

# UPSTREAM BIO, INC.

## NOMINATING AND CORPORATE GOVERNANCE COMMITTEE CHARTER

### I. General Statement of Purpose

The purposes of the Nominating and Corporate Governance Committee (the “**Nominating Committee**”) of the Board of Directors (the “**Board**”) of Upstream Bio, Inc. (the “**Company**”) are to:

- identify individuals qualified to become Board members, consistent with criteria approved by the Board;
- recommend that the Board select the nominees for election as directors at each annual meeting of stockholders;
- develop and recommend to the Board corporate governance guidelines and periodically review those guidelines and recommend any changes; and
- oversee an annual evaluation of the Board, its committees and management.

### II. Composition

The Company’s Nominating Committee will be composed entirely of directors who satisfy the independence tests under the Nasdaq Stock Market Rules. The number of directors serving on the Nominating Committee shall be fixed by the Board from time to time but shall consist of no fewer than two directors.

The members of the Nominating Committee shall be appointed annually by the Board and may be replaced or removed by the Board at any time with or without cause. Resignation or removal of a director from the Board, for whatever reason, shall automatically constitute resignation or removal, as applicable, from the Nominating Committee. Vacancies, for whatever reason, may be filled by the Board. The Board shall designate one member of the Nominating Committee to serve as Chair of the Nominating Committee.

### III. Meetings

The Nominating Committee shall meet as often as it deems appropriate. The Nominating Committee may meet in person or by conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other. A majority of the members of the Nominating Committee shall constitute a quorum for purposes of a meeting, and the Nominating Committee may act by a vote of a majority of members present at a meeting. The Nominating Committee may also act by unanimous written consent.

### IV. Nominating Committee Activities

The Nominating Committee’s purposes and responsibilities shall be to:

## A. Selection of New Directors

- Recommend to the Board for its approval criteria for Board and committee membership, which shall include a description of any specific qualifications that the Nominating Committee believes must be met by a nominee, and a description of any specific qualities or skills the Nominating Committee believes one or more of the directors should possess, and periodically reassess such criteria and submit any proposed changes to the Board for approval.
- Establish a policy with regard to the consideration of director candidates recommended by stockholders and establish procedures to be followed by securityholders in submitting recommendations for director candidates to the Nominating Committee.
- Establish a process for identifying and evaluating nominees for election to the Board, including nominees recommended by securityholders (a “**Stockholder Nomination**”) and any policies or procedures for consideration of Stockholder Nominations.
- Upon identifying individuals qualified to become members of the Board, consistent with the criteria approved by the Board, recommend that the Board select these individuals as nominees for election at each annual meeting of stockholders; provided that, if the Company is legally required by contract or otherwise to provide third parties the ability to nominate individuals for election to the Board, the selection and nomination of such nominees shall not be the responsibility of the Nominating Committee.
- Recommend individuals to the Board the directors for appointment as Chair and as members of Board committees.
- Review all Stockholder Nominations and proposals submitted to the Company under the Securities Exchange Act of 1934, as amended, or otherwise, and any proposal relating to the procedures for making nominations or electing directors, determine whether the nomination or proposal was submitted in a timely manner and, in the case of a director nomination, whether the nomination and the nominee satisfy all applicable eligibility requirements, and recommend action to the Board on each such nomination or proposal.

## B. Corporate Governance Guidelines

- Develop and recommend to the Board for its approval Corporate Governance Guidelines.
- Periodically review and reassess the adequacy of the Corporate Governance Guidelines and Code of Conduct and Business Ethics and recommend any changes to the Board for approval.

**C. Evaluation of Board of Directors and Management**

- Oversee an annual evaluation of the Board and its committees, including individual directors and the Company's management.

**D. Matters Relating to Retention and Termination of Search Firms to Identify Director Candidates**

- Exercise sole authority on whatever terms it approves to retain and terminate a search firm or firms to assist it in identifying director candidates.

**E. Succession Planning**

- Review and discuss with the Board corporate succession plans for the Chief Executive Officer and other key officers of the Company.

**F. Continuing Education**

- Periodically prepare or assemble materials and conduct sessions for directors on topics that will assist them in discharging their duties.

**G. Review of Charter**

- Review and reassess the adequacy of this Charter annually and submit any proposed changes to the Board for approval.

**H. Annual Performance Evaluation of the Board and its Committees**

- Evaluate its performance annually and report the results to the Board.
- Oversee the annual evaluation of the Board and its committees.

**I. General**

- Establish and delegate authority to subcommittees consisting of one or more of its members, when it deems appropriate to discharge its responsibilities.
- Report regularly to the Board on matters for which it has been given responsibility.
- In performing its responsibilities, rely on advice and information it receives from management and any experts, advisers and other professionals whom it may consult.
- Have the authority to request that any officer or employee of the Company, the Company's outside legal counsel, the Company's independent auditor or any other professional retained by the Company meet the Committee or its members or advisers.

- Have the authority on whatever terms it approves to engage legal, accounting and other advisers to assist it in performing its responsibilities.
- Perform such other functions as the Board may request from time to time.

Adopted on August 19, 2024 and effective upon the effectiveness of the S-1 registration statement.