

PHASERX, INC.

COMPENSATION COMMITTEE CHARTER

This Compensation Committee Charter (this “**Charter**”) sets forth the purpose and membership requirements of the Compensation Committee (the “**Committee**”) of the Board of Directors (the “**Board**”) of PhaseRx, Inc. (the “**Company**”) and establishes the authority and responsibilities delegated to it by the Board.

1. Purpose

The Committee is appointed by the Board to discharge the Board’s responsibilities relating to compensation of the Company’s Chief Executive Officer (the “**CEO**”) and the Company’s other executive officers (collectively, including the CEO, the “**Executive Officers**”). The Committee has overall responsibility for approving and evaluating all compensation plans, policies and programs of the Company as they affect the Executive Officers.

The Committee has the authority to undertake specific duties and responsibilities as are enumerated in or consistent with this charter, and will have the authority to undertake such other specific duties as the Board from time to time prescribes.

2. Committee Members

The Committee shall consist of three or more members of the Board. The members of the Committee shall (a) meet the criteria for independence as established by the Board in accordance with the NASDAQ Stock Market, Inc. Marketplace Rules and any other required applicable laws, rules and regulations regarding independence as they are in effect from time to time, and (b) qualify as “outside” directors within the meaning of Internal Revenue Code Section 162(m) and as “non-employee” directors within the meaning of Rule 16b-3 under the Securities Exchange Act of 1934, as amended.

The members of the Committee shall be appointed by the Nominating and Corporate Governance Committee or by the Board on the recommendation of the Nominating and Corporate Governance Committee. One member of the Committee shall be appointed as Chairman of the Committee (the “**Chairman**”) by the Nominating and Corporate Governance Committee or by the Board. Committee members may be replaced by the Board.

3. Subcommittees

The Committee shall have the authority to delegate any of its responsibilities, along with the authority to take action in relation to such responsibilities, to one or more subcommittees as the Committee may deem appropriate in its sole discretion. If designated, any subcommittee will establish its own schedule and maintain written minutes of its meetings, which minutes will be filed with the minutes of the meetings of the Board. The Committee shall not delegate to a subcommittee any power or authority required by law, regulation or listing standard to be exercised by the Committee as a whole.

4. Authority and Responsibilities of the Committee

4.1. The Committee shall, at least annually, review and approve the annual base salaries and annual incentive opportunities of the Executive Officers. The CEO shall not be present during any Committee deliberations or voting with respect to his or her compensation.

4.2. The Committee shall, periodically and as and when appropriate, review and approve the following as they affect the Executive Officers: (a) all incentive awards and opportunities, including both cash-based and equity-based awards and opportunities; (b) any employment agreements and severance arrangements; (c) any change-in-control agreements and change-in-control provisions affecting any elements of compensation and benefits; and (d) any special or supplemental compensation and benefits for the Executive Officers and individuals who formerly served as Executive Officers, including supplemental retirement benefits and the perquisites provided to them during and after employment.

4.3. The Committee shall serve as the administration committee of the Company's stock option and other equity-based plans and exercise the authority of the Board to issue stock, option grants and other equity-related awards of the Company as compensation or as an incentive to non-employee directors, officers, employees, consultants or advisors.

4.4. The Committee shall review and discuss the Compensation Discussion and Analysis (the "**CD&A**") required to be included in the Company's proxy statement and annual report on Form 10-K by the rules and regulations of the Securities and Exchange Commission (the "**SEC**") with management, and, based on such review and discussion, determine whether or not to recommend to the Board that the CD&A be so included.

4.5. The Committee shall produce the annual Compensation Committee Report for inclusion in the Company's proxy statement in compliance with the rules and regulations promulgated by the SEC.

4.6. The Committee shall monitor the Company's compliance with the requirements under the Sarbanes-Oxley Act of 2002 relating to loans to directors and officers, and with all other applicable laws affecting employee compensation and benefits.

4.7. The Committee shall oversee the Company's compliance with SEC rules and regulations regarding shareholder approval of certain executive compensation matters, including advisory votes on executive compensation and the frequency of such votes, and the requirement under the NASDAQ rules that, with limited exceptions, shareholders approve equity compensation plans.

4.8. The Committee shall receive periodic reports on the Company's compensation programs as they affect all employees.

4.9. The Committee shall make regular reports to the Board.

4.10. The Committee shall have the authority, in its sole discretion, to retain and terminate (or obtain the advice of) any compensation consultant, legal counsel or other advisor (an "**Advisor**") to assist it in the performance of its duties, but only after taking into consideration factors relevant to the Advisor's independence from management specified in NASDAQ Stock Market LLC Marketplace Rule 5605(d)(3). The Committee shall be directly

responsible for the appointment, compensation and oversight of the work of any Advisor retained by the Committee, and shall have sole authority to approve the Advisor's fees and the other terms and conditions of the Advisor's retention. The Company must provide for appropriate funding, as determined by the Committee, for payment of reasonable compensation to any Advisor retained by the Committee.

4.11 The Committee shall annually review and assess the adequacy of this Charter.

5. Meetings

The Committee shall meet at least two times during each fiscal year. The schedule for regular meetings of the Committee shall be established by the Committee. The members or the Chairman, if any, may call a special meeting at any time as he or she deems advisable, or action may be taken by unanimous written consent when deemed necessary or desirable by the Committee or its Chairman, if any.

The Chairman shall preside at all Committee meetings. If the Chairman is absent at a meeting, a majority of the Committee members present at a meeting shall appoint a different member to act as the chairman for that meeting. Minutes of each meeting of the Committee shall be kept to document the discharge by the Committee of its responsibilities. The Committee may invite members of management or advisors to attend meetings and provide pertinent information; provided that the Committee shall meet periodically in executive session without Company management present.

A majority of Committee members shall constitute a quorum. A majority of the members present at any meeting at which a quorum is present may act on behalf of the Committee.

6. Resources and Authority of the Committee

The Committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to select, retain, terminate, and approve the fees and other retention terms of special counsel or other experts or consultants, as it deems reasonably appropriate, without seeking approval of the Board or management. Any communications between the Committee and legal counsel in the course of obtaining legal advice will be considered privileged communications of the Company, and the Committee will take all necessary steps to preserve the privileged nature of those communications.

Adopted: [], 2016