

## AUDIT COMMITTEE CHARTER

### ROLE

The Audit Committee (the “Committee”) is established by the Board of Directors (the “Board”) of Assembly Biosciences, Inc. (the “Company”) for the primary purpose of assisting the Board in oversight of the:

1. Company’s corporate accounting and reporting practices,
2. Company’s systems of internal accounting and financial controls,
3. quality and integrity of the financial statements and reports of the Company,
4. qualifications, independence and performance of the independent registered public accounting firm engaged as the Company’s independent outside auditors (the “outside auditors”); and
5. the Company’s processes for assessing key strategic, operational and compliance risks.

The outside auditors shall report directly to the Committee. The Committee shall have free and open communication with the other directors, outside auditors, internal audit provider and financial management of the Company and shall meet with such persons in executive sessions, as necessary. However, the Committee is not responsible for the preparation, completeness and accuracy of the financial statements of the Company or the planning and conducting of the audits of the Company. 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 three 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 satisfy the independence and experience requirements, including the financial literacy and expertise requirements, required by applicable law or regulations established by the Securities and Exchange Commission (“SEC”) and the Nasdaq Stock Market (“Nasdaq”). The Committee members must be financially literate and at least one member shall (1) satisfy the Nasdaq requirements for financial sophistication as in effect from time to time and (2) in the judgment of the Board, be an “audit committee financial expert” as defined by the rules and regulations of the SEC.

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 needs of the Board and the Committee. Notwithstanding the foregoing, the Committee will meet at least once quarterly to discharge its responsibilities with respect to the Company’s Quarterly Reports on Form 10-Q and Annual Report on Form 10-K.

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.

## FUNCTIONS AND 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.

As appropriate under the circumstances, the Committee will, among its other responsibilities:

1. Be directly responsible for the appointment, retention, compensation, oversight and replacement, if necessary, of the outside auditors to perform all proposed audit, review and attest services, as well as permissible non-audit services. The Committee shall review and pre-approve the terms of audit and non-audit services to be performed by the outside auditors, subject to the *de minimis* exception for non-audit services in accordance with SEC rules and regulations. The Committee Chair may pre-approve audit or non-audited services to be performed by the outside auditor, provided that any such pre-approvals are presented to the full Committee at its next scheduled meeting.
2. Review the outside auditors' reports covering all matters required by applicable SEC, Public Company Accounting Oversight Board ("PCAOB") and Nasdaq rules and regulations and evaluate periodically the experience and qualifications of the senior members of the auditor team.
3. Obtain and review a report prepared for and provided to the Committee from the outside auditors at least annually regarding (a) the outside auditors' internal quality control procedures, (b) any material issues raised by the most recent internal quality-control review of the firm or by any inquiry or investigation by governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the firm and (c) any steps taken to deal with any such issues.
4. At least annually, evaluate the independence of the outside auditors, including (a) considering whether the auditor's quality controls are adequate and the provision of permitted non-audit services is compatible with maintaining the outside auditors' independence and taking into account the opinions of management and internal auditors; (b) obtaining a formal written statement from the outside auditors confirming their independence from the Company and delineating all relationships between the outside auditors and the Company consistent with rules of the PCAOB, as modified or supplemented from time to time; and (c) actively engaging in dialogue with the outside auditors regarding any matters that may impact their objectivity and independence and taking, or recommending that the full Board take, appropriate action to oversee the independence of the outside auditors.
5. Oversee the Company's compliance with the SEC and applicable Nasdaq requirements relating to the rotation of audit partners and guidelines for the Company's hiring of employees or former employees of the audit firm who were engaged in the Company's account.
6. Meet with the outside auditors and financial management of the Company to review the scope and cost of the proposed audit for the current year and the audit procedures to be utilized and, following the conclusion thereof, review the results of such audit, including any critical audit matters, findings, comments or recommendations of the outside auditors. If necessary under applicable rules and regulations, such review should also include a summary of any internal control communications provided to the Committee by the outside auditors and the Company's responses.

7. Discuss with the outside auditors and the Company's financial and accounting personnel, their periodic review of the scope, adequacy and effectiveness of the Company's internal control over financial reporting, including the adequacy of the systems of reporting to the Committee.
8. Review with the outside auditors and the Company's financial management and accounting personnel the potential effect of regulatory and accounting developments on the Company's financial statements.
9. Review and approve, in advance, or ratify all "related party" transactions in accordance with applicable law and SEC and Nasdaq rules and regulations.
10. Review reports prepared for and provided to the Committee by management and/or the outside auditors of significant reporting issues and judgments made in connection with the preparation of the Company's financial statements, including an analysis of critical accounting policies and practices and the effect of alternative accounting policies available under generally accepted accounting principles on the Company's financial statements.
11. Assist the Company's management in the establishment and maintenance of disclosure controls and procedures in accordance with applicable law and SEC and Nasdaq rules and regulations that are adequate to meet the Company's reporting obligations under applicable securities laws.
12. Establish and maintain procedures for:
  - a. Receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and
  - b. Confidential, anonymous submission by Company employees of concerns regarding questionable accounting or auditing issues.
13. Review with management and the outside auditors any correspondence with regulators or government agencies and any employee complaints or published reports that raise material issues regarding the Company's financial statements or accounting policies.
14. Review with the Company's internal legal team any legal matters that may have a material impact on the Company's financial statements and any material reports or inquiries received from regulators or governmental agencies related to financial accounting or reporting, such as the SEC, Nasdaq or similar regulatory bodies.
15. Meet with the outside auditors in executive sessions. The Committee shall review with the outside auditors any problems or difficulties identified by management or the outside auditors during the audit and management's response and undertake the responsibility to investigate and resolve any disagreements between the Company's management and the outside auditors regarding the Company's financial reporting, accounting practices and policies or internal control-related matters.
16. Review with the outside auditors and the Company's financial management and accounting personnel the quarterly financial statements, including the results of the review by the outside auditors of the quarterly financial statements, prior to the filing of the Company's Quarterly Reports on Form 10-Q. Such review shall include, without limitation, a discussion of any material changes in accounting principles or practice used in preparing the financial statements, Management's Discussion and Analysis of Operations proposed to be set forth in the Quarterly Report on Form 10-Q, management's

conclusion regarding its assessment of the effectiveness of the Company's disclosures controls and procedures and of all matters necessary for the certifications of such report by the Company's management in accordance with applicable law. The Committee shall also review with management and the outside auditors any other matters required to be communicated to the Committee by the outside auditors under the standards of the PCAOB. 17.

17. Prior to the filing of the Company's Annual Reports on Form 10-K:
  - a. Review and discuss with the outside auditors the results of the annual audit of the Company's financial statements, including (1) any critical audit matters arising from the current period audit, (2) the outside auditors' assessment of the quality, not just acceptability, of accounting principles, (3) the reasonableness of significant judgments and estimates, (4) any material audit adjustment proposed by the outside auditors, (5) the nature of significant risks and exposures, (6) the adequacy of the disclosures in the financial statements and (7) any other matters required to be communicated to the Committee by the outside auditors under the standards of the PCAOB.
  - b. Review with the outside auditors and the Company's financial management and accounting personnel the Company's audited annual financial statements and management's report on its assessment of the effectiveness of the Company's internal control over financial reporting as of the end of the most recent fiscal year and, if required, the outside auditors' report on the effectiveness of internal control over financial reporting. Such review shall include, without limitation, a discussion of any material changes in accounting principles or practices used in preparing the financial statements, Management's Discussion and Analysis of Operations proposed to be set forth in the Annual Report on Form 10-K, management's conclusions regarding its assessment of the effectiveness of the Company's disclosure controls and procedures and of all matters necessary for the certifications of such report by the Company's management in accordance with applicable law.
  - c. Based on the results of the reviews and discussions above, determine whether to recommend to the Board that the financial statements be included in the Form 10-K for filing with the SEC.
18. Review and discuss with management and the outside auditors any material financial or non-financial arrangements of the Company that do not appear in the Company's financial statements and any transactions or arrangements with parties related to the Company which transactions are significant in size or involve terms or other aspects that differ from those that would likely be negotiated with independent parties, and which arrangements or transactions are relevant to an understanding of the Company's financial statements.
19. The Committee shall review the qualifications of the internal audit provider, if any, and concur in the appointment, replacement, reassignment or dismissal of that party, as applicable.
20. Meet with internal audit management of the Company to (a) review and approve the annual internal audit plan and budget, including any significant subsequent modifications, and (b) review the results of internal audit activities, including significant issues and management action plans.
21. At least once per year, review the performance and effectiveness of the internal audit provider and internal audit function.
22. Investigate matters brought to its attention within the scope of its duties as it deems necessary or appropriate. In discharging these responsibilities, the Committee will have full access to Company

management and other employees and to the Company's books and records and will have the power and resources to retain independent legal, accounting or other advisors to assist the Committee for this purpose and to determine the compensation for any such advisors.

23. Monitor risks associated with the Company's financial and accounting systems, accounting policies and investment strategies, in addition to finance-related public reporting, regulatory compliance and certain other matters delegated to the Committee.
24. Regularly review the Company's cybersecurity and other information technology risks, controls and procedures, including the Company's plans to mitigate cybersecurity risks and to respond to data breaches. The Committee shall also review and discuss with management any specific cybersecurity issues that could affect the adequacy of the Company's internal controls.
25. Oversee preparation of the report to be included in the Company's annual proxy statement as required by applicable SEC rules and regulations.
26. Review and reassess the adequacy of this Audit Committee Charter on an annual basis and recommend any proposed changes to the Board for approval.
27. Perform periodic performance evaluations of the Committee.
28. Perform such other functions and have such powers as may be (a) necessary or appropriate in the efficient and lawful discharge of the foregoing or (b) delegated from time to time by the Board.

#### **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.