

VACCINOGEN, INC.

AMENDED AND RESTATED AUDIT COMMITTEE CHARTER

This Amended and Restated Audit Committee Charter was adopted by the Board of Directors (the “Board”) of Vaccinogen, Inc., a Maryland corporation (the “Company”), on November 25, 2014.

ARTICLE I
Purpose

The purpose of the Audit Committee (the “Committee”) of the Board is to assist the Board with its oversight responsibilities regarding:

- (1) the Company’s accounting and financial reporting process;
- (2) the integrity of the Company’s consolidated financial statements and audit and financial reporting processes;
- (3) the Company’s system of disclosure controls and procedures and internal control over financial reporting;
- (4) the Company’s compliance with financial, legal and regulatory requirements;
- (5) the independent auditor’s qualifications, independence and performance;
- (6) the performance of the Company’s internal audit function and independent auditor;
- (7) the Company’s overall risk profile; and
- (8) the fulfillment of the other responsibilities set forth in this Charter.

The Committee shall have all of the powers of the Board that are necessary or appropriate for the Committee to fulfill its purposes and carry out its duties and responsibilities as set forth in this Charter. In addition to the powers and responsibilities expressly delegated to the Committee in this Charter, the Committee may exercise any other powers and carry out any other responsibilities delegated to it by the Board from time to time consistent with the Company’s bylaws. The powers and responsibilities delegated by the Board to the Committee in this Charter or otherwise shall be exercised and carried out by the Committee as it deems appropriate without requirement of Board approval (except as required by law),

and any decision made by the Committee (including any decision to exercise or refrain from exercising any of the powers delegated to the Committee hereunder) shall be at the Committee's sole discretion. While acting within the scope of the powers and responsibilities delegated to it, the Committee shall have and may exercise all of the powers of the Board. To the fullest extent permitted by law, the Committee shall have the power to determine which matters are within the scope of the powers and responsibilities delegated to it.

ARTICLE II **Membership**

The Committee shall be composed of one or more directors, as determined by the Board. Each Committee member shall be able to read and understand fundamental financial statements, including the Company's balance sheet, income statement and cash flow statement. In addition, the Chairman of the Committee shall be an "audit committee financial expert" pursuant to the definition adopted by the Securities and Exchange Commission (the "SEC").

Each Committee member shall satisfy the independence and experience requirements of any applicable listing standards and applicable regulations promulgated by the SEC. At all times the Committee's members shall comply with any other applicable listing requirements and rules and regulations, as modified from time to time, and the rules and regulations of the SEC, as modified or amended from time to time.

The members of the Committee, including the Chair of the Committee, shall be appointed by the Board on the recommendation of the Nominating and Corporate Governance Committee. Committee members may be removed from the Committee, with or without cause, by the Board. Any action duly taken by the Committee shall be valid and effective, whether or not the members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership provided herein.

ARTICLE III **Meetings and Procedures**

The Chair (or in his or her absence, a member designated by the Chair or the Committee) shall preside at each meeting of the Committee and set the agenda for each Committee meeting. The Committee shall have the authority to establish its

own rules and procedures for notice and conduct of its meetings so long as they are not inconsistent with any provisions of the Company's bylaws that are applicable to the Committee.

The Committee shall meet at least once during each fiscal quarter and more frequently as the Committee deems desirable. The Committee shall meet separately, periodically, with management, with the internal auditor and with the independent auditor.

All non-management directors who are not members of the Committee may attend and observe meetings of the Committee, but shall not participate in any discussion or deliberation unless invited to do so by the Committee, and in any event shall not be entitled to vote. The Committee may, at its discretion, include in its meetings from time to time members of the Company's management or any other person whose presence the Committee believes to be desirable and appropriate. Notwithstanding the foregoing, the Committee may exclude from its meetings any person it deems appropriate, including, but not limited to, any nonmanagement director who is not a member of the Committee.

The Committee may retain any independent counsel, experts or advisors (accounting, financial or otherwise) that the Committee believes to be necessary or appropriate. The Committee may also utilize the services of the Company's regular legal counsel or other advisors to the Company. The Company shall provide for appropriate funding, as determined by the Committee, for payment of compensation to the independent auditor for the purpose of rendering or issuing an audit report or performing other audit, review or attest services, for payment of compensation to any advisors employed by the Committee and for ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.

The Committee may conduct or authorize investigations into any matters within the scope of the powers and responsibilities delegated to the Committee.

The Chair shall report to the Board regarding the activities of the Committee at appropriate times and as otherwise requested by the Chairman of the Board.

ARTICLE IV

Powers and Responsibilities

(1) **Interaction with the Independent Auditor**

- (i) Appointment and Oversight. The Committee shall be directly responsible for the appointment, compensation, retention and oversight of the work of the independent auditor engaged (including resolution of any disagreements between Company management and the independent auditor regarding financial reporting) for the purpose of preparing or issuing an audit report or related work or performing other audit, review or attest services for the Company, and the independent auditor shall report directly to the Committee. The Committee shall have the sole and exclusive power to appoint and fire the Company's independent auditors and to approve any significant non-audit relationship with the independent auditors.

- (ii) Pre-Approval of Services. Before the independent auditor is engaged by the Company or its subsidiaries to render audit or non-audit services, the Committee shall consider the range of audit and non-audit fees and pre-approve the engagement. Committee pre-approval of audit and non-audit services will not be required if the engagement for the services is entered into pursuant to pre-approval policies and procedures established by the Committee regarding the Company's engagement of the independent auditor, provided the policies and procedures are detailed as to the particular service, the Committee is informed of each service provided and such policies and procedures do not include delegation of the Committee's responsibilities under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to the Company's management. The Committee may delegate to one or more designated members of the Committee the authority to grant pre-approvals, provided such approvals are presented to the Committee at its next-scheduled meeting. If the Committee elects to establish pre-approval policies and procedures regarding non-audit services, the Committee must be informed of each non-audit service provided by the independent auditor. Committee pre-approval of non-audit services (other than review and attest services) also will not

be required if such services fall within available exceptions established by the SEC.

(2) Performance and Independence of Independent Auditor

The Committee shall, at least annually, review and evaluate the performance, independence and quality-control procedures of the independent auditor and the experience and qualifications of the independent auditor's senior personnel that are providing audit services to the Company. This evaluation shall include the review and evaluation of the lead partner of the independent auditor. In making its evaluation, the Committee should take into account the opinions of the Company's executive officers and the internal auditor. The Committee should present its conclusions with respect to the independent auditor to the Board. In conducting its review and evaluation:

- (i) The Committee shall obtain and review a report prepared by the independent auditor describing (A) the auditing firm's internal quality-control procedures and (B) any material issues raised by the most recent internal quality-control review, or peer review, of the auditing firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the auditing firm, and any steps taken to deal with any such issues.
- (ii) The Committee shall discuss with the independent auditor its independence from the Company, and obtain and review a written statement prepared by the independent auditor describing all relationships between the independent auditor and the Company, consistent with Independence Standards Board Standard 1, and consider the impact that any relationships or services may have on the objectivity and independence of the independent auditor.
- (iii) The Committee shall confirm with the independent auditor that the independent auditor is in compliance with the partner rotation requirements established by the SEC.

- (iv) The Committee shall consider whether the Company should adopt a rotation of the annual audit among independent auditing firms.
- (v) The Committee shall, if applicable, consider whether the independent auditor's provision of any permitted non-audit services to the Company is compatible with maintaining the independence of the independent auditor.

(3) Annual Financial Statements and Annual Audit

Meetings with Management, the Independent Auditor and the Internal Auditor.

- (i) The Committee shall meet with management, the independent auditor and the internal auditor in connection with each annual audit to discuss the scope of the audit, the procedures to be followed and the staffing of the audit.
- (ii) The Committee shall review and discuss with management and the independent auditor: (A) major issues regarding accounting principles and financial statement presentations, including any significant changes in the Company's selection or application of accounting principles, and major issues as to the adequacy of the Company's internal controls and any special audit steps adopted in light of material control deficiencies; (B) any analyses prepared by management or the independent auditor setting forth significant financial reporting issues and judgments made in connection with the preparation of the Company's financial statements, including analyses of the effects of alternative GAAP methods on the Company's financial statements; and (C) the effect of regulatory and accounting initiatives, as well as off-balance sheet structures, on the Company's financial statements.
- (iii) The Committee shall review and discuss the results of the audit and the annual audited financial statements with management and the independent auditor, including the

Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

- (4) Separate Meetings with the Independent Auditor
- (i) The Committee shall review with the independent auditor the results of the audit and any problems or difficulties the independent auditor may have encountered during the course of the audit work, including any restrictions on the scope of activities or access to required information or any significant disagreements with management, and management's responses to such matters. Among the items that the Committee should consider reviewing with the independent auditor are: (A) any accounting adjustments that were noted or proposed by the auditor but were "passed" (as immaterial or otherwise); (B) any communications between the audit team and the independent auditor's national office respecting auditing or accounting issues presented by the engagement; and (C) any "management" or "internal control" letter issued, or proposed to be issued, by the independent auditor to the Company. The Committee shall discuss with the independent auditor the responsibilities, budget and staffing of the Company's internal audit function. The Committee shall obtain from the independent auditor assurances that Section 10A(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), has not been implicated.
 - (ii) The Committee shall discuss with the independent auditor the report that such auditor is required to make to the Committee regarding: (A) all accounting policies and practices to be used that the independent auditor identifies as critical; (B) all alternative treatments within GAAP for policies and practices related to material items that have been discussed among management and the independent auditor, including the ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the independent auditor; and (C) all other material written

communications between the independent auditor and management of the Company, such as any management letter, management representation letter, reports on observations and recommendations on internal controls, independent auditor's engagement letter, independent auditor's independence letter, schedule of unadjusted audit differences and a listing of adjustments and reclassifications not recorded, if any.

- (iii) The Committee shall discuss with the independent auditor the matters required to be discussed by Statement on Auditing Standards No. 114, "The Auditor's Communication With Those Charged With Governance," as amended or superseded.

(5) Recommendation to Include Financial Statements in Annual Report

The Committee shall, based on the review and discussions in subparagraphs (3)(iii) and (4)(iii) above, and based on the disclosures received from the independent auditor regarding its independence and discussions with the auditor regarding such independence pursuant to subparagraph (2)(ii) above, determine whether to recommend to the Board that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year subject to the audit.

(6) Quarterly Financial Statements

Meetings with Management and the Independent Auditor. The Committee shall review and discuss the quarterly financial statements with management and the independent auditor, including the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(7) Internal Audit

- (i) Appointment. The Committee shall review the appointment and replacement of the internal auditor.
 - (ii) Separate Meetings with the Internal Auditor. The Committee shall meet periodically with the Company's internal auditor to discuss the responsibilities, budget and staffing of the Company's internal audit function and any issues that the internal auditor believes warrant audit committee attention. The Committee shall discuss with the internal auditor any significant reports to management prepared by the internal auditor and any responses from management.
- (8) Other Powers and Responsibilities
- (i) The Committee shall discuss with management and the independent auditor the Company's earnings press releases (with particular focus on any "pro forma" or "adjusted" non-GAAP information), as well as financial information and earnings guidance provided to analysts and rating agencies. The Committee's discussion in this regard may be general in nature (i.e., discussion of the types of information to be disclosed and the type of presentation to be made) and need not take place in advance of each earnings release or each instance in which the Company may provide earnings guidance.
 - (ii) The Committee shall prepare the report required by the rules of the SEC to be included in the Company's annual proxy statement.
 - (iii) The Committee shall discuss with management and the independent auditor any related-party transactions brought to the Committee's attention which could reasonably be expected to have a material impact on the Company's financial statements.
 - (iv) The Committee shall review related party transactions in accordance with the Company's related party transaction policies and procedures, as may be in effect from time to time.

- (v) The Committee shall discuss with management and the independent auditor any correspondence from or with regulators or governmental agencies, any employee complaints or any published reports that raise material issues regarding the Company's financial statements, financial reporting process, accounting policies or internal audit function.
- (vi) The Committee shall discuss with the Company's counsel any legal matters brought to the Committee's attention that could reasonably be expected to have a material impact on the Company's financial statements.
- (vii) The Committee shall resolve disagreements regarding approval of proposed transactions in the Company's securities pursuant to the Company's Exchange Act Section 16 compliance policies and procedures, as may be in effect from time to time.
- (viii) The Committee shall request assurances from management, the independent auditor and the Company's internal auditors that the Company's foreign subsidiaries and foreign affiliated entities, if any, are in conformity with applicable legal requirements, including disclosure of affiliated party transactions.
- (ix) The Committee shall discuss with management the Company's policies with respect to risk assessment and risk management. The Committee shall discuss with management the Company's significant financial risk exposures and the actions management has taken to limit, monitor or control such exposures.
- (x) The Committee shall set clear hiring policies for employees or former employees of the Company's independent auditor. In setting hiring policies, the Committee should take into account the pressures that may exist for auditors

consciously or subconsciously seeking a job with the Company they audit.

- (xi) The Committee shall establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters. The Committee shall also establish procedures for the confidential and anonymous submission by employees regarding questionable accounting or auditing matters.
- (xii) The Committee, through its Chair, shall report regularly to, and review with, the Board any issues that arise with respect to the quality or integrity of the Company's financial statements, the Company's compliance with legal or regulatory requirements, the qualifications, performance and independence of the Company's independent auditor and its lead partner, the performance of the Company's internal audit function or any other matter the Committee determines is necessary or advisable to report to the Board.
- (xiii) The Committee shall at least annually perform an evaluation of the performance of the Committee and its members, including a review of the Committee's compliance with this Charter and submit any recommendations to the Board for its consideration.
- (xiv) The Committee shall at least annually review and reassess this Charter and submit any recommended changes to the Board for its consideration.

ARTICLE V **Delegation of Duties**

The Committee may form and delegate authority to subcommittees and may delegate authority to members of the Committee as the Committee deems appropriate, except that any such delegatee will report any actions taken by such delegatee to the full Committee at its next regularly scheduled meeting.

ARTICLE VI
Disclosure

This Charter, as it may be amended from time to time, shall be posted on the Company's Web site.