

BICYCLE THERAPEUTICS PLC

AMENDED AND RESTATED CHARTER OF THE NOMINATING AND CORPORATE GOVERNANCE COMMITTEE OF THE BOARD OF DIRECTORS

PURPOSE

The primary purpose of the Nominating and Corporate Governance Committee (the “*Committee*”) of the Board of Directors (the “*Board*”) of Bicycle Therapeutics plc (the “*Company*”) shall include, among other things, to: (i) oversee aspects of the Company’s corporate governance functions on behalf of the Board; (ii) make recommendations to the Board regarding corporate governance issues; (iii) identify and evaluate candidates to serve as directors of the Company, consistent with the criteria approved by the Board; (iv) review and evaluate the performance of the Board; (v) serve as a focal point for communication between director candidates, non-committee directors and the Company’s management; (vi) make recommendations to the Board regarding the selection and approval of candidates to serve as nominees for director to be submitted to a shareholder vote at the annual general meeting of shareholders; and (vii) make other recommendations to the Board regarding affairs relating to the directors of the Company.

COMPOSITION

The Committee shall consist of at least two (2) members of the Board. The members of the Committee shall satisfy the independence requirements imposed by The Nasdaq Stock Market LLC (“*Nasdaq*”). The members of the Committee shall be appointed by and serve at the discretion of the Board. Resignation or removal of the Director from the Board, for whatever reason, shall automatically constitute resignation or removal, as applicable, from this Committee. Vacancies occurring on the Committee shall be filled by the Board. The Committee’s chairperson (the “*Chairperson*”) shall be appointed by the Board, or if the Board does not do so, the Committee members shall designate a Chairperson by vote of a majority of the full Committee.

MEETINGS AND MINUTES

The quorum necessary for the transaction of business shall be two members 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.

The Committee shall hold such regular or special meetings as its members shall deem necessary or appropriate, but in no event shall it meet less than annually. Any member of the Committee or the Board may call a meeting of the Committee. The same procedural rules concerning notice of meetings, actions by unanimous consent or telephonic meetings and meetings held by other means of remote communication, and other procedural matters, shall apply to Committee meetings as apply to meetings of the Board under the Company’s articles of association or as otherwise agreed to from time to time.

The minutes of each meeting and any written consents of the Committee shall be placed in the Company's minute book. The Chairperson (or in his or her absence, a member designated by the Chairperson) shall preside over all meetings. The Chairperson shall report to the Board from time to time or whenever so requested by the Board.

AUTHORITY

Each member of the Committee shall have full access to all books, records, facilities and personnel of the Company as deemed necessary or appropriate by any member of the Committee to discharge his or her responsibilities hereunder. The Committee shall have access to and shall communicate with the Board, chairpersons of the committees of the Board, members of senior management and independent professional advisors to the Board and its various committees, as applicable. The Committee shall have the authority to obtain, at the expense of the Company, advice and assistance from internal or external legal, accounting or other advisors, experts and consultants as the Committee deems necessary or appropriate for carrying out its duties under this charter of the Committee (this "*Charter*"). The Committee shall have the authority to retain and terminate executive search firms to help identify director candidates. The Committee shall have the authority to approve fees, costs and other terms of engagement of such outside resources and shall be directly responsible for the oversight of such outside resources. The Committee shall also have authority to pay, at the expense of the Company, ordinary administrative expenses that, as determined by the Committee, are necessary or appropriate in carrying out its duties, unless prohibited by Nasdaq listing rules or applicable law. The Committee shall have authority to request that any of the Company's personnel, counsel, accountants or investment bankers, or any other consultant or advisor to the Company, attend any meeting of the Committee or meet with any member of the Committee or any of its special, outside legal, accounting or other, advisors or consultants.

The Committee may form and delegate authority to one or more subcommittees as appropriate, but only to the extent consistent with the Company's articles of association (the "*Articles*"), Corporate Governance Guidelines (as defined below), Nasdaq listing rules and other applicable law. Delegation by the Committee to any subcommittee shall not limit or restrict the Committee on any matter so delegated, and, unless the Committee alters or terminates such delegation, any action by the Committee on any matter so delegated shall not limit or restrict future action by such subcommittee on such matters. The operation of the Committee shall be subject to the Articles as in effect from time to time and the U.K. Companies Act 2006 (the "*Companies Act*"). The approval of this Charter shall be construed as a delegation of authority to the Committee with respect to the responsibilities set forth herein.

RESPONSIBILITIES

To implement the Committee's purpose, the Committee shall have the following responsibilities. The Committee may supplement and deviate from these activities as appropriate under the circumstances (except as otherwise required by applicable law or the requirements of any stock exchange on which any of the Company's securities are then listed):

1. ***Director Nominations.*** The Committee shall identify and evaluate candidates to serve on the Company's Board consistent with the criteria approved by the Board, including consideration of the potential conflicts of interest as well as applicable independence,

experience and other requirements, and recommend to the Board qualified director nominees for appointment, election or reelection to the Board at each annual general meeting of shareholders and, as necessary to fill vacancies and newly created directorships.

2. ***Assessment of Incumbent Directors.*** The Committee shall oversee evaluations of the Board, its committees, and Board members, including assessing the contribution and independence of incumbent directors to determine whether to recommend them for reelection to the Board. The Committee will annually review each director's time commitments and ability to properly discharge their duties, as described in the Company's Corporate Governance Guidelines.
3. ***Shareholder Proposals.*** The Committee shall have the power and authority to consider recommendations for Board nominees and proposals submitted by the Company's shareholders, to recommend to the Board appropriate action on any such proposal or recommendation and to make any disclosures required by Nasdaq listing rules and applicable law in the course of exercising its authority.
4. ***Increase in Board Size.*** The Committee shall, in the case of a director nominated to fill a vacancy on the Board due to an increase in the size of the Board, recommend to the Board, if applicable, the class of directors in which the director nominee should serve in accordance with any applicable provisions of the Company's articles of association or any shareholders agreement to which the Company is a party.
5. ***Independence and Conflicts.*** The Committee shall consider questions of independence and possible conflicts of interest of members of the Board and executive officers, including as they relate to directorships at other public companies. Review any outside directorships in other public companies held by any executive officer of the Company.
6. ***Board Assessment.*** The Committee shall periodically review, discuss and assess the performance of the Board, including Board committees, seeking input from senior management, the full Board and others, as further described in the Company's Corporate Governance Guidelines. The results of these reviews shall be provided to the Board for further discussion as appropriate.
7. ***Board Committee Membership.*** The Committee shall oversee the Board's committee structure and operations. The Committee, after due consideration of the interests, independence and experience of the individual directors and the independence and experience requirements set forth in the listing standards of any stock exchange on which the Company's securities are listed, the rules and regulations of the Securities and Exchange Commission and applicable law, shall make recommendations to the Board regarding the appointment of directors to serve as members of each committee and committee chairperson.
8. ***Shareholder Communications.*** The Committee shall periodically review and make recommendations to the Board regarding the Company's process for shareholder

communications with the Board and make such recommendations to the Board with respect thereto as the Committee deems appropriate.

9. **Articles of Association.** The Committee shall review the adequacy of the Company's articles of association and recommend to the Board, as conditions dictate, proposed amendments thereto.
10. **Director Education.** The Committee shall implement an orientation process for directors that includes background material on the Company's policies and procedures and expectations as to directors and committee member duties and responsibilities, meetings with senior management and visits to the Company's facilities. The Committee shall also recommend to the Board such plan or program as it may deem appropriate for the continuing education of directors. The Committee shall ensure that on appointment to the Board, non-executive directors receive a formal letter of appointment setting out clearly what is expected of them in terms of time commitment, committee service and involvement outside Board meetings.
11. **Corporate Governance Guidelines and Principles.** The Committee shall develop and recommend to the Board, as appropriate, a set of corporate governance guidelines and principles (the "**Corporate Governance Guidelines**") to be applicable to the Company and shall periodically review and assess the Corporate Governance Guidelines and shall recommend any changes deemed appropriate to the Board for its consideration.
12. **Section 16 Designation and Compliance Program.** The Committee shall review the list of executive officers who are subject to the reporting requirements of Section 16 of the Securities Exchange Act of 1934, as amended, (the "**Section 16 Officers**") and shall recommend any changes deemed appropriate to the Board for its consideration. The Committee shall periodically review the Company's Section 16 Compliance Program and approve any changes deemed appropriate to these policies.
13. **Environmental, Social and Corporate Governance (ESG) Matters.** Oversee and periodically review ESG matters relevant to the Company's business and operations, including policies and practices concerning (i) corporate social responsibility, (ii) environmental sustainability, (iii) employee diversity and (iv) political contributions and lobbying activities.
14. **Governance Developments.** The Committee shall develop with management and participate in a process for systematic review of important corporate governance issues and trends in corporate governance practices that could potentially impact the Company and enhance the effectiveness of the Committee.
15. **Management and Board Succession.** The Committee shall develop and periodically review with the Company's Chief Executive Officer the plans for succession for the Company's executive officers, as it sees fit, and make recommendations to the Board with respect to the selection of appropriate individuals to succeed to these positions. The Committee shall develop and periodically review with the Board the plans for Board succession, including for the Company's Chairperson of the Board, as it sees fit, and

make recommendations to the Board with respect to the selection of appropriate individuals to succeed to this position.

16. ***Procedures for Information Dissemination.*** The Committee shall periodically review the processes and procedures used by the Company to provide information to the Board and its committees and make recommendations to the Board and management for improvement as appropriate. The Committee should consider, among other factors, the reporting channels through which the Board and its committees receive information and the level of access to outside advisors where necessary or appropriate, as well as the procedures for providing accurate, relevant and appropriately detailed information to the Board and its committees on a timely basis.
17. ***Leadership Structure.*** The Committee shall consider the Board's leadership structure, including the separation of the chairperson of the Board and Chief Executive Officer roles and/or appointment of a lead independent director of the Board, either permanently or for specific purposes, and make such recommendations to the Board with respect thereto as the Committee deems appropriate. The Committee shall also review and discuss the narrative disclosure regarding the Board leadership structure and role in risk oversight to be included in any public filing in response to the requirements of Item 407(h) of Regulation S-K (or any successor disclosure item).
18. ***Committee Self-Assessment; Annual Charter Review.*** The Committee shall review, discuss and assess its own performance at least annually. The Committee shall also review and assess the adequacy of this Charter annually, including the Committee's role and responsibilities outlined herein, and shall recommend any proposed changes to the Board for its consideration.
19. ***Report to the Board.*** The Committee, through the Chairperson, shall regularly report to the Board regarding the Committee's actions, or whenever so requested by the Board.
20. ***General Authority.*** The Committee shall perform such other functions and have such other powers as may be necessary or appropriate in the discharge of the foregoing. The Committee shall perform all its duties on the basis of the considerations required to be taken into account by the rules of any stock exchange on which the Company's securities are listed, all applicable codes of practice and laws and the Committee's view of good practice at the relevant time. In addition, while carrying out its duties, the Committee shall have due regard to their duties as directors under the Companies Act.

PUBLICATION

The Company shall make this charter freely available to shareholders on request and, provided that the Company is subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended, shall publish it on the Company's website.

Approved by the Board: 25 September, 2024