ARQULE, INC. CHARTER OF THE SCIENCE COMMITTEE OF THE BOARD OF DIRECTORS

March 14, 2011

This Charter was adopted by the Board of Directors of ArQule, Inc. All of the provisions of this Charter became effective upon adoption. The Science Committee shall review and reassess this Charter as necessary, but no less frequently than annually, and recommend any necessary changes to the Board.

Purpose

The purpose of this Committee is to provide advice and direction to the Board of Directors concerning strategic scientific decisions and associated matters related to the scientific functions of ArQule, Inc. (the "Company").

Responsibilities

The Committee is responsible for reviewing the scientific direction of the Company. The Committee will serve as the Board's liaison to and/or representative on any scientific advisory board of the Company. The Committee will perform such other services as assigned by the Board of Directors. The Committee will also be available to management to review data relating to new scientific directions for the Company, or other science related matters.

The Science Committee will review and discuss with management any risks created by the scientific direction of the Company, its efforts to become a fully-integrated pharmaceutical organization and the methods by which it is creating, protecting and exploiting the Company's intellectual property assets. It will also discuss with management the adequacy of the Company's risk assessment and risk management policies and procedures to deal with scientific risks and evaluate whether such risks are reasonably likely to have a material adverse effect on the Company.

The Committee will not serve to review the day-to-day scientific issues related to the Company's respective business units and technology platforms. Such issues will be handled by management.

Membership

The Committee shall be comprised of no fewer than one member of the Board. The Chairman of the Board will nominate new members to the Committee from time to time, for appointment by the entire Board of Directors.

Support

The Chief Scientific Officer and Chief Medical Officer of the Company will provide support as needed and as requested by the Committee. Similarly the Committee will assist the Chief Scientific Officer and Chief Medical Officer as needed with scientific issues and in developing proposals for consideration by the Board of Directors.

<u>Meetings</u>

The Committee will determine the regularity and venue of its meetings. The Chairman of the Board of Directors, or the full board, will appoint the chairman of the Committee. The Committee's chairman will determine the method by which decisions will be made by the Committee and under what circumstances (e.g., consensus, supermajority, majority).

Limitation of Committee's Role

The Committee's role is one of review and oversight. While the Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Committee to address day-to-day scientific issues. These are the responsibilities of management.

In performing his or her duties and responsibilities, each member of the Committee is entitled to rely in good faith upon the records of the Company and upon information, opinions, reports or statements presented by any of the Company's officers or employees, or other committees of the Board of Directors, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company.

Proceedings

The Committee shall conduct its meetings in accordance with this Charter, the procedures of the Board set forth in the By-laws for the Board's meetings and such other procedures as the Committee may adopt. Votes of the Committee will be captured in minutes which will be filed with the records of the meetings of the Committees of the Board. The Committee shall make reports of its deliberations and conclusions to the Board, as may be requested from time to time.

This Charter was adopted by the Board of Directors on January 16, 2003 and revised on January 15, 2004 and March 14, 2011.