
**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
Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
 Confidential, For Use of the Commission Only (as Permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to § 240.14a-12

TONIX PHARMACEUTICALS HOLDING CORP.

(Name of Registrant as Specified in its Charter)

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

Payment of Filing Fee (Check the appropriate box):

- No fee required
 Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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(1) Amount previously paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

TONIX PHARMACEUTICALS HOLDING CORP.
26 Main Street, Suite 101
Chatham, New Jersey 07928
Telephone: (862) 799-8599

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

The Annual Meeting of the shareholders of Tonix Pharmaceuticals Holding Corp. (the "Company" or "Tonix") will be held on Friday, May 6, 2022, at 11:00 a.m. Eastern Daylight Time. The Annual Meeting will be held via the internet. Shareholders will be able to listen, vote and ask questions regardless of location via the internet by registering at <http://viewproxy.com/tonixpharma/2022/> by using the control number included on your notice regarding the availability of proxy materials, proxy card (printed in the box and marked by the arrow) and the instructions that accompanied your proxy materials. You will not be able to attend the Annual Meeting in person. The Annual Meeting is being held for the purposes of:

1. The election of the seven director nominees named in the Proxy Statement to hold office until the next annual meeting of shareholders;
2. The ratification of the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022;
3. The approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan;
4. The approval, on an advisory basis, of the compensation of the Company's named executive officers; and
5. The consideration of any other matters that may properly come before the Annual Meeting.

Only shareholders of record at the close of business on March 11, 2022, will be entitled to attend and vote at the meeting. The proxy materials will be furnished to shareholders on or about March 18, 2022.

Important Notice Regarding the Availability of Proxy Materials for the 2022 Annual Meeting of Shareholders to be held on May 6, 2022:

The Proxy Statement and Annual Report on Form 10-K for the year ended December 31, 2021 are available at: <http://web.viewproxy.com/tonixpharma/2022/>.

BY ORDER OF THE BOARD OF DIRECTORS

/s/ Seth Lederman

Seth Lederman
Chief Executive Officer and Chairman of the Board of Directors
March 18, 2022

You are cordially invited to attend the virtual Annual Meeting of stockholders via live webcast by registering at <http://web.viewproxy.com/tonixpharma/2022/vm>. Whether or not you expect to attend the Annual Meeting, please complete, date, sign and return the enclosed proxy as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. A return envelope (which is postage prepaid if mailed in the United States) is enclosed for your convenience. Even if you have voted by proxy, you may still vote if you attend the virtual meeting via webcast. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

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TONIX PHARMACEUTICALS HOLDING CORP.

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Telephone: (862) 799-8599**

**PROXY STATEMENT
FOR THE 2022 ANNUAL MEETING OF SHAREHOLDERS
TO BE HELD ON FRIDAY, MAY 6, 2022**

INFORMATION CONCERNING THE ANNUAL MEETING

General

The enclosed proxy is solicited by the Board of Directors (the "Board") of Tonix Pharmaceuticals Holding Corp. (the "Company"), for use at the Annual Meeting of the Company's shareholders to be held on May 6, 2022, at 11:00 a.m. Eastern Daylight Time and at any adjournments thereof. Whether or not you expect to attend the meeting, please vote your shares as promptly as possible to ensure that your vote is counted. The proxy materials will be furnished to shareholders on or about March 18, 2022.

Revocability of Proxy and Solicitation

Any shareholder executing a proxy that is solicited hereby has the power to revoke it prior to the voting of the proxy. Revocation may be made by attending the Annual Meeting in person via attendance at the virtual Annual Meeting and voting the shares of stock, or by delivering to the Secretary of the Company at the principal office of the Company prior to the Annual Meeting a written notice of revocation or a later-dated, properly executed proxy. We have engaged Alliance Advisors, LLC ("Alliance") as the proxy solicitor for the Annual Meeting. Some of our officers and other employees may also solicit proxies by further mailing or personal conversations, or by telephone, facsimile or other electronic means.

Record Date

Shareholders of record at the close of business on March 11, 2022 (the "Record Date"), will be entitled to receive notice of, attend and vote at the meeting.

Action to be Taken Under Proxy

Unless otherwise directed by the giver of the proxy, the persons named in the form of proxy, namely, Seth Lederman, our Chief Executive Officer, and Bradley Saenger, our Chief Financial Officer, or either one of them who acts, will vote:

- FOR the election of the seven director nominees named in the Proxy Statement to hold office until the next annual meeting of shareholders;
- FOR ratification of the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022;
- FOR approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan;
- FOR, on an advisory basis, approval of the executive compensation of the Company's named executive officers; and
- According to their discretion, on the transaction of such other matters as may properly come before the meeting or any adjournment there.

Should any nominee named herein for election as a director become unavailable for any reason, it is intended that the persons named in the proxy will vote for the election of such other person in his or her stead as may be designated by the Board. The Board is not aware of any reason that might cause any nominee to be unavailable.

Vote Required; Quorum; Broker Non-votes

As of March 11, 2022, there were 533,928,624 shares of common stock issued and outstanding, which constitutes all of the outstanding capital stock of the Company. Shareholders are entitled to one vote for each share of common stock held by them.

One-third (1/3) of the outstanding shares, or 177,976,208 shares, present in person by webcast or represented by proxy, will constitute a quorum at the meeting. For purposes of the quorum and the discussion below regarding the vote necessary to take shareholder action, shareholders of record who are present at the Annual Meeting in person by webcast or by proxy and who abstain, including brokers holding customers' shares of record who cause abstentions to be recorded at the meeting, are considered shareholders who are present and entitled to vote and are counted towards the quorum.

Brokers holding shares of record for customers generally are not entitled to vote on "non-routine" matters, unless they receive voting instructions from their customers. As used herein, "uninstructed shares" means shares held by a broker who has not received such instructions from its customers on a proposal. A "broker non-vote" occurs when a nominee holding uninstructed shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that non-routine matter. The determination of which proposals are deemed "routine" versus "non-routine" may not be made by the New York Stock Exchange until after the date on which this proxy statement has been mailed to you. As such, it is important that you provide voting instructions to your bank, broker or other nominee, if you wish to determine the voting of your shares.

Only the proposal to ratify the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm is a routine matter that brokers are entitled to vote shares on without receiving instructions.

For the election of directors, the seven (7) nominees receiving the most "For" votes at the meeting in person via attendance at the virtual Annual Meeting or by proxy will be elected. Approval of all other matters requires the affirmative vote of a majority of the votes cast on the applicable matter at the Annual Meeting in person via attendance at the virtual Annual Meeting or by proxy. Abstentions, broker non-votes and directions to withhold authority will not be counted as votes cast and accordingly will have no effect on the outcome of any proposal.

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why am I receiving these materials?

We have sent you these proxy materials because the Board of **Tonix Pharmaceuticals Holding Corp.** (sometimes referred to as the “Company,” “Tonix,” “we” or “us”) is soliciting your proxy to vote at the 2022 Annual Meeting of Shareholders. According to our records, you were a shareholder of the Company as of the end of business on March 11, 2022.

You are invited to attend the Annual Meeting to vote on the proposals described in this proxy statement and at any postponements or adjournments of the Annual Meeting. Directors, officers and other Company employees also may solicit proxies by telephone or otherwise. Brokers, banks and other nominees will be requested to solicit proxies or authorizations from beneficial owners and will be reimbursed for their reasonable expenses. However, you do not need to attend the Annual Meeting in person via attendance at the virtual Annual Meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card. You are invited to attend the Annual Meeting and vote your shares. The Annual Meeting will be a virtual meeting of stockholders, and will be held at 11:00 a.m. Eastern Daylight Time via live webcast. For instructions on how to access the live webcast and attend the virtual Annual Meeting, see “How do I attend and vote shares at the Annual Meeting?”

The Company intends to mail these proxy materials on or about March 18, 2022 to all shareholders of record on the Record Date entitled to vote at the Annual Meeting.

What am I voting on?

The following matters are scheduled for a vote:

1. The election of the seven director nominees named in the Proxy Statement to hold office until the next annual meeting of shareholders;
2. The ratification of the appointment of EisnerAmper LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2022;
3. The approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan; and
4. The approval, on an advisory basis, of the compensation of the Company’s named executive officers.

The Board is not currently aware of any other business that will be brought before the 2022 Annual Meeting.

Who can vote at the Annual Meeting?

Only shareholders at the close of business on March 11, 2022 will be entitled to vote at the Annual Meeting. On this Record Date, there were 533,928,624 shares of common stock outstanding and entitled to vote.

Shareholder of Record: Shares Registered in Your Name

If on March 11, 2022 your shares were registered directly in your name with Tonix’s transfer agent, VStock Transfer, LLC, then you are a shareholder of record. As a shareholder of record, you may vote in person by webcast at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to fill out and return the enclosed proxy.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on March 11, 2022, your shares were held in an account at a brokerage firm, bank, dealer, or other similar organization, rather than in your name, then you are the beneficial owner of shares held in “street name” and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the shareholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. If you hold your shares beneficially through a bank or broker, you must provide a legal proxy from your bank or broker during registration and you will be assigned a virtual control number in order to vote your shares during the Annual Meeting.

Why are you holding a virtual Annual Meeting?

To support the health and well-being of our stockholders, and to make the meeting accessible to our stockholders, the Annual Meeting will be held in a virtual meeting format. We have designed our virtual format to enhance, rather than constrain, stockholder access, participation and communication. For example, the virtual format allows stockholders to communicate with us in advance of the Annual Meeting so they can ask questions of our management. During the Q&A session of the Annual Meeting, we may answer questions to the extent relevant to the business of the Annual Meeting, as time permits.

How do I attend and vote shares at the virtual Annual Meeting?

The Annual Meeting will convene at 11:00 a.m. Eastern Daylight Time on May 6, 2022. In order to participate in the 2022 Annual Meeting live via the Internet, you must register at www.web.viewproxy.com/tonix/2022 by 11:59 p.m. Eastern Time by May 5, 2022. If you are a registered holder, you must register using the virtual control number included on your Notice of Internet Availability of Proxy Materials or your proxy card (if you received a printed copy of the proxy materials). If you hold your shares beneficially through a bank or broker, you must provide a legal proxy from your bank or broker during registration and you will be assigned a virtual control number in order to vote your shares during the Annual Meeting. If you are unable to obtain a legal proxy to vote your shares, you will still be able to attend the Annual Meeting (but will not be able to vote your shares) so long as you demonstrate proof of stock ownership. Instructions on how to connect and participate via the Internet, including how to demonstrate proof of stock ownership, are posted at www.web.viewproxy.com/tonix/2022.

On the day of the Annual Meeting, if you have properly registered, you may enter the Annual Meeting by logging in using the unique join link and event password you received via email in your registration confirmation.

If you encounter any difficulties accessing the Annual Meeting live audio webcast during the meeting time, please email VirtualMeeting@viewproxy.com or call 1-866-612-8937.

Even if you plan to attend the live webcast of the Annual Meeting, we encourage you to vote in advance by Internet, telephone or mail so that your vote will be counted even if you later decide not to attend the virtual Annual Meeting.

How can I submit a question for the Annual Meeting?

By accessing <http://web.viewproxy.com/tonixpharma/2022/>, our shareholders will be able to submit questions in writing in advance of or during the Annual Meeting, vote, view the annual meeting procedures, and obtain copies of proxy materials and our 2021 Annual Report on Form 10-K. Shareholders will need their unique control number which appears on their notice regarding the availability of proxy materials, the proxy card (printed in the box and marked by the arrow) and the instructions that accompanied the proxy materials.

As part of the Annual Meeting, we will hold a live question and answer session, during which we intend to answer questions in accordance with the Annual Meeting procedures which are pertinent to the Company and the meeting matters, as time permits. Questions and answers will be grouped by topic and substantially similar questions will be grouped and answered once.

Can I view the proxy materials over the Internet?

Yes. The Notice of Meeting, this Proxy Statement and accompanying proxy card and our Annual Report on Form 10-K for the year ended December 31, 2021 are available at <http://web.viewproxy.com/tonixpharma/2022/>.

How do I vote?

You may vote **“For”** all the nominees to the Board, you may **“Withhold”** your vote for all nominees or you may vote **“For”** all nominees except for any nominee(s) you specify. For the other matters to be voted on, you may vote **“For”** or **“Against”** or abstain from voting. The procedures for voting are fairly simple:

If you are a shareholder of record, you may vote by proxy in any of the following ways:

- By Internet or Telephone — If you have internet or telephone access, you may submit your proxy by following the voting instructions on the proxy card. If you vote by internet or telephone, you should not return your proxy card.
- By Mail — You may vote by mail by completing, dating and signing your proxy card and mailing it in the envelope provided. You must sign your name exactly as it appears on the proxy card. If you are signing in a representative capacity (for example, as officer of a corporation, guardian, executor, trustee or custodian), you must indicate your name and title or capacity.

If you vote via the internet or by telephone, your vote must be received by 11:59 p.m., Eastern Time, on May 5, 2022.

You may also vote during the Annual Meeting via the internet at <http://www.fcvote.com/TNXP>. At this site, you will be able to vote electronically.

If your shares are held in a stock brokerage account or by a bank or other holder of record, you are considered the beneficial owner of shares held in “street name.” The street name holder will provide you with instructions that you must follow to have your shares voted. If you hold your shares in street name and you wish to vote during the meeting, you must obtain a proxy issued in your name from the street name holder.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of the Record Date.

What is a quorum for purposes of conducting the 2022 Annual Meeting?

The presence, in person via attendance at the virtual Annual Meeting or by proxy, of the holders of one-third (1/3rd) of the issued and outstanding common stock, or 177,976,208 shares, entitled to vote at the meeting is necessary to constitute a quorum to transact business. If a quorum is not present or represented at the Annual Meeting, the shareholders entitled to vote thereat, present in person via attendance at the virtual Annual Meeting or by proxy, may adjourn the Annual Meeting from time to time without notice or other announcement until a quorum is present or represented.

What if I return a proxy card but do not make specific choices?

If you return a signed and dated proxy card without marking any voting selections, your shares will be voted (i) **“FOR”** the election of each of the seven (7) nominees for director, (ii) **“FOR”** the ratification of EisnerAmper LLP as independent registered public accountants of the Company for its fiscal year ending December 31, 2022, (iii) **“FOR”** approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan, (iv) **“FOR”**, on an advisory basis, approval of the executive compensation of the Company’s named executive officers, and if any other matter is properly presented at the meeting, your proxy holder (one of the individuals named on your proxy card) will vote your shares using his best judgment.

How does the Board recommend that I vote?

Our Board recommends that you vote your shares **“FOR”** the election of each of the seven (7) nominees for director, **“FOR”** the ratification of EisnerAmper LLP as independent registered public accountants of the Company for its fiscal year ending December 31, 2022, **“FOR”** approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan, and **“FOR”**, on an advisory basis, approval of the executive compensation of the Company’s named executive officers. Unless you provide other instructions on your proxy card, the persons named as proxy holders on the proxy card will vote in accordance with the recommendations of the Board as set forth in this Proxy Statement.

Who is paying for this proxy solicitation?

We are soliciting this proxy on behalf of our Board and will pay all expenses associated therewith. We have engaged Alliance as the proxy solicitor for the Annual Meeting for an approximate fee of \$8,000 plus fees for additional services, if needed. We have also agreed to reimburse Alliance for its reasonable out of pocket expenses. Some of our officers and other employees also may, but without compensation other than their regular compensation, solicit proxies by further mailing or personal conversations, or by telephone, facsimile or other electronic means.

We will also, upon request, reimburse brokers and other persons holding stock in their names, or in the names of nominees, for their reasonable out-of-pocket expenses for forwarding proxy materials to the beneficial owners of the capital stock and to obtain proxies.

If you have questions about the proposals or if you need additional copies of the proxy statement or the enclosed proxy card you should contact:

Alliance Advisors, LLC
200 Broadacres Drive, 3rd Floor
Bloomfield, NJ 07003
(855) 643-7453

What does it mean if I receive more than one set of proxy materials?

If you receive more than one set of proxy materials, your shares may be registered in more than one name or in different accounts. Please complete, sign and return **each** proxy card to ensure that all of your shares are voted.

I share the same address with another Tonix Pharmaceuticals Holding Corp. shareholder. Why has our household only received one set of proxy materials?

The SEC's rules permit us to deliver a single set of proxy materials to one address shared by two or more of our shareholders. This practice, known as "householding," is intended to reduce the Company's printing and postage costs. We have delivered only one set of proxy materials to shareholders who hold their shares through a bank, broker or other holder of record and share a single address, unless we received contrary instructions from any shareholder at that address. However, any such street name holder residing at the same address who wishes to receive a separate copy of the proxy materials may make such a request by contacting the bank, broker or other holder of record, or Broadridge Financial Solutions, Inc. at (800) 542-1061 or in writing at Broadridge, Householding Department, 51 Mercedes Way, Edgewood, NY 11717. Street name holders residing at the same address who would like to request householding of Company materials may do so by contacting the bank, broker or other holder of record or Broadridge at the phone number or address listed above.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the meeting. If you are the record holder of your shares, you may revoke your proxy in any one of three ways:

- You may submit another properly completed proxy card with a later date;
- You may send a timely written notice that you are revoking your proxy to the Company at 26 Main Street, Suite 101, Chatham, New Jersey 07928, Attn: Chief Financial Officer;
- You may authorize a proxy again by Internet or telephone at a later time before the closing of those voting facilities at 11:59 p.m. Eastern Time on May 5, 2022; or
- You may attend the Annual Meeting and vote online. Simply attending the meeting virtually will not, by itself, revoke your proxy.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

How are votes counted?

Votes will be counted by the inspector of elections appointed for the meeting, who will separately count "For," "Withhold" and "Against" votes, abstentions and broker non-votes. Abstentions and broker non-votes will not be counted as votes with respect to any matter.

How many votes are needed to approve each proposal?

For the election of directors, the seven (7) nominees receiving the most "For" votes at the meeting in person via attendance at the virtual Annual Meeting or by proxy will be elected. Approval of all other matters requires the affirmative vote of a majority of the votes cast on the applicable matter at the Annual Meeting in person via attendance at the virtual Annual Meeting or by proxy.

Is my vote kept confidential?

Proxy instructions, ballots and voting tabulations that identify individual shareholders are handled in a manner that protects your voting privacy. Your vote will not be disclosed either within the Company or to third parties, except:

- as necessary to meet applicable legal requirements;
- to allow for the tabulation and certification of votes; and
- to facilitate a successful proxy solicitation.

Occasionally, shareholders provide written comments on their proxy cards, which may be forwarded to the Company's management and the Board.

How can I find out the results of the voting at the Annual Meeting?

Preliminary voting results will be announced at the Annual Meeting. Final voting results will be discussed in a Form 8-K filed after the Annual Meeting.

Who can help answer my questions?

If you need assistance with voting or have questions regarding the Annual Meeting, please contact:

Alliance Advisors, LLC
200 Broadacres Drive, 3rd Floor
Bloomfield, NJ 07003
(855) 643-7453

PROPOSAL NO. 1: ELECTION OF DIRECTORS

Information about the Nominees

At the Annual Meeting, the shareholders will elect seven directors to serve until the next annual meeting of shareholders or until their respective successors are elected and qualified. In the event any nominee is unable or unwilling to serve as a director at the time of the Annual Meeting, the proxies may be voted for the balance of those nominees named and for any substitute nominee designated by the present Board or the proxy holders to fill such vacancy, or for the balance of the nominees named without nomination of a substitute, or the size of the Board may be reduced in accordance with the Bylaws of the Company. The Board has no reason to believe that any of the persons named below will be unable or unwilling to serve as a nominee or as a director if elected.

Assuming a quorum is present, the seven nominees receiving the highest number of affirmative votes of shares entitled to be voted for them will be elected as directors of the Company for the ensuing year. Unless marked otherwise, proxies received will be voted "FOR" the election of each of the seven nominees named below. In the event that additional persons are nominated for election as directors, the proxy holders intend to vote all proxies received by them in such a manner as will ensure the election of as many of the nominees listed below as possible, and, in such event, the specific nominees to be voted for will be determined by the proxy holders. All of the director nominees currently serve as directors.

NAME	AGE	CURRENT POSITION
Seth Lederman	64	President, CEO and Chairman of the Board of Directors
Richard Bagger	61	Director
Margaret Smith Bell	62	Director
David Grange	74	Director
Adeoye Olukotun	77	Director
Carolyn Taylor	62	Director
James Treco	66	Lead Director

The following information with respect to the principal occupation or employment of each nominee for director, the principal business of the corporation or other organization in which such occupation or employment is carried on, and such nominee's business experience during the past five years, as well as the specific experiences, qualifications, attributes and skills that have led the Board to determine that such Board members should serve on our Board, has been furnished to the Company by the respective director nominees:

Seth Lederman, MD became our President, Chief Executive Officer, Chairman of the Board and a Director in October 2011. Dr. Lederman founded Tonix Pharmaceuticals, Inc., a wholly-owned subsidiary of us ("Tonix Sub") in 2007 and has acted as its Chairman of the Board of Directors since its inception and as President since 2010. Dr. Lederman is an inventor on key patents and patent applications underlying our programs including: TNX-102 SL's eutectic composition; TNX-102 SL's pharmacokinetic profile and related therapeutic properties, and the use of TNX-102 SL for posttraumatic stress disorder (PTSD). Dr. Lederman served as an Associate Professor at Columbia University, between 1996 and 2017. As an Assistant Professor at Columbia, Dr. Lederman discovered and characterized the CD40-ligand, or CD154 and invented therapeutic candidates to treat autoimmune diseases and transplant rejection. TNX-1500 is a monoclonal antibody directed against CD154 invented by Dr. Lederman. Dr. Lederman has been a Manager of L&L Technologies LLC, or L&L, since 1996. In addition, Dr. Lederman has been the Managing Member of Seth Lederman Co, LLC since 2007 and the Managing Member of Lederman & Co, LLC, or Lederman & Co, since 2002, both of which are biopharmaceutical consulting and investing companies. Dr. Lederman has also been the Managing Member of Targent Pharmaceuticals, LLC, or Targent, since 2000, and Managing Member of Plumblin LLC since 2002. Targent was a founder of Targent Pharmaceuticals Inc. on which Board of Directors Dr. Lederman served from inception in 2001 until the sale of its assets to Spectrum Pharmaceuticals Inc. in 2006. Between January 2007 and November 2008, Dr. Lederman was a Managing Partner of Konanda Pharma Partners, LLC, a Director of Konanda Pharma Fund I, LP, and a Managing Partner of Konanda General Partner, LLC, which were related private growth equity fund entities. As well, between 2007 and 2008, Dr. Lederman was Chairman of Validus Pharmaceuticals, Inc. and Fontus Pharmaceuticals, Inc., which were portfolio companies of the Konanda private growth equity funds. Since 2011, Dr. Lederman has served as CEO and Chairman of Leder Laboratories Inc., or Leder Labs, and Starling Pharmaceuticals Inc., or Starling, which are biopharmaceutical development companies. Dr. Lederman was the chairman of Leder Laboratories, Ltd., a wholly-owned subsidiary of Leder Laboratories Inc., between 2013 and 2018, when the entity was dissolved. In 2015, Dr. Lederman served as a member of the US - Japan Business Council. Between 2006 and 2011, Dr. Lederman was a director of Research Corporation, a New York-based non-profit organization. Dr. Lederman received his BA degree in Chemistry from Princeton University in 1979 and his MD from Columbia University in 1983. Dr. Lederman's significant experience with our patent portfolio and his experience as an entrepreneur, seed capital investor, fund manager, and director of start-up biopharmaceutical companies were instrumental in his selection as a member of the Board.

Richard Bagger became a Director in June 2020. Mr. Bagger has been a Partner and Executive Director of Christie 55 Solutions, LLC, a New Jersey based consulting firm, since January 2020. Mr. Bagger has also been an Adjunct Faculty member at the Rutgers University Eagleton Institute since 2018. From 2012 through 2019, Mr. Bagger was Executive Vice President of Corporate Affairs and Market Access for Celgene Corporation (NASDAQ: CELG), a global biopharmaceutical company, as well as a member of its Executive Committee. From 1993 to 2010, Mr. Bagger held roles of increasing responsibility with Pfizer Inc. (NYSE: PFE), a global pharmaceutical company, and served as Senior Vice President, Worldwide Public Affairs and Policy, from 2006 to 2009. Prior to joining Pfizer, Mr. Bagger was Assistant General Counsel of Blue Cross and Blue Shield of New Jersey, a health insurer, and practiced law with the law firm of McCarter & English. Mr. Bagger served as Board Chair of the National Pharmaceutical Council for 2019 and is a member of the Board of Directors of the U.S. Chamber of Commerce. He is also on the advisory board for the Lerner Center for the Study of Pharmaceutical Management Issues at Rutgers University Business School. Mr. Bagger received an A.B. degree from Princeton University's Woodrow Wilson School of Public and International Affairs and a J.D. degree from Rutgers University Law School. Mr. Bagger's extensive healthcare and public policy experience were instrumental in his selection as a member of the Board.

Margaret Smith Bell became a Director in September 2017. Ms. Bell has been retired for the last ten years. Previously, Ms. Bell was a Vice President at Standard Life Investments where she was a portfolio manager and health care equity analyst. Ms. Bell was also a Managing Director at Putnam Investments, and served as a senior health care analyst and a portfolio manager of the Putnam Health Sciences Trust. Ms. Bell was an analyst and vice president at State Street Research and a research analyst at Alex. Brown & Sons, Inc. Ms. Bell is a past member of the Board of Overseers at Beth Israel Deaconess Medical Center. Ms. Bell holds a B.A. from Wesleyan University and an M.B.A. from the Wharton School at the University of Pennsylvania. Ms. Bell's extensive healthcare and investment banking experience were instrumental in her selection as a member of the Board.

Brigadier General David Grange (U.S. Army retired) became a director in February 2018. BG Grange has been President and founder of Osprey Global Solutions, LLC (“OGS”), a Service Disabled Veterans Organization, since 2011. BG Grange was Chief Executive Officer of Pharm-Olam International, Ltd. (“Pharm-Olam”), a contract research organization, from April 2017 to October 2019. Prior to founding OGS, BG Grange was a member of the Board of Pharmaceutical Product Development, Inc. (Nasdaq: PPDI), a contract research organization, from 2003 to 2009, and Chief Executive Officer from 2009 to 2011. Prior to PPDI he served in the McCormick Tribune Foundation for 10 years most recently as Chief Executive Officer and President, where he also oversaw the support of Veteran Programs. BG Grange served 30 years in the U.S. Army as a Ranger, Green Beret, Aviator, Infantryman and a member of special operating units. At the Pentagon, he was Director of Army Current Operations, Readiness, and Mobilization. BG Grange commanded the Ranger Regiment and the First Infantry Division (the Big Red One). BG Grange holds a master’s degree in Public Service from Western Kentucky University. BG Grange’s extensive experience in the pharmaceutical industry and service with the U.S. military was instrumental in his selection as a member of our Board.

Adeoye Olukotun, MD became a Director in September 2018. Dr. Olukotun is a member of management of Genesis Unicorn Corporation, a special acquisition company recently listed on Nasdaq (GENQU). Dr. Olukotun has been the Chief Executive Officer of CR Strategies, LLC, a medical products consulting company, since 2000, and was the Chief Executive Officer of EpiGen Pharmaceuticals, Inc., a pharmaceutical company, from 2014 to January of 2018. Dr. Olukotun served as Vice Chairman of CardioVax, Inc., a pharmaceutical company, from 2012 to 2016, and as its Chief Executive Officer from 2006 to 2012. He is also co-founder of VIA Pharmaceuticals, Inc., a pharmaceutical company, and served as the company’s Chief Medical Officer from 2004 to 2008. Dr. Olukotun is a member of the board of directors of Arrowhead Pharmaceuticals. Dr. Olukotun’s extensive medical background and experience in the pharmaceutical industry was instrumental in his selection as a member of our Board.

Carolyn Taylor became a Director in July 2021. Ms. Taylor was general counsel of Strike Protocols Inc., a financial technology company, from 2019 to 2020, and held positions of varying responsibility, including partner, and most recently, of counsel, at the law firm of Covington & Burling LLP from 1989 to 2000 and 2004 to 2015. From 2000 to 2003, Ms. Taylor served as Executive Vice President and General Counsel of Longitude, Inc., a financial services company. Ms. Taylor graduated from Columbia Law School and earned a B.A. from Brown University. Ms. Taylor’s broad transactional experience was instrumental in her selection as a member of the Board.

Directors serve until the next annual meeting of shareholders or until their successors are elected and qualified. Officers serve at the discretion of the Board.

Board Diversity Matrix

The following matrix is provided in accordance with applicable Nasdaq listing requirements:

Board Diversity Matrix as of March 18, 2022				
Total Number of Directors	8			
Part I: Gender Identity	Female	Male	Non-Binary	Did Not Disclose Gender
Directors	2	5	-	1
Part II: Demographic Background				
African American or Black	-	1	-	-
Alaskan Native or Native American	-	-	-	-
Asian	-	-	-	-
Hispanic or Latinx	-	-	-	-
White	2	4	-	1
Two or More Races or Ethnicities	-	-	-	-
LGBTQ+	1			
Did Not Disclose Demographic Background	1			

Board Independence

The Board has determined that (i) Seth Lederman has a relationship which, in the opinion of the Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and is not an “independent director” as defined in the Marketplace Rules of The NASDAQ Stock Market and (ii) Richard Bagger, Margaret Smith Bell, Daniel Goodman, David Grange, Adeoye Olukotun, Carolyn Taylor and James Treco are each an independent director as defined in the Marketplace Rules of The NASDAQ Stock Market.

Board Leadership Structure

Our CEO also serves as the chairman of the Board. An independent director serves as the Board’s lead director. This structure allows one person to speak for and lead both the Company and the Board, while also providing for effective independent board oversight through an independent lead director. Having Dr. Lederman, our CEO, serve as Chairman creates clear and unambiguous authority, which is essential to effective management. Our Board and management can respond more effectively to a clearer line of authority. By designating our CEO as its Chairman, our Board also sends an important signal to our employees and shareholders about who is accountable. Further, since Dr. Lederman is the founder of our Company and is an inventor on key patents and patent applications underlying our programs, we believe that Dr. Lederman is best-positioned to set our Board’s agenda and provide leadership.

We have established the position of lead director, which has been held by Mr. Treco since March 2021. The lead director has the following responsibilities, as detailed in the Lead Director charter, adopted by the Board (and also performs any other functions the Board may request):

- **Board leadership** — provides leadership to the Board in any situation where the chairman’s role may be, or may be perceived to be, in conflict, and also chairs meetings when the chairman is absent;
- **Leadership of independent director meetings** — leads independent director meetings, which take place without any management directors or Tonix employees present;
- **Additional meetings** — calls additional independent director meetings as needed;

- **Chairman-independent director liaison** — regularly meets with the chairman and serves as liaison between the chairman and the independent directors;
- **Stockholder communications** — makes himself available for direct communication with our stockholders;
- **Board agenda, schedule & information** — works with the chairman regarding meeting agendas, meeting schedules and information sent to directors for Board meetings, including the quality, quantity, appropriateness and timeliness of such information; and
- **Advisors and consultants** — recommends to the Board the retention of outside advisors and consultants who report directly to the Board on Board-wide issues.

Board Role in Risk Oversight

Risk is an integral part of the Board and Board committee deliberations throughout the year. While the Board has the ultimate oversight responsibility for the risk management process, various committees of the Board also have responsibility for risk management. In particular, the Audit Committee focuses on financial risk, including internal controls, and receives financial risk assessment reports from management. Risks related to the compensation programs are reviewed by the Compensation Committee. The Board is advised by these committees of significant risks and management’s response through periodic updates.

Stockholder Communications with the Board

The Company’s stockholders may communicate with the Board, including non-executive directors or officers, by sending written communications addressed to such person or persons in care of Tonix Pharmaceuticals Holding Corp., Attention: Secretary, 26 Main Street, Suite 101, Chatham, New Jersey 07928. All communications will be compiled by the Secretary and submitted to the addressee. If the Board modifies this process, the revised process will be posted on the Company’s website.

Meetings and Committees of the Board

During the fiscal year ended December 31, 2021, the Board held 11 meetings, the Audit Committee held eight meetings, the Compensation Committee held nine meetings and the Nominating and Corporate Governance Committee held seven meetings. The Board and Board committees also approved certain actions by unanimous written consent.

Each of the directors attended at least 75% of the aggregate of the total number of meetings of our Board (held during the period for which such directors served on the Board). Each of the directors attended at least 75% of the total number of meetings of all committees of our Board on which the director served (during the periods for which the director served on such committee or committees). Dr. Lederman was the only member of the Board who attended last year’s annual meeting of stockholders. The Company does not have a formal policy requiring members of the Board to attend our annual meetings

Board Committees

The Board has standing Audit, Compensation, and Nominating and Corporate Governance Committees. Information concerning the membership and function of each committee is as follows:

Board Committee Membership			
Name	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee
Richard Bagger			*
Margaret Smith Bell	*	**	
Daniel Goodman	*		*
David Grange		*	*
Adeoye Olukotun		*	
Carolyn Taylor		*	
James Treco	**		**

* Member of Committee

** Chair of Committee

Audit Committee

Our Audit Committee consists of Margaret Smith Bell, Daniel Goodman and James Treco, Chair of the Committee. Our Board has determined each of the members are “independent” as that term is defined under applicable SEC rules and under the current listing standards of the NASDAQ Stock Market. Mr. Treco is our audit committee financial expert.

Our Audit Committee’s responsibilities include: (i) reviewing the independence, qualifications, services, fees, and performance of the independent auditors, (ii) appointing, replacing and discharging the independent auditor, (iii) pre-approving the professional services provided by the independent auditor, (iv) reviewing the scope of the annual audit and reports and recommendations submitted by the independent auditor, and (v) reviewing our financial reporting and accounting policies, including any significant changes, with management and the independent auditor. The Audit Committee reviewed and discussed with management the Company’s audited financial statements for the year ended December 31, 2021. Our Board has adopted a written charter for the Audit Committee, a copy of which is posted under the “Investors” tab under “Governance” on our website, which is located at www.tonixpharma.com.

Compensation Committee

Our Compensation Committee consists of Margaret Smith Bell, David Grange, Adeoye Olukotun Carolyn Taylor, with Ms. Bell elected as Chair of the Committee. Our Board has determined that all of the members are “independent” under the current listing standards of the NASDAQ Stock Market. Our Board has adopted a written charter setting forth the authority and responsibilities of the Compensation Committee.

Our Compensation Committee has responsibility for, among other things, evaluating and making decisions regarding the compensation of our executive officers, assuring that the executive officers are compensated effectively in a manner consistent with our stated compensation strategy, producing an annual report on executive compensation in accordance with the rules and regulations promulgated by the SEC and periodically evaluating and administering the terms and administration of our incentive plans and benefit programs. In addition, our Compensation Committee reviews and makes recommendations to the Board regarding incentive compensation plans that require shareholder approval, director compensation, and the related executive compensation information for inclusion in the Company’s 10-K and proxy statement, and employment and severance agreements relating to the chief executive officer. Our Board has adopted a written charter for the Compensation Committee, a copy of which is posted under the “Investors” tab under “Governance” on our website, which is located at www.tonixpharma.com.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Richard Bagger, Daniel Goodman, David Grange and James Treco, Chair of the Committee. The Board has determined that all of the members are “independent” under the current listing standards of the NASDAQ Stock Market.

Our Nominating and Corporate Governance Committee has responsibility for assisting the Board in, among other things, effecting the organization, membership and function of the Board and its committees. The Nominating and Corporate Governance Committee identifies and evaluates the qualifications of all candidates for nomination for election as directors, and seeks director nominees that complement and enhance the effectiveness of the existing Board to ensure that its members have varied and relevant backgrounds, skills, knowledge, perspectives and experiences. Our Board currently includes two female directors, one director who contributes racial/ethnic diversity, and one who identifies as LGBTQ+. In addition, the Nominating and Corporate Governance Committee is responsible for developing, recommending and evaluating corporate governance standards and a code of business conduct and ethics. In addition, the Nominating and Corporate Governance Committee is responsible for developing, recommending and evaluating corporate governance standards and a code of business conduct and ethics. Our Board has adopted a written charter for the Nominating and Corporate Governance Committee, copy of which is posted under the “Investors” tab under “Governance” on our website, which is located at www.tonixpharma.com.

Nomination of Directors

As provided in its charter and our Company’s corporate governance principles, the Nominating and Corporate Governance Committee is responsible for identifying individuals qualified to become directors. The Nominating and Corporate Governance Committee seeks to identify director candidates based on input provided by a number of sources, including (1) the Nominating and Corporate Governance Committee members, (2) our other directors, (3) our shareholders, (4) our Chief Executive Officer or Chairman, and (5) third parties such as professional search firms. In evaluating potential candidates for director, the Nominating and Corporate Governance Committee considers the entirety of each candidate’s credentials.

Qualifications for consideration as a director nominee may vary according to the particular areas of expertise being sought as a complement to the existing composition of the Board. However, at a minimum, candidates for director must possess:

- high personal and professional ethics and integrity;
- the ability to exercise sound judgment;
- the ability to make independent analytical inquiries;
- a willingness and ability to devote adequate time and resources to diligently perform Board and committee duties; and
- the appropriate and relevant business experience and acumen.

In addition to these minimum qualifications, the Nominating and Corporate Governance Committee also takes into account when considering whether to nominate a potential director candidate the following factors:

- whether the person possesses specific industry expertise and familiarity with general issues affecting our business;
- whether the person’s nomination and election would enable the Board to have a member that qualifies as an “audit committee financial expert” as such term is defined by the SEC in Item 401 of Regulation S-K;
- whether the person would qualify as an “independent” director under the listing standards of the Nasdaq Stock Market;
- the importance of continuity of the existing composition of the Board to provide long term stability and experienced oversight; and
- the importance of diversified Board membership, in terms of both the individuals involved and their various experiences and areas of expertise.

The Nominating and Corporate Governance Committee will consider director candidates recommended by shareholders provided such recommendations are submitted in accordance with the procedures set forth below. In order to provide for an orderly and informed review and selection process for director candidates, the Board has determined that shareholders who wish to recommend director candidates for consideration by the Nominating and Corporate Governance Committee must comply with the following:

- The recommendation must be made in writing to the Corporate Secretary at Tonix Pharmaceuticals Holding Corp.;
- The recommendation must include the candidate’s name, home and business contact information, detailed biographical data and qualifications, information regarding any relationships between the candidate and the Company within the last three years and evidence of the recommending person’s ownership of the Company’s common stock;
- The recommendation shall also contain a statement from the recommending shareholder in support of the candidate; professional references, particularly within the context of those relevant to board membership, including issues of character, judgment, diversity, age, independence, expertise, corporate experience, length of service, other commitments and the like; and personal references; and
- A statement from the shareholder nominee indicating that such nominee wants to serve on the Board and could be considered “independent” under the Rules and Regulations of the Nasdaq Stock Market and the SEC, as in effect at that time.

All candidates submitted by shareholders will be evaluated by the Nominating and Corporate Governance Committee according to the criteria discussed above and in the same manner as all other director candidates.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all of our directors, officers and employees which can be found on our website at <https://ir.tonixpharma.com/corporate-governance/governance-documents>.

The Board unanimously recommends a vote “FOR” each of its nominees.

PROPOSAL NO. 2: RATIFICATION OF APPOINTMENT OF OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed the firm of EisnerAmper LLP as the independent registered public accounting firm of the Company for the year ending December 31, 2022, subject to ratification of the appointment by the Company's shareholders. A representative of EisnerAmper LLP is expected to attend the Annual Meeting to respond to appropriate questions and will have an opportunity to make a statement if he or she so desires.

Review of the Company's Audited Financial Statements for the Fiscal Year Ended December 31, 2021

The Audit Committee met and held discussions with management and the independent auditors. Management represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with accounting principles generally accepted in the United States, and the Audit Committee reviewed and discussed the consolidated financial statements with management and the independent auditors. The Audit Committee also discussed with the independent auditors the matters required to be discussed by Statement on Auditing Standards No. 114 (Codification of Statements on Auditing Standards, AU 380), as amended.

In addition, the Audit Committee discussed with the independent auditors the auditors' independence from the Company and its management, and the independent auditors provided to the Audit Committee the written disclosures and letter required by the Independence Standards Board Standard No. 1 (Independence Discussions With Audit Committees).

The Audit Committee discussed with the Company's independent auditors the overall scope and plans for their respective audits. The Audit Committee met with the independent auditors, with and without management present, to discuss the results of their examinations and the overall quality of the Company's internal controls and financial reporting.

Based on the reviews and discussions referred to above, the Audit Committee approved the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, for filing with the SEC.

Fees Paid to Auditors

Audit Fees

The aggregate fees billed by our independent registered public accounting firm, for professional services rendered for the audit of our annual financial statements for the years ended December 31, 2021 and 2020, including review of our interim financial statements as well as registration statement filings with the SEC and comfort letters issued to underwriters were \$312,291 and \$313,320, respectively.

Audit-Related Fees

We did not incur fees to our independent registered public accounting firm for audit related fees during the fiscal years ended December 31, 2021 and 2020.

Tax and Other Fees

We did not incur fees to our independent registered public accounting firm for tax or other services during the fiscal years ended December 31, 2021 and 2020.

Pre-Approval Policies and Procedures

Consistent with SEC policies and guidelines regarding audit independence, the Audit Committee is responsible for the pre-approval of all audit and permissible non-audit services provided by our principal accountants on a case-by-case basis. Our Audit Committee has established a policy regarding approval of all audit and permissible non-audit services provided by our principal accountants. Our Audit Committee pre-approves these services by category and service. Our Audit Committee has pre-approved all of the services provided by our principal accountants.

The Board unanimously recommends a vote "FOR" the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the year ending December 31, 2022.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Board of Tonix Pharmaceuticals Holding Corp. has furnished the following report on its activities during the fiscal year ended December 31, 2021. The report is not deemed to be "soliciting material" or "filed" with the SEC or subject to the SEC's proxy rules or to the liabilities of Section 18 of the Exchange Act, and the report shall not be deemed to be incorporated by reference into any prior or subsequent filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except to the extent that Tonix Pharmaceuticals Holding Corp. specifically incorporates it by reference into any such filing.

The Audit Committee oversees the financial reporting process on behalf of the Board. Management has the primary responsibility for the financial reporting process, principles and internal controls as well as preparation of our financial statements. For the fiscal year ended December 31, 2021, the members of the Audit Committee were Mr. Treco (Committee Chair), Ms. Bell and Dr. Goodman, each of whom is an independent director as defined by the applicable NASDAQ and SEC rules.

In fulfilling its responsibilities, the Audit Committee appointed independent auditors EisnerAmper LLP for the fiscal year ended December 31, 2021. The Audit Committee reviewed and discussed with the independent auditors the overall scope and specific plans for their audit. The Audit Committee also reviewed and discussed with the independent auditors and with management the Company's audited financial statements and the adequacy of its internal controls. The Audit Committee has reviewed and discussed the audited financial statements for the year ended December 31, 2021 with the Company's management and EisnerAmper. The Audit Committee has also discussed with EisnerAmper the matters required to be discussed by Auditing Standard No. 1301, "Communications with Audit Committees" issued by the Public Company Accounting Oversight Board ("PCAOB 1301").

The Audit Committee monitored the independence and performance of the independent auditors. The Audit Committee discussed with the independent auditors the matters required to be discussed by PCAOB 1301. The Company's independent auditors have provided the Audit Committee with the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditors' communications with the Audit Committee concerning independence, and the Audit Committee has discussed with the independent auditor the independent auditor's independence. Based upon the review and discussions referred to above, the Audit Committee recommended to the Board that the audited financial statements be included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, for filing with the SEC.

James Treco, Committee Chair
Margaret Smith Bell
Daniel Goodman

**PROPOSAL NO. 3: APPROVAL OF THE TONIX PHARMACEUTICALS HOLDING CORP.
2022 EMPLOYEE STOCK PURCHASE PLAN**

General

In February 14, 2022, the Compensation Committee recommended to the Board and the Board subsequently approved the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan (the "2022 ESPP"), subject to approval by our stockholders.

Under the 2022 ESPP, shares of the Company's common stock will be available for purchase by eligible employees who participate in the 2022 ESPP. Eligible employees will be entitled to purchase, by means of payroll deductions, limited amounts of the Company's common stock during periodic option periods under the 2022 ESPP. The 2022 ESPP will not be effective without stockholder approval.

The Company believes that the 2022 ESPP will help the Company retain and motivate eligible employees and help further align the interests of eligible employees with those of the Company's stockholders.

Summary Description of the 2022 Employee Stock Purchase Plan

The principal terms of the 2022 ESPP are summarized below. The discussion of the 2022 ESPP that follows is qualified in its entirety by the description of and full terms of the 2022 ESPP that are included as part of Annex A.

Purpose. The purpose of the 2022 ESPP is to provide eligible employees an incentive to advance the best interests of the Company by providing them with an opportunity to purchase shares of the Company's common stock at a favorable price through accumulated payroll deductions. The 2022 ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the U.S. Internal Revenue Code of 1986, as amended (the "Code").

Administration. The Compensation Committee of the Board of Directors (the "Committee") will administer the 2022 ESPP. The Committee has authority to construe, interpret and apply the terms of the 2022 ESPP.

Operation. The 2022 ESPP is generally expected to operate in consecutive semi-annual periods referred to as "periods." The first option period is expected to commence on July 1, 2022 and end on the last trading day in the semi-annual period ending December 31, 2022, with successive option periods expected to begin on the first day of January and July and to terminate on the last trading day of June and December, respectively. The 2022 ESPP gives the Committee the flexibility to change the duration of future option periods. However, option periods may not last longer than the maximum period permitted under Section 423 of the Code. Section 423 of the Code generally limits the length of such offerings to either 5 years or 27 months, depending on the terms of the offering.

On the first day of each option period (the "Grant Date"), each eligible employee for that option period will be granted an option to purchase shares of the Company's common stock. Each participant's option will permit the participant to purchase a number of shares determined by dividing the employee's accumulated payroll deductions for the option period by the applicable purchase price. A participant must designate in his or her enrollment package the percentage (if any) of compensation to be deducted during that option period for the purchase of stock under the 2022 ESPP. The participant's payroll deduction election will generally remain in effect for future option periods unless terminated by the participant. A participant may not increase or decrease his or her payroll deductions during the option period. A participant may instead elect to withdraw from any option period prior to the last day of the option period, in which case the participant's payroll deductions will be refunded and the participant's outstanding options will terminate.

Each participant's payroll deductions under the 2022 ESPP will be credited to a bookkeeping account in his or her name under the 2022 ESPP.

Each option granted under the 2022 ESPP will automatically be exercised on the last day of the respective option period (referred to as the "Exercise Date"). The number of shares acquired by a participant upon exercise of his or her option will be determined by dividing the participant's 2022 ESPP account balance as of the Exercise Date for the option period by the purchase price of the option. The purchase price for each option is generally expected to equal the lesser of (1) 85% of the fair market value of a share of the Company's common stock on the applicable Grant Date, or (2) 85% of the fair market value of a share of the Company's common stock on the applicable Exercise Date. However, the 2022 ESPP gives the Committee the flexibility to change the purchase price for future option periods that is consistent with Section 423 of the Code. A participant's 2022 ESPP account will be reduced upon exercise of his or her option by the amount used to pay the purchase price of the shares acquired by the participant. No interest will be paid to any participant or credited to any account under the 2022 ESPP.

Eligibility. Only certain employees will be eligible to participate in the 2022 ESPP. All employees of the Company and any subsidiaries of the Company which have been designated by the Committee as eligible to participate in an option period will generally be eligible to participate in such offering period. However, the following employees will not be eligible to participate in such option period:

- employees whose customary employment is for not more than 20 hours per week;
- employees whose customary employment is for not more than five months per calendar year; and
- employees who are citizens or residents of a foreign jurisdiction if the grant of an option is prohibited under the local laws of the jurisdiction.

As of March 14, 2022, 73 employees of the Company and its subsidiaries were eligible to participate in the Company's 2018 Employee Stock Purchase Plan.

Limits on Authorized Shares; Limits on Contributions. If the Company's stockholders approve the 2022 ESPP, a maximum of 3,000,000 shares of the Company's common stock may be purchased under the 2022 ESPP.

Participation in the 2022 ESPP is also subject to the following limits:

- A participant cannot contribute less than 1% or more than 15% of his or her compensation to the purchase of stock under the 2022 ESPP in any one payroll period;
- A participant cannot accrue rights to purchase more than \$25,000 of stock (valued at the Grant Date of the applicable offering period and without giving effect to any discount reflected in the purchase price for the stock) for each calendar year in which an option is outstanding;
- The number of shares a participant may purchase in an option period may be reduced if there is an insufficient number of shares of remaining under the 2022 ESPP on the applicable Exercise Date; and
- A participant will not be granted an option under the 2022 ESPP if it would cause the participant to own stock and/or hold outstanding options to purchase stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or of its parent or one of its subsidiaries or to the extent it would exceed certain other limits under the Code.

The \$25,000 and the 5% ownership limitations referred to above are required under the Code.

Termination of Employment. If a participant ceases to be an eligible employee for any reason, his or her payroll deductions will automatically cease.

Corporate Transactions. Generally in the event of a proposed sale of all or substantially all of the assets, property or stock of the Company, a reorganization, merger or consolidation of the Company with or into one or more corporations, or a dissolution or liquidation of the Company, unless a successor corporation or a parent or subsidiary thereof assumes or substitutes new options for all outstanding options, (i) the Board shall establish a new Exercise Date that is before the date of the corporate transaction and (ii) upon such effective date any unexercised options shall expire.

Adjustments. As is customary in stock incentive plans of this nature, the number of shares of stock available under the 2022 ESPP or subject to outstanding options, is subject to adjustment in the event of certain reorganizations, combinations, recapitalization of shares, stock splits, reverse stock split, subdivision or other similar change in respect of the Company's common stock.

Transfer Restrictions. A participant's rights with respect to options or the purchase of shares under the 2022 ESPP, as well as payroll deductions credited to his or her 2022 ESPP account, may not be assigned, transferred, pledged or otherwise disposed of in any way except by will or the laws of descent and distribution.

Amendments. The Board generally may amend, suspend, or terminate the 2022 ESPP at any time and in any manner, except that stockholder approval is required to increase the number of shares authorized for issuance under the 2022 ESPP and for certain other amendments. No amendment to the 2022 ESPP may materially adversely affect the option rights previously granted to a participant under the 2022 ESPP, except as required by law or regulation.

Term. Subject to stockholder approval, the 2022 ESPP will become effective on May 6, 2022 and will continue in effect until the earlier of such time as all of the shares of the Company's common stock subject to the 2022 ESPP have been sold under the 2022 ESPP or July 2, 2032, unless terminated earlier by the Board.

Federal Income Tax Consequences of the 2022 Employee Stock Purchase Plan

Following is a general summary of the current federal income tax principles applicable to the 2022 ESPP. The following summary is not intended to be exhaustive and, among other considerations, does not describe the deferred compensation provisions of Section 409A of the Code to the extent an award is subject to and does not satisfy those rules, nor does it describe state, local or international tax consequences.

The 2022 ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code. Participant contributions to the 2022 ESPP through payroll deductions are made on an after-tax basis. That is, a participant's payroll deductions that are contributed to the 2022 ESPP are deducted from compensation that is taxable to the participant and for which the Company is generally entitled to a tax deduction.

Generally, no taxable income is recognized by a participant with respect to either the grant or exercise of his or her 2022 ESPP option. The Company will have no tax deduction with respect to either of those events. A participant will generally recognize income (or loss) only upon a sale or disposition of any shares that the participant acquires under the 2022 ESPP. The particular tax consequences of a sale or disposition of shares acquired under the 2022 ESPP depend on whether the participant has held the shares for a "Required Holding Period" before selling or disposing of the shares. The Required Holding Period ends on the later of (1) two years after the Grant Date of the offering period in which the participant acquired the shares, or (2) one year after the Exercise Date on which the participant acquired the shares.

If the participant holds the shares for the Required Holding Period and then sells the shares at a price in excess of the purchase price paid for the shares, the gain on the sale of the shares will be taxed as ordinary income to the participant to the extent of the lesser of (1) the amount by which the fair market value of the shares on the Grant Date of the offering period in which the participant acquired the shares exceeded the purchase price of the shares (calculated as though the shares had been purchased on the Grant Date), or (2) the gain on the sale of the shares. Any portion of the participant's gain on the sale of the shares not taxed as ordinary income will be taxed as long-term capital gain. If the participant holds the shares for the Required Holding Period and then sells the shares at a price less than the purchase price paid for the shares, the loss on the sale will be treated as a long-term capital loss to the participant. The Company will not be entitled to a tax deduction with respect to any shares held by the participant for the Required Holding Period, regardless of whether the shares are eventually sold at a gain or a loss.

The participant has a "Disqualifying Disposition" if the participant disposes of the shares before the participant has held the shares for the Required Holding Period. If the participant sells the shares in a Disqualifying Disposition, the participant will realize ordinary income in an amount equal to the difference between the purchase price paid for the shares and the fair market value of the shares on the Exercise Date on which the participant acquired the shares, and the Company generally will be entitled to a corresponding tax deduction. In addition, if the participant makes a Disqualifying Disposition of the shares at a price in excess of the fair market value of the shares on the Exercise Date, the participant will realize capital gain in an amount equal to the difference between the selling price of the shares and the fair market value of the shares on the Exercise Date. Alternatively, if the participant makes a Disqualifying Disposition of the shares at a price less than the fair market value of the shares on the Exercise Date, the participant will realize a capital loss in an amount equal to the difference between the fair market value of the shares on the Exercise Date and the selling price of the shares. The Company will not be entitled to a tax deduction with respect to any capital gain realized by a participant.

Specific Benefits under the 2022 Employee Stock Purchase Plan

The benefits that will be received by or allocated to eligible employees under the 2022 ESPP cannot be determined at this time because the amount of payroll deductions contributed to purchase shares of the Company's common stock under the 2022 ESPP (subject to the limitations discussed above) is entirely within the discretion of each participant.

Required Vote

Approval of the 2022 ESPP Plan requires the affirmative vote of the holders of a majority of the votes cast in person via attendance at the virtual Annual Meeting or by proxy and voting at the Annual Meeting.

The Board unanimously recommends a vote "FOR" the approval of the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Incentive Plan.

PROPOSAL NO. 4: ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION

We are asking our stockholders to provide an advisory vote to approve the compensation of our named executive officers, including the Compensation Philosophy and Practices, the compensation tables and narrative disclosures as described in this Proxy Statement. The Company currently holds such an advisory vote every three years, and this proposal, commonly known as a “say-on-pay” proposal, gives our stockholders the opportunity to express their views on the compensation of our named executive officers.

Please see the Executive Compensation section of this Proxy Statement, the compensation tables and the narrative disclosures that accompany the compensation tables for greater detail about our executive compensation programs, including information about the fiscal year 2021 compensation of our named executive officers.

We believe that our overall compensation program and philosophy support and help drive the Company’s long-term value creation, business strategy and operating performance objectives. We are again asking our stockholders to indicate their support for our named executive officer compensation as described in this proxy statement by voting “FOR” the following resolution at the Annual Meeting:

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

While this say-on-pay vote is advisory and does not bind the Company to any particular action, the Board and the Compensation Committee value your opinion. Accordingly, the Board and the Compensation Committee will consider the outcome of this vote when making future compensation decisions for the Company’s named executive officers.

Approval of this resolution requires the affirmative vote of the holders of a majority of the votes cast in person or by proxy at the Annual Meeting.

The Board unanimously recommends a vote “FOR” the approval of the compensation of our named executive officers, as disclosed in this Proxy Statement.

INFORMATION ABOUT THE EXECUTIVE OFFICERS

Executive Officers

The executive officers are elected by our Board and hold office until their successors are elected and duly qualified. There are no family relationships between any of our directors or executive officers. The current executive officers of the Company are as follows:

NAME	AGE	OFFICES HELD
Seth Lederman	64	President, CEO and Chairman of the Board of Directors
Jessica Morris	44	Chief Operating Officer
Bradley Saenger	48	Chief Financial Officer and Treasurer
Gregory Sullivan	56	Chief Medical Officer and Secretary

Biographical information about Dr. Lederman is provided in "Proposal No. 1 - Election of Directors".

Jessica Morris is our Chief Operating Officer and has worked for the Company since April 2013, first as a consultant (April 2013 – September 2013), then as SVP of Finance (September 2013 – October 2015), followed by Chief Administrative Officer (October 2015 – January 2016), Acting Chief Financial Officer (January 2016 – February 2016), and Executive Vice President, Operations (February 2016 – January 2018). Prior to joining the Company, Ms. Morris was a Vice President in investment management at Zhong Rong Group. Previously, Ms. Morris was a Senior Associate in the Sponsor Finance Group at American Capital, a Vice President of the mezzanine debt fund at Calvert Street Capital Partners, an Associate in the commercial finance department of Silicon Valley Bank, and a Financial Analyst in the investment banking group at Deutsche Bank. Ms. Morris earned a B.S. in Commerce and a B.A. in Music from the University of Virginia, where she was an Echols Scholar.

Bradley Saenger, CPA became our Chief Financial Officer in February 2016. Mr. Saenger has worked for us since May 2014, as the Director of Accounting (May 2014 – December 2015) and VP of Accounting (January 2016 – February 2016). Between June 2013 and March 2014, Mr. Saenger worked for Shire Pharmaceuticals as a consultant in the financial analyst research and development group. Since November 2015, Mr. Saenger has been a director of Tonix Pharma Holdings Limited. Between February 2013 and May 2013, Mr. Saenger worked for Stewart Health Care System as a financial consultant. Between October 2011 and December 2012, Mr. Saenger was an Associate Director of Accounting at Vertex Pharmaceuticals, Inc. Between January 2005 and September 2011, Mr. Saenger worked for Alere Inc., as a Manager of Corporate Accounting and Consolidations (2007 – 2011) and Manager of Financial Reporting (2005 – 2006). Mr. Saenger also worked for PricewaterhouseCoopers LLP, Shifren Hirsowitz, public accountants and auditors in Johannesburg, South Africa, Investec Bank in Johannesburg, South Africa and Norman Sifris and Company, public accountants and auditors in Johannesburg, South Africa. Mr. Saenger received his Bachelor's and Honors' degrees in Accounting Science from the University of South Africa. Mr. Saenger is a Chartered Accountant in South Africa and a Certified Public Accountant in the Commonwealth of Massachusetts.

Gregory Sullivan, MD became our Chief Medical Officer on June 3, 2014 and our Secretary in March 2017. Prior to becoming our Chief Medical Officer, he served on our Scientific Advisory Board since October 2010, and had also provided *ad hoc* consulting services. Previously, Dr. Sullivan had been a member of the faculty of Columbia University since July 1999, where he served as an Assistant Professor of Psychiatry in the Department of Psychiatry at Columbia University Medical Center (CUMC) until June 2014. Between June 1997 and August 2014, Dr. Sullivan maintained a part-time psychiatry practice. He served as a Research Scientist at the New York State Psychiatric Institute (NYSPI) from December 2006 to June 2014. He also served as a member of the Institutional Review Board of the NYSPI from January 2009 to June 2014. As Principal Investigator and Co-Investigator on several human studies of PTSD, Dr. Sullivan has administered the recruitment, biological assessments, treatment, and safety of participants with PTSD in clinical trials of the disorder. He has published more than 50 articles and chapters on research topics ranging from stress and anxiety disorders to abnormal serotonin receptor expression in depression, PTSD and panic disorder. He is a recipient of grants from the National Institute of Mental Health (NIMH), the Anxiety Disorders Association of America, NARSAD, the Dana Foundation, and the American Foundation for Suicide Prevention. Dr. Sullivan received a BA in Biology from the University of California, Berkeley, and received his MD from the College of Physicians & Surgeons at Columbia University. He completed his residency training in psychiatry at CUMC, and then a two-year NIMH-sponsored research fellowship in anxiety and affective disorders before joining the faculty at Columbia.

Involvement in Certain Legal Proceedings

Except as disclosed below, our directors and executive officers have not been involved in any of the following events during the past ten years:

- any bankruptcy petition filed by or against such person or any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;
- any conviction in a criminal proceeding or being subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from or otherwise limiting his involvement in any type of business, securities or banking activities or to be associated with any person practicing in banking or securities activities;
- being found by a court of competent jurisdiction in a civil action, the Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated a Federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;
- being subject of, or a party to, any Federal or state judicial or administrative order, judgment decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of any Federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- being subject of or party to any sanction or order, not subsequently reversed, suspended, or vacated, of any self-regulatory organization, any registered entity or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

In January 2013, the Company's Chief Operating Officer filed for bankruptcy protection under Chapter 7 of Title 11 under the United States Code in the U. S. Bankruptcy Court in New York, New York. The petition was discharged in April 2013.

EXECUTIVE COMPENSATION

Compensation Philosophy and Practices

We believe that the performance of our executive officers significantly impacts our ability to achieve our corporate goals. We, therefore, place considerable importance on the design and administration of our executive officer compensation program. This program is intended to enhance stockholder value by attracting, motivating and retaining qualified individuals to perform at the highest levels and to contribute to our growth and success. Our executive officer compensation program is designed to provide compensation opportunities that are tied to individual and corporate performance.

Our compensation packages are also designed to be competitive in our industry. The Compensation Committee from time-to-time consults with compensation consultants, legal counsel and other advisors in designing our compensation program, including in evaluating the competitiveness of individual compensation packages and in relation to our corporate goals.

Our overall compensation philosophy has been to pay our executive officers an annual base salary and to provide opportunities, through cash and equity incentives, to provide higher compensation if certain key performance goals are satisfied. We believe that many of our key practices and programs demonstrate good governance. The main principles of our fiscal year 2021 compensation strategy included the following:

- *An emphasis on pay-for-performance* A significant portion of our executive officers' total compensation is variable and at risk and tied directly to measurable performance, including pre-specified corporate, strategic or developmental goals, which aligns the interests of our executives with those of our stockholders;
- *Performance results are linked to Company and individual performance.* When looking at performance over the year, we equally weigh individual performance as well as that of the Company as a whole. Target annual compensation is positioned to allow for above-median compensation to be earned through an executive officer's and the Company's extraordinary performance;
- *Equity as a key component to align the interests of our executives with those of our stockholders.* Our Compensation Committee believes that keeping executives interests aligned with those of our stockholders is critical to driving toward achievement of long-term goals of both our stockholders and the Company. Accordingly, a significant portion of our executives' compensation are stock based, including stock options that are exercisable at a percentage above market value at the time of grant; and
- *Peer group positioning.* While the Compensation Committee considers the level of compensation paid by the companies in our peer group as a reference point that provides a framework for its compensation decisions, in order to maintain competitiveness and flexibility, the Compensation Committee does not target compensation at a particular level relative to the peer group; nor does the Compensation Committee employ a formal benchmarking strategy or rely upon specific peer-derived targets.

In 2021, we also continued practices that demonstrate good governance and careful stewardship of corporate assets, including:

- *Limited personal benefits.* Our executive officers are eligible for the same benefits as our non-executive salaried employees, and they do not receive any additional perquisites.
- *No retirement benefits.* We do not provide our executive officers with a traditional retirement plan, or with any supplemental deferred compensation or retirement benefits.
- *No tax gross-ups.* We do not provide our executive officers with any tax gross-ups.
- *No single-trigger cash change in control benefits.* We do not provide cash benefits to, or accelerate the vesting of unvested equity grants issued to, our executives upon a change in control, absent an actual termination of employment.

At our annual meeting in May 2019, we conducted our tri-annual advisory vote on executive compensation, commonly referred to as a "say-on-pay" vote. At that time, a majority of the votes affirmatively cast on the advisory say-on-pay proposal were voted in favor of the compensation of our named executive officers. The Compensation Committee understood this level of approval to indicate strong stockholder support for our executive compensation policies and programs generally, and as a result, our Compensation Committee made no fundamental changes to our executive compensation programs. Our Compensation Committee and our Board will consider shareholder feedback through the say-on-pay vote and remains committed to engaging with shareholders and are open to feedback from shareholders.

Summary Compensation Table

The following table provides certain summary information concerning compensation awarded to, earned by or paid to our Chief Executive Officer, and the two next most highly paid executive officers for fiscal years 2021 and 2020.

Name & Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$) ⁽¹⁾	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Non-Qualified Deferred Compensation	All Other Compensation (\$)	Total (\$)
							Earnings (\$)		
Seth Lederman Chief Executive Officer	2021	675,000	506,250	—	6,527,139	—	—	—	7,708,389
	2020	614,250	460,688	—	2,799,884	—	—	—	3,874,822
Bradley Saenger Chief Financial Officer	2021	425,000	170,000	—	1,174,885	—	—	—	1,769,885
	2020	404,250	181,913	—	505,645	—	—	—	1,091,808
Gregory Sullivan Chief Medical Officer	2021	440,000	176,000	—	1,631,785	—	—	—	2,247,785
	2020	420,000	256,200	—	706,220	—	—	—	1,382,420

⁽¹⁾Represents the aggregate grant date fair value of options granted in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, "Stock Compensation." For the relevant assumptions used in determining these amounts, refer to Note 14 to our audited financial statements.

Grants of Plan-Based Awards in Fiscal 2021

The following table provides information with regard to each grant of plan-based award made to a named executive officer under any plan during the fiscal year ended December 31, 2021.

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Share)	Grant Date Fair Value of Stock and Option Awards (\$) ⁽¹⁾
Seth Lederman	2/23/2021	3,000,000	1.22	3,285,830
	2/23/2021	3,000,000	1.53 ⁽²⁾	3,241,309
Bradley Saenger	2/23/2021	540,000	1.22	591,449
	2/23/2021	540,000	1.53 ⁽²⁾	583,436
Gregory Sullivan	2/23/2021	750,000	1.22	821,458
	2/23/2021	750,000	1.53 ⁽²⁾	810,327

⁽¹⁾ Represents the aggregate grant date fair value of options granted in accordance with FASB ASC Topic 718.

⁽²⁾ Represents an exercise price at a 125% premium of the closing price of the Company's common stock on the grant date.

Outstanding Equity Awards at December 31, 2021

The following table presents information regarding outstanding equity awards held by our named executive officers as of December 31, 2021.

Name	Number of Securities underlying Unexercised Options (#) Exercisable	Number of Securities underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$/Sh)	Option Expiration Date
Seth Lederman	35	—	\$ 30,000.00	5/9/2022
	68	—	\$ 10,200.00	2/12/2023
	71	—	\$ 15,880.00	2/11/2024
	100	—	\$ 9,870.00	6/17/2024
	100	—	\$ 6,680.00	10/29/2024
	189	—	\$ 5,950.00	2/25/2025
	8	—	\$ 5,950.00	2/25/2025
	110	—	\$ 5,030.00	2/9/2026
	—	110 ⁽¹⁾	\$ 5,030.00	2/9/2026
	160	—	\$ 550.00	3/1/2027
	1,567	—	\$ 340.00	2/13/2028
	1,567	—	\$ 425.00	2/13/2028
	2,195	132 ⁽²⁾	\$ 18.90	2/26/2029
	2,194	133 ⁽²⁾	\$ 23.60	2/26/2029
	11,175	1,801 ⁽³⁾	\$ 20.50	5/6/2029
	11,175	1,801 ⁽³⁾	\$ 25.60	5/6/2029
	73,335	46,665 ⁽⁴⁾	\$ 0.40	2/25/2030
	73,335	46,665 ⁽⁴⁾	\$ 0.50	2/25/2030
	1,055,555	944,445 ⁽⁵⁾	\$ 0.77	5/4/2030
	1,055,555	944,445 ⁽⁵⁾	\$ 0.96	5/4/2030
—	3,000,000 ⁽⁶⁾	\$ 1.22	2/23/2031	
—	3,000,000 ⁽⁶⁾	\$ 1.53	2/23/2031	
Bradley Saenger	11	—	\$ 9,870.00	6/17/2024
	11	—	\$ 6,680.00	10/29/2024
	13	—	\$ 5,950.00	2/25/2025
	15	—	\$ 5,030.00	2/9/2026
	—	60 ⁽¹⁾	\$ 2,420.00	5/27/2026
	20	—	\$ 2,420.00	5/27/2026
	48	—	\$ 550.00	3/1/2027
	392	—	\$ 340.00	2/13/2028
	392	—	\$ 425.00	2/13/2028
	492	25 ⁽²⁾	\$ 18.90	2/26/2029
	491	26 ⁽²⁾	\$ 23.60	2/26/2029
	2,482	402 ⁽³⁾	\$ 20.50	5/6/2029
	2,482	402 ⁽³⁾	\$ 25.60	5/6/2029
	14,670	9,330 ⁽⁴⁾	\$ 0.40	2/25/2030
	14,670	9,330 ⁽⁴⁾	\$ 0.50	2/25/2030
	190,000	170,000 ⁽⁵⁾	\$ 0.77	5/4/2030
	190,000	170,000 ⁽⁵⁾	\$ 0.96	5/4/2030
—	540,000 ⁽⁶⁾	\$ 1.22	2/23/2031	
—	540,000 ⁽⁶⁾	\$ 1.53	2/23/2031	

Gregory Sullivan	27	—	\$	9,870.00	6/17/2024
	27	—	\$	6,680.00	10/29/2024
	27	—	\$	5,950.00	2/25/2025
	30	—	\$	5,030.00	2/9/2026
	—	30 ⁽¹⁾	\$	5,030.00	2/9/2026
	75	—	\$	550.00	3/1/2027
	588	—	\$	340.00	2/13/2028
	588	—	\$	425.00	2/13/2028
	732	44 ⁽²⁾	\$	18.90	2/26/2029
	731	45 ⁽²⁾	\$	23.60	2/26/2029
	3,722	604 ⁽³⁾	\$	20.50	5/6/2029
	3,722	604 ⁽³⁾	\$	25.60	5/6/2029
	23,835	15,165 ⁽⁴⁾	\$	0.40	2/25/2030
	23,835	15,165 ⁽⁴⁾	\$	0.50	2/25/2030
	263,890	236,110 ⁽⁵⁾	\$	0.77	5/4/2030
	263,890	236,110 ⁽⁵⁾	\$	0.96	5/4/2030
	—	750,000 ⁽⁶⁾	\$	1.22	2/23/2031
	—	750,000 ⁽⁶⁾	\$	1.53	2/23/2031

(1) The shares subject to this stock option vest 1/3rd upon the date(s) that certain stock price goals are achieved. The stock price goals are such date(s) when the Company's common stock has an average closing sales price equal to or exceeding each of \$6,000.00, \$7,000.00 and \$8,000.00 per share for 20 consecutive trading days, subject to a one year minimum service period prior to vesting.

(2) The shares subject to this stock option vested as to 1/3 of the shares on February 26, 2020, with the remaining shares vesting on an equal monthly basis over the following 24 months.

(3) The shares subject to this stock option vested as to 1/3 of the shares on May 6, 2020, with the remaining shares vesting on an equal monthly basis over the following 24 months.

(4) The shares subject to this stock option vested as to 1/3 of the shares on February 25, 2021, with the remaining shares vesting on an equal monthly basis over the following 24 months.

(5) The shares subject to this stock option vested as to 1/3 of the shares on May 4, 2021, with the remaining shares vesting on an equal monthly basis over the following 24 months.

(6) The shares subject to this stock option vested as to 1/3 of the shares on February 23, 2022, with the remaining shares vesting on an equal monthly basis over the following 24 months.

Option Exercises and Stock Vested

No options were exercised by any of the named executive officers and no named executive officers held restricted stock units during the fiscal year ended December 31, 2021.

Equity Compensation Plan Information

On May 1, 2020, our stockholders approved the Tonix Pharmaceuticals Holding Corp. Amended and Restated 2020 Stock Incentive Plan ("Amended and Restated 2020 Plan"). Under the terms of the Amended and Restated 2020 Plan, the Company may issue (1) stock options (incentive and nonstatutory), (2) restricted stock, (3) stock appreciation rights, (4) restricted stock units, (5) other stock-based awards, and (6) cash-based awards. The Amended and Restated 2020 Plan initially provided for the issuance of up to 10,000,000 shares of common stock, which amount will be increased to the extent that awards granted under the Plans are forfeited, expire or are settled for cash (except as otherwise provided in the Amended and Restated 2020 Plan). In addition, the Amended and Restated 2020 Plan contains an "evergreen provision" providing for an annual increase in the number of shares of our common stock available for issuance under the Amended and Restated 2020 Plan on January 1 of each year for a period of ten years, commencing on January 1, 2021 and ending on (and including) January 1, 2030, in an amount equal to the difference between (x) twenty percent (20%) of the total number of shares of common stock outstanding on December 31st of the preceding calendar year, and (y) the total number of shares of common stock reserved under the Amended and Restated 2020 Plan on December 31st of such preceding calendar year (including shares subject to outstanding awards, issued pursuant to awards or available for future awards). The Board of Directors determines the exercise price, vesting and expiration period of the grants under the Amended and Restated 2020 Plan. However, the exercise price of an incentive stock option may not be less than 110% of fair value of the common stock at the date of the grant for a 10% or more shareholder and 100% of fair value for a grantee who is not a 10% shareholder. The fair value of the common stock is determined based on quoted market price or in absence of such quoted market price, by the Board of Directors in good faith. Additionally, the expiration period of grants under the Amended and Restated 2020 Plan may not be more than ten years.

The following table provides certain information with respect to our equity compensation plans in effect as of December 31, 2021.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (A)	Weighted-average exercise price of outstanding options, warrants and rights (B)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column A) ⁽²⁾ (C)
Equity compensation plans approved by security holders ⁽¹⁾	25,780,262	\$ 1.83	16,085,803
Equity compensation plans not approved by security holders	—	—	—
Total	25,780,262	\$ 1.83	16,085,803

(1) Consists of the Company's 2012 Amended and Restated Incentive Stock Option Plan, the 2014 Stock Incentive Plan, the 2016 Stock Incentive Plan, the 2017 Stock Incentive Plan, the 2018 Equity Incentive Plan, the 2019 Stock Incentive Plan, the 2020 Stock Incentive Plan, the Amended and Restated 2020 Stock Incentive Plan and the 2019 Employee Stock Purchase Plan, and the 2020 Employee Stock Purchase Plan (the "ESPP").

(2) Consists of shares available for future issuance under the Amended and Restated 2020 Plan and our ESPP. As of December 31, 2021, 16,085,796 shares of common stock were available for issuance under the Amended and Restated 2020 Plan and 7 shares of common stock were available for issuance under the ESPP.

Employment Contracts and Termination of Employment and Change-In-Control Arrangements

Employment Agreement with Seth Lederman

On February 11, 2014, the Company entered into an employment agreement (the “Lederman Agreement”) with Dr. Seth Lederman to continue to serve as our President, Chief Executive Officer and Chairman of the Board.

The base salary for Dr. Lederman under the Lederman Agreement was \$425,000 per annum, and is \$675,000 as of January 1, 2022. The Lederman Agreement has an initial term of one year and automatically renews for successive one year terms unless either party delivers written notice not to renew at least 60 days prior to the end of the current term.

Pursuant to the Lederman Agreement, if the Company terminates Dr. Lederman’s employment without Cause (as defined in the Lederman Agreement) or Dr. Lederman resigns for Good Reason (as defined in the Lederman Agreement), Dr. Lederman is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other benefits, if any, under any group retirement plan, nonqualified deferred compensation plan, equity award plan or agreement, health benefits plan or other group benefit plan to which Dr. Lederman may be entitled to under the terms of such plans or agreements; (2) a lump sum cash payment in an amount equal to 12 months of his base salary as in effect immediately prior to the date of termination; (3) continuation of health benefits for Dr. Lederman and his eligible dependents for a period of 12 months following the date of termination; and (4) the automatic acceleration of the vesting and exercisability of outstanding unvested stock awards as to the number of stock awards that would have vested over the 12-month period following termination had Dr. Lederman remained continuously employed by the Company during such period.

Pursuant to the Lederman Agreement, if Dr. Lederman’s employment is terminated as a result of death or permanent disability, Dr. Lederman or his estate, as applicable, is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect; (2) a lump sum cash payment in an amount equal to six months of his base salary as in effect immediately prior to the date of termination; and (3) the automatic acceleration of the vesting and exercisability of outstanding unvested stock awards.

If Dr. Lederman is terminated without Cause or resigns for Good Reason during the period commencing 90 days prior to a Change in Control (as defined below) or 12 months following a Change in Control, Dr. Lederman shall be entitled to receive, in lieu of the severance benefits described above, the following payments and benefits: (1) a lump sum cash payment in an amount equal to 36 months of his base salary as in effect immediately prior to the date of termination, except that, if and while Lederman is still entitled to the Sale Bonus (as defined below), it will only be 18 months; (2) continuation of health benefits for Dr. Lederman and his eligible dependents for a period of 24 months following the date of termination, except that, if and while Dr. Lederman is still entitled to the Sale Bonus it will only be 12 months; and (3) the automatic acceleration of the vesting and exercisability of outstanding unvested stock awards.

If during the term of the Lederman Agreement or within 120 days after Lederman is terminated without Cause or resigns for Good Reason, following a Change in Control, the Company consummates a Change in Control transaction in which the Enterprise Value (as defined below) equals or exceeds \$50 million, Dr. Lederman shall be entitled to receive a lump sum payment equal to 4.4% of the Enterprise Value (the “Sale Bonus”). The Sale Bonus provision of the Lederman Agreement will terminate upon the Company granting Dr. Lederman long-term incentive compensation mutually agreed to by the Board and Dr. Lederman.

For purposes of the Lederman Agreement, “Cause” generally means (1) commission of an act of fraud, embezzlement or dishonesty or some other illegal act that has a demonstrable material adverse impact on the Company or any successor or affiliate of the Company, (2) conviction of, or entry into a plea of “guilty” or “no contest” to, a felony, (3) unauthorized use or disclosure of the Company’s confidential information or trade secrets or any successor or affiliate of the Company that has, or may reasonably be expected to have, a material adverse impact on any such entity; (4) gross negligence, failure to follow a material, lawful and reasonable request of the Board or material violation of any duty of loyalty to the Company or any successor or affiliate of the Company, or any other demonstrable material willful misconduct by Dr. Lederman, (5) ongoing and repeated failure or refusal to perform or neglect of his duties as required by his employment agreement, which failure, refusal or neglect continues for 30 days following Dr. Lederman’s receipt of written notice from the Board stating with specificity the nature of such failure, refusal or neglect, provided that such failure to perform is not as a result of illness, injury or medical incapacity, or (6) material breach of any Company policy or any material provision of the Lederman Agreement.

For purposes of the Lederman Agreement, “Good Reason” generally means (1) a material diminution in Dr. Lederman’s title, authority, duties or responsibilities, (2) a material diminution in Dr. Lederman’s base compensation, unless such a reduction is imposed across-the-board to the Company’s senior management, and such reduction is not greater than 15%, (3) a material change in the geographic location at which Dr. Lederman must perform his duties, (4) any other action or inaction that constitutes a material breach by the Company or any successor or affiliate of the Company’s obligations to Dr. Lederman under the Lederman Agreement, or (5) the Company elects not to renew the Lederman Agreement for another term.

For purposes of the Lederman Agreement, “Change in Control” generally means:

- A transaction or series of transactions (other than public offerings) that results in any person or entity or related group of persons or entities (other than the Company, its subsidiaries, an employee benefit plan maintained by the Company or any of its subsidiaries or a person or entity that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of more than 40% of the total combined voting power of the Company’s securities outstanding immediately after such acquisition;
- (1) a merger, consolidation, reorganization, or business combination or (2) the sale, exchange or transfer of all or substantially all of the Company’s assets in any single transaction or series of transactions or (3) the acquisition of assets or stock of another entity, in each case other than a transaction:
 - which results in the Company’s voting securities outstanding immediately before the transaction continuing to represent, directly or indirectly, at least 60% of the combined voting power of the successor entity’s outstanding voting securities immediately after the transaction, and
 - after which no person or group beneficially owns voting securities representing 40% or more of the combined voting power of the Company or its successor; provided, however, that no person or group is treated as beneficially owning 40% or more of combined voting power of the Company or its successor solely as a result of the voting power held in the Company prior to the consummation of the transaction.

For purposes of the Lederman Agreement, “Enterprise Value” generally means (1) in a Change in Control in which consideration is received by the Company, the total cash and non-cash consideration, including debt assumed, received by the Company, net of any fees and expenses in connection with the transaction and (2) in a Change in Control in which consideration is payable to the stockholders of the Company, the total cash and non-cash consideration, including debt assumed, payable to the Company’s stockholders net of any fees and expenses in connection with the transaction. Enterprise Value also includes any cash or non-cash consideration payable to the Company or to the Company’s stockholders on a contingent, earnout or deferred basis.

Employment Agreement with Gregory Sullivan

On June 3, 2014, the Company entered into an employment agreement (the “Sullivan Agreement”) with Dr. Gregory Sullivan to serve as our Chief Medical Officer. The base salary for Dr. Sullivan under the Sullivan Agreement was \$225,000 per annum, and is \$461,220 as of January 1, 2022. The Sullivan Agreement had an initial term of one year and automatically renews for successive one year terms unless either party delivers written notice not to renew at least 60 days prior to the end of the current term.

Pursuant to the Sullivan Agreement, if the Company terminates Dr. Sullivan’s employment without Cause (as defined below) or Executive resigns for Good Reason (as defined below), Dr. Sullivan is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other benefits, if any, under any group retirement plan, nonqualified deferred compensation plan, equity award plan or agreement, health benefits plan or other group benefit plan to which Dr. Sullivan may be entitled to under the terms of such plans or agreements; (2) a lump sum cash payment in an amount equal to 12 months of his base salary as in effect immediately prior to the date of termination; (3) continuation of health benefits for Sullivan and his eligible dependents for a period of 12 months following the date of termination; and (4) the automatic acceleration of the vesting and exercisability of outstanding unvested stock awards as to the number of stock awards that would have vested over the 12-month period following termination had Dr. Sullivan remained continuously employed by the Company during such period.

Pursuant to the Sullivan Agreement, if Dr. Sullivan’s employment is terminated as a result of death or permanent disability, Dr. Sullivan or his estate, as applicable, is entitled to his fully earned but unpaid base salary through the end of the month in which termination occurs at the rate then in effect.

For purposes of the Sullivan Agreement, “Cause” generally means (1) commission of an act of fraud, embezzlement or dishonesty or some other illegal act that has a demonstrable material adverse impact on the Company or any successor or affiliate of the Company, (2) conviction of, or entry into a plea of “guilty” or “no contest” to, a felony, (3) unauthorized use or disclosure of the Company’s confidential information or trade secrets or any successor or affiliate of the Company that has, or may reasonably be expected to have, a material adverse impact on any such entity, (4) gross negligence, failure to follow a material, lawful and reasonable request of the Company or material violation of any duty of loyalty to the Company or any successor or affiliate of the Company, or any other demonstrable material misconduct by Dr. Sullivan, (5) ongoing and repeated failure or refusal to perform or neglect of his duties as required by his employment agreement, which failure, refusal or neglect continues for 30 days following Dr. Sullivan’s receipt of written notice from the Company stating with specificity the nature of such failure, refusal or neglect, or (6) material breach of any Company policy or any material provision of the Sullivan Agreement.

For purposes of the Sullivan Agreement, “Good Reason” generally means (1) a material diminution in Dr. Sullivan’s title, authority, duties or responsibilities, (2) a material diminution in the executive officer’s base compensation, unless such a reduction is imposed across-the-board to the Company’s senior management and such reduction is not greater than 15%, (3) a material change in the geographic location at which the executive officer must perform his duties, (4) any other action or inaction that constitutes a material breach by the Company or any successor or affiliate of the Company’s obligations to Dr. Sullivan under the Agreement, or (5) the Company elects not to renew the Agreement for another term.

Employment Agreement with Bradley Saenger

On February 23, 2021, the Company entered into an employment agreement (the “Saenger Agreement”) with Mr. Bradley Saenger to serve as our Chief Financial Officer. The base salary for Mr. Saenger under the Saenger Agreement was \$445,400 per annum as of January 1, 2022. The Saenger Agreement has an initial term of one year and automatically renews for successive one year terms unless either party delivers written notice not to renew at least 60 days prior to the end of the current term.

Pursuant to the Saenger Agreement, if the Company terminates Mr. Saenger’s employment without Cause (as defined below) or Executive resigns for Good Reason (as defined below), Mr. Saenger is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other benefits, if any, under any group retirement plan, nonqualified deferred compensation plan, equity award plan or agreement, health benefits plan or other group benefit plan to which Mr. Saenger may be entitled to under the terms of such plans or agreements; (2) a lump sum cash payment in an amount equal to 12 months of his base salary as in effect immediately prior to the date of termination; (3) continuation of health benefits for Mr. Saenger and his eligible dependents for a period of 12 months following the date of termination; and (4) the automatic acceleration of the vesting and exercisability of outstanding unvested stock awards as to the number of stock awards that would have vested over the 12-month period following termination had Mr. Saenger remained continuously employed by the Company during such period.

Pursuant to the Saenger Agreement, if Mr. Saenger’s employment is terminated as a result of death or permanent disability, Mr. Saenger or his estate, as applicable, is entitled to his fully earned but unpaid base salary through the end of the month in which termination occurs at the rate then in effect.

For purposes of the Saenger Agreement, “Cause” generally means (1) commission of an act of fraud, embezzlement or dishonesty or some other illegal act that has a demonstrable material adverse impact on the Company or any successor or affiliate of the Company, (2) conviction of, or entry into a plea of “guilty” or “no contest” to, a felony, (3) unauthorized use or disclosure of the Company’s confidential information or trade secrets or any successor or affiliate of the Company that has, or may reasonably be expected to have, a material adverse impact on any such entity, (4) gross negligence, failure to follow a material, lawful and reasonable request of the Company or material violation of any duty of loyalty to the Company or any successor or affiliate of the Company, or any other demonstrable material misconduct by Mr. Saenger, (5) ongoing and repeated failure or refusal to perform or neglect of his duties as required by his employment agreement, which failure, refusal or neglect continues for 30 days following Mr. Saenger’s receipt of written notice from the Company stating with specificity the nature of such failure, refusal or neglect, or (6) material breach of any Company policy or any material provision of the Saenger Agreement.

For purposes of the Saenger Agreement, “Good Reason” generally means (1) a material diminution in Mr. Saenger’s title, authority, duties or responsibilities, (2) a material diminution in the executive officer’s base compensation, unless such a reduction is imposed across-the-board to the Company’s senior management and such reduction is not greater than 15%, (3) a material change in the geographic location at which the executive officer must perform his duties, (4) any other action or inaction that constitutes a material breach by the Company or any successor or affiliate of the Company’s obligations to Mr. Saenger under the Agreement, or (5) the Company elects not to renew the Agreement for another term.

Directors Compensation Table

As of May 2021, each of our non-employee directors, other than the lead director, receives an annual cash retainer of \$50,000; the retainer for the lead director is \$70,000. Prior to May 2021, each of our non-employee directors received an annual cash retainer of \$35,000. In addition, during 2021, each of our non-employee directors received stock options to purchase shares of our common stock valued at \$250,000 as determined by the Black Scholes method on the date of grant, which vest on the next annual meeting of stockholders. The following table sets forth summary information concerning the total compensation paid to our non-employee directors in 2021 for services to our Company.

Name	Cash	Option	Total (\$)
	Compensation (\$)	Awards (\$) ⁽¹⁾	
Richard Bagger	\$ 45,000	\$ 250,000	\$ 295,000
Margaret Smith Bell	\$ 45,000	\$ 250,000	\$ 295,000
Daniel Goodman	\$ 45,000	\$ 250,000	\$ 295,000
David Grange	\$ 45,000	\$ 250,000	\$ 295,000
Adeoye Olukotun	\$ 45,000	\$ 250,000	\$ 295,000
Carolyn Taylor	\$ 22,984	\$ 208,945	\$ 231,929
James Treco ⁽²⁾	\$ 58,333	\$ 250,000	\$ 308,333
Total:	<u>\$ 306,317</u>	<u>\$ 1,708,945</u>	<u>\$ 2,015,262</u>

(1) Represents the aggregate grant date fair value of stock options granted in accordance with FASB ASC Topic 718. For the relevant assumptions used in determining these amounts, refer to Note 14 to our audited financial statements. These amounts do not necessarily correspond to the actual value that may be recognized from the stock option grant.

(2) Mr. Treco received additional cash compensation for serving as lead director.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our common stock as of March 14, 2022:

- by each person who is known by us to beneficially own more than 5% of our common stock;
- by each of our officers and directors; and
- by all of our officers and directors as a group.

Unless otherwise indicated in the footnotes to the following table, each person named in the table has sole voting and investment power and that person's address is c/o Tonix Pharmaceuticals Holding Corp., 26 Main Street, Suite 101, Chatham, New Jersey 07928.

NAME OF OWNER	TITLE OF CLASS	NUMBER OF SHARES OWNED (1)	PERCENTAGE OF COMMON STOCK (2)
<i>5% Stockholders</i>			
BlackRock, Inc.	Common Stock	30,631,558(3)	5.7%
<i>Directors and Executive Officers</i>			
Seth Lederman	Common Stock	5,355,942 (4)	1%
Jessica Morris	Common Stock	942,441 (5)	*
Bradley Saenger	Common Stock	962,023 (6)	*
Gregory Sullivan	Common Stock	1,417,130 (7)	*
Richard Bagger	Common Stock	349,632 (8)	*
Margaret Smith Bell	Common Stock	354,673 (9)	*
Daniel Goodman	Common Stock	353,883(10)	*
David Grange	Common Stock	349,152(11)	*
Adeoye Olukotun	Common Stock	354,232(12)	*
Carolyn Taylor	Common Stock	237,437(13)	*
James Treco	Common Stock	402,382(14)	*
Officers and Directors as a Group (11 persons)	Common Stock	11,078,926(15)	2.0%

* Denotes less than 1%

(1) Beneficial Ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Shares of common stock subject to options or warrants currently exercisable or convertible, or exercisable or convertible within 60 days of March 14, 2022 are deemed outstanding for computing the percentage of the person holding such option or warrant but are not deemed outstanding for computing the percentage of any other person.

(2) Percentage based upon 533,928,624 shares of common stock issued and outstanding as of March 14, 2022.

(3) Based solely on information contained in a Schedule 13G filed with the SEC on February 4, 2022. The mailing address of this beneficial owner is 55 East 52^d street, New York, NY 10055.

(4) Includes 5,207,918 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days, 205 shares of common stock owned by Lederman & Co, 33 shares of common stock owned by L&L, 59 shares of common stock owned by Targent, 30 shares of common stock owned by Leder Laboratories, Inc. (Leder Labs), 30 shares of common stock owned by Starling, 135,000 shares owned through a 401(k) account, 459 shares owned through an IRA account and 31 shares owned by Dr. Lederman's spouse. Seth Lederman, as the Managing Member of Lederman & Co and Targent, the Manager of L&L and the Chairman of Leder Labs and Starling, has investment and voting control over the shares held by these entities.

(5) Includes 942,424 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days.

(6) Includes 942,380 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days.

(7) Includes 1,317,907 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days.

(8) Includes 339,632 shares of common stock underlying options and restricted stock units which are currently exercisable or vested or become exercisable within 60 days.

(9) Includes 349,282 shares of common stock underlying options and restricted stock units which are currently exercisable or vested or become exercisable within 60 days.

(10) Includes 348,882 shares of common stock underlying options and restricted stock units which are currently exercisable or vested or become exercisable within 60 days.

(11) Includes 349,152 shares of common stock underlying options and restricted stock units which are currently exercisable or vested or become exercisable within 60 days.

(12) Includes 348,882 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days

(13) Includes 237,437 shares of common stock underlying options which are currently exercisable or become exercisable within 60 days

(14) Includes 392,382 shares of common stock underlying options and restricted stock units which are currently exercisable or vested or become exercisable within 60 days.

(15) Includes 10,776,277 shares of common stock underlying options which are currently exercisable or vested or become exercisable within 60 days, 205 shares of common stock owned by Lederman & Co, 33 shares of common stock owned by L&L, 59 shares of common stock owned by Targent, 30 shares of common stock owned by Leder Labs, 30 shares of common stock owned by Starling, 135,000 shares owned through a 401(k) account of Dr. Lederman, 459 shares owned through an IRA account of Dr. Lederman, 31 shares owned by Dr. Lederman's spouse.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of “related-party transactions.” For purposes of our policy only, a “related-party transaction” is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any “related party” are participants involving an amount that exceeds \$120,000.

Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. A related party is any executive officer, director or a holder of more than five percent of our common stock, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-party transaction, our Chief Compliance Officer must present information regarding the proposed related-party transaction to our Nominating and Corporate Governance Committee for review. The presentation must include a description of, among other things, the material facts, the direct and indirect interests of the related parties, the benefits of the transaction to us and whether any alternative transactions are available. To identify related-party transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related-party transactions, our Nominating and Corporate Governance Committee will take into account the relevant available facts and circumstances including, but not limited to:

- whether the transaction was undertaken in the ordinary course of our business;
- whether the related party transaction was initiated by us or the related party;
- whether the transaction with the related party is proposed to be, or was, entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us from the related party transaction;
- the approximate dollar value of the amount involved in the related party transaction, particularly as it relates to the related party;
- the related party’s interest in the related party transaction, and
- any other information regarding the related party transaction or the related party that would be material to investors in light of the circumstances of the particular transaction.

The Nominating and Corporate Governance Committee shall then make a recommendation to the Board, who will determine whether or not to approve of the related party transaction, and if so, upon what terms and conditions. In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

During the last two fiscal years, there have been no related party transactions.

PROPOSALS OF SHAREHOLDERS FOR THE 2023 ANNUAL MEETING

If you want to submit a proposal for inclusion in our proxy statement for the 2023 Annual Meeting of shareholders, you may do so by following the procedures in Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). To be eligible for inclusion, shareholder proposals (other than nominees for directors) must be received at the Company's principal executive office, at the following address: 26 Main Street, Suite 101, Chatham, New Jersey 07928, Attention: Secretary, no earlier than January 7, 2023 and no later than February 6, 2023.

Under Rule 14a-4 promulgated under the Exchange Act, if a proponent of a proposal that is not intended to be included in the proxy statement fails to notify us of such proposal at least 45 days prior to the anniversary of the mailing date of the preceding year's proxy statement, then we will be allowed to use our discretionary voting authority under proxies solicited by us when the proposal is raised at such Annual Meeting of shareholders, without any discussion of the matter in the proxy statement.

In addition, our Third Amended and Restated Bylaws contain an advance notice provision that requires that all business proposed by a shareholder that will be conducted or considered at a meeting must meet notice requirements. For business to be properly submitted by a shareholder for a vote at an Annual Meeting, the shareholder must (i) be a shareholder of record as of the record date for the meeting, (ii) be entitled to vote at the meeting, and (iii) have given timely notice in writing of the proposal to be submitted by the shareholder for a vote. The shareholder's notice must be delivered to the Secretary at the Company's principal executive office. To be timely, a shareholder's notice must be received by the Secretary at least 90 calendar days before the date corresponding to the date for the annual meeting in the preceding year, and no more than 120 calendar days before that date; provided, however, if the date of the annual meeting is changed by more than 25 calendar days from the date corresponding to the date of the preceding year's Annual Meeting, or if we did not hold an annual meeting in the preceding year, then the shareholder's notice will be considered timely if it is received by the Secretary not later than the close of business on the tenth calendar day following the day on which such notice of the date of the Annual Meeting was mailed or the date on which public disclosure of the date of the Annual Meeting was made, whichever first occurs.

A shareholder's notice to the Secretary must set forth as to each matter the shareholder proposes to bring before the annual meeting: (i) a description in reasonable detail of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, as they appear on the Company's books, of the shareholder proposing such business and of the beneficial owner, if any, on whose behalf the proposal is made, (iii) such information regarding each director nominee or each matter of business to be proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the U. S. Securities and Exchange Commission, or the SEC, had the nominee been nominated, or intended to be nominated, or the matter been proposed, or intended to be proposed by the Board; (iv) if applicable, the consent of each nominee to be named in the proxy statement and to serve as director of the Company if so elected; (v) the class and number of shares of the Company that are owned beneficially and of record by the shareholder proposing such business and by the beneficial owner, if any, on whose behalf the proposal is made, and (vi) any material interest of such shareholder proposing such business and the beneficial owner, if any, on whose behalf the proposal is made in such business.

OTHER BUSINESS

The Board knows of no business to be brought before the Annual Meeting other than as set forth above. If other matters properly come before the shareholders at the meeting, it is the intention of the persons named on the proxy to vote the shares represented thereby on such matters in accordance with their judgment.

By Order of the Board of Directors,

/s/ SETH LEDERMAN

Seth Lederman

Chief Executive Officer and Chairman of the Board of Directors

New York, New York

March 18, 2022

ANNEX A

TONIX PHARMACEUTICALS HOLDING CORP.
2022 EMPLOYEE STOCK PURCHASE PLAN

1. **Purpose.** The purpose of the Plan is to furnish to Eligible Employees an incentive to advance the best interests of the Company by providing a method whereby they may voluntarily purchase stock of the Company at a favorable price and upon favorable terms. The Plan is intended to qualify as an “employee stock purchase plan” under Section 423 of the Code.
2. **Definitions.**
- (a) **“Board”** means the Board of Directors of Tonix Pharmaceuticals Holding Corp.
 - (b) **“Code”** means the U.S. Internal Revenue Code of 1986, as amended.
 - (c) **“Committee”** means the Tonix Pharmaceuticals Holding Corp. Compensation Committee; provided, however, with respect to certain procedural interpretations of the Plan and the day-to-day administration of the Plan, the Committee may delegate to a subcommittee or a member of the Committee.
 - (d) **“Company”** means Tonix Pharmaceuticals Holding Corp.
 - (e) **“Date of Exercise”** means the last day of each Option Period.
 - (f) **“Date of Grant”** means, except as otherwise determined by the Committee, the first day of each January and July.
 - (g) **“Designated Subsidiary”** means any Subsidiary which has been designated by the Committee from time to time in its sole discretion as eligible to participate in the Plan.
 - (h) **“Eligible Base Compensation”** means that portion of an Eligible Employee’s Eligible Compensation that is comprised of wages and salaries and that excludes bonuses, commissions, and other amounts received during the Option Period.
 - (i) **“Eligible Compensation”** means the gross (before taxes are withheld) total of all wages, salaries and overtime earnings received during the Option Period, except that such term shall include elective contributions made on an Employee’s behalf by the Company or a Designated Subsidiary that are not includable in income under Section 125 or Section 402(e)(3) of the Code. Notwithstanding the foregoing, “Eligible Compensation” shall not include (i) reimbursements and other expense allowances, (ii) cash and noncash fringe benefits, (iii) moving expenses and moving bonuses, (iv) employer contributions to or payments from any deferred compensation program, whether such program is qualified under Section 401(a) of the Code or nonqualified, (v) employee contributions to, or deferrals under, any nonqualified deferred compensation program, (vi) welfare benefits, (vii) amounts realized from participation in any stock option, restricted stock, restricted stock unit, stock purchase or similar equity plan, (viii) amounts realized at the time property described in Section 83 of the Code is freely transferable or no longer subject to a substantial risk of forfeiture, (ix) severance or separation pay, (x) accumulated vacation paid upon termination of employment, (xi) bonuses, and (xii) any other amounts that receive special tax benefits under the Code but are not specifically included in the preceding sentence.
 - (j) **“Eligible Employee”** means an Employee that pursuant to paragraph 4 is eligible to participate in Plan.
 - (k) **“Employee”** means any individual who is an employee of the Employer for tax purposes and for purposes of participation in the Plan whose customary employment with the Employer is at least 20 hours per week and more than five months in a calendar year. The term “Employee” shall not include any independent contractors providing services to the Employer, regardless of length of such service.
 - (l) **“Employer”** means the Company or any of its Designated Subsidiaries.
 - (m) **“Enrollment Period”** means with respect to a given Option Period, that period beginning on the fifteenth (15th) day of May and November and ending on the fifteenth (15th) day of June and December, respectively, during which Eligible Employees may elect to purchase shares of Stock at the end of that Option Period in accordance with the terms of this Plan. The duration and timing of Enrollment Periods may be changed or modified by the Committee.
 - (n) **“Fair Market Value”** means, as of any date, the mean of the high and low sales prices of the Stock reported on the composite tape of the NASDAQ Stock Market (or if no longer listed on the NASDAQ Stock Market, such other national securities exchange on which the Stock is then listed), on that date or, if no prices are reported on that date, on the last preceding date on which such prices of the Stock are so reported. If the Stock is traded over the counter at the time a determination of its Fair Market Value is required to be made hereunder, its Fair Market Value shall be deemed to be equal to the average between the reported high and low or closing bid and asked prices of Stock on the most recent date on which Stock was publicly traded. In the event Stock is not publicly traded at the time a determination of its value is required to be made hereunder, the determination of its Fair Market Value shall be made by the Committee in such manner as it deems appropriate.
 - (o) **“Maximum Period”** means, with respect to a Participant, the 90 day period beginning on the first day of the Participant’s leave of absence; provided, however, that if the Participant’s right to reemployment by the Company or a Designated Subsidiary is guaranteed either by statute or contract, then such 90 day period shall be extended until the last day upon which such reemployment rights are so guaranteed.
 - (p) **“Offering”** means an offer under this Plan of an option that may be exercised during an Option Period as further described in paragraph 6.
 - (q) **“Option Period”** means the six-month period that begins on the Date of Grant and ends on the Date of Exercise. The duration and timing of Option Periods may be changed or modified by the Committee but the Option Period cannot exceed 27 months between the Date of Grant and the Date of Exercise.
 - (r) **“Option Price”** means 85% of the Fair Market Value of the Stock on the Date of Exercise or on the Date of Grant, whichever amount is lesser; provided, however, that the Committee may alter this definition in any manner consistent with Section 423 of the Code.
 - (s) **“Participant”** means any Employee who meets the eligibility and participation requirements in paragraphs 4 and 6 below.
 - (t) **“Plan”** means this Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan, as amended from time to time.

- (u) **“Stock”** means shares of the authorized \$0.001 par value common stock of the Company.
- (v) **“Subsidiary”** means any present or future corporation which (i) is or becomes a “subsidiary corporation” of the Company as that term is defined in Section 424 of the Code and (ii) is designated as a participant in the Plan by the Committee.

3. **Administration of the Plan**

- (a) **Administration by the Committee.** The Plan shall be administered by the Committee, which committee was established by the Board. With respect to certain procedural interpretations of the Plan and the day-to-day administration of the Plan, the Committee may delegate to a subcommittee or a member of the Committee. Subject to the provisions of the Plan, the Committee shall interpret the Plan and all options granted under the Plan, shall make such rules as it deems necessary for the proper administration of the Plan, shall make all other determinations necessary or advisable for the administration of the Plan, and shall correct any defect or supply any omission or reconcile any inconsistency in the Plan or in any option granted under the Plan in the manner and to the extent that the Committee deems desirable to carry the Plan or any option into effect. Any action taken or determination made by the Committee pursuant to this and the other paragraphs of the Plan shall be conclusive on all parties. All expenses incurred in connection with the administration of the Plan shall be paid by the Company.
- (b) **Authority of Officers.** Any officer of the Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, determination or election that is the responsibility of or that is allocated to the Company herein, provided that the officer has apparent authority with respect to such matter, right, obligation, determination or election.
- (c) **Indemnification.** In addition to such other rights of indemnification as they may have as members of the Board or officers or employees of the Company, members of the Board and any officers or employees of the Company to whom authority to act for the Board or the Company is delegated shall be indemnified by the Company against all reasonable expenses, including attorneys’ fees, actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan, or any right granted hereunder, and against all amounts paid by them in settlement thereof provided such settlement is approved by independent legal counsel selected by the Company or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such person is liable for gross negligence, bad faith or intentional misconduct in duties; provided, however, that within sixty (60) days after the institution of such action, suit or proceeding, such person shall offer to the Company, in writing, the opportunity at its own expense to handle and defend the same.

4. **Eligibility**

- (a) **General Statement.** Any individual who, as of a specific Date of Grant, is an Employee and has been continuously employed (including any authorized leave of absence) by the Company or any Designated Subsidiary for at least 90 consecutive days and who made an enrollment election as an Employee for that Date of Grant during the Enrollment Period or whose enrollment election was carried over according to subparagraph 6(f) shall be eligible to participate in the Plan for the Option Period beginning on such Date of Grant, subject to the requirements of paragraph 6 and the limitation imposed by Section 423(b) of the Code, provided, however, that any Employee on July 1, 2022 shall be eligible to participate for the Option Period beginning July 1, 2022 regardless of length of employment. Employees who are located outside the U.S. may be excluded from the Plan if their participation is prohibited under the laws of the applicable jurisdiction or if complying with the laws of the applicable jurisdiction would cause the Plan to violate Section 423 of the Code.

- (b) **Employees Not Eligible.** Any provisions of the Plan to the contrary notwithstanding, an Employee is not eligible to participate if on the Date of Grant for any Offering Period such Employee, immediately after the grant of an option hereunder, would own stock possessing five percent or more of the total combined voting power or value of all classes of stock of the Company or of its parent or subsidiary corporations (within the meaning of Sections 423(b)(3) and 424(d) of the Code).

5. **Stock Subject to the Plan** Subject to the provisions of paragraph 12 (relating to adjustment upon changes in Stock), the Company shall reserve initially for issuance under the Plan an aggregate of 3,000,000 shares of Stock, which shares may be authorized but unissued shares of Stock, treasury shares or shares acquired on the open market. For purposes of applying the limitation set forth in the preceding sentence, any share of Stock sold pursuant to the Plan prior to an adjustment of the number of shares of Stock subject to the Plan under paragraph 12 shall be deemed to have been adjusted at the same time and in a similar manner as the adjustment to such number of shares of Stock subject to the Plan pursuant to paragraph 12. The Committee may from time to time reserve additional shares of authorized and unissued Stock for issuance pursuant to the Plan; provided, however, that at no time shall the number of shares of Stock reserved be greater than permitted by applicable law. Should any option granted under the Plan expire or terminate prior to its exercise in full, the shares theretofore subject to such option may again be subject to an option granted under the Plan. Any shares which are not subject to outstanding options upon the termination of the Plan shall cease to be subject to the Plan.

6. **Grant of Options**

- (a) **General Statement.** Following the effective date of the Plan and continuing while the Plan remains in force, the Company shall offer options under the Plan to all Eligible Employees to purchase shares of Stock. Subject to subparagraph 6(d), the number of shares subject to an option for a Participant shall be equal to the quotient of (i) the aggregate payroll deductions withheld on behalf of such Participant during the Option Period in accordance with subparagraph 6(b), divided by (ii) the Option Price of the Stock applicable to the Option Period, including fractions.

- (b) **Election to Participate; Payroll Deduction Authorization.**

- (i) Except as provided in subparagraph 6(f), an Eligible Employee may participate in the Plan only by means of payroll deduction. Except as provided in subparagraph 6(f), each Eligible Employee who elects to participate in the Plan shall deliver to the Company no later than the last day of the Enrollment Period a written payroll deduction authorization (which may be delivered electronically in accordance with procedures established by the Committee) in a form prepared by the Company whereby he or she gives notice of his or her election to participate in the Plan as of the next following Date of Grant, and whereby he or she designates an integral percentage, which cannot be less than one percent (1%) of his or her Eligible Compensation to be deducted from his or her Eligible Base Compensation on each payment date and paid into the Plan for his or her account.

(ii) The Committee's administrative procedures may provide that an Employee's contributions to the Plan made pursuant to this subparagraph 6(b) will be subject to a "withholding hierarchy" for purposes of determining the amount that may be contributed to the Plan on behalf of a Participant. The Committee may determine the order of all withholdings and deductions taken from an Eligible Employee's compensation (e.g., for federal, state and local taxes, social security, wage garnishments, welfare plan contributions, 401(k) deferrals, amounts elected under the Plan, and similar withholdings), and an Eligible Employee's payroll deductions made pursuant to this subparagraph 6(b) will be subject to such withholding hierarchy. As a result, such contributions to the Plan may be effectively limited to Eligible Compensation available after the application of such withholding hierarchy.

(iii) The percentage of Eligible Compensation that an Eligible Employee designates to contribute under this subparagraph 6(b) may not exceed either of the following: (i) 15% of the amount of Eligible Compensation from which the deduction is made; or (ii) an amount which will result in compliance with the \$25,000 limitation stated in subparagraph 6(d).

(iv) Subject to the limitations set forth in Section 423 of the Code, the Committee may change the administrative procedures applicable to the processes of electing Eligible Compensation deductions or deposits, as are set forth in subparagraphs 6(b)(i) and 6(b)(ii), and such revised procedures shall apply under the Plan as if fully set forth in the Plan.

(c) **Changes in Payroll Authorization.** The payroll deduction authorization referred to in subparagraph 6(b) may not be changed during the Option Period.

(d) **\$25,000 Annual Limitation.** No Employee shall be granted an option under the Plan to the extent the grant of an option under the Plan would permit his or her rights to purchase Stock under the Plan and under all other employee stock purchase plans of the Company and its parent and subsidiary corporations (as such terms are defined in Section 424(e) and (f) of the Code) to accrue at a rate which exceeds \$25,000 (or such other limit as may be in effect under Section 423 of the Code (or any successor provision) from time to time) of Stock, measured at the Fair Market Value of the Stock determined on the first day of the Option Period, for each calendar year in which any such option granted to such Employee is outstanding at any time (within the meaning of Section 423(b)(8) of the Code). Any amounts received from an Employee which cannot be used to purchase Stock under the Plan due to the \$25,000 annual limitation set forth in this subparagraph 6(d) shall be returned as soon as practicable, without interest.

(e) **Leaves of Absence.** During a paid leave of absence approved by the Company and meeting the requirements of Treasury Regulation § 1.421-1(h)(2), a Participant's elected payroll deductions shall continue. A Participant may not contribute to the Plan during an unpaid leave of absence. If a Participant takes an unpaid leave of absence that is approved by the Company and meets the requirements of Treasury Regulation § 1.421-1(h)(2), then such Participant's payroll deductions for an Option Period that were made prior to such leave may remain in the Plan and be used to purchase Stock under the Plan on the Date of Exercise relating to such Option Period. If a Participant takes a leave of absence that is not described in the first or third sentence of this subparagraph 6(e), then he or she shall be considered to have terminated his or her employment and withdrawn from the Plan pursuant to the provisions of paragraph 8 hereof. Further, notwithstanding the preceding provisions of this subparagraph 6(e), if a Participant takes a leave of absence that is described in the first or third sentence of this subparagraph 6(e) and such leave of absence exceeds the Maximum Period, then he or she shall be considered to have withdrawn from the Plan pursuant to the provisions of paragraph 8 hereof and terminated his or her employment for purposes of the Plan on the day immediately following the last day of the Maximum Period.

(f) **Continuing Election.** Except for a Participant who contributed a specific amount of Eligible Base Compensation, a Participant who has elected to participate in the Plan pursuant to subparagraph 6(b), as applicable, as of a Date of Grant, who takes no action to change or revoke his or her election on or before the date that is 15 days before any such respective Date of Grant shall be deemed to have made the same election, including the same attendant payroll deduction authorization or deposit election agreement, as applicable, for such next following and/or subsequent Date(s) of Grant as was in effect for the Date of Grant for which he or she made (or was deemed to have made, as applicable) such election to participate, subject to 6(b)(i) of the Plan

(g) **Over-subscribed Offerings.** The number of shares of Stock which a Participant may purchase in an Option Period under the Plan may be reduced if there is an insufficient number of shares of Stock remaining under the Plan on the applicable Date of Exercise. No option granted under the Plan shall permit a Participant to purchase shares of Stock which, if added together with the total number of shares of Stock purchased by all other Participants on such Date of Exercise would exceed the total number of shares of Stock remaining available under the Plan. If the Committee determines that, on a particular Date of Exercise, the number of shares of Stock with respect to which options are to be exercised exceeds the number of shares of Stock then available under the Plan, the Company shall make a pro rata allocation of the shares of Stock remaining available for purchase in as uniform a manner as practicable and as the Committee determines to be equitable.

7. Exercise of Options.

(a) **General Statement.** Subject to the limitations contained herein, each Eligible Employee who is a Participant in the Plan automatically and without any act on his or her part shall be deemed to have exercised his or her option on each Date of Exercise to the extent that the cash balance then in his or her account under the Plan is sufficient to purchase at the Option Price whole shares of Stock.

(b) **Delivery of Shares.** As soon as practicable after each Date of Exercise, the Company shall deliver to a custodian selected by the Committee instructions for electronic delivery of the total number of shares of Stock respecting exercised options in the aggregate of all of the Eligible Employees who participated in the Option Period ending on such Date of Exercise. Such custodian shall keep accurate records of the beneficial interests of each Eligible Employee in the shares of Stock purchased by such Eligible Employee under the Plan and shall provide each Eligible Employee with such periodic statements as may be directed by the Committee reflecting all activity in the Eligible Employee's account. In the event the Company is required to obtain from any commission or agency authority to deliver any such shares of Stock, the Company shall seek to obtain such authority. Inability of the Company to obtain from any such commission or agency authority which counsel for the Company deems necessary for the lawful issuance of any such shares of Stock shall relieve the Company from liability to any Participant in the Plan except to return to him or her the amount of the balance in his or her account.

(c) **Fractional Shares.** Notwithstanding anything to the contrary, fractional shares of Stock will not be issued under the Plan. Any accumulated payroll deductions which would have been used to purchase fractional shares, unless refunded pursuant to Sections 8(a) or 9 below, will be held for the purchase of Stock in the next following Offering Period, without interest.

8. Withdrawal from the Plan

(a) **General Statement.** Any Participant may withdraw in whole from the Plan at any time prior to the first day of the payroll period that includes the Date of Exercise relating to a particular Option Period. Partial withdrawals shall not be permitted. A Participant who wishes to withdraw from the Plan must timely provide notice of withdrawal by following the electronic or other procedures prescribed by the Committee or its delegate. The Company, promptly following the date when notice of withdrawal is timely provided, shall refund to the Participant the amount of the cash balance in his or her account under the Plan; and thereupon, automatically and without any further act on his or her part, his or her payroll deduction authorization and his or her interest in unexercised options under the Plan shall terminate.

(b) **Eligibility Following Withdrawal.** A Participant who withdraws from the Plan shall be eligible to participate again in the Plan upon expiration of the Option Period during which he or she withdrew (provided that he or she is otherwise eligible to participate in the Plan at such time).

9. **Termination of Employment.** If the employment of a Participant terminates for any reason, his or her participation in the Plan automatically and without any act on his or her part shall terminate as of the date of the termination of his or her employment. The Company shall promptly refund to him or her any cash balance in his or her account under the Plan, and thereupon his or her interest in unexercised options under the Plan shall terminate. The Committee may also establish rules regarding when leaves of absence or changes of employment status will be considered to be a termination of employment, including rules regarding transfer of employment among Designated Subsidiaries or between Designated Subsidiaries and the Company, and the Committee may establish termination-of-employment procedures that are independent of similar rules established under other benefit plans of the Company and its Subsidiaries; provided that such procedures for the Code Section 423(b) Component are not in conflict with the requirements of Section 423 of the Code.

10. **Restriction Upon Assignment of Option.** An option granted under the Plan shall not be transferable, other than by will or the laws of descent and distribution. Each option shall be exercisable, during his or her lifetime, only by the Employee to whom granted. The Company shall not recognize and shall be under no duty to recognize any assignment or purported assignment by an Employee of his or her option or of any rights under his or her option.

11. **No Rights of Stockholder Until Stock Issued.** With respect to shares of Stock subject to an option, a Participant shall not be deemed to be a stockholder, and he or she shall not have any of the rights or privileges of a stockholder. A Participant shall have the rights and privileges of a stockholder upon, but not until, electronic delivery of shares has been made on his or her behalf following exercise of his or her option. With respect to a Participant's Stock held by the custodian pursuant to subparagraph 7(b), the custodian shall, as soon as practicable, pay the Participant any cash dividends attributable thereto and shall, in accordance with procedures adopted by the custodian and the Committee, facilitate the Participant's voting rights attributable thereto.

12. **Changes in Stock; Adjustments.** Whenever any change is made in the Stock, by reason of a stock dividend or by reason of subdivision, stock split, reverse stock split, recapitalization, reorganization, combination, reclassification of shares, or other similar change, appropriate action will be taken by the Board to adjust accordingly the number of shares subject to the Plan and the number and Option Price of shares subject to options outstanding under the Plan.

In the event of a proposed sale of all or substantially all of the assets, property or stock of the Company, a reorganization, merger or consolidation of the Company with or into one or more corporations, or a dissolution or liquidation of the Company, unless a successor corporation or a parent or subsidiary thereof assumes or substitutes new options (within the meaning of Section 424(a) of the Code) for all options then outstanding, (i) the Date of Exercise for all options then outstanding shall be accelerated to a date fixed by the Board prior to the effective date of such sale, reorganization, merger or consolidation or such dissolution or liquidation and (ii) upon such effective date any unexercised options shall expire.

13. **Use of Funds; No Interest Paid.** All funds received or held by the Company under the Plan shall be included in the general funds of the Company free of any trust or other restriction and may be used for any corporate purpose. No interest shall be paid to any Participant or credited to his or her account under the Plan.

14. **Term of the Plan.** The Plan shall be effective for the Option Period beginning July 1, 2022 subject to the prior adoption by the Board, provided the Plan is approved by the stockholders of the Company within 12 months after the date of its adoption by the Board. Notwithstanding any provision in the Plan, no option granted under the Plan shall be exercisable prior to such stockholder approval, and, if the stockholders of the Company do not approve the Plan within 12 months after its adoption by the Board, then the Plan shall automatically terminate. If not sooner terminated under the provisions of paragraph 15, the Plan shall terminate (and no further options shall be granted, and no further shares of Stock shall be sold) after the sooner of (i) such time as all of the shares of Stock subject to the Plan, as provided in paragraph 5, have been sold pursuant to options granted under the Plan or (ii) July 2, 2032.

15. **Amendment or Termination of the Plan.** The Board in its discretion may terminate the Plan at any time with respect to any shares for which options have not theretofore been granted. The Board shall have the right to alter or amend the Plan or any part thereof from time to time; provided, that no change in any option theretofore granted may be made which would materially impair the rights of the Participant without the consent of such Participant; and provided, further, that the Board may not make any alteration or amendment which would materially increase the benefits accruing to Participants under the Plan, increase the aggregate number of shares which may be issued pursuant to the provisions of the Plan (other than as a result of the anti-dilution provisions of the Plan), change the class of individuals eligible to receive options under the Plan, extend the term of the Plan, cause options issued under the Plan to fail to meet the requirements of employee stock purchase options as defined in Section 423 of the Code, or otherwise modify the requirements as to eligibility for participation in the Plan without the approval of the stockholders of the Company.

16. **Securities Laws.** The Company shall not be obligated to issue any Stock pursuant to any option granted under the Plan at any time when the shares covered by such option have not been registered under the Securities Act of 1933, as amended, and such other state and federal laws, rules, or regulations as the Company or the Committee deems applicable and, in the opinion of legal counsel for the Company, there is no exemption from the registration requirements of such laws, rules or regulations available for the issuance and sale of such shares. Further, all Stock acquired pursuant to the Plan shall be subject to insider trading policies of the Company, as the same may be amended from time to time.

17. **No Restriction on Corporate Action.** Nothing contained in the Plan shall be construed to prevent the Company or any Subsidiary from taking any corporate action which is deemed by the Company or such Subsidiary to be appropriate or in its best interest, whether or not such action would have an adverse effect on the Plan or any award made under the Plan. No Employee, beneficiary or other person shall have any claim against the Company or any Subsidiary as a result of any such action.

18. **Governing Law.** The Plan shall be construed in accordance with and governed by the laws of the State of New York, except that any principles or provisions of New York law that would apply the law of another jurisdiction (other than applicable provisions of U.S. Federal law) shall be disregarded. Notwithstanding the foregoing, matters with respect to indemnification, delegation of authority under the Plan, and the legality of shares of Stock issued under the Plan, shall be governed by the Nevada Revised Statutes.

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PROXY

**TONIX PHARMACEUTICALS HOLDING CORP.
PROXY FOR ANNUAL MEETING TO BE HELD ON MAY 6, 2022
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

The undersigned, revoking all prior proxies, hereby appoints SETH LEDERMAN and BRADLEY SAENGER (the "Proxies") and each of them, with full power of substitution in each, as proxies for the undersigned, to represent the undersigned and to vote all the shares of Common Stock of the Company which the undersigned would be entitled to vote, as fully as the undersigned could vote and act if personally present, at the Annual Meeting of Stockholders (the "Meeting") to be held on May 6, 2022, at 11:00 a.m., Eastern Daylight Time via Internet or at any adjournments or postponements thereof. On the date of the meeting, you may log in to the meeting by using the unique join link provided after you have registered. Please have your Virtual Control Number with you during the meeting in order to vote.

Should the undersigned be present and elect to vote at the Meeting or at any adjournments or postponements thereof, and after notification to the Secretary of the Company at the Meeting of the stockholder's decision to terminate this proxy, then the power of such attorneys or Proxies shall be deemed terminated and of no further force and effect. This proxy may also be revoked by filing a written notice of revocation with the Secretary of the Company or by duly executing a proxy bearing a later date.

In order to attend the Meeting you must pre-register at <http://www.web.viewproxy.com/tonixpharma/2022/>.

In their discretion, the Proxies are authorized to vote upon any other matter that may properly come before the meeting or any adjournments thereof.

THIS PROXY WILL BE VOTED IN ACCORDANCE WITH THE SPECIFICATIONS MADE, BUT IF NO CHOICES ARE INDICATED, THIS PROXY WILL BE VOTED FOR THE ELECTION OF ALL NOMINEES AND FOR THE PROPOSALS LISTED ON THE REVERSE SIDE.

CONTINUED AND TO BE MARKED, DATED AND SIGNED ON THE OTHER SIDE

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

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be held May 6, 2022.

**This Proxy Statement and our 2021 Annual Report on Form 10-K are available at:
<http://web.viewproxy.com/tonixpharma/2022>**

Please mark your votes like this ☒

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR ALL NOMINEES" IN PROPOSAL 1 and "FOR" IN PROPOSALS 2, 3 AND 4.

1. To elect the seven director nominees named in the Proxy Statement to hold office until the next annual meeting of shareholders;

Nominees:

01 Seth Lederman	05 Adeoye Olukotun
02 Richard Bagger	06 Carolyn Taylor
03 Margaret Smith Bell	07 James Treco
04 David Grange	

	WITHHOLD	
FOR	AUTHORITY	FOR ALL
ALL	FOR ALL	EXCEPT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

INSTRUCTIONS: To withhold authority to vote for any individual, mark, "For All Except" and write the nominee's name(s) on the line below.

2. To ratify the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022

FOR **AGAINST** **ABSTAIN**

3. To approve the Tonix Pharmaceuticals Holding Corp. 2022 Employee Stock Purchase Plan;

FOR **AGAINST** **ABSTAIN**

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

FOR **AGAINST** **ABSTAIN**

NOTE: To act on such other matters as may properly come before the meeting or any adjournment thereof

Date: _____

Signature _____

Signature (if held jointly) _____

NOTE: This proxy should be marked, dated and signed by each stockholder exactly as such stockholder's name appears hereon, and returned promptly in the enclosed envelope. When shares are held jointly, each holder should sign. When signing as an executor, administrator, attorney, trustee or guardian please give full title as such. If the signatory is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If the signatory is a partnership, please sign in the partnership name by authorized person.

Address Change/Comments: (If you noted any Address Changes and/or Comments above, please mark box.)

CONTROL NUMBER

➔

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

CONTROL NUMBER

➔

PROXY VOTING INSTRUCTIONS

Please have your 11-digit control number ready when voting by Internet or Telephone



INTERNET

Vote Your Shares on the Internet:

Go to www.fcrvote.com/TNXP

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



TELEPHONE

Vote Your Shares by Phone:

Call 1 (866) 402-3905

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



MAIL

Vote Your Shares by Mail:

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