

BICYCLE THERAPEUTICS PLC
AMENDED AND RESTATED CHARTER OF THE AUDIT COMMITTEE
OF THE BOARD OF DIRECTORS

PURPOSE

The primary purpose of the Audit Committee (the “*Committee*”) of the Board of Directors (the “*Board*”) of Bicycle Therapeutics plc (the “*Company*”) shall be to act on behalf of the Board in fulfilling the Board’s oversight responsibilities with respect to, among other things, (i) the Company’s corporate accounting and financial reporting processes, systems of internal control over financial reporting and audits of financial statements, systems of disclosure controls and procedures, as well as the quality and integrity of the Company’s financial statements and reports, (ii) the qualifications, independence and performance of the registered public accounting firm or firms engaged by the Company and the U.K. statutory auditors (the “*Auditors*”), (iii) the performance of the Company’s internal audit function, if any, (iv) compliance with legal and regulatory requirements, including compliance with ethical standards adopted by the Company, and (v) the review and assessment of the Company’s risk management, risk assessment and major risk exposures. The Committee may also provide oversight assistance in connection with the Company’s legal, regulatory and ethical compliance programs as established by management and the Board.

The policy of the Committee, in discharging these obligations, shall be to maintain and foster an open avenue of communication among the Committee, the Auditors and the Company’s financial management, and, if any, the Company’s internal auditors.

COMPOSITION

The Committee shall consist of at least three (3) members of the Board. The members of the Committee shall satisfy (i) the independence and financial literacy requirements imposed by the Securities and Exchange Commission (“*SEC*”) and The Nasdaq Stock Market LLC (“*Nasdaq*”), including any phase-in periods permitted by such requirements, as applicable to Committee members as in effect from time to time, when and as required by the SEC and Nasdaq, and (ii) any other qualifications determined by the Board or the Nominating and Corporate Governance Committee of the Board from time to time. At least one member of the Committee shall satisfy the applicable financial sophistication requirements of the SEC and Nasdaq, and any other requirements in effect from time to time, for accounting or related financial management expertise when and as required by the SEC or Nasdaq. The members of the Committee shall be appointed by and serve at the discretion of the Board. Resignation or removal of a Committee member from the Board for any reason shall automatically constitute resignation or removal, as applicable, from the 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 elect a Chairperson by vote of a majority of the full Committee.

OPERATING PRINCIPLES AND PROCESSES

In fulfilling its functions and responsibilities, the Committee should give due consideration to the following operating principles and processes:

- *Communication* – Regular and meaningful contact with the Board, members of senior management and independent professional advisors to the Board and its various committees, as applicable, shall be encouraged as a means of strengthening the Committee’s knowledge of relevant current and prospective corporate accounting, financial reporting and internal control issues.
- *Meeting Agendas* – Committee meeting agendas shall be the responsibility of the Chairperson with input from the Committee members and other members of the Board, as well as, to the extent deemed appropriate by the Chairperson of the Board, from members of senior management and outside advisors.
- *Information Needs* – The Committee members shall communicate to the Chief Executive Officer, or his or her designees, the Committee’s expectations, and the nature, timing and extent of any specific information or other supporting materials requested by the Committee for its meetings and deliberations.
- *Committee Education* – Developing with management and participating in a process for systematic review of important accounting and financial reporting issues and trends in accounting, financial reporting and internal control practices that could potentially impact the Company shall be encouraged to enhance the effectiveness of the 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 the members present at such meeting. In lieu of a meeting, the Committee may act by unanimous written consent.

The Committee shall meet at least quarterly and hold such special meetings as its members shall deem necessary or appropriate. 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. Unless otherwise directed by the Committee, each regularly scheduled meeting will conclude with an executive session of the Committee absent members of management.

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 authority to appoint, determine compensation for (at the Company's expense), retain and oversee the Auditors (as set forth in Section 10A(m)(2) of the Securities Exchange Act of 1934, as amended, and the rules thereunder (the "*Exchange Act*") and otherwise to fulfill its responsibilities under this charter of the Committee (the "*Charter*"). The Committee shall have authority to retain and determine compensation for, at the expense of the Company, special legal, accounting or other advisors, experts or consultants (the "*Advisors*") as it deems necessary or appropriate in the performance of its duties under this Charter, including any studies or investigations. 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 (including the Auditors) 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 Advisors.

The Committee may form and delegate authority to one or more subcommittees as appropriate, to the extent consistent with the Company's articles of association (the "*Articles*"), Corporate Governance Guidelines, Nasdaq 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 by the Board shall be construed as a delegation of authority to the Committee with respect to the responsibilities set forth herein.

RESPONSIBILITIES

The following functions are expected to be the common recurring activities of the Committee in carrying out its responsibilities. These functions should serve as a guide with the understanding that the Committee may carry out additional functions and adopt additional policies and procedures as may be required or appropriate in light of changing business, legislative, regulatory, legal or other conditions. The Committee may also carry out any other responsibilities and duties delegated to it by the Board from time to time.

Oversight of Auditors

1. *Evaluation and Retention of Auditors.* At least annually, to evaluate the performance, qualifications (including their internal quality control procedures and any material issues raised by that firm's most recent internal quality control review or any investigations by regulatory authorities) and independence of the Auditors. Based on this review and evaluation, the Committee will determine whether to retain, or terminate, the engagement of the existing Auditors, or to appoint and engage a different independent registered public accounting firm,

which retention shall be subject only to ratification by the Company's shareholders (if the Committee or the Board elects to submit such retention for ratification by the shareholders).

2. *Communication Regarding Auditor Independence.* Prior to engagement of any prospective Auditors and at least annually, to review a written disclosure by the prospective Auditors or existing Auditors, as applicable, of all relationships between the prospective Auditors or existing Auditors, as applicable, or their affiliates, and the Company, or persons in financial oversight roles at the Company, that may reasonably be thought to bear on independence, and to discuss with the prospective or existing Auditors, as applicable, the potential effects of such relationships on the independence of the prospective or existing Auditors, as applicable, consistent with the rules of the Public Company Accounting Oversight Board (United States) (the "**PCAOB**").

3. *Approval of Audit Engagements.* To determine and approve engagements of the Auditors, prior to commencement of such engagements, to perform all proposed audit, review and attest services, including the scope of and plans for the audit, the adequacy of staffing, the compensation to be paid by the Company to the Auditors and the negotiation and execution, on behalf of the Company, of the Auditors' engagement letters; such approval may be pursuant to preapproval policies and procedures established by the Committee consistent with applicable laws and rules, including the delegation of preapproval authority to one or more independent Committee members so long as any such preapproval decisions are presented to the full Committee at the next scheduled meeting.

4. *Approval of Non-Audit Services.* To determine and approve engagements of the Auditors, prior to commencement of such engagements (unless in compliance with exceptions available under applicable laws for *de minimis* aggregate amounts of permissible non-audit services), to perform any proposed permissible non-audit services, including the scope of the service and the compensation to be paid therefor by the Company; such approval may be pursuant to preapproval policies and procedures established by the Committee consistent with applicable laws and rules, including the delegation of preapproval authority to the Chairperson so long as any such preapproval decisions are presented to the full Committee at the next scheduled meeting.

5. *Internal Control Report from Auditors.* To obtain and review, at least annually, a report by the Auditors describing that firm's internal quality control procedures, any material issues raised by the firm's most recent internal quality control review or peer review or by any inquiry or investigation within the preceding five years by governmental or professional authorities with respect to one or more independent audits performed by the firm, as well as any steps taken to address the issues raised.

6. *Auditor Communications.* At least annually, to discuss with the Auditors the matters required to be discussed by Auditing Standard No. 1301, *Communications with Audit Committees*, as amended, as adopted by the PCAOB (including any successor rule adopted by the PCAOB).

7. ***Audit Partner Rotation.*** To monitor the rotation of the partners of the Auditors on the Company's audit engagement team as required by applicable laws and rules, and to consider periodically and, if deemed appropriate, adopt a policy regarding rotation of auditing firms.

8. ***Former Employees of Auditors.*** To review any proposed employment by the Company of individuals employed or formerly employed by the Auditors and engaged on the Company's account.

Financial Reporting Processes

9. ***Annual Audit Results.*** To review with management and the Auditors the results of the annual audit, a draft of the Auditors' report and the matters required to be communicated to the Committee by the Auditors under applicable standards adopted by the PCAOB and approved by the SEC from time to time, including any critical audit matters. In addition, the Committee will review and discuss with management and the Auditors (i) all critical accounting policies and practices used in the annual audit, (ii) all alternative treatments of financial information within GAAP for material items that have been discussed with management, ramifications of the use of such alternative disclosures and treatments on the Company's financial statements, and the treatment preferred by the Auditors, and (iii) other material written communications between the Auditors and management, such as any management letter or schedule of unadjusted differences.

10. ***Audited Financial Statement Review; Annual Report on Form 10-K.*** To review with management and the Auditors, as appropriate, upon completion of the audit, (i) the Company's financial statements proposed to be included in the Company's Annual Report on Form 10-K to be filed with the SEC and any disclosure from the Company's Chief Executive Officer and Chief Financial Officer to be made in connection with the certification of the Company's Annual Report on Form 10-K prior to public disclosure of such financial information or filing with the SEC of the Company's Annual Report on Form 10-K and (ii) other relevant reports or financial information submitted by the Company to any governmental body or the public, including relevant reports rendered by the Auditors (or summaries thereof). Following this review, the Committee will recommend whether or not such financial statements should be included in the Company's Annual Report on Form 10-K. The Committee shall also oversee the preparation and review of the U.K. statutory accounts and the U.K. Annual Report.

11. ***Quarterly Results and Reports on Form 10-Q.*** To review with management and the Auditors, as appropriate, (i) the results of the Auditors' review of the Company's quarterly financial statements and any disclosure from the Company's Chief Executive Officer and Chief Financial Officer to be made in connection with the certification of the Company's quarterly reports filed with the SEC, prior to public disclosure of quarterly financial information, if practicable, or filing with the SEC of the Company's Quarterly Report on Form 10-Q, and any other matters required to be communicated to the Committee by the Auditors under the standards of the PCAOB and (ii) other relevant reports or financial information submitted by the Company to any governmental body or the public, including relevant reports rendered by the Auditors (or summaries thereof).

12. *Management’s Discussion and Analysis and Risk Factors.* To review with management and the Auditors, as appropriate, the Company’s disclosures contained under the captions “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and “*Risk Factors*” in its periodic reports and other filings to be filed with the SEC.

13. *Press Releases.* To review with management and the Auditors, to the extent appropriate, earnings press releases, as well as the substance of financial information and earnings guidance provided to analysts and rating agencies (including, without limitation, reviewing any pro forma or non-GAAP information), which discussions may be general discussions of the type of information to be disclosed or the type of presentation to be made. The Chairperson may represent the entire Committee for purposes of these discussions.

14. *Accounting Principles and Policies.* To review with management and the Auditors, as appropriate, significant issues that arise regarding accounting principles and financial statement presentation, including critical accounting policies and practices, alternative accounting policies available under GAAP related to material items discussed with management, the potential impact on the Company’s financial statements of off-balance sheet structures, and any analyses prepared by management or the Auditors setting forth any other significant reporting issues and judgments, significant regulatory, legal and accounting initiatives or developments that may have a material impact on the Company’s financial statements, compliance programs and policies if, in the judgment of the Committee, such review is necessary or appropriate.

15. *Risk Assessment and Management.* To review and discuss with management and the Auditors, as appropriate, (i) the Company’s guidelines and policies with respect to financial risk management and financial risk assessment, including the Company’s major financial risk exposures and the steps taken by management to monitor and control these exposures and (ii) management risks relating to data privacy, technology and information security, including cyber security and back-up of information systems, and the steps the Company has taken to monitor and control such exposures.

16. *Management Cooperation with Audit.* To evaluate the cooperation received by the Auditors during their audit examination, including any significant difficulties encountered during the audit or any restrictions on the scope of their activities or access to required records, data and information and, whether or not resolved, significant disagreements with management and management’s response, if any.

17. *Management Letters.* To review with the Auditors and, if appropriate, management, any “management” or “internal control” letter issued or, to the extent practicable, proposed to be issued by the Auditors and management’s response, if any, to such letter, as well as any additional material written communications between the Auditors and management.

18. *National Office Communications.* To review with the Auditors, as appropriate, communications between the audit team and the Auditors’ national office with respect to accounting or auditing issues presented by the engagement.

19. *Disagreements Between Auditors and Management.* To review with management and the Auditors, or any other registered public accounting firm engaged to perform review or attest services, any conflicts or disagreements between management and the Auditors, or such other accounting firm, whether or not resolved, regarding financial reporting, accounting practices or policies or other matters, that individually or in the aggregate could be significant to the Company's financial statements or the Auditors' report, and to resolve any conflicts or disagreements regarding financial reporting.

20. *Internal Control over Financial Reporting; Disclosure Controls.* To (i) confer with management and the Auditors, as appropriate, regarding the scope, adequacy, and effectiveness of internal control over financial reporting and the Company's disclosure controls and procedures, including any significant deficiencies, significant changes in internal controls and the adequacy and effectiveness of the Company's information and cybersecurity policies and the internal controls regarding information security, (ii) confer with management and the Auditors, as appropriate, regarding the responsibilities, budget and staff of the internal audit function (if any) and review of the appointment or replacement of the senior internal audit executive or manager, and (iii) obtain reports on significant findings and recommendations with respect to internal controls over financial reporting, together with management responses and any special audit steps adopted in light of any material control deficiencies.

Legal, Regulatory and Ethical Oversight

21. *Separate Sessions.* Periodically, to meet in separate sessions with the Auditors, the internal auditors, if any, or other personnel responsible for the internal audit function, as applicable and appropriate, and management to discuss any matters that the Committee, the Auditors, the internal auditors, if any, or other personnel responsible for the internal audit function, or management believe should be discussed privately with the Committee.

22. *Correspondence with Regulators.* To consider and review with management, the Auditors, outside counsel, as appropriate, and any Advisors as the Committee deems appropriate, any correspondence with regulators or governmental agencies and any published reports that raise material issues regarding the Company's financial statements or accounting policies.

23. *Complaint Procedures.* To establish procedures, when and as required by applicable laws and rules, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters, including under the Company's "Whistleblower Policy for Accounting and Auditing Matters."

24. *Engagement of Additional Registered Public Accounting Firms.* To determine and approve engagements of any registered public accounting firm (in addition to the Auditors), prior to commencement of such engagements, to perform any other review or attest service, including the compensation to be paid by the Company to such firm, which approval may be pursuant to preapproval policies and procedures, including the delegation of preapproval

authority to one or more independent Committee members, so long as any such preapproval decisions are presented to the full Committee at the next scheduled meeting.

25. *Investigations.* To investigate any matter brought to the attention of the Committee within the scope of its duties if, in the judgment of the Committee, such investigation is necessary or appropriate.

26. *Proxy Report.* To oversee the preparation of the report of the Committee required by the rules of the SEC to be included in the Company's annual proxy statement.

27. *Insurance Coverage.* The Committee shall have the authority to review and establish appropriate insurance coverage for the Company's directors and officers.

28. *Code of Business Conduct and Ethics.* To periodically review Company policy statements to determine their adherence to the Company's Amended and Restated Code of Business Conduct and Ethics (the "*Code*"). The Committee will also review the Code at least annually and recommend to the Board any changes the Committee deems appropriate and review any significant violations thereof and requests of waivers thereof by executive officers and directors. Any approved waivers shall be promptly disclosed as required by the Nasdaq listing rules and applicable law.

29. *Ethical Compliance.* To review the results of management's efforts to monitor compliance with the Company's programs and policies designed to ensure adherence to applicable laws and rules, as well as to the Code.

30. *Related Person Transactions.* To consider and approve or disapprove any related person transaction as defined under SEC Regulation S-K Item 404, to the extent required by SEC regulations, and to review and recommend that the Board consider and approve any changes to the Company's Related Person Transactions Policy. To discuss with the Auditors their evaluation of the Company's identification of, accounting for, and disclosure of its relationship with related parties as set forth under the standards of the PCAOB.

31. *Insider Trading Policy and Risk Assessment.* To review and approve any changes to the Company's Amended and Restated Insider Trading Policy. The Committee shall also oversee and review with management the Company's major legal compliance risk exposures and the steps management has taken to monitor or mitigate such exposures, including the Company's procedures and any related policies with respect to risk assessment and risk management.

32. *Attorneys' Reports.* To receive, review and discuss with the Company's General Counsel attorneys' reports of evidence of material violations of securities laws and breaches of fiduciary duty and similar violations of U.K., U.S., state or other applicable law.

33. *Investment Policy and Treasury Operations.* To review with management the Company's investment philosophy and policies, including management of investment risk and applicable policies pertinent to the Company's investment portfolio, and recommend any changes to the Company's Investment Policy to the Board for approval. The Committee shall

also review treasury operations, including investments in financial derivatives and hedging activities, if any.

Other Matters

34. *Annual Charter Review.* To review and assess the adequacy of this Charter annually and recommend any proposed changes to the Board for approval.

35. *Annual Committee Evaluation.* To conduct an evaluation of the performance of the Committee at least annually.

36. *General Authority.* To perform such other functions and to have such powers as may be necessary or appropriate in the discharge of any 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 Exchange Act, shall publish it on the Company's website.

Approved by the Board: 25 September, 2024