

OSIRIS THERAPEUTICS, INC.

AMENDED AND RESTATED AUDIT COMMITTEE CHARTER

Effective December 11, 2018

I. AUDIT COMMITTEE ROLE

The Audit Committee of the Board of Directors (the "Board") of Osiris Therapeutics, Inc. (the "Company") assists the Board in fulfilling its responsibility for oversight of the quality and integrity of the accounting, auditing and reporting practices of the Company and such other duties as directed by the Board. The Audit Committee's role includes a particular focus on the qualitative aspects of financial reporting to the Company's stockholders as well as the Company's internal control over such financial reporting, the Company's processes to manage business and financial risk and compliance with significant applicable legal, ethical and regulatory requirements. The Audit Committee is responsible for providing an avenue of communication among the independent auditors, management and the Board. The Audit Committee is directly responsible for the appointment, compensation, and oversight of the public accounting firm engaged for the purpose of preparing or issuing an audit report or related work. In addition, the Audit Committee is responsible for pre-approving all permissible non-audit services and for pre-approving all audit, review and attest engagements that are provided to the Company by its independent auditors.

In the exercise of its oversight, the Audit Committee is not responsible for preparing the Company's financial statements, planning or conducting audits or determining that the Company's financial statements fairly present the Company's financial position and results of operation and are in accordance with generally accepted accounting principles. Such duties remain the responsibility of management and the Company's independent auditors.

In discharging its role, the Audit Committee has the authority to investigate any matter brought to its attention, with full power to retain and determine the compensation for special legal, accounting or other consultants or experts for this purpose. The Audit Committee shall also determine the appropriate level of funding to be provided by the Company for payment of the independent auditor and outside advisors and any administrative expenses incurred by the Audit Committee in carrying out its duties.

II. MEMBERSHIP

The Audit Committee members shall meet the requirements of the applicable rules promulgated by the Securities and Exchange Commission (the "SEC" and such rules promulgated thereby, "SEC Rules") and the National Association of Securities Dealers, Inc.'s

listing standards applicable to companies quoted on The Nasdaq Global Market (the "Listing Standards"). The Audit Committee shall be comprised of three or more directors as appointed by the Board, each of whom shall be independent, non-executive directors, free from any relationship that would interfere with the exercise of his or her independent judgment and who are generally knowledgeable in financial and auditing matters, including at least one member with accounting or related financial management expertise. Each member shall be free of any relationship that, in the opinion of the Board, would interfere with his or her individual exercise of independent judgment, and shall meet the director independence requirements for serving on audit committees as set forth in the Listing Standards, the applicable provisions of the Sarbanes-Oxley Act of 2002 and the applicable SEC Rules.

At least one member of the Audit Committee shall be a "financially sophisticated audit committee member" as required by the Listing Standards. At least one member of the Audit Committee shall be an "Audit Committee Financial Expert" as defined by SEC Rules. The existence of an "Audit Committee Financial Expert", including his or her name and whether or not he or she is independent, will be disclosed in periodic filings as required by SEC Rules.

The Board shall appoint the Audit Committee Chairperson. The Chairperson is responsible for leadership of the Audit Committee, presiding over meetings, making Audit Committee assignments and reporting to the Board of Directors. If a Chairperson is not appointed or present, the members of the Audit Committee may designate a Chairperson by majority vote of the Audit Committee members.

III. MEETINGS AND PROCEDURES

The Audit Committee shall meet at least four times annually or more frequently as circumstances dictate, including meeting at any time that the independent auditors believe communication to the Audit Committee is required. The Audit Committee shall meet at least quarterly in separate executive sessions with management (including the Company's Chief Financial Officer and Chief Accounting Officer) and the independent auditors, and have such other direct and independent interaction with such persons from time to time as the members of the Audit Committee deem appropriate. The Audit Committee may ask members of management or others to attend meetings and provide pertinent information as needed.

The agenda for Audit Committee meetings shall be prepared by the Audit Committee Chairperson (with input from the Audit Committee members) in consultation with the Chief Financial Officer and/or the Chief Accounting Officer and the independent auditors. The Chairperson shall maintain minutes and report on Audit Committee activities to the Board.). A majority of the members of the Audit Committee shall constitute a quorum for the transaction of business. Approval by a majority of the members present at a meeting at which a quorum is present shall constitute approval by the Audit Committee. The Audit Committee may also act

in any manner the Board is authorized to act, including by unanimous written consent without a meeting.

IV. RESPONSIBILITIES

A. Review Procedures

1. Review and reassess the adequacy of this Charter at least annually. Submit the Charter to the Board for approval and have the Charter published at least every three years or as otherwise required by SEC Rules and the Listing Standards.
2. Review the Company's annual audited financial statements and management's discussion and analysis of financial condition and results of operations ("MD&A") prior to filing or distribution. The review should include discussion with management and the independent auditors of significant issues regarding the quality of the Company's accounting policies and principles as applied in its financial reporting, including any changes in the Company's selection or application of accounting principles, practices, judgments, audit adjustments and significant estimates, accruals and reserves. Based on that review, the Committee shall make a recommendation to the Board as to whether or not the financial statements should be included in the Annual Report on Form 10-K.
3. Review and discuss with management and the independent auditors the Company's internal controls report and the independent auditor's attestation report prior to the filing of the Company's Annual Report on Form 10-K.
4. Review earnings releases with the Chief Financial Officer and the independent auditors prior to dissemination, and, in particular, discuss non-GAAP information guidance.
5. Prior to filing periodic reports with the SEC, review and monitor with the Chief Financial Officer and the independent auditors:
 - i. Management's disclosures to the Committee under Section 302 of the Sarbanes-Oxley Act of 2002;
 - ii. The contents of the officer's certifications required by applicable law to be included with or in the Company's periodic reports filed with the SEC and establish a procedure for being notified if such certifications are not included for any reason;
 - iii. Financial information and MD&A;

- iv. Significant issues and transactions; and
 - v. Significant changes in operations.
6. Review with the Chief Financial Officer any significant changes to generally accepted accounting principles on at least an annual basis.
 7. Periodically review with the Chief Financial Officer and the independent auditors:
 - i. The adequacy of the Company's internal controls, including information technology controls and security.
 - ii. The adequacy of disclosure controls and procedures.
 - iii. Any significant issues or findings and recommendations of the independent auditors together with management's responses thereto.
 - iv. The adequacy of disclosures about changes in internal controls over financial reporting.
 8. Periodically inquire with the Chief Financial Officer and the independent auditors about significant risks and assess the steps management has taken to mitigate such risks.
 9. Review management's anti-fraud program on an annual basis.
 10. Review all related party transactions, as defined by applicable Listing Standards, to which the Company is a party.

B. Independent Auditors

1. Appoint, compensate, oversee (including resolution of disagreements between the independent auditors and management regarding financial reporting), review the performance of, and, where appropriate, terminate, the Company's independent auditors. The independent auditors shall report directly to the Committee.
2. Review and approve the fees charged by the independent auditors for audit and permissible non-audit services provided to the Company.

3. Approve, in advance, all audit and non-audit services to be provided to the Company by its independent auditors. In its performance of these responsibilities, prior approval of certain non-audit services is not required if: (i) all such services involve no more than 5% of the revenues paid by the Company to the auditors during the fiscal year; (ii) such services were not identified by the Company to be non-audit services at the time of the engagement, and (iii) such services are promptly brought to the attention of the Committee and approved by the Committee prior to completion of the audit for such fiscal year. The responsibility to pre-approve audit and non-audit services may be delegated by the Committee to one or more members of the Committee; provided that any decisions made by such member or members must be presented to the full Committee at its next scheduled meeting.
4. The Committee may establish additional pre-approval policies and procedures regarding audit and permissible non-audit services provided by the independent auditors to the Company.
5. Assure that any Committee pre-approval of permissible non-audit services provided by the independent auditors of the Company are disclosed in the periodic reports filed with the SEC.
6. Annually, review and discuss with the independent auditors all significant relationships they have with the Company that could impair the auditors' independence. This review should be based upon a formal written statement from the auditors delineating the relationships between the independent auditors and the Company and affirming that the auditors are independent. The Committee shall also consider whether the provision by the independent auditors of permissible non-audit services to the Company is compatible with maintaining the independence of the independent auditors.
7. Review the proposed annual audit plans prepared by the independent auditors for the Company. Such reviews shall include a discussion of the scope, staffing, locations, reliance upon the Company's internal controls and the general audit approach.
8. Receive from the independent auditors via either verbal or written report any of the following information related to any audit or review of the Company required by federal securities laws prior to the filing of an audit report with the SEC: (a) all critical accounting policies and practices to be used; (b) all alternative treatments of financial information within generally accepted accounting principles that have been discussed with management, including the ramifications of the use of alternative treatments, and disclosures and the treatment preferred by the

independent auditors; and (c) other material written communications between the independent auditors and management.

9. Prior to releasing the year-end earnings, discuss the results of the audit with the independent auditors. Discuss certain matters required to be communicated to audit committees in accordance with PCAOB Auditing Standard No. 16.
10. Consider the independent auditors' judgments about the quality and appropriateness of the Company's accounting principles as applied in its financial reporting.
11. Discuss with management and the independent auditors the quality and adequacy of the Company's computer systems (including their security), and internal accounting controls and procedures.
12. Review with the independent auditors and management any management letter issued by the independent auditors and management's responses thereto and schedule of unadjusted audit differences.
13. Assure that the independent auditor complies with the partner rotation requirements as set forth in Regulation S-X of the Exchange Act.
14. Establish procedures for hiring employees and/or former employees of the independent auditors pursuant to conflict of interest rules as set forth in Regulation S-X of the Exchange Act.
15. Facilitate the independent auditor's access to the Committee.

C. Ethical and Legal

1. On a quarterly basis, review with the Company's counsel any legal matters that could have a significant impact on the Company's financial statements, compliance with applicable laws and regulations and inquiries received from regulators or governmental agencies.
2. On annual basis, review with the Company's management the efficacy of the Company's procedures for (i) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and (ii) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

3. On a quarterly basis, the Company's Chief Legal Officer shall report to the Audit Committee on the status and/or outcome of any pending complaints or confidential submissions that have been submitted (a) to the Audit Committee and/or (b) reported within the Company through other means
4. On a quarterly basis, review all investigations as to fraud, irregularities or failure to adhere to internal controls, using such outside accountants, lawyers and consultants as the Committee deems necessary.
5. On an annual basis, review the Company's Code of Conduct and Code of Business Conduct & Ethics for Members of the Board of Directors and Executive Officers.

D. Other Audit Committee Responsibilities

1. Annually prepare a report to stockholders as required by the SEC. The report should be included in the Company's annual proxy statement.
2. Perform any other activities required by Listing Standards or SEC Rules or other activities consistent with this Charter, the Company's by-laws, or its governing law, as the Committee or the Board deems necessary or appropriate.
3. On a quarterly basis, review with Chief Executive Officer, Chief Financial Officer, and the Company's independent auditor the adequacy of the information that is provided to the Audit Committee for it to perform its functions as set forth in this Charter.
4. Report any action taken by the Audit Committee to the Board at the next Board meeting following such action.