

IDERA PHARMACEUTICALS, INC.

AUDIT COMMITTEE CHARTER

A. Purpose

The purpose of the Audit Committee is to assist the Board of Directors' oversight of the Company's accounting and financial reporting processes and the audits of the Company's financial statements.

B. Structure and Membership

1. Number. Except as otherwise permitted by the applicable NASDAQ rules, the Audit Committee shall consist of at least three members of the Board of Directors.
2. Independence. Except as otherwise permitted by the applicable NASDAQ rules, each member of the Audit Committee shall be independent as defined by such rules, meet the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (subject to the exemptions provided in Rule 10A-3(c)), and not have participated in the preparation of the financial statements of the Company or any current subsidiary of the Company at any time during the past three years. Together with the Company's Chief Financial Officer, the Audit Committee shall monitor its members throughout the year to confirm that they all remain "independent."
3. Financial Literacy. Each member of the Audit Committee must be able to read and understand fundamental financial statements, including the Company's balance sheet, income statement, and cash flow statement. In addition, at least one member must be financially sophisticated in that he or she has past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including but not limited to being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities. Unless otherwise determined by the Board of Directors (in which case disclosure of such determination shall be made in the Company's annual report filed with the SEC), at least one member of the Audit Committee shall be an "audit committee financial expert" (as defined by applicable SEC rules).
4. Chair. Unless the Board of Directors elects a Chair of the Audit Committee, the Audit Committee shall elect a Chair by majority vote.
5. Compensation. The compensation of Audit Committee members shall be as determined by the Board of Directors. No member of the Audit Committee may receive, directly or indirectly, any consulting, advisory or other compensatory fee

from the Company or any of its subsidiaries, other than fees paid in his or her capacity as a member of the Board of Directors or a committee of the Board.

6. Selection and Removal. Members of the Audit Committee shall be appointed by the Board of Directors, upon the recommendation of the Nominating and Corporate Governance Committee. The Board of Directors may remove members of the Audit Committee from such committee, with or without cause.

C. Authority and Responsibilities

General

The Audit Committee is vested with all responsibilities and authority required by Rule 10A-3 under the Exchange Act. The Audit Committee shall discharge these responsibilities, and shall assess the information provided by the Company's management and the independent auditor, in accordance with its business judgment. Management is responsible for the preparation, presentation, and integrity of the Company's financial statements and for the appropriateness of the accounting principles and reporting policies that are used by the Company. The independent auditors are responsible for auditing the Company's financial statements and for reviewing the Company's unaudited interim financial statements. The authority and responsibilities set forth in this Charter do not reflect or create any duty or obligation of the Audit Committee to plan or conduct any audit, to determine or certify that the Company's financial statements are complete, accurate, fairly presented, or in accordance with generally accepted accounting principles or applicable law, or to guarantee the independent auditor's report.

Oversight of Independent Auditors

1. Selection. The Audit Committee shall be solely and directly responsible for appointing, evaluating, retaining and, when necessary, terminating the engagement of the independent auditor. The Audit Committee may, in its discretion, seek stockholder ratification of the independent auditor it appoints.
2. Independence. The Audit Committee shall take, or recommend that the full Board of Directors take, appropriate action to oversee the independence of the independent auditor. In connection with this responsibility, the Audit Committee shall obtain and review a formal written statement from the independent auditor describing all relationships between the independent auditor and the Company, including the disclosures required by Independence Standards Board Standard No. 1. The Audit Committee shall actively engage in dialogue with the independent auditor concerning any disclosed relationships or services that might impact the objectivity and independence of the auditor.
3. Compensation. The Audit Committee shall have sole and direct responsibility for setting the compensation of the independent auditor. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the compensation of the independent auditor established by the Audit Committee.

4. Preapproval of Services. The Audit Committee shall preapprove all audit services to be provided to the Company, whether provided by the principal auditor or other firms, and all other services (review, attest and non-audit) to be provided to the Company by the independent auditor; provided, however, that de minimis non-audit services may instead be approved in accordance with applicable SEC rules.
5. Oversight. The independent auditor shall report directly to the Audit Committee, and the Audit Committee shall have sole and direct responsibility for overseeing the work of the independent auditor, including resolution of disagreements between Company management and the independent auditor regarding financial reporting. In connection with its oversight role, the Audit Committee shall, from time to time as appropriate, receive and consider the reports required to be made by the independent auditor regarding:
 - the scope of and the plan for the annual audit, including any significant changes required to the scope of or the plan for the annual audit;
 - critical accounting policies and practices;
 - alternative treatments within generally accepted accounting principles for policies and practices related to material items that have been discussed with Company management, including ramifications of the use of such alternative disclosures and treatments, the treatment preferred by the independent auditor and the independent auditor's views about the quality, not just the acceptability of such treatment; and
 - other material written communications between the independent auditor and Company management.

In connection with its oversight role, the Audit Committee should also review with the independent auditors, from time to time as appropriate:

- significant risks and uncertainties with respect to the quality, accuracy or fairness of presentation of the Company's financial statements;
- recently disclosed problems with respect to the quality, accuracy or fairness of presentation of the financial statements of companies similarly situated to the Company and recommended actions which might be taken to prevent or mitigate the risk of problems at the Company arising from such matters;
- any accounting adjustments that were noted or proposed by the independent auditor but were "passed" (as immaterial or otherwise);
- any communications between the audit team and the independent auditor's national office respecting auditing or accounting issues presented by the engagement;

- any “management” or “internal control” letter issued, or proposed to be issued, by the independent auditor to the Company and management responses thereto (focus should include adequacy of Company’s internal controls, including computer systems controls and security);
- accounting for unusual transactions;
- adjustments arising from audits that could have a significant impact on the Company’s financial reporting process;
- any recent SEC comments on the Company’s SEC reports, including in particular any unresolved or future-compliance comments; and
- effects of any accounting initiatives as well as off balance sheet structures, if any.

In addition, the Audit Committee shall periodically review and evaluate the lead partner and other senior members of the independent auditor.

6. Disagreements. The independent auditor, Company management (including the Chief Financial Officer or the Controller) and the head of the Company’s internal auditing, if any, should promptly contact the Audit Committee or its Chair about any significant issue or disagreement concerning the Company’s accounting practices or financial statements that is not resolved to their satisfaction. If the Chair is contacted about such an issue, he or she shall confer with the independent auditor about the issue and decide whether it is necessary to contact the other members of the Audit Committee prior to the next scheduled meeting of the Audit Committee.

Audited Financial Statements

7. Review and Discussion. The Audit Committee shall review and discuss with the Company's management and independent auditor the Company's audited financial statements, including the matters about which Statement on Auditing Standards No. 61 (Codification of Statements on Auditing Standards, AU §380) requires discussion and such other matters as the Audit Committee deems appropriate.
8. Recommendation to Board Regarding Financial Statements. The Audit Committee shall consider whether it will recommend to the Board of Directors that the Company's audited financial statements be included in the Company's Annual Report on Form 10-K.
9. Audit Committee Report. The Audit Committee shall prepare an annual committee report for inclusion where necessary in the proxy statement of the Company relating to its annual meeting of security holders.

Review of Other Financial Disclosures

10. **Independent Auditor Review of Interim Financial Statements.** The Audit Committee shall direct the independent auditor to perform all reviews of interim financial information prior to disclosure by the Company of such information and to discuss promptly with the Audit Committee and the Chief Financial Officer any matters identified in connection with the auditor's review of interim financial information which are required to be discussed by applicable auditing standards. The Audit Committee shall direct management to advise the Audit Committee in the event that the Company proposes to disclose interim financial information prior to completion of the independent auditor's review of interim financial information.
11. **Financial Results Release and Other Financial Information.** The Audit Committee shall discuss generally the types of information to be disclosed in the Company's financial results press releases, as well as in financial information and earnings guidance provided to analysts, rating agencies and others.
12. **Quarterly Financial Statements.** The Audit Committee shall discuss with the Company's management and independent auditor the Company's quarterly financial statements, including the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Controls and Procedures

13. **Oversight.** The Audit Committee shall coordinate the Board of Directors' oversight of the Company's internal controls over financial reporting, the Company's disclosure controls and procedures and the Company's code of conduct. The Audit Committee shall receive and review the reports of the Chief Executive Officer and the Chief Financial Officer required by Rule 13a-14 of the Exchange Act.
14. **Procedures for Complaints.** The Audit Committee shall establish 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. The Audit Committee shall periodically review these procedures to confirm that they are operating effectively.
15. **Related Party Transactions.** The Audit Committee shall review all related party transactions (defined as transactions required to be disclosed pursuant to Item 404 of Regulation S-K) on an ongoing basis, and all such transactions must be approved by the Audit Committee.
16. **Internal Audit Function.** The Audit Committee shall coordinate the Board of Directors' oversight of the performance of the Company's internal audit function, if any.

17. Risks and Exposures. The Audit Committee shall inquire of management and the independent auditor about significant risks or exposures facing the Company; assess the steps management has taken or proposes to take to minimize such risks to the Company; and periodically review compliance with such steps. The Audit Committee shall review annually the Company's investment policy.
18. Evaluation of Financial Management. The Audit Committee shall coordinate with the Compensation Committee the evaluation of the Company's financial management personnel.
19. Officers' Expense Accounts. The Audit Committee shall review with management the policies and procedures with respect to officers' expense accounts and perquisites, including their use of corporate assets.
20. Legal and Regulatory Matters. The Audit Committee shall review with the Company's primary counsel legal and regulatory matters that, in the opinion of management, may have a material impact on the financial statements, related compliance policies, and programs and reports received from regulators. Additionally, the Audit Committee shall receive, review, investigate and respond to reports from attorneys (both in-house and law firm counsel) reporting evidence of violations of any U. S. federal or state securities law, breaches of a fiduciary duty arising under U. S. federal or state law, or a similar violation of any U. S. federal or state law.
21. Code of Business Conduct and Ethics. The Audit Committee shall periodically review the Company's Code of Business Conduct and Ethics to ensure that it is adequate and up-to-date. Review with the Company's primary counsel the results of their review of the monitoring of compliance with the Company's Code of Business Conduct and Ethics.
22. Additional Powers. The Audit Committee shall have such other duties as may be assigned by law, the Company's by-laws or as may be delegated from time to time by the Board of Directors.

D. Procedures and Administration

1. Meetings. The Audit Committee shall meet at least twice each year and at each time the Company proposes to issue quarterly financial earnings results and otherwise as often as it deems necessary in order to perform its responsibilities; provided, however, that in no event shall the Audit Committee meet less than once per quarter. The Audit Committee may also act by unanimous written consent in lieu of a meeting. The Audit Committee shall also periodically meet separately with: (i) the independent auditor; (ii) Company management, including inquiry with the CEO and CFO regarding the quality of financial reporting of the Company from a subjective as well as an objective standpoint, (iii) the Company's internal auditors, if any and (iv) the Company's primary counsel. The

Audit Committee shall keep such records of its meetings as it shall deem appropriate.

2. Subcommittees. The Audit Committee may form and delegate authority to one or more subcommittees (including a subcommittee consisting of a single member), as it deems appropriate from time to time under the circumstances. Any decision of a subcommittee to preapprove audit, review, attest or non-audit services shall be presented to the full Audit Committee at its next scheduled meeting.
3. Reports to Board. The Audit Committee shall report regularly to the Board of Directors.
4. Charter. At least annually, the Audit Committee shall review and reassess the adequacy of this Charter and recommend any proposed changes to the Board of Directors for approval, including any changes necessary as a result of new laws and regulations.
5. Independent Advisors. The Audit Committee is authorized, without further action by the Board of Directors, to engage such independent legal, accounting, auditors other than the principal auditors and other advisors as it deems necessary or appropriate to carry out its duties, provided that the Audit Committee advises the Board of any such engagement. Such independent advisors may be the regular advisors to the Company. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the compensation of such advisors as established by the Audit Committee.
6. Investigations. The Audit Committee shall have the authority to conduct or authorize investigations into any matters within the scope of its responsibilities as it shall deem appropriate, including the authority to request any officer, employee or advisor of the Company to meet with the Audit Committee or any advisors engaged by the Audit Committee.
7. Funding. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the ordinary administrative expenses of the Audit Committee that are necessary or appropriate in carrying out its duties.
8. Self Assessment. At least annually, the Audit Committee shall conduct a self assessment to review the Committee's effectiveness, including the creation of an agenda for the ensuing year.

Reviewed March 6, 2017