote by mail if you request or receive a paper proxy card and voting instructions by mail, simply complete, sign and date the proxy card and return it as soon as possible before the meeting in the envelope provided.

Votes submitted through the internet or by telephone must be received by 11:59 p.m., Eastern Time, on May 31, 2023. Submitting your proxy, whether by telephone, through the internet or by mail if you requested or received a paper proxy card, will not affect your right to vote in person should you decide to attend the meeting. If you are not the stockholder of record, please refer to the voting instructions provided by your nominee to direct how to vote your shares. For Proposal 1, you may vote "FOR ALL", "WITHHOLD ALL" or vote "FOR ALL EXCEPT" one or more of the nominees you specify. For Proposals 2, 3 and 4, you may vote "FOR" or "AGAINST" or "ABSTAIN" from voting. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure that your vote is counted.

All proxies will be voted in accordance with the instructions specified on the proxy card. If you sign a physical proxy card and return it without instructions as to how your shares should be voted on a particular proposal at the meeting, your shares will be voted in accordance with the recommendations of our Board of Directors stated above.

If you received a Notice of Internet Availability, please follow the instructions included on the notice on how to access and vote your proxy card. If you do not vote and you hold your shares in street name, and your broker does not have discretionary power to vote your shares, your shares may constitute "broker non-votes" (as described above) and will not be counted in determining the number of shares necessary for approval of the proposals. However, shares that constitute broker non-votes will be counted for the purpose of establishing a quorum for the meeting.

If you receive more than one proxy card or Notice of Internet Availability, your shares are registered in more than one name or are registered in different accounts. To make certain all of your shares are voted, please follow the instructions included on the Notice of Internet Availability on how to access and vote each proxy card. If you requested or received paper proxy materials by mail, please complete, sign, date and return each proxy card to ensure that all of your shares are voted.

Expenses of Soliciting Proxies

We will pay the expenses associated with soliciting proxies. Following the original distribution and mailing of the solicitation materials, we or our agents may solicit proxies by mail, email, telephone, facsimile, by other similar means, or in person. Our directors, officers and other employees, without additional compensation, may solicit proxies personally or in writing, by telephone, email or otherwise. Following the original distribution and mailing of the solicitation materials, we will request brokers, custodians, nominees and other record holders to forward copies of those materials to persons for whom they hold shares and to request authority for the exercise of proxies. In such cases, we, upon the request of the record holders, will reimburse such holders for their reasonable expenses. If you choose to access the proxy materials and/or vote through the internet, you are responsible for any internet access charges you may incur.

Revocability of Proxies

A stockholder of record who has given a proxy may revoke it at any time before the closing of the polls by the inspector of elections at the meeting by:

- delivering to our Corporate Secretary (by any means, including facsimile) a written notice stating that the proxy is revoked;
- signing and delivering a proxy bearing a later date;
- voting again through the internet or by telephone; or
- attending and voting at the meeting (although attendance at the meeting will not, by itself, revoke a proxy).

Please note, however, that if your shares are held of record by a brokerage firm, bank or other nominee, and you wish to revoke a proxy, you must contact that firm to revoke or change any prior voting instructions.

Electronic Access to the Proxy Materials

The Notice of Internet Availability will provide you with instructions regarding how to:

- view our proxy materials for the meeting through the internet;
- · instruct us to mail paper copies of our future proxy materials to you; and
- instruct us to send our future proxy materials to you electronically by email.

Choosing to receive your future proxy materials by email will reduce the impact of our annual meetings of stockholders on the environment and lower the costs of printing and distributing our proxy materials. If you choose to receive future proxy materials by email, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting site. Your election to receive proxy materials by email will remain in effect until you terminate it.

Voting Results

Voting results will be tabulated and certified by the inspector of elections appointed for the meeting. The final results will be tallied by the inspector of elections and filed with the SEC in a Current Report on Form 8-K within four business days of the meeting.

CORPORATE GOVERNANCE STANDARDS AND DIRECTOR INDEPENDENCE

We are committed to good corporate governance practices. These practices provide an important framework within which our Board of Directors and management pursue our strategic objectives for the benefit of our stockholders.

Corporate Governance Guidelines

Our Board of Directors has adopted Corporate Governance Guidelines that set forth expectations for directors, director independence standards, Board committee structure and functions, and other policies for the governance of the Company. Our Corporate Governance Guidelines are available without charge on the investor relations section of our website at https://investor.morphictx.com/corporate-governance.

Board Composition and Leadership Structure

The positions of Chief Executive Officer and Chair of our Board of Directors are held by two different individuals (Praveen P. Tipirneni, M.D. and Gustav Christensen, respectively). This structure allows our Chief Executive Officer to focus on our day-to-day business while our Chair leads our Board of Directors in its fundamental role of providing advice to and independent oversight of management. Our Board of Directors believes such separation is appropriate, as it enhances the accountability of the Chief Executive Officer to the Board of Directors and strengthens the independence of the Board of Directors from management. Any changes to the leadership structure of our Board of Directors, in its sole discretion, may seek input from our stockholders on the leadership structure of the Board of Directors.

Additionally, the Chair, along with other members Board of Directors, is responsible for discharging the Board of Directors' risk oversight responsibility (as further described below) and reviews and provides feedback on risk management to the management team, including Dr. Tipirneni, as well as feedback on the design and structure of the Board.

Board's Role in Risk Oversight

Our Board of Directors believes that open communication between management and the Board of Directors is essential for effective risk management and oversight. Our Board of Directors meets with our Chief Executive Officer and other members of the senior management team at quarterly Board of Director meetings, where, among other topics, they discuss strategy and risks in the context of reports from the management team and evaluate the risks inherent in significant transactions. While our Board of Directors is ultimately responsible for risk oversight, our Board of Directors in fulfilling its oversight responsibilities in certain areas of risk. The Audit Committee assists our Board of Directors in fulfilling its oversight responsibilities with respect to risk management in the areas of internal control over financial reporting and disclosure controls and procedures. The Compensation Committee assists our Board of Directors in fulfilling its oversight responsibilities and corporate Governance Committee assists our Board of Directors in fulfilling its oversight responsibilities and corporate governance committee assists our Board of Directors in fulfilling its oversight responsibilities and regulatory risk.

Risk assessment and oversight are an integral part of our governance and management processes. Our Board of Directors encourages management to promote a culture that incorporates risk management into our corporate strategy and day-to-day business operations. Management discusses strategic and operational risks at regular management meetings and conducts specific strategic planning and review sessions during the year that include a discussion and analysis of the risks facing the Company. Throughout the year, senior management reviews these risks with the Board of Directors at regular Board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks. Our Board of Directors does not have a standing risk management committee, but rather administers this oversight function directly through the Board of Directors as a whole, as well as through various standing committees of the Board of Directors that address risks inherent in their respective areas of oversight. In particular, our Board of Directors is responsible for monitoring and assessing strategic risk exposure, including business continuity risks, such as risks relating to the COVID-19 pandemic, and our Audit Committee is responsible for overseeing our major financial risk exposures and the steps our management has taken to monitor and control these exposures. The Audit Committee also monitors compliance with legal and regulatory requirements and considers and approves or disapproves any related person transactions. Our Compensation of risk oversight among the Board and its committees is consistent with the Board's leadership structure.

Cybersecurity Risk Oversight

Securing the information of participants in our studies, medical professionals, team members, and other third parties is important to us. We have adopted physical, technological, and administrative controls on data security, and have a defined procedure for data incident detection, containment, response, and remediation. Our cybersecurity focus to date has been on prevention of cyber incidents and detection and minimization of any cyber incidents, if they occur. We screen digital information as it is received prior to release to our network or servers and use a combination of awareness outreach of the cybersecurity risks facing the Company and using third-party organizations specializing in cybersecurity to test those risks at the Company including our employees and our network and infrastructure. For systems managed by third-party service providers, we routinely monitor their reporting of cyber incidents and considerations of the third-party service providers' cybersecurity risk mitigation. While everyone at our company plays a part in managing these risks, the Company's management is responsible for assessing risks facing the Company and assessments with respect to the Company's management of risk, and the Board is responsible for assessing risks facing the Company and management's approach to addressing such risks.

Director Independence

Our common stock is listed on the Nasdaq Global Market. Under the rules of the Nasdaq Stock Market, independent directors must constitute a majority of a listed company's board of directors. In addition, the rules of the Nasdaq Stock Market require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees must be an "independent director". Under the rules of the Nasdaq Stock Market, a director will only qualify as an "independent director" if, in the opinion of that company's 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. Additionally, compensation committee members must not have a relationship with the listed company that is material to the director's ability to be independent from management in connection with the duties of a compensation committee member.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (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: (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or (ii) be an affiliated person of the listed company or any of its subsidiaries.

Our Board of Directors has undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our Board of Directors determined that Norbert Bischofberger, Gustav Christensen, Martin Edwards, Susannah Gray, Nisha Nanda, Amir Nashat, Joseph P. Slattery, CPA, and Timothy A. Springer, representing eight of our nine continuing directors, are "independent directors" as defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the Nasdaq Stock Market. In making these determinations, our Board of Directors reviewed and discussed information provided by the directors and us with regard to each directors' business and personal activities and relationships as they may relate to us and our management, including the beneficial ownership of our capital stock by each non-employee director and any affiliates.

Committees of Our Board of Directors

Our Board of Directors has established an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee, each of which has the composition and responsibilities described below. Members serve on these committees until their resignation or until otherwise determined by our Board of Directors. Each of these committees has a written charter, copies of which are available without charge on the investor relations section of our website at https://investor.morphictx.com/corporate-governance.

Audit Committee

Our Audit Committee currently comprises Martin Edwards, Susannah Gray and Joseph P. Slattery, CPA who is also the Chair of our Audit Committee. The composition of our Audit Committee meets the requirements for independence under the current Nasdaq Stock Market and SEC rules and regulations. Each member of our Audit Committee is financially literate. In addition, our Board of Directors has determined that Mr. Slattery is an "Audit Committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act. Our Audit Committee is directly responsible for, among other things:

- selecting and hiring our independent registered public accounting firm;
- the qualifications, independence and performance of our independent auditors;
- the preparation of the Audit Committee report to be included in our annual proxy statement;
- our compliance with legal and regulatory requirements;
- · our accounting and financial reporting processes, including our financial statement audits and the integrity of our financial statements; and
- reviewing and approving related-person transactions.

Compensation Committee

Our Compensation Committee comprises Norbert Bischofberger, Joseph P. Slattery, CPA, and Gustav Christensen who is also the Chair of our Compensation Committee. The composition of our Compensation Committee meets the requirements for independence under the current Nasdaq Stock Market and SEC rules and regulations. Our Compensation Committee is responsible for, among other things:

- evaluating, recommending, approving and reviewing executive officer compensation arrangements, plans, policies and programs;
- evaluating and recommending non-employee director compensation arrangements for determination by our Board of Directors;
- administering our cash-based and equity-based compensation plans; and
- overseeing our compliance with regulatory requirements associated with the compensation of directors, officers and employees.

The Compensation Committee has the sole authority and responsibility, subject to any approval by the Board of Directors which the Compensation Committee or legal counsel determines to be desirable or required by applicable law or the Nasdaq rules, to determine all aspects of executive compensation packages for the Chief Executive Officer and other executive officers. The Compensation Committee also makes recommendations to our Board of Directors regarding the form and amount of compensation of non-employee directors. The Compensation Committee may take into account the recommendations of the Chief Executive Officer with respect to compensation of the other executive officers, and the recommendations of the Board of Directors with respect to compensation of the Chief Executive Officer and other executive officers.

The Compensation Committee engaged an independent executive compensation consulting firm, Aon's Human Capital Solutions practice, a division of Aon plc ("Aon"), to evaluate our executive compensation program and practices and to provide advice and ongoing assistance on executive compensation matters for the fiscal year ended December 31, 2022. Specifically, Aon was engaged to:

- provide compensation-related data for a peer group of companies to serve as a basis for assessing competitive compensation practices;
- review and assess our current director, Chief Executive Officer and other executive officer compensation policies and practices and equity profile, relative to market practices;
- review and assess our current executive compensation program relative to market to identify any potential changes or enhancements to be brought to the attention of the Compensation Committee; and
- review market practices regarding equity programs.

Representatives of Aon met informally with the Chair of the Compensation Committee and attended the regular meetings of the Compensation Committee, including executive sessions from time to time without any members of management present. During the fiscal year ended December 31, 2022, Aon worked directly with the Compensation Committee (and not on behalf of management) to assist the committee in satisfying its responsibilities and undertook no projects for management without the committee's prior approval. The Compensation Committee assessed the independence of Aon according to the six factors mandated by SEC and Nasdaq listing standards and has determined that none of the work performed by Aon during the fiscal year ended December 31, 2022 raised any conflict of interest and did not adversely affect Aon's independence.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee comprises Gustav Christensen and Amir Nashat, who is the Chair of our Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee is responsible for, among other things:

- identifying, considering and recommending candidates for membership on our Board of Directors
- · overseeing the process of evaluating the performance of our Board of Directors; and
- · advising our Board of Directors on other corporate governance matters.

Codes of Conduct and Ethics

Our Board of Directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. We intend to disclose future amendments to certain provisions of our code of conduct, or waivers of these provisions, on our website or in public filings. The full text of our code of conduct is posted on the investor relations section of our website at https://investor.morphictx.com/corporate-governance.

Board and Committee Meetings and Attendance

The Board of Directors and its committees meet regularly throughout the year and also hold special meetings and act by written consent from time to time. During 2022, the Board of Directors met six times, including through telephonic meetings, and acted by unanimous written consent four times; the Audit Committee met four times, including through telephonic meetings; and the Compensation Committee met six times, including through telephonic meetings. During 2022, none of the directors attended fewer than 75% of the aggregate of the total number of meetings held by the Board of Directors during his or her tenure and the total number of meetings held by all committees of the Board of Directors on which such director served during his or her tenure. The independent members of the Board of Directors also meet separately without management directors on a regular basis to discuss such matters as the independent directors consider appropriate.

Board Attendance at Annual Stockholders' Meeting

We invite and encourage each member of our Board of Directors to attend our annual meetings of stockholders. We do not have a formal policy regarding attendance of our annual meetings of stockholders by the members of our Board of Directors. Last year, two of our directors attended the annual meeting of stockholders.

Communication with Directors

Stockholders and interested parties who wish to communicate with our Board of Directors, non-management members of our Board of Directors as a group, a committee of the Board of Directors or a specific member of our Board of Directors (including our Chair) may do so by letters addressed to:

Morphic Holding, Inc. c/o Corporate Secretary 35 Gatehouse Drive, A2 Waltham, MA 02451

All communications by letter addressed to the attention of our Corporate Secretary will be reviewed by the Corporate Secretary and provided to the members of the Board of Directors unless such communications are unsolicited items, sales materials and other routine items and items unrelated to the duties and responsibilities of the Board of Directors.

Considerations in Evaluating Director Nominees

The Nominating and Corporate Governance Committee is responsible for identifying, considering and recommending candidates to the Board of Directors for Board membership. A variety of methods are used to identify and evaluate director nominees, with the goal of maintaining and further developing a diverse, experienced and highly qualified Board of Directors. Candidates may come to our attention through current members of our Board of Directors, professional search firms, stockholders or other persons.

The Nominating and Corporate Governance Committee will recommend to the Board of Directors for selection all nominees to be proposed by the Board of Directors for election by the stockholders, including approval or recommendation of a slate of director nominees to be proposed by the Board of Directors for election at each annual meeting of stockholders, and will recommend all director nominees to be appointed by the Board of Directors to fill interim director vacancies.

Director Qualifications; Diversity

With the goal of developing a diverse, experienced and highly qualified Board of Directors, the Nominating and Corporate Governance Committee is responsible for developing and recommending to our Board of Directors the desired qualifications, expertise and characteristics of members of our Board of Directors, including any specific minimum qualifications that the committee believes must be met by a committee-recommended nominee for membership on our Board of Directors and any specific qualities or skills that the committee believes are necessary for one or more of the members of our Board of Directors to possess. We value diversity on a company-wide basis and seek to achieve a mix of members to our Board of Directors that represent a diversity of background and experience, including with respect to age, gender, race, ethnicity, and occupation. Although the Board of Directors does not establish specific goals with respect to diversity, the Board of Directors' overall diversity is a significant consideration in the director nomination process.

Because the identification, evaluation and selection of qualified directors is a complex and subjective process that requires consideration of many intangible factors, and will be significantly influenced by the particular needs of our Board of Directors from time to time, our Board of Directors has not adopted a specific set of minimum qualifications, qualities or skills that are necessary for a nominee to possess, other than those that are necessary to meet U.S. legal and regulatory rules and the Nasdaq listing requirements and the provisions of our restated certificate of incorporation, restated bylaws, Corporate Governance Guidelines, and charters of the committees of our Board of Directors. In addition, neither our Board of Directors nor our Nominating and Corporate Governance Committee has a formal policy with regard to the consideration of diversity in identifying nominees. When considering nominees, the Nominating and Corporate Governance Committee may take into consideration many factors including, among other things, a candidate's independence, integrity, diversity, skills, financial and other expertise, breadth of experience, knowledge about our business or industry and ability to devote adequate time and effort to responsibilities of our Board of Directors in the context of its existing composition. Through the nomination process, the Nominating and Corporate Governance Committee seeks to promote Board membership that reflects a diversity of business experience, expertise, viewpoints, personal backgrounds and other characteristics that are expected to contribute to our Board of Directors' overall effectiveness. The brief biographical description of each director set forth in Proposal No. 1 below includes the primary individual experience, qualifications, attributes and skills of each of our directors that led to the conclusion that each director should serve as a member of our Board of Directors at this time.

See below for the diversity matrix of our Board of Directors as of December 31, 2022:

Total Number of Directors: 9 directors		
	Female	Male
Gender Identity		
Directors	2	7
Demographic Background		
Asian	1	2
White	1	5

Stockholder Recommendations for Nominations to the Board of Directors

The Nominating and Corporate Governance Committee will consider properly submitted stockholder recommendations for candidates for our Board of Directors who meet the minimum qualifications as described above. The Nominating and Corporate Governance Committee does not alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a stockholder. A stockholder of record can nominate a candidate for election to the Board of Directors by complying with the procedures in Article I, Section 1.11 of our bylaws. Any eligible stockholder who wishes to

submit a nomination should review the requirements in the bylaws on nominations by stockholders. Any nomination should be sent in writing to our Corporate Secretary, Morphic Holding, Inc., 35 Gatehouse Drive, A2, Waltham, MA 02451. Submissions must include the full name of the proposed nominee, complete biographical information, a description of the proposed nominee's qualifications as a director, other information specified in our bylaws, and a representation that the nominating stockholder is a beneficial or record holder of our stock. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected. These candidates are evaluated at meetings of the Nominating and Corporate Governance Committee, and may be considered at any point during the year. If any materials are provided by a stockholder in connection with the recommendation of a director candidate, such materials are forwarded to the Nominating and Corporate Governance Committee.

All proposals of stockholders that are intended to be presented by such stockholder at an annual meeting of stockholders must be in writing and notice must be delivered to the Corporate Secretary at our principal executive offices not later than the close of business on the 75th day nor earlier than the close of business on the 105th day prior to the anniversary of the preceding year's annual meeting, except that in the case of our first annual meeting following our initial public offering or if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, for the stockholder notice to be timely, it must be delivered to the Corporate Secretary at our principal executive offices (1) not earlier than the close of business on the 105th day prior to such annual meeting and (2) not later than the close of business on the later of the 75th day prior to such annual meeting or the close of business on the 10th day following the day on which public announcement of the date of such meeting is first made by us. Stockholders are also advised to review our bylaws, which contain additional requirements with respect to advance notice of stockholder proposals and director nominations.

PROPOSAL NO. 1 ELECTION OF CLASS I DIRECTORS

Our Board of Directors is divided into three classes. Each class serves for three years, with the terms of office of the respective classes expiring in successive years. Directors and director nominees in Class I will stand for election at this meeting. The terms of office of directors in Class II and Class III do not expire until the annual meetings of stockholders to be held in 2024 and 2025, respectively. Our Nominating and Corporate Governance Committee recommended to our Board of Directors, and our Board of Directors nominated Norbert Bischofberger, Ph.D., Joseph P. Slattery, CPA, and Timothy A. Springer, Ph.D., each an incumbent Class I director. At the recommendation of our Nominating and Corporate Governance Committee, our Board of Directors proposes that each of the Class I nominees be elected as a Class I director for a three-year term expiring at the annual meeting of stockholders to be held in 2026 and until such director's successor is duly elected and qualified or until such director's earlier resignation or removal.

Each director will be elected by a plurality of the votes present in person or represented by proxy at the Annual Meeting and entitled to vote on the election of directors. This means that the three individuals nominated for election to the Board of Directors at the Annual Meeting receiving the highest number of "FOR" votes will be elected. You may vote "FOR ALL", "WITHHOLD ALL" or vote "FOR ALL EXCEPT" one or more of the nominees you specify. Shares represented by proxies will be voted "FOR" the election of each of the Class I nominees, unless the proxy is marked to withhold authority to so vote. In an uncontested election "Withhold all" votes will have no effect on the outcome of the proposal. You may not cumulate votes in the election of directors. If any nominee for any reason is unable to serve, the proxies may be voted for such substitute nominee as the proxy holders, who are officers of our company, might determine. Each nominee has consented to being named in this proxy statement and to serve if elected. Proxies may not be voted for more than three directors.

Nominees to the Board of Directors

The nominees and their ages as of December 31, 2022 are provided in the table below. Additional biographical information for each nominee is set forth in the text below the table.

Name	Age	Class
Norbert Bischofberger, Ph.D. ⁽¹⁾	67	Class I Director
Joseph P. Slattery, CPA ⁽¹⁾⁽²⁾	57	Class I Director
Timothy A. Springer, Ph.D.	74	Class I Director

(1) Member of our Compensation Committee

(2) Member of our Audit Committee

Norbert Bischofberger, Ph.D. has served as a member of our Board of Directors since June 2019. Dr. Bischofberger has served as President and Chief Executive Officer of Kronos Bio, Inc., a biotechnology company, since August 2018. From August 1990 to August 2018, Dr. Bischofberger held various positions at Gilead Sciences, a biopharmaceutical company, and most recently served Gilead as Executive Vice President, Research and Development and Chief Scientific Officer. Prior to Gilead, Dr. Bischofberger served as a Senior Scientist in the DNA Synthesis group at Genentech, Inc., a biotechnology company, from 1986 to 1990. Currently, he serves on the Supervisory Board of Bayer AG and the Board of Directors of Kronos Bio, Inc. Dr. Bischofberger received a Ph.D. in Organic Chemistry from the Eidgenossische Technische Hochschule in Zurich, Switzerland and an M.S. in Chemistry from the University of Innsbruck. We believe that Dr. Bischofberger is qualified to serve on our Board of Directors because of his extensive management and research experience in the biopharmaceutical industry.

Joseph P. Slattery, CPA has served as a member of our Board of Directors since May 2019. From October 2013 through December 2019, he served as Executive Vice President and Chief Financial Officer of Asensus Surgical, Inc. (then operating as TransEnterix, Inc.), a medical device company. Mr. Slattery served as Executive Vice President and Chief Financial Officer at Baxano Surgical Inc., a minimally invasive spinal surgery company, from April 2010 to September 2013. From February 1996 to August 2007, he served in finance and accounting roles including Chief Financial Officer and Senior Vice President of Finance and Information Systems, at Digene Corporation, a molecular diagnostics company acquired by Qiagen, N.V. in 2007. Currently, he serves on the Boards of Directors of Replimune Group, Inc. and CVRx, Inc. Mr. Slattery earned a B.S. in Accounting from Bentley University and is a certified public accountant. We believe that Mr. Slattery is qualified to serve on our Board of Directors due to his extensive finance and business experience in the life sciences industry.



Timothy A. Springer, Ph.D. founded our company in August 2014 and has served as a scientific advisor to us and as a member of our Board of Directors since June 2015. Since 1989, Dr. Springer has served as the Latham Family Professor at Harvard Medical School. He has also served as Senior Investigator in the Program in Cellular and Molecular Medicine at Boston Children's Hospital since 2012, and as a Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School and Professor of Medicine at Boston Children's Hospital since 2011. Dr. Springer was the Founder of LeukoSite, a biotechnology company acquired by Millennium Pharmaceuticals in 1999. Additionally, he is a founder and investor in Scholar Rock Holding Corporation and served as a member of its Board from October 2012 to May 2019. He has also served Selecta Biosciences Inc. as a scientific advisor since December 2008 and as a member of its Board since June 2016. Dr. Springer is a member of the National Academy of Sciences and his honors include the Crafoord Prize, the American Association of Immunologists Meritorious Career Award, the Stratton Medal from the American Society of Hematology, and the Basic Research Prize from the American Heart Association, the Canada International Gairdner Award, and the Lasker Basic Medical Research Award. Dr. Springer is qualified to serve on our Board of Directors because of his extensive knowledge of the integrin field and his investment, business and board experience with biopharmaceutical companies.

Continuing Directors

The directors who are serving for terms that end following the Annual Meeting and their ages, as of December 31, 2022, are provided in the table below. Additional biographical information for each nominee is set forth in the text below the table.

Name	Age	Class
Gustav Christensen, MBA ⁽¹⁾⁽³⁾	75	Class II Director
Susannah Gray, MBA ⁽²⁾	62	Class II Director
Amir Nashat, Sc.D. ⁽³⁾	49	Class II Director
Martin Edwards, M.D. ⁽²⁾	67	Class III Director
Nisha Nanda, Ph.D.	48	Class III Director
Praveen P. Tipirneni, M.D.	54	Class III Director

(1) Member of our Compensation Committee

- (2) Member of our Audit Committee
- (3) Member of our Nominating and Corporate Governance Committee

Gustav Christensen, MBA has served as a member of our Board of Directors since January 2016. Mr. Christensen was most recently the President and Chief Executive Officer and director at Dyax Corp., a biopharmaceutical company, where he worked from April 2007 to January 2016. Prior to joining Dyax, Mr. Christensen was a Managing Director at Apeiron Partners, LLC, a boutique life sciences firm, where he worked from 2005 until 2007. Mr. Christensen currently serves on the board of directors of Generation Bio Co. Mr. Christensen received his M.Sc. in Economics from the University of Aarhus (Denmark) and his M.B.A. from Harvard Business School. We believe that Mr. Christensen is qualified to serve on our Board of Directors due to his extensive management and business experience in the life sciences industry and in the commercialization of pharmaceutical products.

Susannah Gray, MBA, has served as a member of our Board of Directors since April 2021. Ms. Gray served as Executive Vice President of Finance and Strategy of Royalty Pharma, a buyer of pharmaceutical royalties, from December 2018 to September 2019, and Chief Financial Officer of Royalty Pharma from January 2005 to December 2018. Prior to joining Royalty Pharma, Ms. Gray had a 14-year career in banking, working in various capacities within high yield and structured finance departments of Chase Securities, Merrill Lynch and CIBC World Markets. Ms. Gray currently serves as a member of the board of directors, chairperson of the audit committee and a member of the compensation committee of 4D Molecular Therapeutics, and also serves as a member of the board of directors, chairperson of the audit committee and a member of the compensation committee of Maravai Life Sciences. Ms. Gray also serves as a member the boards of Wesleyan University, Colby College Museum of Art, the German Marshall Fund and StreetSquash. Ms. Gray received a B.A., with honors, from Wesleyan University in 1982 and an MBA. from Columbia University in 1990. We believe Ms. Gray is qualified to serve as a member of our Board of Directors based on her experience in corporate finance and capital markets and previous experience in investment banking covering the healthcare sector.

Amir Nashat, Sc.D. previously served as a member of our Board of Directors from June 2015 through June 2016 and has served as a member of our Board of Directors since June 2017. Dr. Nashat is a managing partner at Polaris Partners, a venture capital firm, where he has worked since 2002. Dr. Nashat was also the founding Chief Executive Officer of Living Proof, Inc. and Sun Catalytix Corporation. Dr. Nashat currently represents Polaris as a director of Metacrine, Inc. and Scholar Rock Holding Corporation., as well as on the boards of directors of several private companies. Dr. Nashat was previously a director of aTyr Pharma, Inc., Fate Therapeutics, Inc., Selecta Biosciences, Inc. and Syros Pharmaceuticals, Inc. Dr. Nashat also serves on the Partners Innovation Fund, the Investment Advisory Committee for The Engine at MIT, and helped launch the MIT Sandbox Innovation Fund as its active President. Dr. Nashat previously served on the Board of the New England Venture Capital Association. Dr. Nashat received an M.S. and B.S. in Materials Science and Mechanical Engineering from the University of California, Berkeley and a Sc.D. as a Hertz Fellow in Chemical Engineering at the Massachusetts Institute of Technology with a minor in Biology under Dr. Robert Langer. We believe that Dr. Nashat's biotechnology investment experience qualifies him to serve on our Board of Directors.

Martin Edwards, M.D. has served as a member of our Board of Directors since December 2020. From 2003 until September 2020, Dr. Edwards has held various positions at Novo Holdings A/S, a life sciences investor, and most recently as Senior Partner (part time) at Novo Ventures, the venture capital arm of Novo A/S. Earlier in his career, he was Corporate VP and Global Head of Drug Development for Novo Nordisk A/S, where he led pre-clinical and clinical drug development. Prior to this role, Dr. Edwards was Chief Executive Officer of ReNeuron Ltd. and Chief Medical Officer/Vice President at Zymogenetics. He is currently on the board of directors of Verona Pharma, Reata Pharmaceuticals Inc. and Inozyme Pharma Inc., all publicly traded pharmaceutical companies. Dr. Edwards was trained in physiology and medicine at the University of Manchester, where he obtained his MBChB. He was elected a Member of the Royal College of Physicians, a Member with distinction of the Royal College of General Practitioners, a Fellow of the Faculty of Pharmaceutical Medicine and holds a MBA from the University of Warwick. In 2009, Dr. Edwards was made Adjunct Professor at CBS SIMI in Copenhagen. We believe Dr. Edwards is qualified to serve on our Board of Directors because of his extensive experience and knowledge in the biotechnology industry.

Nisha Nanda, Ph.D., has served as a member of our Board of Directors since August 2021. Dr. Nanda currently serves as the Chief Development Officer at Loxo@Lilly, the oncology unit of Eli Lilly and Company, having assumed the role in January 2019, and was Loxo Oncology's Senior Vice President of Development Strategy from January 2017 to December 2018 and Vice President of Development Strategy from February 2014 to January 2017. Prior to that, Dr. Nanda was Senior Director of Clinical Science at Onyx Pharmaceuticals, from February 2012 to February 2014. Dr. Nanda received her BSc Hons in Biochemistry and Molecular Genetics from the University of New South Wales and a Ph.D. in Biochemistry and Molecular Genetics from the University. We believe that Dr. Nanda is qualified to serve on our Board of Directors because of her extensive scientific research experience in the biopharmaceutical and molecular genetics' industry.

Praveen P. Tipirneni, M.D. has served as our Chief Executive Officer and a member of our Board of Directors since July 2015, and served as our President from July 2015 to May 2022. Previously, he served as the Senior Vice President of Corporate Development and Global Strategy at Cubist Pharmaceuticals, Inc., a biotechnology company focused on antibiotics, from November 2002 to February 2015. Prior to Cubist Pharmaceuticals, Dr. Tipirneni also held management positions at Sun Microsystems, Inc., Covad Communications Group and Deltagen, Inc. Dr. Tipirneni received a B.A. in Mechanical Engineering from Massachusetts Institute of Technology, an M.D. from McGill University and an M.B.A. from the Wharton School of Business of the University of Pennsylvania. Dr. Tipirneni currently sits on Tectonic Therapeutic's and Panacea Acquisition Corp II's boards. We believe that Dr. Tipirneni is qualified to serve on our Board of Directors because of his experience with biotechnology companies, including working with and serving in various executive positions in life sciences companies.

Family Relationships

There are no familial relationships among any of our directors and executive officers.

Non-Employee Director Compensation

The Compensation Committee periodically evaluates the appropriate level and form of compensation for non-employee directors and recommends changes, if any, to the Board of Directors. In connection with this assessment, our Compensation Committee and Board of Directors evaluate our non-employee director pay as well as total non-employee director pay relative to our peers and the market. The Compensation Committee considers advice from the Compensation Committee's independent consultant, Aon, in connection with this evaluation when appropriate. Our Compensation Committee anticipates again evaluating the compensation program prior to the Annual Meeting. Our Board of Directors reviews the Compensation Committee's recommendations and then determines the amount of director compensation. As described more fully below, non-employee director compensation is in the form of equity to align further the longer-term interests of the individual directors with those of our stockholders.

For the year ended December 31, 2022, our non-employee directors received the following compensation (as approved by our Board of Directors):

- Cash Compensation. Each non-employee director received an annual cash payment of \$40,000. Additionally, the Chair of our Board of Directors received an additional annual cash payment of \$30,000; the Chairmen of our Audit, Compensation and Nominating and Corporate Governance Committee received an additional annual cash payment of \$15,000, \$10,000 and \$8,000, respectively; and the members of our Audit, Compensation and Nominating and Corporate Governance Committee received an additional annual cash payment of \$7,500, \$5,000 and \$4,000, respectively. Cash fees were paid quarterly in arrears and pro-rated for partial quarters served.
- *Equity Compensation.* On the date of our 2022 annual meeting of stockholders, each non-employee director who continued to serve on our Board of Directors immediately following such meeting was granted an option grant to purchase 17,550 of shares of our common stock (or such lower number of shares to comply with the limits set forth in the Amended and Restated 2019 Equity Incentive Plan as in effect when such grant was approved), which grant will vest on the one-year anniversary of the date of the grant, or if earlier, the next annual meeting of our stockholders, subject to the director's continued service on the applicable vesting date.

Non-employee directors are also reimbursed for reasonable expenses incurred in serving as a director, including travel expenses for attending meetings of our Board of Directors.

The following table sets forth the compensation earned by or paid to our non-employee directors for services provided during the year ended December 31, 2022. Our Chief Executive Officer, Dr. Tipirneni, receives no compensation for his service as a director. Other than as described below, none of our non-employee directors received any fees or reimbursement of any expenses (other than customary expenses in connection with the attendance of meetings of our Board of Directors).

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$) ⁽¹⁾	Total (\$)
Norbert Bischofberger, Ph.D. ⁽²⁾	45,000	306,641	351,641
Gustav Christensen, MBA ⁽³⁾	84,000	306,641	390,641
Martin Edwards, M.D. ⁽⁴⁾	46,384	306,641	353,025
Susannah Gray, MBA ⁽⁵⁾	47,500	306,641	354,141
Nisha Nanda, Ph.D. ⁽⁶⁾	40,000	306,641	346,641
Amir Nashat, Sc.D. ⁽⁷⁾	44,000	306,641	350,641
Joseph P. Slattery, CPA ⁽⁸⁾	60,000	306,641	366,641
Timothy Springer, Ph.D. ⁽⁹⁾	40,000	306,641	346,641

(1) The amounts reported in the Option Awards column represent the grant date fair value of the stock options granted to the director during the year ended December 31, 2022 as computed in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value of the stock options reported in the Option Awards column are set forth in Note 9 to the audited consolidated financial statements included in the Form 10-K for the year ended December 31, 2022. Note that the amounts reported in this column reflect the accounting cost for these stock options, and do not correspond to the actual economic value that may be received by the director from the options.

- (2) As of December 31, 2022, Dr. Bischofberger had options to purchase 63,438 shares of the Company's common stock.
- (3) As of December 31, 2022, Mr. Christensen had options to purchase 62,700 shares of the Company's common stock.
- (4) As of December 31, 2022, Dr. Edwards had options to purchase 51,546 shares of the Company's common stock.
- (5) As of December 31, 2022, Ms. Gray had options to purchase 35,661 shares of the Company's common stock.
- (6) As of December 31, 2022, Dr. Nanda had options to purchase 35,727 shares of the Company's common stock.
- (7) As of December 31, 2022, Dr. Nashat had options to purchase 63,460 shares of the Company's common stock.
- (8) As of December 31, 2022, Mr. Slattery had options to purchase 63,165 shares of the Company's common stock.
- (9) As of December 31, 2022, Dr. Springer had options to purchase 157,834 shares of the Company's common stock.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR ALL" NOMINEES IN THE ELECTION OF CLASS I DIRECTORS.

PROPOSAL NO. 2 RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has selected Ernst & Young LLP as our principal independent registered public accounting firm to perform the audit of our financial statements for the fiscal year ending December 31, 2023. Ernst & Young LLP audited our financial statements for the fiscal years ended December 31, 2022 and 2021. 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.

At the Annual Meeting, the stockholders are being asked to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2023. Our Audit Committee is submitting the selection of Ernst & Young LLP to our stockholders because we value our stockholders' views on our independent registered public accounting firm and as a matter of good corporate governance. If this proposal does not receive the affirmative approval of a majority of the votes cast on the proposal, the Audit Committee would reconsider the appointment. Notwithstanding its selection and even if our stockholders ratify the selection, our Audit Committee, in its discretion, may appoint another independent registered public accounting firm at any time during the year if the Audit Committee believes that such a change would be in our best interests and the interests of our stockholders.

The following table presents fees for professional services rendered by Ernst & Young LLP for the years ended December 31, 2022 and 2021.

Fee Category	2022	2021
Audit Fees ⁽¹⁾	\$ 750,000	\$ 1,104,000
Audit-Related Fees	—	_
Tax Fees ⁽²⁾	55,000	—
All Other Fees	—	_
Total Fees	\$ 805,000	\$ 1,104,000

(1) Audit fees for 2022 and 2021 consist of fees for the audit of our consolidated financial statements and internal controls over financial reporting in 2021, and the review of our interim financial statements, consultations on accounting matters directly related to the audit and comfort letter procedures in connection with financing activities.

(2) Tax fees are related to tax advisory services.

Principal Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our Audit Committee generally pre-approves all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services, tax services and other services. Pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent registered public accounting firm and management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date. Our Audit Committee may also pre-approve particular services on a case-by-case basis. All of the services relating to the fees described in the table above were approved by our Audit Committee.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" APPROVAL OF PROPOSAL NO. 2.

PROPOSAL NO. 3 NON-BINDING ADVISORY VOTE ON EXECUTIVE COMPENSATION

As required by Section 14A(a)(1) of the Securities Exchange Act, our Board of Directors is providing our stockholders with an opportunity to approve, on a non-binding advisory basis, the compensation of our Named Executive Officers.

As described under the section entitled "Executive Compensation," we have developed a compensation policy that is designed to attract and retain key executives responsible for our success and motivate management to enhance long-term stockholder value. We believe our compensation policy strikes an appropriate balance between the implementation of responsible, measured compensation practices and the effective provision of incentives for our Named Executive Officers to exert their best efforts for our success.

We are requesting that stockholders cast a non-binding advisory vote on the following resolution:

RESOLVED, that the compensation of our Named Executive Officers, as disclosed pursuant to the SEC's compensation disclosure rules in this Proxy Statement for the 2023 Annual Meeting (which disclosure includes the "Executive Compensation" section, the compensation tables and the narrative disclosures that accompany the compensation tables) is hereby APPROVED.

As an advisory vote, this proposal is not binding upon us. However, our Board of Directors and the Compensation Committee, which is responsible for designing and administering our executive compensation program, values the opinions expressed by stockholders in their vote on this proposal and will consider the outcome of the vote when making future compensation decisions for our Named Executive Officers.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" APPROVAL OF PROPOSAL NO. 3.

PROPOSAL NO. 4 VOTE ON AN APPROVAL OF AMENDMENT TO OUR RESTATED CERTIFICATE OF INCORPORATION TO PERMIT THE EXCULPATION OF OFFICERS

Section 102(b)(7) of the General Corporation Law of the State of Delaware was amended effective August 1, 2022 to authorize exculpation of officers of Delaware corporations. Specifically, the amendment permits Delaware corporations to exculpate their officers, in addition to their directors, for personal liability for breach of the duty of care in certain actions. This exculpation would not protect officers from liability for breach of the duty of loyalty, acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or any transaction in which the officer derived an improper personal benefit. Nor would this exculpation shield such officers from liability for claims brought by or in the right of the corporation, such as derivative claims.

Our Board of Directors believes it is necessary to provide protection to officers to the fullest extent permitted by law in order to attract and retain highlyqualified senior leadership. The nature of the role of directors and officers often requires them to make decisions on crucial matters often in time-sensitive situations, which can create substantial risk of investigations, claims, actions, suits or proceedings seeking to impose liability on the basis of hindsight, especially in the current litigious environment and regardless of merit. Limiting concern about personal risk would empower both directors and officers to best exercise their business judgment in furtherance of stockholder interests. We expect competitor companies will likely adopt exculpation clauses that limit the personal liability of officers in their charters and failing to adopt the amendment could negatively affect our ability to recruit and retain highcaliber officer candidates.

The proposed amendment is not being proposed in response to any specific resignation, threat of resignation or refusal to serve by any director or officer. This protection has long been afforded to directors, and our Board of Directors believes that extending similar exculpation to its officers is fair and in the best interests of the Company and its stockholders. Accordingly, our Board of Directors has unanimously approved the Certificate of Amendment to our Restated Certificate of Incorporation (the "Certificate of Amendment") in the form attached hereto as <u>Appendix A</u>, and recommends that our stockholders vote "FOR" the proposed amendment.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" APPROVAL OF PROPOSAL NO. 4.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee is appointed by the Board of Directors to assist the Board of Directors in fulfilling its oversight responsibilities with respect to (1) the integrity of Morphic Holding, Inc.'s financial statements and financial reporting process and systems of internal controls regarding finance, accounting, and compliance with legal and regulatory requirements, (2) the qualifications, independence, and performance of Morphic Holding, Inc.'s independent registered public accounting firm, (3) the performance of Morphic Holding, Inc.'s internal audit function, if any, and (4) other matters as set forth in the charter of the Audit Committee approved by the Board of Directors.

Management is responsible for the preparation of Morphic Holding, Inc.'s financial statements and the financial reporting process, including its system of internal control over financial reporting and its disclosure controls and procedures. The independent registered public accounting firm is responsible for performing an audit of Morphic Holding, Inc.'s financial statements in accordance with the standards of the Public Company Accounting Oversight Board (PCAOB) and issuing a report thereon. The Audit Committee's responsibility is to monitor and oversee these processes.

In connection with these responsibilities, the Audit Committee reviewed and discussed with management and the independent registered public accounting firm the audited consolidated financial statements of Morphic Holding, Inc. for the fiscal year ended December 31, 2022. The Audit Committee also discussed with the independent registered public accounting firm the matters required to be discussed by the applicable standards of the PCAOB and the SEC. In addition, the Audit Committee received written communications from the independent registered public accounting firm confirming their independence as required by the applicable requirements of the PCAOB and has discussed with the independent registered public accounting firm their independence.

Based on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements of Morphic Holding, Inc be included in Morphic Holding, Inc.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2022, that was filed with the SEC. The information contained in this report shall not be deemed to be (1) "soliciting material," (2) "filed" with the SEC, (3) subject to Regulations 14A or 14C of the Exchange Act, or (4) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent that we specifically incorporate it by reference into such filing.

THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS OF MORPHIC HOLDING, INC.

Joseph P. Slattery, CPA, Chair Martin Edwards Susannah Gray

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of April 1, 2023, by:

- each stockholder known by us to be the beneficial owner of more than 5% of our common stock;
- each of our directors or director nominees;
- each of our Named Executive Officers; and
- all of our directors and executive officers as a group.

Percentage ownership of our common stock is based on 39,641,462 shares of our common stock outstanding on April 1, 2023. We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities, and the information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable. We have deemed all shares of common stock subject to options or other convertible securities held by that person or entity that are currently exercisable or that will become exercisable within 60 days of April 1, 2023 to be outstanding and to be beneficially owned by the person or entity holding the option for the purpose of computing the percentage ownership of any other person or entity. Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Morphic Holding, Inc., 35 Gatehouse Drive A2, Waltham, Massachusetts 02451.

Name of beneficial owner	Number of shares beneficially owned (#)	Percentage of shares beneficially owned
5% Stockholders		
EcoR1 Capital, LLC ⁽¹⁾	3,846,966	9.7%
FMR LLC ⁽²⁾	5,782,873	14.6%
Polaris Entities ⁽³⁾	2,090,651	5.3%
Springer Entities ⁽⁴⁾	6,723,611	16.9%
Invus Public Equities, L.P. ⁽⁵⁾	2,150,000	5.4%
BlackRock, Inc. ⁽⁶⁾	2,090,925	5.3%
Executive Officers and Directors		
Praveen P. Tipirneni, M.D. ⁽⁷⁾	1,461,063	3.6%
Bruce N. Rogers, Ph.D. ⁽⁸⁾	432,613	1.1%
Marc Schegerin, M.D. ⁽⁹⁾	183,480	*
Norbert Bischofberger, Ph.D. ⁽¹⁰⁾	45,888	*
Gustav Christensen ⁽¹¹⁾	145,667	*
Martin Edwards, M.D. ⁽¹²⁾	27,246	*
Susannah Gray ⁽¹³⁾	11,319	*
Nisha Nanda, Ph.D. ⁽¹⁴⁾	9,657	*
Amir Nashat, Sc.D. ⁽¹⁵⁾	2,136,561	5.4%
Joseph P. Slattery, CPA ⁽¹⁶⁾	52,281	*
Timothy A. Springer, Ph.D. ⁽⁴⁾	6,723,611	16.9%
All current executive officers and directors as a group (13 persons) (17)	11,761,930	28.1%

* Represents beneficial ownership of less than one percent.

- (1) Represents: (i) 254,974 shares of common stock held by EcoR1 Capital Fund, L.P., or Capital Fund, and (ii) 3,591,992 shares of common stock held by EcoR1 Capital Fund Qualified, L.P., or Qualified Fund. The shares of common stock beneficially owned does not include an aggregate of 1,980,198 Warrant Shares issuable upon the exercise of Pre-Funded Warrants held by Capital Fund and Qualified Fund, which are subject to the 9.99% beneficial ownership blocker. EcoR1 Capital, LLC, or EcoR1, is the general partner of Capital Fund and Qualified Fund. Oleg Nodelman is the control person of EcoR1 and may be deemed to share voting dispositive power over the shares held by Capital Fund and Qualified Fund. The address of the above person and entities is 357 Tehama Street #3, San Francisco, CA 94103.
- (2) Based solely on information contained in a Schedule 13G/A filed with the SEC on February 9, 2023 by FMR LLC. Represents 5,782,873 shares of common stock held by FMR LLC as of December 31, 2022. The address of FMR LLC is 245 Summer Street, Boston, Massachusetts 02210.
- (3) Polaris Management Company VII, L.L.C., or PP GP VII, is the general partner of each of PP VII and PEF VII. PP GP VII may be deemed to have sole voting and investment power with respect to the shares owned by each of PP VII and PEF VII and disclaims beneficial ownership of these securities, except to the extent of its pecuniary interest therein. Amir Nashat, a member of our Board of Directors, Brian Chee, David Barrett, Bryce Youngren, Jonathan Flint and Terrance McGuire are the managing members of PP GP VII. Each of these managing members may be deemed to share voting and dispositive power over the shares held by each of PP VII and PEF VI. Each of these managing members disclaims beneficial ownership of such shares, except to the extent of their pecuniary interests therein. The address of Polaris Partners is One Marina Park Drive, 10th Floor, Boston, Massachusetts 02210.
- (4) Represents (i) 4,607,623 shares of common stock held directly, (ii) 42,873 shares of common stock held by Dr. Springer's spouse, (iii) 214,367 shares of common stock held by Springer-Lu Family 2004 Irrevocable Trust dated March 29, 2004, Fiduciary Trust Company of New England LLC, Trustee, over which shares Dr. Springer has no voting or dispositive control, (iv) 1,718,464 shares of common stock held by TAS Partners LLC, of which Dr. Springer is manager and has sole voting and dispositive control, and (v) 140,284 shares underlying option to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (5) Based solely on information contained in a Schedule 13G filed with the SEC on February 13, 2023 by Invus Public Equities, L.P., or Invus Public Equities. Represents 2,150,000 shares that Invus Public Equities directly holds. Invus PE Advisors, as the general partner of Invus Public Equities, controls Invus Public Equities and accordingly may be deemed to beneficially own the shares held by Invus Public Equities. The Geneva branch of Artal International, as the managing member of Invus PE Advisors, controls Invus PE Advisors and, accordingly, may be deemed to beneficially own. Artal International Management, as the managing partner of Artal International, controls Artal International and, accordingly, may be deemed to beneficially own the shares that Artal International may be deemed to beneficially own. Artal International Management, controls Artal International Management and, accordingly, may be deemed to beneficially own the shares that Artal International Management and, accordingly, may be deemed to beneficially own the shares that Artal International Management and, accordingly, may be deemed to beneficially own the shares that Artal International Management and, accordingly, may be deemed to beneficially own the shares that Artal International Management and, accordingly, may be deemed to beneficially own. The Stichting, as the majority stockholder of Westend, controls Westend and, accordingly, may be deemed to beneficially own. The Stichting and, accordingly, may be deemed to beneficially own. Mr. Amaury Wittouck, as the sole member of the board of the Stichting, controls the Stichting and, accordingly, may be deemed to beneficially own the shares that the Stichting may be deemed to beneficially own. The address of Invus Public Equities, L.P. is 750 Lexington Avenue, 30th Floor, New York, NY 10022.

- (6) Based solely on information contained in a Schedule 13G filed with the SEC on February 3, 2023 by BlackRock, Inc. Represents 2,090,925 shares of common stock held by BlackRock, Inc. as of December 31, 2022. The address of BlackRock, Inc. is 55 East 52nd Street, New York, New York 10055.
- (7) Represents (i) 13,936 shares of common stock held directly, (ii) 614,474 shares of common stock held by The Praveen P. Tipirneni Irrevocable Trust of 2019, the trustee of whom is Dr. Tipirneni's spouse, and (ii) 832,653 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (8) Represents (i) 117,055 shares of common stock and (ii) 315,558 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (9) Represents (i) 23,740 shares of common stock and (ii) 159,740 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (10) Represents 45,888 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (11) Represents (i) 100,517 shares of common stock and (ii) 45,150 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (12) Represents 27,246 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (13) Represents 11,319 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (14) Represents 9,657 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (15) Represents (i) 45,910 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023, (ii) 1,953,960 shares of common stock held by Polaris Partners VII, L.P., or PP VII, and (iii) 136,691 shares of common stock held by Polaris Partners Entrepreneurs Fund VII, L.P., or PEF VII. Polaris Management Company VII, L.L.C., or PP GP VII, is the general partner of each of PP VII and PEF VII and disclaims beneficial ownership of these securities, except to the extent of its pecuniary interest therein. Amir Nashat, a member of our board of directors, Brian Chee, David Barrett, Bryce Youngren, Jonathan Flint and Terrance McGuire are the managing members of PP GP VII. Dr. Nashat, as a managing members may be deemed to share voting and dispositive power over the shares held by each of PP VII and PEF VI but disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein.
- (16) Represents (i) 6,666 shares of common stock and (ii) 45,615 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
- (17) Represents (i) 9,597,584 shares of common stock and (ii) 2,164,346 shares underlying options to purchase common stock that are exercisable within 60 days of April 1, 2023.
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EXECUTIVE OFFICERS

Name	Age	Position(s)			
Praveen P. Tipirneni, M.D.	54	Chief Executive Officer and Director			
Marc Schegerin, M.D.	47	Chief Financial Officer and Chief Operating Officer			
Bruce N. Rogers, Ph.D.	54	President			
William D. DeVaul, Esq.	52	General Counsel and Secretary			
Robert E. Farrell, Jr., CPA	57	Senior Vice President of Finance and Chief Accounting Officer			

The following table provides information regarding our executive officers as of April 1, 2023:

Praveen P. Tipirneni, M.D. has served as our Chief Executive Officer and a member of our Board of Directors since July 2015, and served as our President from July 2015 to May 2022. Dr. Tipirneni's biographical information is set forth above under the heading "Proposal No. 1 Election of Class I Directors – Continuing Directors."

Marc Schegerin, M.D. has served as our Chief Financial Officer and Chief Operating Officer since April 2020. Prior to joining Morphic, he served as Chief Financial Officer, Treasurer and Head of Strategy & Communications at ArQule, Inc. a biotechnology company, from April 2018 to January 2020. Prior to ArQule, Dr. Schegerin served as Director at Citi Healthcare Investment Banking from June 2016 to April 2018, and as the Vice President of Investment Banking of Bank of America Merrill Lynch from August 2014 to June 2016. Prior to this, Dr. Schegerin served as the Senior Director of Sage Therapeutics, Inc., a pharmaceutical company, from 2013 to 2014, as the Program Director of Biogen Idec. from 2009 to 2013, and as an Associate of Goldman Sachs, from 2007 to 2008. Dr. Schegerin received his Master's in Business Administration and Medical Doctorate from Dartmouth.

Bruce N. Rogers, Ph.D. has served as our President since May 2022 and served as our Chief Scientific Officer from January 2016 to May 2022. From June 2014 to January 2016, Dr. Rogers served as the Head of Neuro-Opportunities at Pfizer Inc. Prior to that position, Dr. Rogers held positions of increasing responsibility within the medicinal chemistry organization at Pfizer Global R&D since August 2003. Dr. Rogers started his career in the private sector at Pharmacia & Upjohn Company LLC as a scientist from September 1998 to August 2003. Dr. Rogers received a B.A. in Chemistry from the University of Minnesota, a Ph.D. in Organic Chemistry from the University of California at Irvine and was a National Institutes of Health postdoctoral fellow at the University of California.

William D. DeVaul, Esq. has served as our General Counsel and Secretary since February 2019. From May 2015 to February 2019, he served as Vice President, Head of Intellectual Property at Evelo Biosciences, Inc., a biotechnology company. Prior to Evelo, Mr. DeVaul served Cubist Pharmaceuticals in various positions from December 2003 to February 2015, including most recently as Deputy Chief Intellectual Property Counsel. Mr. DeVaul earned a J.D. from Boston University School of Law and a B.A. in Biochemistry from Columbia University.

Robert E. Farrell, Jr., CPA has served as our Vice President of Finance and Operations and Assistant Treasurer since June 2015 and was promoted to Senior Vice President of Finance and Chief Accounting Officer in January 2020. From March 2015 to June 2015, Mr. Farrell worked as an independent consultant. From April 2009 to March 2015, Mr. Farrell served as Vice President of Finance and Administration and Treasurer of Genocea Biosciences Inc. Previously, Mr. Farrell served in various senior level financial positions at Oscient Pharmaceuticals Corp., Magen Biosciences, Inc. and NeoGenesis Pharmaceuticals, Inc. Mr. Farrell received a B.S. in Accounting from Bentley University.

EXECUTIVE COMPENSATION

Overview and Narrative

This overview and narrative ("Compensation Disclosure") describes the key elements of our executive compensation program and compensation decisions for our named executive officers, or NEOs, for 2022. This Compensation Disclosure is intended to be read in conjunction with the tables that immediately follow this section, which provide additional compensation information for our named executive officers. We are a "smaller reporting company" as defined under Rule 405 of the Securities Act of 1933, as amended, and, as such, we are exempt from various SEC reporting requirements, including the requirement to provide a Compensation Discussion and Analysis and certain other disclosures related to executive compensation. However, we believe the additional narrative disclosure with respect to our executive compensation program will provide our stockholders with further information regarding our company and our executive compensation program and practices and therefore will assist in their consideration of Proposal No. 3, the non-binding vote with respect to named executive officer compensation.

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Our 2022 NEOs were:

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Name	litte
Praveen P. Tipirneni, M.D.	Chief Executive Officer and Director
Marc Schegerin, M.D.	Chief Financial Officer and Chief Operating Officer
Bruce N. Rogers, Ph.D.	President

Summary Compensation Table

The following table presents summary information regarding the total compensation for services rendered in all capacities that was earned by our NEOs during the years ended December 31, 2022 and 2021, all amounts are in dollars:

Name	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) ^(a)	Option Awards (\$) ^(b)	Non-equity Incentive Plan Compensation (\$) ^(c)	All Other Compensation (\$) ^(d)	Total (\$)
Praveen P. Tipirneni, M.D.	2022	601,640	_	2,237,500	7,291,318	380,537	9,150	10,520,145
Chief Executive Officer	2021	578,500	—	_	4,483,412	381,810	8,700	5,452,422
Marc Schegerin, M.D.	2022	470,000	_	839,510	2,787,167	243,225	9,150	4,349,052
Chief Financial Officer and Chief Operating Officer	2021	434,700	_	_	1,815,235	234,738	8,700	2,493,373
Bruce N. Rogers, Ph.D. ⁽¹⁾	2022	507,045	_	907,530	3,563,633	271,688	9,150	5,259,046
President	2021	440,000	_	_	1,815,235	211,200	8,700	2,475,135

- (1) Dr. Rogers was appointed President of the Company in May 2022. Dr. Rogers' salary for the fiscal year ended December 31, 2022 represents his annual base salary of \$525,000 on a pro-rated basis to reflect his partial year of service as our President and his former annual base salary of \$475,600 on a pro-rated basis to reflect his partial year of service as our Chief Scientific Officer.
- (a) The amounts reported in the Stock Awards column represent the aggregate grant date fair value of RSUs granted to the NEOs during the year ended December 31, 2022, calculated in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The amounts reported in this column reflect the accounting cost for these stock awards, and do not correspond to the actual economic value that may be received by the NEO upon vesting of the stock awards. Assumptions used in the calculation of these amounts are included in Note 9 to the audited consolidated financial statements included in our 2022 Annual Report on Form 10-K.
- (b) The amounts reported in the Option Awards column represent the grant date fair value of the stock options granted to the NEOs during the years ended December 31, 2022 and 2021 as computed in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value of the stock options reported in the Option Awards column are set forth in Note 9 to the audited consolidated financial statements included in our 2022 Annual Report on Form 10-K. Note that the amounts reported in this column reflect the accounting cost for these stock options, and do not correspond to the actual economic value that may be received by the NEOs from the options.
- (c) The amounts reported in the Non-equity Incentive Plan Compensation represent annual performance-based bonuses earned by the NEOs during the years ended December 31, 2022 and 2021. For additional information regarding the non-equity incentive plan compensation, see "— Annual Performance-Based Bonus" below.
- (d) The amounts reported in the All Other Compensation column reflect 401(k) contributions paid by us on behalf of each NEO.

Narrative to the Summary Compensation Table

2022 Business and Financial Highlights

2022 was a year of significant progress for us. Performance highlights for 2022 include:

- Initiated and completed enrollment of EMERALD-1 open-label Phase 2a trial of MORF-057 in patients with moderate to severe ulcerative colitis;
- Initiated EMERALD-2 Phase 2b trial of MORF-057 in patients with moderate to severe ulcerative colitis;
- Underwent a proactive pipeline prioritization and implementation of increased operational efficiencies while raising \$39.2 million under our sales agreement for an "at the market" offering, providing cash runway into the second half of 2025; and
- Appointed two new vice presidents in Clinical Operations and Regulatory Affairs, which strengthened the executive team.

Overview of 2022 Pay Outcomes

We continue to reward our NEOs with competitive compensation packages that directly align pay with performance. The caliber of our performance in the areas of research, clinical and regulatory milestones drives our compensation structure, specifically the degree to which NEOs are granted equity and earn bonuses. Our Compensation Committee regularly examines our compensation program both from a design and pay outcome perspective. In line with our strong growth in 2021, with respect to compensation decisions for 2022, the Compensation Committee considered how our incentives provided appropriate levels of compensation considering our performance and growth stage. Key decisions include:

- **Base Salary** Base salaries are reviewed annually, typically in connection with our annual performance review process, and adjusted to realign salaries with market levels of compensation paid by our peer companies and after considering individual responsibilities, including promotion, and performance.
- Annual Performance-Based Bonuses The annual performance-based bonus opportunity is a variable, cash incentive program. It is intended to motivate and reward our executives for the achievement of key strategic goals of the Company. Annual bonuses were paid to our Chief Executive Officer and other NEOs at 115% of target based on strong achievement of corporate goals that contained important pre-established research, clinical, regulatory, strategic and financial milestones and stretch goals that were successfully met; and
- Long-term Equity Incentives Long-term equity awards incentivize executives to deliver long-term stockholder value, while also providing a retention vehicle for our top executive talent and promoting an ownership culture at the Company. Equity awards are typically delivered as a mix of time-vesting stock options and restricted stock units (RSUs). These awards are typically granted when an executive joins the Company, on an annual basis thereafter, and when the executive is promoted. The annual stock option and restricted stock unit grant to our Chief Executive Officer and other NEOs considered the strong success of the Company's continued clinical development and subsequent financings, their leadership and their efforts to strengthen the Company with a small team as a mid-size public company.

We will continue to review our compensation practices in the context of our growth and performance as a public company and will consider the input of our stockholders with respect to such programs and practices.

Compensation Determination Process

Stockholder Advisory Vote

At our annual meeting of stockholders on June 1, 2023, we will again conduct a non-binding stockholder advisory vote on the compensation of our NEOs (commonly known as a "Say-on-Pay" vote). We conducted our first Say-on-Pay vote in 2022, in which the stockholders approved on an advisory basis the compensation of our NEOs with a 99% support rate. We value the opinions of our stockholders, and the Compensation Committee and the Board of Directors considered the outcome of the advisory vote, and will continue to do so in the future, including the vote which will take place at the 2023 Annual Meeting, when making compensation decisions for the NEOs.

Role of the Compensation Committee

The Compensation Committee, or the Board of Directors upon recommendation from the Compensation Committee, establishes the annual compensation, including salaries, bonuses and equity awards for our Chief Executive Officer and our executives. Generally, the Compensation Committee's process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations by the Chief Executive Officer. In the case of the Chief Executive Officer, the evaluation of his performance is conducted by the Board of Directors upon recommendation from the Compensation Committee, which determines any adjustments to his compensation as well as awards to be granted. For all executives, as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, tax and accounting information, tally sheets that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and recommendations of the Compensation Committee's compensation consultant, including analyses of executive compensation paid at other companies identified by the consultant.

The Compensation Committee meets periodically throughout the year to manage and evaluate our executive compensation program, and generally determines, subject to any Board approval the Committee requests, the principal components of compensation (base salary, performance bonus and equity awards) for our executive officers on an annual basis, typically early in each fiscal year; however, decisions may occur later in the year for new hires, promotions or other special circumstances as our Compensation Committee determines appropriate. The Compensation Committee does not delegate authority to approve executive officer compensation.

Role of Chief Executive Officer & Management

Our Chief Executive Officer provides the Compensation Committee with input and recommendations related to the compensation of our other NEOs. The Chief Executive Officer does not participate in, nor is present during, any deliberations or determinations of the Compensation Committee or the Board of Directors regarding his compensation or individual performance objectives. From time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings.

Peer Group

We use a peer group to provide a broad perspective on competitive pay levels and practices.

For our 2022 peer group, the Compensation Committee, with assistance from Aon, reviewed similar companies with respect to sector, stage of development and market capitalization. The 2022 peer group was ultimately chosen based on these characteristics and others including:

- Sector public pre-commercial Biotechnology/Pharmaceuticals organizations;
- Stage of Development focus on Phase 1 to 2 clinical trial companies with emphasis on companies that have been public for five years or less;
- Market Capitalization \$700 million to \$6.5 billion market capitalization range;
- Size companies with under 400 employees; and
- Location companies in Boston and other biotech talent hubs.

Based on the above market data, Aon compiled, and the Compensation Committee approved the updated peer group of companies for 2022, and this group was used to make the relevant compensation assessments for 2022. Following are the companies included in this 2022 peer group:

Alector	Protagonist Therapeutics
Arcus Biosciences	RAPT Therapeutics
Arvinas+	Relay Therapeutics+
C4 Therapeutics+	Replimune Group
Editas Medicine+	Rubius Therapeutics
Kymera Therapeutics+	Scholar Rock
Mersana Therapeutics	Stoke Therapeutics
NGM Biopharmaceuticals+	Syndax Pharmaceuticals+
Pliant Therapeutics	Translate Bio
Prometheus Biosciences+	Turning Point Therapeutics+

+New addition to peer group for 2022 to replace companies from the 2021 peer group based on changes in their market capitalization (Atreca, Calithera Bioscienses, CytomX Therapeutics, Intellia Therapeutics, Magenta Therapeutics, Protagonist Therapeutics, TCR2 Therapeutics, and Unity Biotechnology) or by acquisition (Constellation Pharmaceuticals).



Overview of Compensation Program Governance

What We Do	What We Don't Do
Pay for performance - structure a substantial portion of pay to be "at risk" and based on Company and individual performance	No excise tax or other gross ups on a change in control
Annual incentives are based on achievement of rigorous corporate goals	No single trigger change in control benefits
Maintain a long-term strategic plan for equity compensation and avoid undue emphasis on short-term value	No guaranteed bonuses
Meaningful engagement with stakeholders	No retirement programs other than our 401(k)
Retain an independent compensation consultant	Hedging is prohibited and pledging is prohibited without advanced approval
Review peer group and peer pay regularly as reference point	

Maintain an independent Compensation Committee

Base Salary

Base salaries for our NEOs are initially established through arm's-length negotiation at the time the executive is hired, considering such executive's qualifications, experience, prior salary, the scope of the executive's responsibilities, and competitive market compensation paid by other companies for similar positions within the industry. Base salaries are reviewed annually, typically in connection with our annual performance review process, and adjusted from time to time to realign salaries with market levels of compensation paid by our peer companies and after considering individual responsibilities, performance and experience.

For 2022, our Board of Directors approved increases to base salaries for our NEOs in each case based on performance and evaluation of the third-party market compensation data and recommendations from Aon, as necessary to be competitive with our peer group. The 2022 base salary increases became effective on January 1, 2022, except for the increase in Dr. Rogers' base salary upon his promotion to President, which became effective as of May 11, 2022.

Annual Performance-Based Bonus

In addition to base salaries, our NEOs are eligible to receive annual performance-based cash bonuses, which are designed to provide appropriate incentives to our executives to achieve defined corporate goals and individual goals and to reward our executives who significantly impact our corporate results.

Annual corporate goals are established by the Board of Directors at the beginning of each year to which they relate, taking into consideration the recommendations of the Compensation Committee. The annual performance-based bonus each NEO is eligible to receive is determined based on (i) the individual's target bonus, as a percentage of base salary and (ii) achievement of corporate goals, as determined by the Compensation Committee. For 2022, the Compensation Committee recommended and the Board approved a mix of predefined corporate goals, based on the achievement of various research, clinical and regulatory milestones related to our clinical development programs, as well as financial and strategic objectives. The corporate goals contain specific additional stretch goals that may further raise target bonus payouts by up to an additional 50% of target, and our Compensation Committee and/or Board of Directors may consider other performance factors to provide for additional or reduced achievement. Each of these goals pertain to confidential Company development and business plans, the disclosure of which in any additional granularity would result in competitive harm to the Company. The Compensation Committee believed that each of these goals would be challenging to achieve. The actual performance-based bonus paid, if any, is calculated by multiplying the executive's annual base salary, target bonus percentage and percentage achievement of the respective corporate goals, including the stretch goals.

Shortly following the close of the applicable fiscal year, the Compensation Committee reviews our corporate performance against the pre-established performance goals and determines whether and the extent to which the corporate goals were met, and whether there were any other extraordinary factors or additional corporate performance considerations that should be considered in determining the amount of bonus earned for the year and makes a recommendation to the Board of Directors. The Board of Directors, following its review of the recommendation from the Compensation Committee, approves the extent to which we achieved the corporate goals.



Our corporate goals for 2022 and the relative weighting of each corporate goal were as follows:

- Advance α4β7 (including objectives related to the ongoing MORF-057 Phase 2 clinical trials, regulatory submissions and preparation for future regulatory submissions for other α4β7 inhibitors) weighted at 50%;
- Advance early internal programs; progress the existing programs in the pipeline (weighted at 40%); and
- Corporate development and financing (weighted at 10%).

Our Board of Directors also established additional, or stretch, corporate goals weighted at up to an additional 50%, including achievement of more than one regulatory designation and accelerated timelines in certain of our clinical programs.

In January 2023, our Compensation Committee and our Board of Directors reviewed our 2022 corporate goals and determined that the base corporate goals were achieved at 100% (out of the maximum of 100%) based on strong achievement of objectives related to the advancement of the pipeline programs. Stretch goals for 2022 were achieved at 15% (out of the maximum of 50%) based on the successful achievement of advancing the MORF-057 Phase 2 clinical trials and the execution of fiscal discipline to further extend the cash runway of the Company. Combined these achievements result in a corporate performance achieved bonus payout of 115%.

The performance-based cash bonus targets and actual awards for each of our NEOs approved by our Compensation Committee for 2022 are shown in the following table:

Name	2022 Base Salary (\$)	2022 Target Bonus (% of base salary)	2022 Target Bonus (\$)	2022 Bonus Payout (\$)	2022 Bonus Payout (% of target bonus)
Praveen P. Tipirneni, M.D.	601,640	55%	330,902	380,537	115%
Marc Schegerin, M.D.	470,000	45%	211,500	243,225	115%
Bruce N. Rogers, Ph.D. ⁽¹⁾	525,000	45%	236,250	271,688	115%

⁽¹⁾ Bruce N. Rogers, Ph.D., served as our Chief Scientific Officer until his appointment as President on May 11, 2022. Upon his promotion, his 2022 base salary was increased to \$525,000.

Long-term Incentive Program

Our long-term, equity-based incentive awards are designed to align the interests of our NEOs and our other employees, non-employee directors and consultants with the interests of our stockholders. Starting in January 2022, we have awarded annual refresher equity-based incentive awards of stock options and RSUs at or shortly following the end of each year, each of which are subject to vesting over a period of multiple years to facilitate retention. The stock option grants are intended to create a direct link between our NEO's compensation and our stock price appreciation and represent approximately 75% of our long-term incentive mix. Because the executive must pay a cash exercise price equal to the value of the stock on the date the option is granted, the executive will only receive value from the option grant if the value of our stock increases following the option grant date. We also believe that if our executives own shares of our common stock with value that is significant to them, but which value cannot be immediately realized, they will have an incentive to act to maximize longer-term stockholder value instead of short-term gain. Our stock option awards are granted subject to vesting restrictions, so they are earned over a period of years during the executive officer's continued service with us following the option grant date. After considering our growth and market practices, starting in January 2022 RSUs were included in the long-term incentive mix representing approximately 25% of the mix. We believe that RSUs provide a strong retention vehicle for our executives, particularly during any periods of stock price volatility and enables us to manage the shares available under our equity plan more efficiently. Similar to our stock option awards, RSUs are granted subject to vesting restrictions, so they are earned over a period of years during the executive officer's continued service with us following the RSU grant date.

The size of the options and RSU grants to any individual is determined based on several factors including performance as well as the total number of shares available for grant under our Equity Incentive Plan, and the levels of equity compensation, both from the perspective of grant date values and as a percent of common shares outstanding, then held by our NEOs and as provided by our peer companies to their executives. In determining the size of the 2022 grant to Dr. Tipirneni, the Compensation Committee considered not only the traditional considerations of his individual performance and the number of unvested stock options currently held by Dr. Tipirneni, but also the strong success of the Company's progress as a clinical stage company and subsequent financings achieved under his leadership.

The following table summarizes the stock option and RSU grants to our NEOs in 2022:

Name	2022 Stock Option Grant (# Shares)	2022 Restricted Stock Unit Grant (# Shares)	Туре
Praveen P. Tipirneni, M.D.	224,016	50,000	Annual
Marc Schegerin, M.D.	85,632	18,760	Annual
Bruce N. Rogers, Ph.D.	124,140	20,280	Annual and Promotion ⁽¹⁾

⁽¹⁾ Bruce N. Rogers, Ph.D. was granted options to purchase 92,640 shares of common stock and 20,280 RSUs pursuant to his annual grant and was granted options to purchase 31,500 shares of common stock with his promotion to President in May 2022.

All of the annual stock option grants made to our NEOs, and the stock option grant made to Dr. Rogers in connection with his promotion, vest monthly in equal increments over a four-year period subject to the NEO's continued services with us. All of the RSU grants made to our NEOs vest annually in equal increments over a four-year period subject to the NEO's continued services with us.

Additional Compensation Policies and Practices

Perquisites, Retirement, Health and Welfare Benefits

Our NEOs are eligible to participate in all of our employee benefit plans, including our medical, dental, vision, group life and disability insurance plans, in each case on the same basis as our other employees. We pay the premiums for term life insurance and disability insurance for all our employees, including our NEOs. None of our NEOs participate in or have account balances in qualified or non-qualified defined benefit, or non-qualified defined contribution plans sponsored by us. We provide a 401(k) plan for all our eligible employees, including our NEOs. In 2022, we made matching contributions into the 401(k) plan on behalf of participants, matching 50% of participant contributions up to 6% of eligible compensation up to an annual maximum of \$9,150.

Compensation Recovery Policies

As a public company subject to the provisions of Section 304 of the Sarbanes-Oxley Act of 2002, if we are required as a result of misconduct to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws, our Chief Executive Officer and Chief Financial Officer may be legally required to reimburse us for any bonus or other incentive-based or equity-based compensation they receive. In addition, we will comply with the requirements of the Dodd-Frank Act and will adopt a compensation recovery policy once the Nasdaq has adopted listing standards that require issuers to adopt and comply with compensation recovery policies, and to provide disclosure about the policies and their implementation, consistent with a final SEC rule adopted in November 2022 to implement the compensation recovery provisions of the Dodd-Frank Act.

Anti-Hedging and Pledging Policy

Our Insider Trading policy expressly prohibits each of our directors, officers and employees from engaging in any speculative transaction designed to decrease the risks associated with holding our securities, including hedging or similar transactions. We also prohibit any pledging of our securities as collateral for loans and the holding of our securities in margin accounts, except with advanced approval.

Outstanding Equity Awards at 2022 Fiscal Year-End Table

		Option Awards				Stock Awards	
Name	Vesting Commencement Date of Option Award or Stock Award	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Restricted Stock That Have Not Vested (\$)(1)
Praveen P. Tipirneni, M.D.	1/14/2022 (2)	51,337	172,679	44.75	1/14/2032	50,000	1,337,500
Chief Executive Officer	1/15/2021 (3)	98,229	106,771	30.19	1/15/2031	—	_
	2/18/2020 (4)	193,622	79,728	15.42	2/18/2030	_	
	12/14/2018 (5)	401,550	—	4.32	12/14/2028	—	—
Marc Schegerin, M.D.	1/14/2022 (2)	19,624	66,008	44.75	1/14/2032	18,760	501,830
Chief Financial Officer and Chief Financial Officer	1/15/2021 (3)	39,770	43,230	30.19	1/15/2031	—	—
	4/6/2020 (6)	108,734	75,200	15.00	4/6/2030	—	—
Bruce N. Rogers, Ph.D.	5/16/2022 (2)	4,593	26,907	23.74	5/16/2032	—	—
President	1/14/2022 (2)	21,230	71,410	44.75	1/14/2032	20,280	542,490
	1/15/2021 (3)	39,770	43,230	30.19	1/15/2031	—	_
	2/18/2020 (4)	72,179	29,721	15.42	2/18/2030	—	—
	12/14/2018 (5)	148,114	_	4.32	12/14/2028	—	_

(1) Based on the closing price of our common stock on December 31, 2022 of \$26.75 per share.

(2) The outstanding options were granted under our Amended and Restated 2019 Equity Incentive Plan ("2019 Plan") and vest in 48 equal monthly installments over the four-year period following the vesting commencement date. The outstanding RSUs were granted under our 2019 Plan and vest in four equal annual installments over a four-year period following the vesting commencement date. In each case, subject to the NEO's continued employment with the Company on each vesting date.

(3) The outstanding options were granted under our 2019 Plan and vest in 48 equal monthly installments over the four-year period following the vesting commencement date.

(4) The outstanding options were granted under our 2019 Plan and vest in 48 equal monthly installments over the four-year period following the vesting commencement date.

(5) The outstanding options were granted under our 2018 Stock Incentive Plan and vest in 48 equal monthly installments over the four-year period following the vesting commencement date.

(6) The outstanding options were granted under our 2019 Plan and vest as follows: 25% vested on April 6, 2021, with the remaining 75% vesting in equal monthly installments for the next 36 months thereafter.

Employee Offer Letters

Offer Letters

We have entered into amended and restated offer letters with each of our NEOs effective on the day immediately prior to the effectiveness of the registration statement filed in connection with the IPO, except for Dr. Schegerin which was entered into at his time of employment, and which provide for at-will employment and include each NEO's base salary, discretionary annual incentive bonus opportunity, and standard employee benefit plan participation. The offer letters also provide that the executives will be eligible to receive certain benefits under the Change in Control and Severance Agreement entered into between us and each NEO. On February 23, 2022, the Board of Directors approved a new form of Change in Control and Severance Agreement which became effective when executed in 2022 with our NEOs.

Change in Control Severance Agreements

We have entered into Change in Control and Severance Agreements with each of our NEOs.

These agreements provide for benefits upon either a termination by us of the executive officer's employment without "cause" or a resignation by the executive officer for "good reason" (each as defined in the Change in Control and Severance Agreement and as described below). We refer to either of these terminations as a "qualifying termination." The benefits provided under the Change in Control and Severance Agreements vary depending on whether the executive officer is subject to a qualifying termination within a period commencing three months prior to a "change in control" (as defined in the Severance and Change in Control Agreement) and ending 12 months following such change of control, which period we refer to as the change in control period.

If a qualifying termination occurs prior to or after the change of control period, subject to the executive officer's timely execution and non-revocation of a release of claims, the executive officer will be entitled to:

- 12 months' continued payment of base salary, in the case of Dr. Tipirneni and 9 months' continued payment of base salary in the case of Dr. Schegerin and Dr. Rogers; and
- if the executive officer elects to continue his health insurance coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, or COBRA, payment of the premiums for his continued health insurance (or equivalent cash payment, if applicable law so requires) for up to 12 months in the case of Dr. Tipirneni and up to 9 months in the case of Dr. Schegerin and Dr. Rogers.

If a qualifying termination occurs during the change of control period, subject to the executive officer's timely execution and non-revocation of a release of claims, the executive officer will be entitled to:

- 18 months of base salary, in the case of Dr. Tipirneni and 12 months of base salary in the case of Dr. Schegerin and Dr. Rogers, payable in a lump sum on the first business day occurring after the 60th day following such termination of employment;
- 150% of the executive's target bonus, in the case of Dr. Tipirneni, and 100% of the executive's target bonus in the case of Dr. Schegerin and Dr. Rogers, payable in a lump sum on the first business day occurring after the 60th day following such termination of employment;
- if the executive officer elects to continue his health insurance coverage under COBRA, payment of the premiums for his continued health insurance (or equivalent cash payment, if applicable law so requires) for up to 18 months in the case of Dr. Tipirneni and up to 12 months in the case of Dr. Schegerin and Dr. Rogers; and
- full acceleration of each of the executive officer's then-outstanding but unvested equity awards, provided that the grant agreement for any performance-based equity awards may provide for alternative treatment upon a qualifying termination in the change in control period and, absent any such provision for alternative treatment, any performance-based awards, if any, will be deemed to have been achieved "at target."

Each NEO will also be entitled to any earned but unpaid bonus for any performance periods that have been completed as of the date of such executive officer's termination of employment, for any terminations of employment other than a termination of employment for cause.

For purposes of the Change in Control and Severance Agreements, "cause" generally means the following:

- engaging in theft, fraud and/or dishonesty which, in the judgement of the Board of Directors could be harmful to us;
- gross negligence or willful misconduct in the performance of the executive's assigned duties;
- gross neglect or willful refusal to attend to the material responsibilities assigned to the executive;
- the executive's material breach of the Change in Control and Severance Agreement or the Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement between the executive and us;
- conviction (or a plea of no contest or similar plea or the entry of an order or judgement that requires a determination of guilt or responsibility) of a felony or for any crime involving moral turpitude or dishonesty;
- knowingly providing or making untruthful or misleading statement to us, whether by commission or omission;
- any willful failure to carry out a specific written directive of our Board of Directors; or
- an intentional violation of any of our material policies or procedures, including without limitation, any equal employment opportunity or antiharassment policies.

For purposes of the Change in Control and Severance Agreements, "good reason" generally means the following without the executive's prior written consent:

- a reduction in the amount of the executive's then-current salary;
- a material diminution in the executive's position, authority, duties, or responsibilities;
- the relocation of the Executive's permanent and generally assigned place of work more than 50 miles from Executive's then-current permanent and generally assigned place of work;
- any material failure by us to comply with any of the provisions of the Change in Control and Severance Agreement or any offer letter or employment agreement between the executive and us; or
- during a change in control period, a change in reporting such that Executive does not report to the board of directors of the ultimate parent company or a change in reporting such that Executive reports to someone other than the Company's Chief Executive Officer or the Chief Executive Officer of the ultimate parent company.

Restrictive Covenants

Dr. Tipirneni and Dr. Rogers have also entered into Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreements with us, which agreement contain 12-month post-termination non-competition and non-solicitation covenants. Dr. Schegerin does not have a Non-Disclosure, Non-Competition and Assignment of Intellectual Property Agreement with us.

PAY VERSUS PERFORMANCE

In accordance with the SEC's disclosure requirements, we are providing the following information about the relationship between executive compensation, our total shareholder return and net income for the most recent two years. For further information about our executive compensation program, including how we link compensation to performance, see "Executive Compensation", above.

Pay Versus Performance Table

The following table sets forth information concerning the compensation of our named executive officers for each of the fiscal years ended December 31, 2022 and 2021, and our financial performance for each such fiscal year. The amounts shown for "Compensation Actually Paid" reflects the Summary Compensation Table total with certain adjustments, as described in footnote 2, below, but does not reflect compensation actually earned, realized, or received by our NEOs.

				Value of initial fixed \$100 investment based on:		
Summary Compensation Table Compensation total for PEO actually paid to PEO Year ⁽¹⁾ (\$) (\$) ⁽²⁾		Average Summary Compensation Table total for Non-PEO NEOs (\$)	Average compensation actually paid to Non- PEO NEOs (\$) ⁽²⁾	Total shareholder return (\$)	Net Income (\$)	
2022	10,520,145	1,410,835	4,804,049	1,334,396	79.73	(59,041,000)
2021	5,452,422	16,854,820	2,371,089	5,494,363	141.22	(95,542,000)

(1) For each fiscal year shown our principal executive officer, or PEO and our remaining NEOs or Non-PEO NEOs, represent the following individuals:

Year	PEO	Non-PEO NEOs				
2022	Praveen P. Tipirneni, M.D.	Marc Schegerin, M.D., Bruce N. Rogers, Ph.D.				
2021	Praveen P. Tipirneni, M.D.	Marc Schegerin, M.D., Bruce N. Rogers, Ph.D., Peter G. Linde, M.D., William D. DeVaul, Esq.				

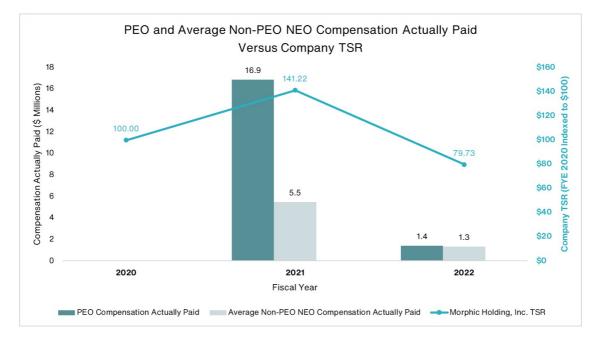
(2) Amounts represent compensation actually paid to our PEO and the average compensation actually paid to our Non-PEO NEOs for the relevant fiscal year, as determined under Item 402(v)(2)(iii) of Regulation S-K to calculate "compensation actually paid", which includes the following adjustments:

	2022		2021		
	РЕО	Average for Non-PEO NEOs	РЕО	Average for Non-PEO NEOs	
Summary Compensation Table	10,520,145	4,804,049	5,452,422	2,371,089	
Adjustments					
Deductions for amounts reported under the "Stock Awards" and "Option Awards" column of the Summary Compensation Table ^(a)	(9,528,818)	(4,048,920)	(4,483,412)	(1,771,495)	
Increase/(decrease) for the Inclusion of Rule 402(v) Equity Values: ^(a)					
Year-End Fair Value of Equity Awards Granted During Year That Remained Unvested as of Last Day of Year	4,907,580	2,267,460	6,526,845	1,918,276	
Fair Value on Vesting Date of Equity Awards Granted During the Year that Vested During the Year	1,271,167	558,933	2,291,300	905,309	
Change in Fair Value from Last Day of Prior Year to Last Day of the Year of Unvested Equity Awards	(1,293,476)	(833,849)	3,654,825	1,139,055	
Change in Fair Value of Prior Years' Equity Awards that Vested During the Year	(4,465,763)	(1,413,277)	3,412,841	1,986,635	
Change in Value of Prior Years' Equity Awards that Forfeited During the Year		—	—	(1,054,506)	
Compensation Actually Paid	1,410,835	1,334,396	16,854,821	5,494,363	

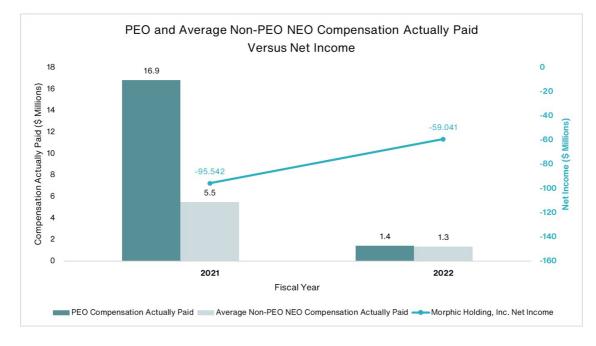
(a) Compensation actually paid to our named executive officers represents the "Total" compensation reported in the Summary Compensation Table for the applicable fiscal year and then adjusted for equity compensation. The compensation actually paid includes a deduction of the "Stock Awards" and "Option Awards" compensation reported in the Summary Compensation Table. The Rule 402(v) Equity Values instead reflect the aggregate of the following components, as applicable. Equity compensation is increased based on: (i) the FASB ASC Topic 718 fair value of awards granted during the current fiscal year that remain unvested as of the applicable fiscal year-end, determined at the end of the applicable fiscal year and (ii) the FASB ASC Topic 718 fair value of awards granted during the applicable fiscal year that vested during the fiscal year, determined as of the vesting date. Equity compensation is then increased or decreased, as applicable, based on: (ii) the change in the FASB ASC Topic 718 fair value of awards that were granted during a prior fiscal year-end and were outstanding and unvested as of the applicable fiscal years, (iv) the change in the FASB ASC Topic 718 fair value of awards that were granted during a prior fiscal year that vested during the applicable fiscal year, determined as of the end of the prior fiscal year end, determined as of the end of the prior and applicable fiscal year, (iv) the change in the FASB ASC Topic 718 fair value of awards that were granted during a prior fiscal year that vested during the applicable fiscal year, determined as of the end of the prior fiscal year. (iv) the change in the FASB ASC Topic 718 fair value of awards that were granted during a prior fiscal year that vested during the applicable fiscal year, determined as of the end of the prior fiscal year. (iv) the change in the FASB ASC Topic 718 fair value of awards that were granted during a prior fiscal year that vested during the applicable fiscal year, determined as of the end of the prior fiscal year. (iv) the chase a

Supplemental Graphs and Narratives

The graph below compares the compensation actually paid to our PEO and the average of the compensation actually paid to our Non-PEO NEOs, with our cumulative total shareholder return, or TSR, for the fiscal years ended December 31, 2022 and 2021. TSR amounts reported in the graph assume an initial fixed investment of \$100.



The graph below compares the compensation actually paid to our PEO and the average of the compensation actually paid to our Non-PEO NEOs, with our net income, for the fiscal years ended December 31, 2022 and 2021.



EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth certain information, as of December 31, 2022, concerning securities authorized for issuance under all of our equity compensation plans: our 2018 Stock Incentive Plan, which terminated when we adopted the 2019 Equity Incentive Plan, and the 2019 Employee Stock Purchase Plan, or the ESPP.

	Number of Securities to be Issued Upon Exercise of Outstanding Options, RSUs, Warrants and Rights (#)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (#) ⁽¹⁾	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (#)(a)			
Plan Category	(a)	(b)	(c)			
Equity compensation plans approved by security holders	5,512,643	\$24.94	2,911,566 ⁽²⁾			
Equity compensation plans not approved by security holders	—	—	_			
Total	5,512,643	\$24.94	2,911,566			

(1) The weighted average exercise price does not take into account the shares subject to outstanding RSUs, which have no exercise price.

(2) Represents 1,769,362 shares available for issuance under the 2019 Plan, which plan permits the grant of incentive and non-qualified stock options, stock appreciation rights, restricted stock, stock awards and RSUs; and 1,142,204 shares available for issuance under the ESPP. The 2019 Plan and ESPP each contain an "evergreen" provision, pursuant to which on January 1st of each year we automatically add 4% and 1% of our shares of common stock outstanding on the preceding December 31st to the shares reserved for issuance, respectively. In addition, pursuant to a "pour over" provision in the 2019 Plan, options that were cancelled, expired or terminated under the 2018 Stock Incentive Plan were added to the number of shares reserved for issuance under the 2019 Plan.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements, with our directors and executive officers, including those discussed in the sections entitled "Management" and "Executive Compensation," the following is a description of each transaction since January 1, 2022 and each currently proposed transaction in which:

- we have been or are to be a participant;
- the amounts involved exceeded or will exceed the lesser of \$120,000 and 1% of our total assets; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member of the foregoing persons, had or will have a direct or indirect material interest.

Insider Participation in Private Placement

On February 13, 2023, we entered into a securities purchase agreement with existing investors for a private placement whereby we agreed to sell and issue 848,655 shares of our common stock at a price of \$35.35 per share and pre-funded warrants to purchase 1,980,198 shares of common stock at a purchase price of \$35.3499 where each pre-funded warrant has an exercise price of \$0.0001 per share. We received aggregate net proceeds of approximately \$100.0 million before deducting costs and offering expenses payable by us. The following table summarizes the shares of common stock purchased by our executive officers, members of our board of directors or their affiliates and holders of more than 5% of our outstanding capital stock in an amount exceeding \$120,000:

Name of insider	Number of shares of common stock purchased	Number of pre-funded warrants purchased	Total purchase price (\$)
EcoR1 Capital Fund, L.P.	-	112,871	\$3,989,979
EcoR1 Capital Fund Qualified, L.P.	-	1,867,327	\$66,009,823
Timothy A. Springer	42,432	-	\$1,499,971
TAS Partners, LLC	806,223	-	\$28,499,983

Other than as described in the preceding paragraph, there have not been, nor are there any currently proposed, transactions or series of similar transactions to which we have been or will be a party other than compensation arrangements, which are described where required under the section entitled "Executive Compensation."

Policies and Procedures for Related Party Transactions

Our Board has adopted a written related person transactions policy that provides that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of our common stock, and any members of the immediate family of and any entity affiliated with any of the foregoing persons, are not permitted to enter into a material related person transaction with us without the review and approval of our Audit Committee, or a committee composed solely of independent directors in the event it is inappropriate for our Audit Committee to review such transaction due to a conflict of interest. The policy provides that any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of our common stock or with any of their immediate family members or affiliates in which the amount involved exceeds \$120,000 will be presented to our Audit Committee (or the committee composed solely of independent directors, if applicable) for review, consideration and approval. In approving or rejecting any such proposal, we expect that our Audit Committee (or the committee composed solely of independent directors, if applicable) will consider the relevant facts and circumstances available and deemed relevant to the Audit Committee (or the committee composed solely of independent directors, if applicable), including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction.

ADDITIONAL INFORMATION

Stockholder Proposals to be Presented at Next Annual Meeting

Requirements for Stockholder Proposals to be Brought Before an Annual Meeting. Our bylaws provide that for stockholder nominations to our Board of Directors or other proposals to be considered at an annual meeting of stockholders, the stockholder must give timely notice thereof in writing to the Corporate Secretary at Morphic Holding, Inc., 35 Gatehouse Drive, A2, Waltham, Massachusetts 02451.

To be timely for our company's annual meeting of stockholders to be held in 2024 (2024 Annual Meeting), a stockholder's notice must be delivered to or mailed and received by our Corporate Secretary at our principal executive offices not earlier than the close of business on February 23, 2024 and not later than the close of business on March 25, 2024. A stockholder's notice to the Corporate Secretary must set forth as to each matter the stockholder proposes to bring before the 2024 Annual Meeting the information required by applicable law and our bylaws. However, if the date of the 2024 Annual Meeting is more than 30 days before or more than 60 days after the one-year anniversary of the date of the Annual Meeting, for the stockholder notice to be timely, it must be delivered to the Corporate Secretary at our principal executive offices (1) not earlier than the close of business on the 105th day prior to the currently proposed annual meeting and (2) not later than the close of business on the later of the 75th day prior to such annual meeting or the close of business on the 10th day following the day on which public announcement of the date of such meeting is first made by us. To comply with our bylaws as well as the universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than our nominees for 2024 Annual Meeting must ensure that our Corporate Secretary receives written notice that sets forth all information required by our bylaws and by Rule 14a-19(b) under the Exchange Act within the time frames set forth above.

Requirements for Stockholder Proposals to be Considered for Inclusion in our Proxy Materials. Stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act and intended to be presented at our 2024 Annual Meeting must be received by us not later than December 30, 2023 in order to be considered for inclusion in our proxy materials for that meeting. A stockholder's notice to the Corporate Secretary must set forth as to each matter the stockholder proposes to bring before the 2024 Annual Meeting the information required by applicable law and our bylaws.

Available Information

We will mail without charge, upon written request, a copy of our Annual Report on Form 10-K for the year ended December 31, 2022, including the financial statements and list of exhibits, and any exhibit specifically requested. Requests should be sent to:

Morphic Holding, Inc. 35 Gatehouse Drive, A2, Waltham, Massachusetts 02451 Attn: Investor Relations

The Annual Report on Form 10-K is also available at https://investor.morphictx.com/sec-filings.

"Householding" - Stockholders Sharing the Same Address

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to implement a delivery procedure called "householding." Under this procedure, multiple stockholders who reside at the same address may receive a single copy of our Annual Report on Form 10-K and proxy materials, including the Notice of Internet Availability, unless the affected stockholder has provided other instructions. This procedure reduces printing costs and postage fees and helps protect the environment as well.

We expect that a number of brokers with account holders who are our stockholders will be "householding" our Annual Report on Form 10-K and proxy materials, including the Notice of Internet Availability. A single Notice of Internet Availability and, if applicable, a single set of Annual Report on Form 10-K and other proxy materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from one or more of the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. Stockholders may revoke their consent at any time by contacting their broker. Stockholders may revoke their consent at any time by contacting Computershare Trust Company, N.A., either by calling toll-free (800) 962-4284, or by writing to Computershare Trust Company, N.A., 250 Royall Street, Canton, Massachusetts 02021.

Upon written or oral request, we will undertake to promptly deliver a separate copy of the Notice of Internet Availability and, if applicable, Annual Report on Form 10-K and other proxy materials to any stockholder at a shared address to which a single copy of any of those documents was delivered. To receive a separate copy of the Notice of Internet Availability and, if applicable, Annual Report on Form 10-K and other proxy materials, you may write our Investor Relations Department at Morphic Holding, Inc., 35 Gatehouse Drive, A2, Waltham, Massachusetts 02451, Attn: Investor Relations, submit a request on our website at www.morphictx.com/contact, or submit an oral request at 781-996-0955.

Any stockholders who share the same address and currently receive multiple copies of our Notice of Internet Availability or Annual Report on Form 10-K and other proxy materials who wish to receive only one copy in the future can contact their bank, broker or other holder of record to request information about "householding" or our Investor Relations Department at the address or telephone number listed above.

OTHER MATTERS

Our Board of Directors does not presently intend to bring any other business before the meeting and, so far as is known to the Board of Directors, no matters are to be brought before the meeting except as specified in the notice of the meeting. As to any business that may arise and properly come before the meeting, however, it is intended that proxies, in the form enclosed, will be voted in respect thereof in accordance with the judgment of the persons voting such proxies.

APPENDIX A

CERTIFICATE OF AMENDMENT OF RESTATED CERTIFICATE OF INCORPORATION OF

MORPHIC HOLDING, INC.

Morphic Holding, Inc. (hereinafter called the "**Corporation**"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"), does hereby certify as follows:

1. That the name of this Corporation is Morphic Holding, Inc., and that this Corporation was originally incorporated pursuant to the General Corporation Law on December 5, 2018 under the name Morphic Holding, Inc. The Restated Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on July 1, 2019 (the "**Restated Charter**").

2. <u>Amendment to Article SEVENTH</u>.

Article SEVENTH of the Restated Charter is hereby amended and restated in its entirety as follows:

"ARTICLE VII: LIMITATION OF LIABILITY

1. <u>Limitation of Liability</u>. To the fullest extent permitted by law, neither a director of the Corporation nor an officer of the corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, as applicable. Without limiting the effect of the preceding sentence, if the General Corporation Law is hereafter amended to authorize the further elimination or limitation of the liability of a director or officer, then the liability of a director or officer of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law, as so amended.

2. <u>Change in Rights</u>. Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of this Restated Certificate of Incorporation inconsistent with this Article VII, shall eliminate, reduce or otherwise adversely affect any limitation on the personal liability of a director or officer of the Corporation existing at the time of such amendment, repeal or adoption of such an inconsistent provision."

3. That the foregoing amendment was duly adopted by the Board of Directors of the Corporation in accordance with Sections 141 and 242 of the General Corporation Law and was approved by the holders of the requisite number of shares of capital stock of the Corporation.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Amendment on this [_] day of [], 2023.

By: Name: Title:

A-1

MORPHIC HOLDING, INC. 35 GATEHOUSE DRIVE A2 WALTHAM, MA 02451



VOTE BY INTERNET Before The Meeting - Go to <u>www.proxyvote.com</u> or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 pm Electric Time on Wednesday, May 31, 2023. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to <u>www.virtualshareholdermeeting.com/MORF2023</u> You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

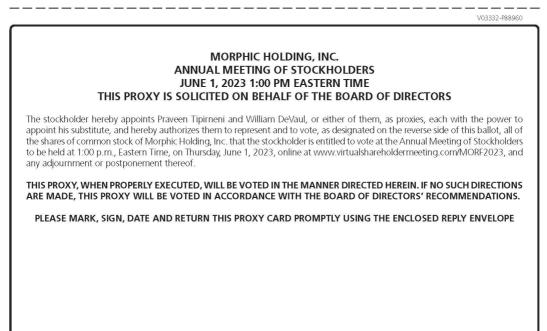
ELECTRONC DELIVERY OF FUTURE PROXY MATERIALS IN RESIDENT TO THE RESULT OF THE RESULT O VOTE BY PHONE - 1-800-690-6903 Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time on Wednebday, May 31, 2023. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY Multi-vour proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, co Broadnidge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

					V03331-P88960KE	EP THIS PO	RTION F	OR YOU	R RECORD
		хү с	RD IS VA	LID ON	LY WHEN SIGNED AND DATED.	ACH AND R	ETURN	THIS POP	RTION ONL
The	HIC HOLDING, INC. Board of Directors recommends you vote FOR ALL the following:	For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.			_	٦
1.	 Election of three Class I directors to our Board of Directors to serve until the 2026 Annual Meeting of Stockholders: 	U	U	U					I
	Nominees:								
	 Norbert Bischofberger, Ph.D. Joseph P. Slattery, CPA Timothy A. Springer, Ph.D. 								
The	Board of Directors recommends you vote FOR Propos	als 2, 3	and 4.				For A	gainst	Abstain
2.	Ratification of the appointment of Ernst & Young LLP as ou	ır indep	endent reg	istered pu	blic accounting firm for the fiscal year ending December 31	1, 2023.	D	Ο	D
3.	To approve, on a non-binding advisory basis, the compensation	ation pa	id to the C	ompany's	Named Executive Officers.		Ο	D	Ο
4.	To approve an amendment to the Company's certificate of	incorp	pration to p	ermit the	exculpation of officers.		Ο	Ο	Ο
NO.	TE: Transaction of any other business properly brought befo	re the <i>i</i>	Annual Me	eting or a	ny adjournment or postponement of the Annual Meeting.	Ē.			
Plea Wh	ase sign your name exactly as it appears hereon. When sig en signing as joint tenants, all party in the joint tenancy mus	ning as t sign. If	attorney, e a signer is	executor, a a corpora	administrator, trustee or guardian, please add your title a tion, please sign in full corporate name by duly authorized	as such. I officer.			
Sigr	nature [PLEASE SIGN WITHIN BOX] Date				Signature (Joint Owners) Date				

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice and Proxy Statement, Annual Report and Form 10-K are available at www.proxyvote.com.



CONTINUED AND TO BE SIGNED ON REVERSE SIDE