

CORPORATE GOVERNANCE GUIDELINES

The Board of Directors (the "Board") of Assembly Biosciences, Inc. ("AssemblyBio") has adopted the corporate governance guidelines set forth below to assist and guide the Board in the exercise of its responsibilities. These guidelines should be interpreted in accordance with any requirements imposed by applicable federal or state law or regulation, The Nasdaq Stock Market Rules and AssemblyBio's certificate of incorporation, as amended, restated or otherwise modified from time to time (the "Certificate of Incorporation") and the AssemblyBio's bylaws, as amended, restated or otherwise modified from time to time (the "Bylaws"). The Board may review and amend these guidelines from time to time.

DIRECTOR QUALIFICATION STANDARDS

DIRECTOR CRITERIA

The Board shall consider and approve from time to time the criteria that it deems necessary or advisable for prospective director candidates. The Board shall have full authority to modify such criteria from time to time as it deems necessary or advisable.

The Board has delegated to the Nominating and Governance Committee of the Board (the "Nominating and Governance Committee") the responsibility for developing and recommending to the Board for its consideration and approval such criteria for prospective director candidates as the Nominating and Governance Committee deems necessary or advisable. The Nominating and Governance Committee will recommend to the Board from time to time such criteria for its consideration and approval. The Board may, however, rescind this delegation to the Nominating and Governance Committee and thereafter the Board shall have the responsibility for developing and approving from time to time such criteria for prospective director candidates as it deems necessary or advisable.

At a minimum, the Nominating and Governance Committee must be satisfied that each recommended nominee meets the following minimum qualifications:

- The nominee shall have experience at a strategic or policymaking level in a business, government, non-profit or academic organization of high standing.
- The nominee shall be highly accomplished in his or her respective field, with superior credentials and recognition.
- The nominee shall be well regarded in the community and shall have a long-term reputation for high ethical and moral standards.
- The nominee shall have sufficient time and availability to devote to the affairs of AssemblyBio, particularly in light of the number of boards of directors on which such nominee may serve.
- To the extent such nominee serves or has previously served on other boards, the nominee shall have a demonstrated history of actively contributing at board meetings.

The Nominating and Governance Committee may also establish additional specific, minimum qualifications it believes should be met by any director nominees.

PROCESS FOR IDENTIFYING AND SELECTING DIRECTORS

The Board has delegated to the Nominating and Governance Committee the responsibility of identifying suitable candidates for nomination to the Board (including candidates to fill any vacancies or newly created

directorships that may occur) and assessing their qualifications in light of the policies and principles in these corporate governance guidelines and the Nominating and Governance Committee's charter. The Nominating and Governance Committee will recommend prospective director candidates for the Board's consideration and review the prospective candidates' qualifications with the Board. The Board shall retain the ultimate authority to nominate a candidate for election by the stockholders as a director or to fill any vacancy or newly created directorship that may occur.

In identifying prospective director candidates, the Nominating and Governance Committee will consider all facts and circumstances that it deems appropriate or advisable, including, among other things, the skills of the prospective director candidate, his or her depth and breadth of business experience or other background characteristics, diversity (including of experience, competency in relevant fields, gender, race, ethnicity and age), his or her independence and the needs of the Board.

INDEPENDENCE

A majority of the members of the Board shall meet the independence standards of Rule 5605(a)(2) of the Nasdaq Stock Market Rules (or any successor provision thereto).

At least annually, the Board will evaluate all relationships between AssemblyBio and each director in light of relevant facts and circumstances for the purposes of determining whether a material relationship exists that might signal a potential conflict of interest or otherwise interfere with such director's ability to satisfy his or her responsibilities as an independent director.

POLICY ON MAJORITY VOTING

A director who fails to receive the required number of votes for re-election in accordance with the Bylaws will, within five days following the certification of the stockholder vote, tender his or her written resignation to the Chairman of the Board for consideration by the Nominating and Governance Committee (referred to as the "Committee" in this policy).

The Committee will consider such tendered resignation and, within 45 days following the date of the stockholders' meeting at which the election occurred, will make a recommendation to the Board concerning the acceptance or rejection of such resignation. In determining its recommendation to the Board, the Committee will consider all factors deemed relevant by the members of the Committee, including, without limitation, the stated reason or reasons why stockholders voted against such director's re-election, the qualifications of the director (including, for example, whether the director serves on the Audit Committee of the Board as an "audit committee financial expert" and whether there are one or more other directors qualified, eligible, and available to serve on the Audit Committee in such capacity), and whether the director's resignation from the Board would be in the best interests of AssemblyBio and its stockholders.

The Committee also will consider a range of possible alternatives concerning the director's tendered resignation as the members of the Committee deem appropriate, including, without limitation, acceptance of the resignation, rejection of the resignation of the resignation coupled with a commitment to seek to address and cure the underlying reasons reasonably believed by the Committee to have substantially resulted in such director failing to receive the required number of votes for re-election.

The Board will take formal action on the Committee's recommendation no later than 75 days following the date of the stockholders' meeting at which the election occurred. In considering the Committee's recommendation, the Board will consider the information, factors, and alternatives considered by the Committee and such additional information, factors, and alternatives as the Board deems relevant.

Following the Board's decision on the Committee's recommendation, AssemblyBio, within four business days after such decision is made, will publicly disclose, in a Form 8-K filed with the Securities and Exchange Commission, the Board's decision, together with a full explanation of the process by which the decision was made and, if applicable, the Board's reason or reasons for rejecting the tendered resignation.

No director who, in accordance with this policy, is required to tender his or her resignation, shall participate in the Committee's deliberations or recommendation, or in the Board's deliberations or determination, with respect to accepting or rejecting his or her resignation as a director. If a majority of the members of the Committee fail to receive the required number of votes for re-election, then the independent directors then serving on the Board who were elected at the stockholders' meeting at which the election occurred, and the independent directors, if any, who were not standing for election at such stockholders' meeting, will appoint an ad hoc Board committee from amongst themselves (the "Ad Hoc Committee"), consisting of such number of directors as they may determine to be appropriate, solely for the purpose of considering and making a recommendation to the Board with respect to the tendered resignations. The Ad Hoc Committee shall serve in place of the Committee and perform the Committee's duties for purposes of this policy. Notwithstanding the foregoing, if an Ad Hoc Committee would have been created but fewer than three directors would be eligible to serve on it, the entire Board (other than the individual director whose resignation is being considered) will make the determination to accept or reject the tendered resignation without any recommendation from the Committee and without the creation of an Ad Hoc Committee.

This Policy, as it may from time to time be amended, will be summarized or included in AssemblyBio's proxy statement for each meeting of stockholders (annual or special) at which directors are to be elected.

LIMIT ON NUMBER OF OTHER BOARDS

Carrying out the duties and fulfilling the responsibilities of a director requires a significant commitment of an individual's time and attention. The Board does not believe, however, that explicit limits on the number of other boards of directors on which the directors may serve, or on other activities the directors may pursue, are appropriate. The Board, however, recognizes that excessive time commitments can interfere with an individual's ability to perform his or her duties effectively. In connection with its assessment of director candidates for nomination, the Nominating and Governance Committee and the Board will assess whether the performance of any director has been or is likely to be adversely impacted by excessive time commitments, including service on other boards of directors. Directors must seek approval of the Chairperson of the Nominating and Governance Committee in connection with accepting a seat on the board of directors of another business entity so that the potential for conflicts or other factors compromising the director's ability to perform his or her duties may be fully assessed. Each director is expected to ensure that other existing and planned future commitments do not materially interfere with the director's service on the Board. Service on other boards and/or committees should be consistent with AssemblyBio's Code of Conduct. This includes compliance with the U.S. antitrust law prohibition of "interlocking directorates," which bars an individual or entity from serving on the Board or as an officer of (1)AssemblyBio and (2) one of AssemblyBio's competitors simultaneously. AssemblyBio will conduct annual audits to ensure that no AssemblyBio Director serves as a director of a competitor. Also, in the course of any AssemblyBio transaction where Board seats may change, AssemblyBio will verify compliance with this directive as part of the closing checklist.

TERM AND AGE LIMITS

The Board does not believe that arbitrary limits on the number of consecutive terms a director may serve or on the directors' ages are appropriate in light of the substantial benefits resulting from a sustained focus on AssemblyBio's business, strategy and industry over a significant period of time. Each director's performance

will be assessed by the Nominating and Governance Committee and the Board in light of relevant factors in connection with assessments of candidates for nomination to be directors.

SUCCESSION

The Nominating and Governance Committee shall be responsible for developing succession plans for the Board and each committee as appropriate in light of relevant facts and circumstances.

DIRECTOR RESPONSIBILITIES

ROLE OF DIRECTORS

The business and affairs of AssemblyBio are managed by or under the direction of the Board, acting on behalf of the stockholders. The Board has delegated to AssemblyBio's officers the authority and responsibility for managing AssemblyBio's everyday affairs. The Board has an oversight role and is not expected to perform or duplicate the tasks of AssemblyBio's Chief Executive Officer or senior management.

ATTENDANCE AT MEETINGS

Each member of the Board is expected to make reasonable efforts to attend regularly scheduled meetings of the Board and to participate in telephone conference meetings or other special meetings of the Board. In the event that directors are unable to make at least 75% of those regular or special meetings (together with the meetings of committees on which such director serves), AssemblyBio will be required to disclose that fact in the proxy statement for its annual meeting of stockholders. In addition, attendance and participation at meetings is an important component of the directors' duties and, as such, attendance rates will be taken into account by the Nominating and Governance Committee and the Board in connection with assessments of director candidates for renomination as directors. AssemblyBio encourages all directors to attend the annual meeting of stockholders.

TIME COMMITMENT; ADVANCE DISRTRIBUTION AND REVIEW OF MATERIALS

Directors are expected to spend the time needed and meet as frequently as the Board deems necessary or appropriate to discharge their responsibilities. Senior management is responsible for distributing information and data that are important to the Board's understanding of the business to be conducted at a Board or Committee meeting to the directors. Directors should review these materials in advance of the meeting when reasonably practicable.

BOARD STRUCTURE

SIZE OF BOARD

The Board reserves the right to increase or decrease the size of the Board, subject to any relevant provisions in the Bylaws, depending on an assessment of the Board's needs and other relevant circumstances at any given time.

BOARD LEADERSHIP

The Bylaws provide that the Chairperson of the Board, if one is elected, shall preside at all meetings of the Board. The Chairperson of the Board shall perform such other duties as the Board may from time to time designate.

SEPARATION OF CHAIRPERSON AND CEO ROLES

The Board does not have a specific policy regarding the separation of the roles of the Chairperson of the Board and the Chief Executive Officer and believes it is in the best interest of AssemblyBio and its stockholders to be able to exercise discretion in combining or separating these positions as it deems appropriate in light of prevailing circumstances. This approach provides the flexibility for the Board to modify its leadership structure in the future as appropriate. The Board believes that AssemblyBio, like many U.S. companies, is well served by this flexible leadership structure.

COMMITTEES

The Board intends at all times to have an Audit Committee, a Compensation Committee and a Nominating and Governance Committee. Each of these standing committees will have a written charter that sets forth the responsibilities of such committee and the qualifications for committee membership. Membership on such standing committees is limited to independent directors meeting the independence requirements of the Nasdaq Stock Market Rules, the Sarbanes-Oxley Act of 2002 and any other related rules or regulations promulgated by the Securities and Exchange Commission (the "SEC") and the Internal Revenue Service (as applicable), subject to applicable exceptions and phase-in periods. The Board may from time to time establish additional committees as necessary or appropriate with such membership requirements as the Board may determine and as may be required by applicable laws. The Board retains discretion to form new committees or disband current committees depending upon the circumstances.

EXECUTIVE SESSIONS

The non-management directors will meet at regularly scheduled executive sessions without management participation and at least twice each year an executive session with only independent directors present shall be held. If the Chairperson of the Board is a non-management director and an independent director, then the Chairperson of the Board will preside at these meetings. If the Chairperson of the Board does not so qualify, then the director who presides at these meetings will be chosen by the non-management directors. In order that interested parties may be able to make their concerns known to the non-management directors, AssemblyBio will also disclose a method for such parties to communicate directly and confidentially with the presiding director or with the non-management directors as a group.

DIRECTOR ACCESS TO MANAGEMENT AND INDEPENDENT ADVISORS

In carrying out its responsibilities, the Board, and each committee thereof, shall be entitled to rely on the advice and information that it receives from management and such experts, advisors and professionals with whom the Board, or any such committee, may consult. The Board, and each committee thereof, shall have the authority to request that any AssemblyBio officer or employee, AssemblyBio's outside legal counsel, the AssemblyBio's independent auditor or any other professional retained by AssemblyBio to render advice to AssemblyBio, attend a meeting of the Board, or such committee, or meet with any members of or advisors to the Board. The Board or any committee thereof shall also have the authority to engage legal, accounting or other advisors to provide it with advice and information in connection with carrying out its or their responsibilities.

DIRECTOR COMPENSATION

The form and amount of director compensation will be reviewed periodically, but at least annually, by the Compensation Committee, which shall make recommendations to the Board based on such review. The Board shall retain the ultimate authority to determine the form and amount of director compensation.

AssemblyBio's executive officers shall not receive additional compensation for their service as directors.

PERFORMANCE EVALUATION OF THE BOARD AND COMMITTEES

The Board may conduct a self-evaluation periodically for the purpose of determining whether it and its committees are functioning effectively, and each committee of the Board may conduct a self-evaluation periodically for the purpose of determining whether it is functioning effectively. These evaluations will consider the performance of the Board or the committee, as the case may be, as a unit. The Nominating and Governance Committee will oversee any such evaluation process.

MISCELLANEOUS

The Board believes that the management should be responsible for communications with the press, media and other outside parties made on behalf of AssemblyBio, although individual Board members may, at the request of management or of the Board, communicate with outside parties on behalf of AssemblyBio.

These guidelines are not intended to modify, extinguish or in any other manner limit the indemnification, exculpation and similar rights available to the directors under applicable law and/or the Certificate of Incorporation and/or the Bylaws.

Although these corporate governance guidelines have been approved by the Board, it is expected that these guidelines will evolve over time as customary practice and legal requirements change. In particular, guidelines that encompass legal, regulatory or exchange requirements as they currently exist will be deemed to be modified as and to the extent such legal, regulatory or exchange requirements are modified. In addition, the guidelines may also be amended by the Board at any time as it deems appropriate.

Adopted by the Board of Directors on October 9, 2018. Updated: January 22, 2021.