

COMPENSATION COMMITTEE CHARTER

ROLE

The Compensation Committee (the "Committee") of the Board of Directors (the "Board") of Assembly Biosciences, Inc., a Delaware corporation (the "Company"), is responsible for approving and evaluating the compensation agreements, plans, policies, and programs applicable for the Company's C-Level employees, Senior Vice Presidents, Vice Presidents and all other employees of the Company subject to Section 16 of the Securities and Exchange Act of 1934, as amended ("Section 16 Officers") (together, the "Executive Officers"), such other employees as the Committee may designate from time to time and non-employee Board members. Notwithstanding the foregoing, employees serving the functions of a Section 16 Officer in an interim or otherwise temporary capacity are not the Committee's responsibility.

The Committee is also responsible for reviewing the performance of the Chief Executive Officer of the Company and evaluating the performance of the other Executive Officers of the Company based on the performance reviews presented by the Chief Executive Officer. In addition, the Committee is responsible for overseeing strategies related to human capital management, talent development and succession planning with respect to the Chief Executive Officer and the other Executive Officers of the Company. The Committee will perform such other functions as may be deemed necessary or convenient in the efficient and lawful discharge of the foregoing. The operation of the Committee shall be subject to the Bylaws of the Company as in effect from time to time and to Section 141 of the Delaware General Corporation Law.

MEMBERSHIP

The Committee shall be composed of at least two members of the Board, each of whom is independent of the Company's management team and free of any relationships that, in the Board's opinion, would interfere with his/her/their exercise of independent judgment as a Committee member. The Committee members shall also (1) satisfy the independence and experience requirements required by applicable law or regulations established by the Securities and Exchange Commission ("SEC") and the Nasdaq Stock Market ("Nasdaq") and (2) be a "non-employee director" within the meaning of Rule 16b-3 under the Securities and Exchange Act of 1934, as amended.

The Board appoints the members of the Committee and the chairperson.

MEETINGS

Committee meetings will be held at the pleasure of the Board and the members of the Committee, from time to time, in response to the needs of the Board and the Committee. Notwithstanding the foregoing, the Committee will meet at least four times per year. Additional meetings may occur as a majority of the Committee or its chair deems advisable. The Committee will meet in executive session from time to time, without Company management present.

A majority of the Committee members shall constitute a quorum for purposes of holding a meeting, and the Committee may act by a vote of a majority of members present at such meeting. In lieu of a meeting, the Committee may act by unanimous written consent.

AUTHORITY

In carrying out its responsibilities, the Committee shall adopt policies and procedures it believes necessary or appropriate to enable it to react to changing conditions and to increase the confidence of the directors and

stockholders that the corporate accounting and reporting practices of the Company comply with all requirements.

The Committee will have the resources and authority necessary to discharge its duties and responsibilities. The Committee has complete authority to retain and terminate outside counsel, compensation consultants, or other experts or consultants, as it deems appropriate, including complete authority to approve their fees and other retention terms. Any communications between the Committee and legal counsel while obtaining legal advice will be privileged communications of the Company and the Committee will take all necessary steps to preserve the privileged nature of those communications.

The Committee may form and delegate authority to subcommittees and may delegate authority to one or more designated members of the Committee. The Committee may delegate to the Chief Executive Officer the authority to make grants of equity-based compensation to eligible individuals who are not Section 16 Officers. Grants under such authority shall regularly be reported to the Committee, and the Committee may revoke any delegation of authority at any time.

RESPONSIBILITIES

The Committee will, among its other responsibilities:

- 1. Take actions with respect to the compensation levels of the Company's C-Level employees, including but not limited to the development of compensation policies that attract and retain the Company's C-Level employees and reward executives for the Company's achievement.
- 2. Approve and administer all equity compensation plans, with full power and authority to make awards thereunder to Executive Officers, employees, non-employee members of the Board and consultants eligible for awards under the applicable plan but subject to any express limitation on such authority set forth in the applicable plan document. Approve and administer cash incentive compensation plans, severance plans and other similar plans. Authorize and approve adoption of or amendments to such plans and, as determined to be required or appropriate, recommend that the Board and/or stockholders approve such actions.
- 3. Approve the appointment, hiring, promotion and removal any C-Level employee of the Company, other than the Chief Executive Officer, with respect to whom such authority shall remain with the independent directors of the Board. The Committee shall also approve all employment agreements to be entered into between the Company and its C-Level employees.
- 4. Determine, review and approve the compensation levels for the Company's Executive Officers, including, but not limited to, annual base salaries, annual cash-based incentives awards, equity awards and any other compensation, retention, benefit, severance or perquisite arrangements, if any. The CEO may not be present during deliberations or voting concerning the CEO's compensation. Oversight of performance and approval of compensation for the Company's Executive Officers other than the CEO shall be in consultation with the CEO.
- 5. In consultation with the Company's management team, recommend to the Board a set of corporate goals and objectives, weighted to reflect the goals' relative importance to the achievement of the Company's goals, measured over a 12-month period.
- 6. Review on a periodic basis the operation of the Company's executive compensation practices to determine whether they are properly coordinated and to establish, oversee and periodically review policies for the administration of executive compensation program.

- 7. Annually approve a peer group of companies to use as one of several datapoints to inform the Company's compensation program.
- 8. Following Nasdaq's adoption of listing standards mandating clawback policies, oversee the implementation and administration of the Company's clawback policy, and review and recommend changes in the policy to the independent members of the Board for approval from time to time as appropriate.
- 9. Oversee succession planning with respect to the Chief Executive Officer and the Company's other C-Level employees.
- 10. Oversee the Company's strategies related to human capital management, including but not limited to matters such as diversity, equity, and inclusion; workplace environment and culture; talent recruitment and retention.
- 11. Review and discuss with management the Compensation Discussion and Analysis (the "CD&A") and related disclosures to be included in the Company's proxy statement if required by applicable rules and regulations of the Securities and Exchange Commission (the "SEC") and, based on such review and discussion, determine whether or not to recommend to the Board that the CD&A be so included.
- 12. If required under applicable rules and regulations, oversee production of the annual Compensation Committee Report for inclusion in the Company's annual report and proxy statement if required by the rules and regulations promulgated by the SEC.
- 13. At the Committee's discretion, retain or obtain the advice of any compensation consultant, legal counsel or other advisor (collectively, the "Compensation Advisors") to assist the Committee in carrying out its responsibilities. The Committee is responsible for the appointment, compensation and oversight of the work of any Compensation Advisor retained by the Committee. The Company will provide appropriate funding, as determined by the Committee, for payment of reasonable compensation to each Compensation Advisor retained by the Committee.
- 14. Prior to selecting, or receiving advice from, a Compensation Advisor (other than the Company's in-house legal counsel), the Committee shall consider the independence of such Compensation Advisor as required by Nasdaq Listing Rule 5605(d)(3)(D), provided that the foregoing assessment shall not preclude the Committee from retaining the services of any Compensation Advisor that it determines appropriate, regardless of whether or not it has determined that such Compensation Advisor is independent. In addition, nothing herein shall affect the Committee's ability to exercise its own judgment in the fulfillment of its duties hereunder or require the Committee to implement or act consistently with the advice or recommendation of any Compensation Advisor.
- 15. Periodically review the cash, equity, and other compensation provided to non-employee Board members and recommend any changes to such compensation for approval by the Board.
- 16. Review and consider the results of the most recent stockholder advisory vote on executive compensation to the extent required by Section 14A of the Exchange Act, as well as the vote on the frequency of such votes.
- 17. Oversee the Company's submissions to stockholders on executive compensation matters, including advisory votes on executive compensation and the frequency of such votes, incentive and other executive compensation plans and amendments to such plans. The Committee will also coordinate with the Nominating and Corporate Governance Committee (or its designees) to engage proxy advisory firms and other stockholder groups on executive compensation matters, as necessary.

- 18. Review and consider the results from the Company's engagement efforts with stockholders on the subject of executive compensation.
- 19. Review and reassess the adequacy of the Compensation Committee Charter on an annual basis.
- 20. Perform any other functions required of it by applicable law, rule, or regulation, including the rules and regulations of the SEC and the rules of any exchange or market on which the Company's securities are traded, and perform such other functions and have such other powers as may be necessary or convenient in the efficient discharge of the foregoing.

MINUTES AND REPORTS

The Committee will maintain written minutes of its meetings, which minutes will be filed with the minutes of the meetings of the Board. The Committee will report its actions and recommendations to the Board after each Committee meeting.

Adopted by the Board of Directors on May 25, 2022. Amended by the Board of Directors on May 25, 2023.