

ARCA BIOPHARMA, INC.

Board of Directors Corporate Governance Principles

These Principles were adopted by the Board of Directors (the “*Board*”) of ARCA biopharma, Inc. (the “*Company*”) on November 13, 2009.

The Board has adopted these corporate governance principles (the “*Principles*”). The Principles are designed to assist the Board in the exercise of its responsibilities. These Principles should be interpreted in the context of all applicable laws and regulations, the Company’s charter documents and other governing documents. These Principles are subject to future refinement or changes as the Board may find necessary or advisable for the Company in order to achieve these objectives.

The business and affairs of the Company are managed by or under the direction of the Board in accordance with Delaware law. The Board is responsible for providing strategic direction to the Company and overseeing the performance of the Company’s business and management. The management of the Company is responsible for implementing the Company’s strategic direction and for presenting strategic plans to the Board for review and approval. In performing their duties, the primary responsibility of the members of the Board is to exercise their business judgment in the best interests of the Company.

The Company’s system of corporate governance emphasizes the Board of Directors’ independence and strengthens its ability to evaluate corporate and management performance. These corporate governance principles have been approved and adopted by the Board and provide the framework for the governance of the Company.

1. To be effective as a working group, and per the Company’s bylaws the Board should consist of no more than ten (10) members.
2. The Nominating and Corporate Governance Committee, composed of at least two (2) independent directors under the standards adopted by The NASDAQ Stock Market (“*NASDAQ*”), has the responsibility of advising the Board on all Board governance matters, including recommending the composition, role, structure and procedures of the Board; recommending the appointment, composition and responsibilities of the committees of the Board; and identifying and presenting qualified candidates for election and re-election as directors.
3. The Audit Committee consists solely of independent directors under the standards adopted by the Securities and Exchange Commission (“*SEC*”) and NASDAQ and the Compensation Committee consists solely of independent directors under the standards adopted by NASDAQ.
4. The Compensation Committee annually evaluates the performance of the Chief Executive Officer and reviews the performance of other members of the management team conducted by the Chief Executive Officer.
5. If the Chairman of the Board is not an independent director, then the Board shall elect (and may remove at any time, with or without cause) a Lead Independent Director, who

shall be independent under the standards adopted by NASDAQ. The Lead Independent Director shall coordinate the activities of other independent directors and perform such other duties and responsibilities as the Board may determine, including:

- (a) Schedule regular meetings of the independent directors, which may occur as executive sessions preceding or following meetings of the Board, and advise the Chairman of such schedule;
- (b) Develop the agendas for, and preside over, the executive sessions of the Board's independent directors;
- (c) Prepare minutes of the meetings of the independent directors, share the minutes with the full Board and deliver the minutes to the Secretary of the Company for filing with the minutes of the Company;
- (d) Serve as principal liaison between the Chairman of the Board and the independent directors;
- (e) Provide the Chairman with input as to the preparation of the agendas for Board;
- (f) Provide the Chairman with input as to the quality, quantity and timeliness of information submitted by the Company's management that is necessary or appropriate for the independent directors to effectively and responsibly perform their duties;
- (g) Make recommendations to the Board on behalf of the independent directors; and
- (h) Undertake such further responsibilities that the independent directors as a whole may designate to the Lead Independent Director from time to time.

The name of the Lead Independent Director will be disclosed on the Company's website and in its proxy statement.

6. Each Board committee shall adopt and maintain a written charter that shall be reviewed periodically by such Committee under the oversight of the Nominating and Corporate Governance Committee and approved by the Board. The Board will designate the Chair of each Board committee.

7. At least annually the Chair of the Compensation Committee will review with the Board the performance of the Company's senior management, management development and succession planning (including policies and principles for selection of the Chief Executive Officer).

8. A significant portion of compensation for executive officers is linked to share price performance, operating objectives, individual goals and other factors determined by the Compensation Committee.

9. The schedule and length of Board meetings allow sufficient time for in-depth discussions, analysis and strategic planning.

10. Board meetings are designed to encourage interaction between directors and the Company's management.

11. The Board and its Committees have ready access to management and the authority to retain independent advisors and counsel as the Board or such Committee deem advisable.

12. Board members who are newly appointed shall receive orientation and education about the Company, its business and its financial operations and about the functioning of the Board of Directors. Continuing education shall be supported and encouraged for all members of the Board and shall include such topics as critical issues affecting the Company and its industry overall, and directors' roles and responsibilities.

13. Directors' compensation is reviewed periodically and includes cash and stock-based incentives. Board members who are also employees of the Company or represent a significant investment in the Company shall not be separately compensated for their service on the Board.

14. The Board or, as appropriate, the Committees of the Board shall annually evaluate the Company's compliance and reporting systems.

15. The Board reviews its performance on an annual basis.

16. The Nominating and Corporate Governance Committee annually reviews and recommends to the Board for approval any recommended changes to the corporate governance principles.

Last updated: November 13, 2009