



VASCULAR BIOGENICS LTD.

8 HaSatat St. Modi'in, Israel Tel. +972-8-9935000 Fax. +972-8-9935001

**NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS
TO BE HELD ON OCTOBER 19, 2021.**

Dear Vascular Biogenics Ltd. Shareholders:

We cordially invite you to attend an Annual General Meeting of shareholders of Vascular Biogenics Ltd., or the Company, to be held at 4:00 p.m. (Israel time) on October 19, 2021, at our offices at 8 HaSatat St. Modi'in, Israel (the "Meeting").

The Meeting is being called for the following purposes:

- (1) To approve the nomination of Dr. Bennett M. Shapiro, Prof. Dror Harats, Ms. Ruth Alon, Dr. Shmuel (Muli) Ben Zvi, Dr. Ron Cohen, Mr. David Hastings and Mr. Marc Kozin to the Board, to serve until the next annual general meeting of shareholders of the Company, under the existing terms of appointment as previously approved, aside from the resolutions herein, until each of their successors is duly appointed and qualified, or until any of their earlier resignation or removal (voting will take place in relation to each director nominee separately);
- (2) To elect each of Ms. Alison Finger and Mr. Michael Rice as members of the Board, to serve until the next annual general meeting of shareholders of the Company or until each of their successors is duly appointed and qualified, or until their earlier resignation or removal and to approve their compensation terms and equity grants as fully described herein.
- (3) To approve the grant of options under the Company's 2014 Employee Share Ownership and Option Plan, or the 2014 Plan according to the standard agreements as follows: (i) grant of an option to purchase 100,000 of our ordinary shares to Dr. Shapiro; (ii) grant of an option to purchase 45,000 of our ordinary shares to Ms. Alon; (iii) grant of an option to purchase 45,000 of our ordinary shares to Dr. Ben Zvi; (iv) grant of an option to purchase 45,000 of our ordinary shares to Dr. Cohen; and (v) grant of an option to purchase 45,000 of our ordinary shares to Mr. Hastings, each of which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.
- (4) To approve the increase Prof. Dror Harats' monthly base compensation under the Consulting and Employment agreements, taken as a whole, to NIS 94,000, and to approve and ratify that the notice period for termination of Prof Harats under the Consulting and Employment agreements is nine months, as amended in in his Consulting agreement from 2007.
- (5) To approve the re-appointment of Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2021, and until the next annual general meeting of shareholders of the Company and authorize the Board (with power of delegation to its audit committee) to fix the said independent registered public accounting firm's remuneration in accordance with the volume and nature of its services;

(6) To approve the new compensation scheme for the Company's non-employee, non-executive directors, or Non-Employee Directors and the New Compensation Scheme, respectively as follows:

(A) Cash Compensation

- Board of Directors: Annual cash compensation of US\$35,000 to each Non-Employee director, other than the Chairman of the Board and the former Chairman of the Board.
- Audit Committee: Additional annual cash compensation of US\$15,000 to the Chairman of the Audit Committee and US\$7,500 to each member of the Audit Committee other than the Chairman.
- Compensation Committee: Additional annual cash compensation of US\$12,000 to the Chairman of the Compensation Committee and US\$6,000 to each member of the Compensation Committee other than the Chairman.
- Nominating and Corporate Governance Committee and other committees: Additional annual cash compensation of US\$8,000 to the Chairman of the Nominating and Corporate Governance Committee or other committees and US\$4,000 to each member of the Nominating and Corporate Governance Committee or other committees other than the Chairman.
- Proration: Pro rata cash compensation of the annual cash compensation amounts set forth above shall be made, as applicable, to (i) any director who ceases to be a director, Chairman of the Board or member or chairman of any committee of the Board and (ii) any new Non-Employee director who is appointed by the Board, any independent director who is appointed to the position of Chairman of the Board or chairman of any such committee of the Board or any independent director who is appointed to serve on any such committee of the Board, for their services rendered as a director and/or committee member, for the portion of the year in which such director so served.

(B) Equity Compensation

- Initial Equity Grant: One-time equity grant upon initial appointment or election to the Board equal to 0.1% of the Company's capital on a fully diluted basis as of the date of grant, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.
- Annual Equity Grant: Annual equity grants of 0.067% of the Company's share capital on a fully diluted basis as of the date of grant to each continuing director, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.

(C) In the event of any discrepancy between the New Compensation Scheme and the provisions of the Company's 2019 Compensation Policy for Company Office Holders, the former shall prevail.

At the Meeting, we will also present and discuss our annual audited consolidated financial statements for the year ended December 31, 2020, as previously made available to our shareholders as part of our Form 20-F filed with the Securities and Exchange Commission and available at www.sec.gov and in the "Investor Relations" section of our Company's website, www.vblrx.com. We will also transact such other business as may properly come before the Meeting or any adjournment thereof.

The affirmative vote of the holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon (which excludes abstentions) is necessary for the approval of each of the proposals.

The proposals and details with respect to the Meeting are described more fully in the enclosed proxy statement, which the Company will send (together with this notice) to its shareholders, which we urge you to read in its entirety. This notice, proxy statement and related proxy card are also being furnished to the U.S. Securities and Exchange Commission, or the SEC, in a report on Form 6-K, which may be obtained for free from the SEC's website at www.sec.gov or at the Company's website — at www.vblrx.com. The full text of the proposed resolutions, together with the form of proxy card for the Meeting, may also be viewed beginning on September 2, 2021 at the registered office of the Company, 8 HaSatat St. Modi'in, Israel, upon prior coordination with the Company. Our telephone number at our registered office is +972-8-9935000.

Shareholders of record of shares as of the close of business on September 20, 2021 are entitled to notice of and to vote at the Meeting (with one vote per share held).

Shareholders who are unable to attend the Meeting in person will be requested to complete, date and sign all enclosed proxy cards and return them promptly by mail to the registered office of the Company, 8 HaSatat St. Modi'in, P.O.Box 9141, Israel 7178106, by Fax. +972-8-9935001, or by e-mail to our Company Secretary: amos@vblrx.com. If you are sending your proxy cards to us by mail, the proxy cards must be received at our registered office at least 48 hours prior to the appointed time of the Meeting to be validly included in the tally of shares voted at the Meeting, unless we waive that requirement. Your proxy cards, if properly executed, will be voted in the manner directed by you. Detailed proxy voting instructions will be provided both in the proxy statement and on the proxy cards.

If your ordinary shares are held in "street name", that is, in a brokerage account or by a trustee or nominee, you may be able to utilize the control number appearing on the voting instruction form to submit your voting instruction to their brokers, trustees or nominees by other means, including via the internet.

Sincerely,
Marc D. Kozin Chairman of the Board

VASCULAR BIOGENICS LTD.

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PROXY STATEMENT

ANNUAL GENERAL MEETING OF SHAREHOLDERS

This Proxy Statement is being furnished in connection with the solicitation of proxies on behalf of the Board of Directors, or the Board, of Vascular Biogenics Ltd., to which we refer as Vascular Biogenics, or the Company, to be voted at an Annual General Meeting of shareholders, or the Meeting, and at any adjournment thereof, pursuant to the accompanying Notice of Annual General Meeting of shareholders. The Meeting will be held at 4:00 p.m. (Israel time) on October 19, 2021 at our offices at 8 HaSatat St. Modi'in, Israel Tel. +972-8-9935000 Fax. +972-8-9935001.

This Proxy Statement, the attached Notice of Annual General Meeting of shareholders and the proxy card or voting instruction card are being made available to holders of Vascular Biogenics ordinary shares, on or about September 2, 2021.

You are entitled to notice of, and to vote at, the Meeting, if you hold ordinary shares as of the close of business on September 20, 2021 the record date for the Meeting. You can vote your shares by attending the Meeting or by following the instructions under "How You Can Vote" below. Our Board urges you to vote your shares so that they will be counted at the Meeting or at any postponements or adjournments of the Meeting.

Agenda Items

The Meeting is being called for the following purposes:

- (7) To approve the nomination of Dr. Bennett M. Shapiro, Prof. Dror Harats, Ms. Ruth Alon, Dr. Shmuel (Muli) Ben Zvi, Dr. Ron Cohen, Mr. David Hastings and Mr. Marc Kozin to the Board, to serve until the next annual general meeting of shareholders of the Company, under the existing terms of appointment as previously approved, aside from the resolutions herein, until each of their successors is duly appointed and qualified, or until any of their earlier resignation or removal (voting will take place in relation to each director nominee separately);
- (8) To elect each of Ms. Alison Finger and Mr. Michael Rice as members of the Board, to serve until the next annual general meeting of shareholders of the Company or until each of their successors is duly appointed and qualified, or until their earlier resignation or removal and to approve their compensation terms and equity grants as fully described herein.
- (9) To approve the grant of options under the Company's 2014 Employee Share Ownership and Option Plan, or the 2014 Plan according to the standard agreements as follows: (i) grant of an option to purchase 100,000 of our ordinary shares to Dr. Shapiro; (ii) grant of an option to purchase 45,000 of our ordinary shares to Ms. Alon; (iii) grant of an option to purchase 45,000 of our ordinary shares to Dr. Ben Zvi; (iv) grant of an option to purchase 45,000 of our ordinary shares to Dr. Cohen; and (v) grant of an option to purchase 45,000 of our ordinary shares to Mr. Hastings, each of which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.
- (10) To approve the increase Prof. Dror Harats's monthly base compensation under the Consulting and Employment agreements, taken as a whole, to NIS 94,000, and to approve and ratify that the notice period for termination of Prof Harats under the Consulting and Employment agreements is nine months, as amended in in his Consulting agreement from 2007.
- (11) To approve the re-appointment of Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2021, and until the next annual general meeting of shareholders of the Company and authorize the Board (with power of delegation to its audit committee) to fix the said independent registered public accounting firm's remuneration in accordance with the volume and nature of its services;

(12) To approve the new compensation scheme for the Company's non-employee, non-executive directors, or the Non-Employee Directors and the New Compensation Scheme, respectively as follows:

(D) Cash Compensation

- Board of Directors: Annual cash compensation of US\$35,000 to each Non-Employee director, other than the Chairman of the Board and the former Chairman of the Board.
- Audit Committee: Additional annual cash compensation of US\$15,000 to the Chairman of the Audit Committee and US\$7,500 to each member of the Audit Committee other than the Chairman.
- Compensation Committee: Additional annual cash compensation of US\$12,000 to the Chairman of the Compensation Committee and US\$6,000 to each member of the Compensation Committee other than the Chairman.
- Nominating and Corporate Governance Committee and other committees: Additional annual cash compensation of US\$8,000 to the Chairman of the Nominating and Corporate Governance Committee or other committees and US\$4,000 to each member of the Nominating and Corporate Governance Committee or other committees other than the Chairman.
- Proration: Pro rata cash compensation of the annual cash compensation amounts set forth above shall be made, as applicable, to (i) any director who ceases to be a director, Chairman of the Board or member or chairman of any committee of the Board and (ii) any new Non-Employee director who is appointed by the Board, any independent director who is appointed to the position of Chairman of the Board or chairman of any such committee of the Board or any independent director who is appointed to serve on any such committee of the Board, for their services rendered as a director and/or committee member, for the portion of the year in which such director so served.

(E) Equity Compensation

- Initial Equity Grant: One-time equity grant upon initial appointment or election to the Board equal to 0.1% of the Company's capital on a fully diluted basis as of the date of grant, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.
- Annual Equity Grant: Annual equity grants of 0.067% of the Company's share capital on a fully diluted basis as of the date of grant to each continuing director, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.

(F) In the event of any discrepancy between the New Compensation Scheme and the provisions of the Company's 2019 Compensation Policy for Company Office Holders, the former shall prevail.

At the Meeting, we will also present and discuss our annual audited consolidated financial statements for the year ended December 31, 2020, as previously made available to our shareholders as part of our Form 20-F filed with the Securities and Exchange Commission and available at www.sec.gov and in the "Investor Relations" section of our Company's website, www.vblrx.com. We will also transact such other business as may properly come before the Meeting or any adjournment thereof.

Board Recommendation

Our Board unanimously recommends that you vote "FOR" each of the above proposals.

Quorum

On August 31, 2021, we had 62,368,457 ordinary shares issued and outstanding (excluding treasury shares). Each ordinary share outstanding as of the close of business on the record date, September 20, 2021 is entitled to one vote upon the proposal to be presented at the Meeting. Under our Articles of Association, the Meeting will be properly convened if at least two shareholders attend the Meeting in person or sign and return proxies, provided that they hold shares representing at least twenty-five percent (25%) of our voting power. If such quorum is not present within half an hour from the time scheduled for the Meeting, the Meeting will be adjourned for one week (to the same day, time and place), or to a day, time and place proposed by the Chairman with the consent of the holders of a majority of the voting power represented at the Meeting in person or by proxy and voting on the adjournment. At such adjourned meeting the presence of at least two shareholders in person or by proxy (regardless of the voting power represented by their shares) will constitute a quorum.

Vote Required for Approval of the Proposal

The affirmative vote of the holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon (which excludes abstentions) is necessary for the approval of proposals.

In addition, the approval of Proposals 4 and 6 require that either of the following two voting requirements be met as part of the approval by an ordinary majority of shares present and voting thereon:

- the majority voted in favor of the proposal includes a majority of the shares held by non-controlling shareholder or shareholder who do not have a personal interest in the approval of the proposal that is voted at the Meeting, excluding abstentions; or
- the total number of shares held by non-controlling shareholders and disinterested shareholders (as described in the previous bullet-point) voted against the proposal does not exceed two percent (2%) of the aggregate voting rights in the Company.

For purposes of the foregoing, a “controlling shareholder” is any shareholder that has the ability to direct a company’s activities (other than by means of being a director or other office holder of the company). A person is presumed to be a controlling shareholder if it holds 50% or more of the voting rights in a company or has the right to appoint the majority of the directors of a company or its general manager, but excludes a shareholder whose power derives solely from his or her position as a director of the Company or from any other position with the company.

For the purpose of Proposals 4 and 6, including a person who holds 25% or more of the voting rights in the Meeting of the Company if there is no other person who holds more than fifty percent of the voting rights in the company; for the purpose of a holding, two or more persons holding voting rights in a company each of which has a personal interest in the approval of the transaction being brought for approval of the company shall be considered to be joint holders.

A “Personal Interest” of a shareholder (i) includes an interest of any member of the shareholder’s immediate family (i.e., spouse, sibling, parent, parent’s parent, descendent, the spouse’s descendent, sibling or parent, and the spouse of each of these) or an interest of an entity with respect to which the shareholder (or such a family member thereof) serves as a director or the chief executive officer, owns at least 5% of the shares or its voting rights or has the right to appoint a director or the chief executive officer; and (ii) excludes an interest arising solely from the ownership of shares of the company. In determining whether a vote cast by proxy is disinterested, the “personal interest” of the proxy holder is also considered and will cause that vote to be treated as the vote of an interested shareholder, even if the shareholder granting the proxy does not have a personal interest in the matter being voted upon

A shareholder must inform our Company before the vote (or if voting by proxy, indicate on the proxy card) whether or not such shareholder is a controlling shareholder (as applicable) or has a Personal Interest (within the meaning as aforementioned), and FAILURE TO DO SO in relation to the vote on Proposal 4 or Proposal 6 SHALL BE DEEMED by the Company (absent of statement or other form of written explanation to indicate otherwise, and if voting by proxy, indication on the proxy card) as if such shareholder HAS A PERSONAL INTEREST in said proposal. Therefore, a shareholder who signs and returns a proxy card or voting instruction without actively confirming not to have Personal Interest, will be deemed to be confirming that such shareholder, and any related party of such shareholder has a personal interest with respect to Proposal 4 or Proposal 6. If you believe that you, or a related party of yours, DO NOT possess a Personal Interest and you wish to participate in the vote on Proposal 4 or Proposal 6, you should indicate the no-existence of a Personal Interest on the enclosed proxy card (if applicable) and should furthermore contact our general counsel, at +972-8-9935000 or Fax; +972-8-9935001, who will advise you as to how to submit your votes for the proposals. If you hold your shares in “street name” (i.e., shares that are held through a bank, broker or other nominee) and believe that you possess a Personal Interest in the approval of Proposal 4 or Proposal 6, you may also contact the representative managing your account, who could then contact our general counsel on your behalf.

How You Can Vote

You can vote your shares by attending the Meeting. If you do not plan to attend the Meeting, the method of voting will differ for shares held as a record holder and shares held in “street name” (through a broker, trustee or nominee). Record holders of shares can vote by proxy cards. Holders of shares in “street name” will have to instruct their banks, brokers or other nominees on how to vote.

Shareholders of Record

If you are a shareholder of record (that is, you hold a share certificate that is registered in your name), you can submit your vote by completing, signing and submitting a proxy card, which will be accessible at the “Investor Relations” portion of the Company’s website, as described below under “Availability of Proxy Materials.” You may change your mind and cancel your proxy card by sending us written notice, by signing and returning a proxy card with a later date, or by voting in person or by proxy at the Meeting. Except if the Chairman of the Meeting determines otherwise, we will not be able to count a proxy card unless we receive it at our principal executive offices at the above address, not less than forty-eight (48) hours prior to the time fixed for the Meeting (i.e. prior to 4:00 p.m. (Israel time) on October 17, 2021).

Please follow the instructions on the proxy card. If you provide specific instructions (by marking a box) with regard to the proposals, your shares will be voted as you instruct. If you sign and return your proxy card without giving specific instructions with respect to Proposal 1, 2 and Proposal 5 your shares will be voted in accordance with the recommendations of the Board. The persons named as proxies in the enclosed proxy card will furthermore vote in accordance with the recommendations of the Board on any other matters that properly come before the Meeting.

Shareholders Holding in “Street Name”

If you hold ordinary shares in “street name”, that is, you are an underlying beneficial holder who holds ordinary shares through a bank, broker or other nominee, the voting process will be based on your directing the bank, broker or other nominee to vote the ordinary shares in accordance with your voting instructions (by completing and mailing the enclosed proxy card or voting instruction card). Because a beneficial owner is not a shareholder of record, you may not vote those shares directly at the Meeting unless you obtain a “legal proxy” from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the Meeting.

If no instructions are received by the bank, broker or other nominee from you on or before the date established for such purpose with respect to Proposals 1,2, 3, 4 and 6 the bank, broker or other nominee will not vote your shares (commonly referred to as a “broker non-vote”). If no instructions are received by the bank, broker or other nominee from you with respect to Proposal 5, it may vote at its discretion on that proposal.

Where a beneficial owner has executed and returned a proxy card or voting instruction card, but has not provided voting instructions with respect to any proposals, and the broker, trustee or nominee may not (in the case of Proposals 1,2, 3, 4 and 6), or does not (in the case of Proposal 5) cast a vote with respect to the proposals, the shares held by the beneficial owner will be included in determining the presence of a quorum at the Meeting, but are not considered “present” for the purpose of voting on the particular proposals. Such shares have no impact on the outcome of the voting on any of the proposals.

Who Can Vote

You are entitled to notice of the Meeting and to vote at the Meeting if you are a shareholder of record at the close of business on September 20, 2021. You are also entitled to notice of the Meeting and to vote at the Meeting if you held ordinary shares through a bank, broker or other nominee that is one of our shareholders of record at the close of business on September 20, 2021 or which appear in the participant listing of a securities depository on that date.

Solicitation of Proxies

Proxies are being distributed to shareholders on or about September 2, 2021. Certain officers, directors, employees, and agents of the Company, none of whom will receive additional compensation therefor, may solicit proxies by telephone, emails, or other personal contact. We will bear the cost for the solicitation of the proxies, including postage, printing, and handling, and will reimburse the reasonable expenses of brokerage firms and others for forwarding material to beneficial owners of shares.

Availability of Proxy Materials

Copies of the proxy card, the notice of the Meeting and this Proxy Statement are available in the “Investor Relations” section of our Company’s website, www.vblrx.com. The contents of that website are not a part of this Proxy Statement.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information with respect to the beneficial ownership of our ordinary shares as of August 31, 2021

- each person or entity known by us to own beneficially more than 5% of our outstanding ordinary shares;
- each of our executive officers and directors individually; and
- all of our executive officers and directors as a group.

| Name | Number of Ordinary Shares Beneficially Owned** | Percentage of Ownership*** |
|--|---|-------------------------------|
| 5% Shareholders | | |
| The Thai Lee Family Trust (1) | 17,361,396 | 24.22% |
| Aurum Ventures M.K.I. Ltd (2) | 6,839,059 | 10.75% |
| Victor Leo (3) | 3,619,048 | 5.64% |
| Executive Officers and Directors | | |
| Dr. Bennett M. Shapiro (4) | 412,811 | * |
| Prof. Dror Harats (5) | 2,107,142 | 3.31% |
| Dr. Ron Cohen | 133,125 | * |
| Dr. Shmuel (Muli) Ben Zvi | 113,750 | * |
| Ms. Ruth Alon | 78,125 | * |
| Mr. David Hastings | 80,000 | * |
| Dr. Erez Feige | 238,067 | * |
| Mr. Amos Ron | 312,667 | * |
| Dr. Eyal Breitbart | 246,031 | * |
| Dr. Tamar Rachmilewitz | 89,313 | * |
| Dr. Naamit Sher | 195,500 | * |
| Adv. Ayelet Horn | 59,851 | * |
| Dr. Ron Cohen | 133,125 | * |
| Dr. Shmuel (Muli) Ben Zvi | 113,750 | * |
| Ms. Ruth Alon | 78,125 | * |
| All directors and executive officers as a group (15 individuals total) (6) | 4,428,522 | 6.74% |

* Less than 1%.

** Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission (the “SEC”), and generally includes voting or investment power with respect to securities. Ordinary shares relating to options currently exercisable or exercisable within 60 days of August 31, 2021 are deemed outstanding for computing the percentage of the person holding such securities but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table above have sole voting and investment power with respect to all shares shown as beneficially owned by them.

*** The percentages shown are based on ordinary shares issued and outstanding as of August 31, 2021.

- (1) Consists of (i) 8,056,634 ordinary shares and (ii) 9,304,762 warrants to purchase ordinary shares exercisable as of August 31, 2021 held directly by the Thai Lee Family Trust over which Thai Lee exercises voting and investment power. As such, Ms. Lee may be deemed to have beneficial ownership over our shares held by the Thai Lee Family Trust. The address of the Thai Lee Family Trust is 290 Davidson Avenue Somerset, NJ 0887.
- (2) Consists of (i) 5,569,218 ordinary shares and (ii) 1,269,841 warrants to purchase ordinary shares exercisable as of August 31, 2021 held directly by Aurum Ventures M.K.I. Ltd. Voting and investment power over such shares are vested with Mr. Morris Kahn, who controls Aurum Ventures M.K.I. Ltd. As such, Mr. Kahn may be deemed to have beneficial ownership over our shares held by Aurum Ventures M.K.I. Ltd. The address of Aurum Ventures M.K.I. Ltd. is 16 Abba Hillel Silver Rd., Ramat Gan, 5250608, Israel.
- (3) Consists of (i) 1,809,524 ordinary shares and (ii) 1,809,524 warrants to purchase ordinary shares exercisable as of August 31, 2021 held directly by Victor Leo. The address for Victor Leo is 70 Rainey Street, #3302, Austin, TX 78701.

- (4) Consists of (a) 24,440 outstanding shares held by Puretech Ventures LLC, which may be deemed to be beneficially owned by Bennett M. Shapiro, our former chairman and a senior partner and chairman of Puretech Ventures LLC; (b) 125,808 outstanding shares held by Bennett M. Shapiro and Fredericka F. Shapiro, JTWROS; and (c) options to purchase 412,811 shares exercisable within 60 days of August 31, 2021 held by Bennett M. Shapiro.
 - (5) Consists of (a) 755,773 outstanding shares held by or for Prof. Harats; and (b) options to purchase 1,346,409 shares exercisable within 60 days of August 31, 2021.
 - (6) Consists of (a) options to purchase 3,329,698 shares exercisable within 60 days of August 31, 2021; and (b) 1,084,262 outstanding shares.
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PROPOSAL 1

ELECTION OF SEVEN DIRECTORS

Background

We currently have a Board composed of seven directors. Following the adoption by the Company of certain exceptions provided under the Companies Law, the Company is exempt from the requirement to appoint external directors. Our Board is comprised of one class of directors. Except for Prof. Dror Harats, our Chief Executive Officer (“CEO”), all other directors are Independent Directors, as such term is defined by Nasdaq Marketplace Rules. A director is elected annually and holds office until the next annual general meeting of shareholders following the general meeting at which such director was elected or until his or her earlier resignation or removal pursuant to a resolution of a general meeting of shareholders or applicable law.

Our board of directors has nominated Dr. Shapiro, Prof. Harats, Ms. Alon, Dr. Ben Zvi, Dr. Cohen, Mr. Hastings and Mr. Kozin for election as directors at the Meeting.

The Companies Law requires that a person will not be elected and will not serve as a director in a public company if he or she does not have the required qualifications and the ability to dedicate an appropriate amount of time for the performance of his or her position as director of the company, taking into consideration, among other factors, the special needs and size of the company. A general shareholder meeting of a public company at which the appointment of a director is to be considered may not be held unless the nominee has declared to the company, inter alia, that he or she complies with the above-mentioned requirements, and provides details of his or her applicable qualifications.

The following information is supplied with respect to each nominee for election to the Board and is based upon the records of the Company and information provided to us by the nominees:

Dr. Bennett M. Shapiro, M.D. has served on our Board since September 2004 and as Chairman since 2007. In addition to serving on our board of directors, Dr. Shapiro has been a senior partner at PureTech Ventures, an innovation enterprise, since 2004, and as chairman from 2009-2015; he now continues as a Non-Executive Director of PureTech Health PLC-PRTC. From 1990 to 2003, Dr. Shapiro served as executive vice president, Merck Research Laboratories. Prior to that, from 1970 to 1990, Dr. Shapiro was a professor of the Department of Biochemistry at the University of Washington and served as chairman from 1985 to 1990. Prior to joining the University of Washington, from 1965 to 1970, Dr. Shapiro served as a research associate, then section head, in the Laboratory of Biochemistry of the National Heart Institute of the U.S. National Institutes of Health. Dr. Shapiro has served as an external director on the board of directors of Momenta Pharmaceuticals from 2003-2016, various private companies, and the Drugs for Neglected Diseases Initiative, an independent, non-profit drug development partnership. Dr. Shapiro previously served on the board of directors of Celera Corporation prior to its acquisition by Quest Diagnostics Inc. Dr. Shapiro received his B.S. in chemistry from Dickinson College and his M.D. from Jefferson Medical College. Dr. Shapiro has been a Guggenheim Fellow, a fellow of the Japan Society for the Promotion of Science and a visiting professor at the University of Nice. We believe Dr. Shapiro is qualified to serve on our Board because of his extensive technical and industry background, and his experience serving on boards of directors of companies in our industry, including public companies.

Prof. Dror Harats founded the Company in 2000 and has served as our chief executive officer since our inception. He has been a member of our Board since January 2001. Prof. Harats is the Chairman of the Bert W. Strassburger Lipid Center and chair of the R&D division at the Chaim Sheba Medical Center at Tel Hashomer and chairman of its Institute Review Board. Prof. Harats received his M.D. from Hadassah Medical School at the Hebrew University of Jerusalem, Israel, following which he conducted post-doctoral work at the University of California, San Francisco. Prof. Harats is also a Professor of Medicine in the Departments of Internal Medicine and Biochemistry at the Sackler Faculty of Medicine of Tel-Aviv University, Israel. Prof. Harats has also served as a visiting scientist at Syntax Discovery Research. Prof. Harats currently serves as an observer on the board of directors of Art Healthcare Ltd. We believe Prof. Harats is qualified to serve on our Board because of his extensive technical and industry experience, as well as his knowledge of the Company.

Ruth Alon has served on our Board since March 2010. Ms. Alon is currently the founder and CEO of Medstrada. Since 1997 and until December 24, 2016, Ms. Alon has served as a general partner in Pitango Venture Capital. Prior to her tenure at Pitango, Ms. Alon held senior positions with Montgomery Securities from 1981 to 1987, Genesis Securities, LLC from 1993 to 1996, and Kidder Peabody & Co. from 1987 to 1993, and managed her own independent consulting business in San Francisco in the medical devices industry from 1995 to 1996. Ms. Alon was the founder and Chairperson of Israel Life Science Industry, a not-for-profit organization representing the mutual goals of the then approximately 1000 Israeli life science companies. She was also the co-founder of the Israeli Advanced Technology Industries (IATI), an umbrella organization of the hi-tech and life sciences industries in Israel, which includes venture capital funds, R&D centers of multinational corporations and others. Ms. Alon has a B.A. in Economics from the Hebrew University of Jerusalem, Israel, an M.B.A. from Boston University, and an M.S. from the Columbia University School of Physicians and Surgeons. We believe Ms. Alon is qualified to serve on our Board because of her extensive business and industry background, as well as her experience as a seasoned investor.

Dr. Shmuel (Muli) Ben Zvi joined our Board in September 2018. Dr. Ben Zvi is currently a board member at Bank Leumi, the second largest bank in Israel, and a member of its audit, risk management, technology and strategy committees. Dr. Ben Zvi is also a board member of SOL-GEL Technologies (NASDAQ: SLGL) and a member of the audit and compensation committees. From 2004 to 2014, Dr. Ben Zvi held various managerial positions at Teva Pharmaceuticals Industries Ltd., dual listed on Nasdaq and the TASE, including VP Finance and VP Strategy. From 2000 to 2004, Dr. Ben Zvi was the financial advisor to the Chief of General Staff of the Israel Defense Forces and head of the Defense Ministry budget department. Dr. Ben Zvi holds a Ph.D. in economics from Tel-Aviv University, Israel and participated in the Harvard Business School Advanced Management Program (AMP). We believe Dr. Ben Zvi is qualified to serve on our Board because of his financial expertise and extensive experience in the Pharma industry.

Dr. Ron Cohen, M.D. joined our Board in February 2015. In addition to serving on our Board, Dr. Cohen has served as President, Chief Executive Officer and founder of Acorda Therapeutics, Inc., since 1995. Previously he was a principal in the startup and an officer of Advanced Tissue Sciences, Inc., a biotechnology company engaged in the growth of human organ tissues for transplantation, from 1986 to 1992. Dr. Cohen received his B.A. with honors in Psychology from Princeton University, and his M.D. from the Columbia College of Physicians & Surgeons. He completed his residency in Internal Medicine at the University of Virginia Medical Center, and is Board Certified in Internal Medicine. Dr. Cohen is a Director on the Board of the Biotechnology Innovation Organization (BIO) and previously served as Chair of the Board. He served as a Director of Dyax Corporation until the end of 2015, and also previously served as Director and Chair of the New York Biotechnology Association. He is a recipient of the NY CEO Lifetime Achievement Award and the Ernst & Young Entrepreneur of the Year Award for the New York Metropolitan Region, and has been recognized by PharmaVOICE Magazine as one of the 100 Most Inspirational People in the Biopharmaceutical Industry. We believe Dr. Cohen is qualified to serve on our Board because of his extensive business and industry background.

David Hastings joined our Board in January 2018. Mr. Hastings has more than 20 years of finance, accounting and operations experience in the bio-pharmaceutical industry. Mr. Hastings joined Arbutus BioPharma in June 2018 and currently serves as its Chief Financial Officer. Mr. Hastings previously served as the Chief Financial Officer and Executive Vice President of Incyte Corporation from 2003 until 2014. During this time, Mr. Hastings oversaw all financial aspects as Incyte transitioned from research and development to commercialization, following the launch of Jakafi® (ruxolitinib). Mr. Hastings also previously served as Vice President, Chief Financial Officer and Treasurer of ArQule Inc. During his tenure at ArQule, he played an important role in ArQule's transition into a drug discovery and development organization, and in two strategic acquisitions, including the purchase of Cyclis Pharmaceuticals Inc. Prior to that, Mr. Hastings was with Genzyme Corporation as its Vice President and Corporate Controller, and with Sepracor, Inc. where he was Director of Finance. Most recently, Mr. Hastings served as the Chief Financial Officer and Senior Vice President of Unilife Corporation (a medical device company) from 2015 to 2017 and as its Chief Accounting Officer and Treasurer from 2016 to 2017. He is a member of the Board Director of SCYNEXIS, Inc. and Entasis, Inc. and chairs their Audit Committees. We believe Mr. Hastings is qualified to serve on our Board because of his extensive financial and business background.

Marc D. Kozin joined our Board in November 2020 and has served as Chairman of the Board since July 20, 2021. Mr. Marc D. Kozin is a professional Board Member, with three decades of industry expertise advising biopharmaceutical, life sciences and medtech companies. He is currently the Chairman of the Strategy Advisory Board of HealthCare Royalty Partners (HCR), a leading investment firm in healthcare, providing royalty monetization and senior debt, a position he has held since 2013. Mr. Kozin was a career strategy consultant, having served as President of L.E.K. Consulting's North American practice from 1997 to 2012 and as Senior Advisor from January 2012 to December 2018. . Mr. Kozin has served on over a dozen Boards in a variety of roles and on all committees. He is currently the Lead Independent Director and serves on the Compensation Committee of UFP Technologies (Nasdaq: UFPT). He serves as Director and Chairman of the Compensation Committee for Dicerna Pharmaceuticals (Nasdaq: DRNA). Previously, he served on the board of Endocyte (Nasdaq: ECYT), helping the company negotiate a \$2.1 billion M&A deal with Novartis. He was also a board member of Dyax (Nasdaq: DYAX) which was acquired by Shire in 2015 for \$6.5 billion. He also served on the boards of directors of Brandwise, Inc., Lynx Therapeutics, Inc., Assurance Medical, Inc., Medical Simulation Corporation, Advizex, and CrunchTime! Information Systems. Mr. Kozin has served as Director of The Greenlight Fund, a non-profit focused on improving the lives of inner city children in families, since 2017. He was also on the Board of Governors at New England Medical Center and the Board of DukeEngage for several years. He received a BS in Economics from Duke University in 1983 and an MBA in Finance from The Wharton School in 1987. We believe that Mr. Kozin's substantial experience serving as a board member to biopharmaceutical companies, as well as his business background, provide him with the qualifications and skills to serve as a member of our Board of Directors

Proposed Resolutions

We are proposing the adoption by our shareholders of the following resolutions:

- (a) “**RESOLVED**, that Dr. Bennett M. Shapiro be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”
- (b) “**RESOLVED**, that Prof. Dror Harats be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”
- (c) “**RESOLVED**, that Ms. Ruth Alon be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until her earlier resignation or removal.”
- (d) “**RESOLVED**, that Dr. Shmuel (Muli) Ben Zvi be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”
- (e) “**RESOLVED**, that Dr. Ron Cohen be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”
- (f) “**RESOLVED**, that Mr. David Hastings be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”
- (g) “**RESOLVED**, that Mr. Marc Kozin be, and hereby is, re-elected to serve as a director of the Company, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal.”

Required Vote

Shareholders may vote for or against, or may abstain from voting, in connection with the re-election of any of the said nominees. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of each of the resolutions included in Proposal 1.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolutions approving the re-election of each of Dr. Shapiro, Prof. Harats, Ms. Alon, Mr. Hastings, Dr. Cohen, Dr. Ben Zvi and Mr. Kozin.

PROPOSAL 2

ELECTION OF MS. ALISON FINGER AND MR. MICHAEL RICE AS DIRECTORS AND APPROVAL OF THEIR COMPENSATION TERMS

Background

Our Board has nominated Ms. Finger and Mr. Rice for election as directors at the Meeting. Ms. Finger and Mr. Rice, whose professional backgrounds are described below, have advised the Company (and provided the requisite declaration under the Companies Law) that they are willing, able and ready to serve as directors if elected. Under our Articles of Association, if elected, Ms. Finger and Mr. Rice will serve for an initial term until our next annual general meeting of shareholders, at which time they will be eligible to be nominated for reelection to the Board.

Subject to the election of Ms. Finger and Mr. Rice as members of the Board, Ms. Finger and Mr. Rice shall each be entitled to an annual compensation of US\$30,000 paid quarterly, and additional US\$900 for attending a Board meeting or a meeting of a committee of the Board, and subject to obtaining the approvals required under the Companies Law with respect to grants of compensation to directors, the Company will grant each of Ms. Finger and Mr. Rice options to purchase 87,000 ordinary shares, nominal value NIS 0.01 each (the "Ordinary Shares") under our 2014 Plan each of which shall be exercisable at the market price upon date of grant and according to the standard agreements and vest upon and in the manner approved by the Compensation Committee and the Board of Directors.

In addition, the Board has determined that, commencing as of the next annual general meeting of shareholders of the Company, Ms. Finger and Mr. Rice shall each be entitled to receive an annual grant of options to purchase ordinary shares at the level set from time to time by the Board for Non-Employee Directors, subject to the approval of the Compensation Committee and the Board and in an exercise price per share and vesting schedule, as approved by the Compensation Committee and the Board.

The Board has also determined that, Ms. Finger and Mr. Rice shall each be entitled to: (i) reimbursement for all reasonable and necessary out-of-pocket expenses incurred in connection with the performance of the duties as directors; (ii) enter into the Company's standard indemnification agreement for its independent directors; and (iii) be covered by the Company's Directors and Officers Liability and Reimbursement Insurance.

The Companies Law requires that a person will not be elected and will not serve as a director in a public company if he or she does not have the required qualifications and the ability to dedicate an appropriate amount of time for the performance of his or her position as director of the company, taking into consideration, among other factors, the special needs and size of the company. A general shareholder meeting of a public company at which the appointment of a director is to be considered may not be held unless the nominee has declared to the company, inter alia, that he or she complies with the above-mentioned requirements, and provides details of his or her applicable qualifications.

The following information is supplied with respect to each nominee for election to the Board and is based upon the records of the Company and information provided to us by the nominees:

Ms. Alison Finger joined our Board in July 2021. Ms. Finger has nearly three decades of biotech and pharmaceutical leadership experience building and optimizing brands and portfolios in the areas of genetic medicine, cell therapy, oncology, neurology, virology and metabolics. Ms. Finger previously served as Chief Commercial Officer at bluebird bio, where she served in senior marketing and commercialization roles from 2015 until 2021 and built the commercial infrastructure for Europe and the United States in advance of bluebird's first gene and cell therapy product launches. Prior to bluebird, Ms. Finger served as Vice President Global Marketing at Bristol-Myers Squibb (BMS) from 2005 until 2014, leading the hematology/oncology, neurology, and virology franchises. In these roles, she led portfolio planning, brand and franchise commercial strategy, and supported Research and Development and Corporate Business Development decisions. From 2007 until 2009, Ms. Finger also served as Managing Director of BMS Australia/New Zealand and has managed country, regional, and global P&Ls. Previously, she served in various marketing positions in BMS, from 1993 until 2004. Ms. Finger earned her B.A. from St. Lawrence University and an M.B.A. from Duke University's Fuqua School of Business. We believe Ms. Finger is qualified to serve on our Board because of her extensive marketing and commercialization background.

Michael Rice joined our Board in July 2021. Mr. Rice has deep experience in portfolio management, investment banking, and capital markets. Mr. Rice is a founding partner of LifeSci Advisors LLC, a life sciences investor relations consultancy, since 2010 and of LifeSci Capital LLC, a research-driven investment bank, since 2013. Previously, Mr. Rice was the co-head of Health Care Investment Banking at Canaccord Adams, where he was involved in debt and equity financing. Mr. Rice was also a Managing Director at Think Equity Partners, where he was responsible for managing Healthcare Capital Markets, which included structuring and executing numerous transactions. Prior to that, he served as a Managing Director at Bank of America serving large hedge funds and private equity healthcare funds while working closely with Investment Banking. Previously, he was a Managing Director at JP Morgan/Hambrecht & Quist. Mr. Rice graduated from the University of Maryland with a degree in Economics and currently sits on the board of 9 Meters Biopharma Inc. We believe Mr. Rice is qualified to serve on our Board because of his extensive banking and industry background.

Proposed Resolution

We are proposing the adoption by our shareholders of the following resolutions:

- (a) **“RESOLVED**, to elect Ms. Alison Finger to serve as a member of the Board, effective from the date hereof and until the next annual general meeting of shareholders or until her earlier resignation or removal and to approve the compensation terms and equity grant as fully described in Proposal 2 of this proxy statement.”
- (b) **“RESOLVED**, to elect Mr. Michael Rice to serve as a member of the Board, effective from the date hereof and until the next annual general meeting of shareholders or until his earlier resignation or removal and to approve the compensation terms and equity grant as fully described in Proposal 2 of this proxy statement.”

Required Vote

Shareholders may vote for or against, or may abstain from voting, in connection with the election of any of the said nominees and approval of their compensation terms. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of the resolution included in Proposal 2.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolution approving the election of Ms. Finger and Mr. Rice to the Board and the terms of Ms. Finger and Mr. Rice’s compensation

PROPOSAL 3
GRANT OF OPTIONS TO BOARD MEMBERS

Background

The Compensation Committee and the Board approved the grant of options under the 2014 Plan according to the standard agreements as follows: (i) grant of an option to purchase 100,000 of our ordinary shares to Dr. Shapiro; (ii) grant of an option to purchase 45,000 of our ordinary shares to Ms. Alon; (iii) grant of an option to purchase 45,000 of our ordinary shares to Dr. Ben Zvi; (iv) grant of an option to purchase 45,000 of our ordinary shares to Dr. Cohen; (v) grant of an option to purchase 45,000 of our ordinary shares to Mr. Hastings, each of which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.

Proposed Resolution

We are proposing the adoption by our shareholders of the following resolution at the Meeting:

“**RESOLVED**, to approve the grant of options and performance share units under the 2014 Plan according to the standard agreements as follows: (i) grant of an option to purchase 100,000 of our ordinary shares to Dr. Shapiro; (ii) grant of an option to purchase 45,000 of our ordinary shares to Ms. Alon; (iii) grant of an option to purchase 45,000 of our ordinary shares to Dr. Ben Zvi; (iv) grant of an option to purchase 45,000 of our ordinary shares to Dr. Cohen; and (v) grant of an option to purchase 45,000 of our ordinary shares to Mr. Hastings, each of which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors.”

Required Vote:

Shareholders may vote for or against, or may abstain from voting, in connection with the grant of option to the directors. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of the resolution included in Proposal 3.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolution approving the grant of options.

PROPOSAL 4
AMENDMENT OF THE CEO'S COMPENSATION TERMS

Background

Our Compensation Committee and the Board approved the increase of the monthly base compensation of Prof. Dror Harats, a member of the Board and the Chief Executive Officer ("CEO") of the Company, under the Consulting and Employment agreements, taken as a whole, to NIS 94,000.

Additionally, the notice period for termination under Prof Harats's Consulting Agreement is nine months, as approved by the General Meeting in 2007. The approval of the same under the Employment Agreement was un-intentionally missing from the General Meeting resolution at that time. Therefore, as a "house cleaning" measure it is hereby sought to unify the notice period for termination under Prof Harats's Employment Agreement to a period of nine months as well.

Under the Companies Law, the terms of service of a CEO of a public company, require the approval of the Compensation Committee, the Board and the shareholders.

Proposed Resolution

We are proposing the adoption by our shareholders of the following resolution at the Meeting:

"RESOLVED, to approve the increase of Prof. Dror Harats's monthly base compensation under the Consulting and Employment agreements, taken as a whole, to NIS 94,000, and to approve and ratify that the notice period for termination of Prof. Harats under the Employment agreements is nine month.

Required Vote:

Shareholders may vote for or against, or may abstain from voting, in connection with the amendment of Prof. Harats's compensation terms. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of Proposal 4. Furthermore, the approval of Proposal 4 requires that either: (i) such majority includes at least a majority of the voting power of the non-controlling and non-interested shareholders who are present in person or by proxy and who vote on such proposal; or (ii) the total votes cast in opposition to the proposal by the non-controlling and non-interested shareholders does not exceed 2% of all of the voting power in the Company.

A shareholder that possesses a personal interest or is a controlling shareholder is qualified to participate in the vote; however, the vote of such shareholder may not be counted towards the majority requirement described in clause (i) above and will not count towards the 2% threshold described in clause (ii) above.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolution approving the amendment to Prof. Harats's compensation terms.

PROPOSAL 5

APPROVAL OF THE REAPPOINTMENT OF KESSELMAN & KESSELMAN

Background

Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, independent registered public accounting firm, or Kesselman & Kesselman, served as our independent registered public accounting firm since its appointment in 2001. Our Audit Committee and Board resolved to nominate Kesselman & Kesselman for reappointment as our independent registered public accounting firm for the year ending December 31, 2021, and until the close of the next annual general meeting of shareholders of the Company.

Our shareholders are being requested to approve Kesselman & Kesselman's reappointment and authorize our board of directors (with power of delegation to our audit committee) to fix Kesselman & Kesselman's compensation in accordance with the volume and nature of its services.

Proposed Resolution

We are proposing the adoption by our shareholders of the following resolution at the Meeting:

“RESOLVED, (i) Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited be and hereby is reappointed as the Company's independent registered public accounting firm for the year ending December 31, 2021, and until the next annual general meeting of shareholders of the Company, and (ii) the Board (with power of delegation to the Audit Committee) be, and hereby is, authorized, to fix the remuneration of such independent registered public accounting firm in accordance with the volume and nature of its services.”

Required Vote

Shareholders may vote for or against, or may abstain from voting, in connection with the re-appointment of Kesselman & Kesselman. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of the resolution included in Proposal 5.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolution approving the reappointment of, and authorizing the board of directors to fix the remuneration of, the Company's independent registered public accounting firm.

PROPOSAL 6

APPROVAL OF NEW COMPENSATION SCHEME

Background

Under the Companies Law, the Compensation Committee and the Board are responsible for approving the terms of employment or engagement of office holders of the Company in accordance with the Company's approved compensation policy. The compensation policy serves as the basis for decisions concerning the financial terms of employment or engagement of office holders of a company, including exculpation, insurance, or any monetary payment or obligation of payment in respect of employment or engagement. In 2019, the shareholders of the Company approved the compensation policy for the Company's officers and directors. Pursuant to the Companies Law, every public Israeli company is required to adopt a compensation policy that sets forth guidelines for the compensation of office holders (as defined in the Companies Law). In 2019, the shareholders of the Company approved the compensation policy for the Company's officers and directors. The Companies Law requires the Board to reevaluate the compensation policy from time to time, and upon any material change in the circumstances that existed at the time the compensation policy was formulated; the compensation policy must be reviewed and re-approved at least once every three years.

The compensation policy must serve as the basis for decisions concerning the financial terms of employment or engagement of office holders of a company, including exculpation, insurance, or any monetary payment or obligation of payment in respect of employment or engagement. The compensation policy must relate to certain factors, including advancement of a company's objectives, a company's business and its long-term strategy, and creation of appropriate incentives for office holders. It must also consider, among other things, a company's risk management, size and the nature of its operations. The Companies Law describes what factors have to be considered by, and what principles must be included in, a compensation policy.

We retained Radford, a business unit of Aon plc, an independent executive compensation consulting firm ("Radford"), to review our current non-employee director compensation against a market benchmark and recommend any changes. In fall 2020, Radford developed a compensation benchmarking peer group for the Company's Non-Employee Directors, who are based in both the United States and Israel. Radford ultimately developed two peer groups: an Israeli peer group of Israeli-headquartered, US-listed life sciences organizations with market capitalization under \$500m, and a United States peer group of US pre-commercial bio/pharma organizations with market capitalization under \$150m. Upon recommendation of Radford, based on a review of the combined data for both peer groups, our Compensation Committee and Board approved the Company's Non-Employee Directors' New Compensation Scheme.

The Israeli-headquartered, US-listed peer group consisted of the following organizations:

| | |
|--------------------------------|--------------------------------|
| Ayala Pharmaceuticals, Inc. | Kamada Ltd. |
| BiomX Inc. | Kitov Pharma Ltd. |
| BiondVax Pharmaceuticals Ltd. | Pluristem Therapeutics Inc. |
| Can-Fite BioPharma Ltd. | Protalix BioTherapeutics, Inc. |
| CollPlant Biotechnologies Ltd. | RedHill Biopharma Ltd. |
| Intec Pharma Ltd. | Sol-Gel Technologies Ltd. |

The US peer group consisted of the following organizations:

| | |
|--------------------------------|-------------------------------|
| Actinium Pharmaceuticals, Inc. | Onconova Therapeutics, Inc. |
| BioCardia, Inc. | OncoSec Medical Incorporated |
| Caladrius Biosciences, Inc. | PDS Biotechnology Corporation |
| Diffusion Pharmaceuticals Inc. | Sunesis Pharmaceuticals, Inc. |
| Idera Pharmaceuticals, Inc. | TRACON Pharmaceuticals, Inc. |
| Infinity Pharmaceuticals, Inc. | Tyme Technologies, Inc. |

We believe the authorizations requested in this Proposal 6 will benefit our shareholders by enabling us to attract and retain qualified individuals to serve as members of our Board and to continue to provide advice to, and independent oversight of, management.

We are now asking our shareholders to approve the terms of the Non-Employee Directors' New Compensation Scheme, which would take effect on the date of shareholder approval of this Proposal 6 and enable us to provide payment of the compensation described under (A) Cash Compensation and (B) Equity Compensation below to our Non-Employee Directors for their service on our Board and its committees for the Board service period commencing on the date of our 2021 Annual General Meeting .

(A) Cash Compensation

- Board of Directors: Annual cash compensation of US\$35,000 to each Non-Employee director, other than the Chairman of the Board and the former Chairman of the Board.
- Audit Committee: Additional annual cash compensation of US\$15,000 to the Chairman of the Audit Committee and US\$7,500 to each member of the Audit Committee other than the Chairman.
- Compensation Committee: Additional annual cash compensation of US\$12,000 to the Chairman of the Compensation Committee and \$6,000 to each member of the Compensation Committee other than the Chairman.
- Nominating and Corporate Governance Committee and other committees: Additional annual cash compensation of US\$8,000 to the Chairman of the Nominating and Corporate Governance Committee or other committees and US\$4,000 to each member of the Nominating and Corporate Governance Committee or other committees other than the Chairman.
- Proration: Pro rata cash compensation of the annual cash compensation amounts set forth above shall be made, as applicable, to (i) any director who ceases to be a director, Chairman of the Board or member or chairman of any committee of the Board and (ii) any new Non-Employee director who is appointed by the Board, any independent director who is appointed to the position of Chairman of the Board or chairman of any such committee of the Board or any independent director who is appointed to serve on any such committee of the Board, for their services rendered as a director and/or committee member, for the portion of the year in which such director so served.

(B) Equity Compensation

- Initial Equity Grant: One-time equity grant upon initial appointment or election to the Board equal to 0.1% of the Company's capital on a fully diluted basis as of the date of grant, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors, but not less than 2 years until full vesting.
- Annual Equity Grant: Annual equity grants of 0.067% of the Company's share capital on a fully diluted basis as of the date of grant to each continuing director, which shall vest upon and in the manner approved by the Compensation Committee and the Board of Directors, but not less than 2 years until full vesting.

(C) In the event of any discrepancy between the New Compensation Scheme and the provisions of the Company's 2019 Compensation Policy for Company Office Holders, the former shall prevail.

Proposed Resolution

We are proposing the adoption by our shareholders of the following resolution at the Meeting:

“**RESOLVED**, that the New Compensation Scheme for the Non-Employee Directors of the Company set forth in this Proposal 6, as approved by the Compensation Committee and the Board, be, and hereby is, approved by the shareholders of the Company.”

Required Vote:

Shareholders may vote for or against, or may abstain from voting, in connection with New Compensation Scheme. The affirmative vote of holders of a majority of the voting power represented at the Meeting in person or by proxy and voting thereon is necessary for the approval of Proposal 6. Furthermore, the approval of Proposal 6 requires that either: (i) such majority includes at least a majority of the voting power of the non-controlling and non-interested shareholders who are present in person or by proxy and who vote on such proposal; or (ii) the total votes cast in opposition to the proposal by the non-controlling and non-interested shareholders does not exceed 2% of all of the voting power in our Company.

A shareholder that possesses a personal interest or is a controlling shareholder is qualified to participate in the vote; however, the vote of such shareholder may not be counted towards the majority requirement described in clause (i) above and will not count towards the 2% threshold described in clause (ii) above.

Board Recommendation

The Board unanimously recommends a vote FOR the foregoing resolution approving the New Compensation Scheme for the Company's Non-Executive Directors.

COMPENSATION

Summary Compensation Table

The table below reflects the compensation granted to our five most highly compensated officers during or with respect to the year ended December 31, 2020. All amounts reported in the table reflect the cost to the Company, as recognized in our financial statements for the year ended December 31, 2020.

| <u>Name and Position</u> | <u>Salary & Social Benefits (1)</u> | <u>Bonus</u> | <u>Share- Based Payment (2)</u> | <u>Other Compensation (3)</u> | <u>Total</u> | <u>Total (4)</u> (US Dollars in thousands) |
|---|---|--------------|---|---------------------------------------|--------------|--|
| | (New Israeli Shekels in thousands) | | | | | |
| Prof. Dror Harats <i>Chief Executive Officer</i> | 1,402 | 514 | 944 | 205 | 3,066 | 891 |
| Amos Ron <i>Chief Financial Officer</i> | 819 | 157 | 319 | 106 | 1,401 | 407 |
| Dr. Eyal Breitbart <i>Vice President, Research and Operations</i> | 777 | 150 | 315 | 228 | 1,470 | 427 |
| Dr. Erez Feige <i>Vice President, Business Operations</i> | 705 | 135 | 319 | 93 | 1,252 | 364 |
| Dr. Naamit Sher <i>Vice President, Clinical Drug Development</i> | 706 | 135 | 300 | 110 | 1,251 | 364 |

- (1) Represents the officer's gross salary plus payment of mandatory social benefits made by the Company on behalf of such officer. Such benefits may include, to the extent applicable to the executive, payments, contributions and/or allocations for savings funds (e.g., Managers' Life Insurance Policy), education funds (referred to in Hebrew as "keren hishtalmut"), pension, severance, risk insurances (e.g., life, or work disability insurance) and payments for social security.
- (2) Represents the equity-based compensation expenses recorded in the Company's consolidated financial statements for the year ended December 31, 2020 based on the options' grant date fair value in accordance with accounting guidance for equity-based compensation.
- (3) Represents the other benefits to such officer, which includes either or both of (i) car expenses, including lease costs, gas and maintenance, provided to the officers and (ii) vacation benefits.
- (4) Translated from NIS into U.S. dollars at the rate of NIS 3.4424= U.S.\$ 1.00, based on the average daily representative rate of exchange between the NIS and the U.S. dollar reported by the Bank of Israel for the full year of 2020.

ADDITIONAL INFORMATION

The Company's annual report for the year ended December 31, 2020, filed on Form 20-F on March 25, 2021 is available for viewing and downloading on the SEC's website at www.sec.gov as well as under the Investor Relations section of the Company's website at www.vblrx.com.

The Company is subject to the information reporting requirements of the U.S. Securities Exchange Act of 1934, as amended, applicable to foreign private issuers. The Company fulfills these requirements by filing reports with the SEC. The Company's SEC filings are also available to the public on the SEC's website at www.sec.gov. As a foreign private issuer, the Company is exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements. The circulation of this Proxy Statement should not be taken as an admission that the Company is subject to those proxy rules.

By order of the Board of Directors:

Modi'in, Israel
September 2, 2021

Marc Kozin,
Chairman of the Board of Directors

VASCULAR BIOGENICS LTD.

**PROXY FOR THE ANNUAL GENERAL MEETING OF
SHAREHOLDERS
TO BE HELD ON OCTOBER 19, 2021
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

The undersigned hereby constitutes and appoints Amos Ron as the true and lawful attorney, agent and proxy of the undersigned, with full power of substitution, to represent and to vote, on behalf of the undersigned, all of the ordinary shares of Vascular Biogenics Ltd. (the "Company"), held of record in the name of the undersigned at the close of business on September 20, 2021, at the Annual General Meeting of Shareholders of the Company (the "Meeting") to be held at the offices of the Company at 8 HaSatat St. Modi'in, Israel at 4:00 p.m. (local time), and at any and all adjournments or postponements thereof on the following matter, which is more fully described in the Notice of the Annual General Meeting of Shareholders and Proxy Statement relating to the Meeting.

The undersigned acknowledges receipt of the Notice of the Annual General Meeting of Shareholders and Proxy Statement of the Company relating to the Meeting.

This Proxy, when properly executed, will be voted in the manner directed herein by the undersigned. If no direction is made with respect to any proposal described below, this Proxy will be voted FOR such proposal and in such manner as the holder of the proxy may determine with respect to any other business as may properly come before the Meeting or all and any adjournments or postponements thereof. Any and all proxies heretofore given by the undersigned are hereby revoked.

(Continued and to be signed on the reverse side)

ANNUAL GENERAL MEETING OF SHAREHOLDERS OF

VASCULAR BIOGENICS LTD.

September 2, 2021

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, proxy statement and proxy card
are available at - <http://www.vblrx.com>

**Please date, sign and mail
your proxy card as soon
as possible.**

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF ALL
NOMINEES TO DIRECTORS LISTED IN PROPOSAL 1 AND "FOR" PROPOSALS 2, 3, 4, 5
AND 6.**

**PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED
ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN
HERE [X]**

| | | | |
|---|--------------------------|--------------------------|--------------------------|
| 1. Election of the following eight directors: | FOR | AGAINST | ABSTAIN |
| (a) Dr. Bennett M. Shapiro | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Prof. Dror Harats | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Ms. Ruth Alon | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Dr. Shmuel (Muli) Ben Zvi | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) Dr. Ron Cohen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (f) Mr. David Hastings | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (h) Mr. Marc Kozin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | |
|---|--------------------------|--------------------------|--------------------------|
| 2. To elect the following two directors, and approve the terms of their compensation and equity grant as fully described in Proposal 2: | FOR | AGAINST | ABSTAIN |
| (a) Ms. Alison Finger | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Mr. Michael Rice | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | |
|--|--------------------------|--------------------------|--------------------------|
| 3. To approve the grant of options under the 2014 Plan according to the standard agreements and at the terms referred to in the Proxy statement as follow: | FOR | AGAINST | ABSTAIN |
| (a) Grant of options to purchase 100,000 of our ordinary shares to Dr. Bennett M. Shapiro, a member of our Board of Directors; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Grant of options purchase 45,000 of our ordinary shares to Ms. Ruth Alon, a member of our Board of Directors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Grant of options purchase 45,000 of our ordinary shares to Dr. Shmuel (Muli) Ben Zvi, a member of our Board of Directors; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Grant of options purchase 45,000 of our ordinary shares to Dr. Ron Cohen, a member of our Board of Directors; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) Grant of options purchase 45,000 of our ordinary shares to Mr. David Hastings, a member of our Board of Directors; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (f) Grant of options purchase 45,000 of our ordinary shares to Mr. Marc Kozin, a member of our Board of Directors; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | |
|--|--------------------------|--------------------------|--------------------------|
| 4. To approve the increase of Prof. Dror Harats' monthly base compensation under the Consulting and Employment agreements, taken as a whole, to NIS 94,000, and to extend the notice period for termination under Prof Harats' Employment Agreement a period of nine months. | FOR | AGAINST | ABSTAIN |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Are you a "controlling shareholder" or do you have a "personal interest" (as defined in the Proxy Statement) with respect to the subject matter of Proposal 4? *

YES NO

*** Kindly note that failure to mark the appropriate indication shall be deemed as if you have a personal interest in said Proposal.**

| | | | | |
|----|---|------------|----------------|----------------|
| 5. | To ratify the reappointment of Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2021, and until the next annual general meeting of shareholders of the Company and authorize the Board with power of delegation to its audit committee) to fix the said independent registered public accounting firm's remuneration in accordance with the volume and nature of its services. | FOR [] | AGAINST [] | ABSTAIN [] |
|----|---|------------|----------------|----------------|

| | | | | |
|----|--|------------|----------------|----------------|
| 6. | To approve the Company's New Compensation Scheme for the Company's Non-Executive Directors as fully described in Proposal 6. | FOR [] | AGAINST [] | ABSTAIN [] |
|----|--|------------|----------------|----------------|

| | | |
|--|------------|-----------|
| Are you a "controlling shareholder" or do you have a "personal interest" (as defined in the Proxy Statement) with respect to the subject matter of Proposal 6? * | YES [] | NO [] |
|--|------------|-----------|

**** Kindly note that failure to mark the appropriate indication shall be deemed as if you have a personal interest in said Proposal***

| | | | |
|------------------------|--|---------------------------|--|
| Number of shares voted | | Signature of share holder | |
|------------------------|--|---------------------------|--|

| | |
|------|--|
| Date | |
|------|--|

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each owner should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by a duly authorized officer, giving full title as such. If the signer is a partnership, please sign in partnership name by authorized person.

