

ORGANOVO HOLDINGS, INC.

CORPORATE GOVERNANCE GUIDELINES

1. General. The Board of Directors (the “**Board**”) of Organovo Holdings, Inc. (the “**Company**”) has the responsibility to organize its functions and conduct its business in the manner it deems most effective and efficient, consistent with its duties of good faith, due care and loyalty. In that regard, the Board has adopted a set of flexible policies to guide its governance practices. These practices, set forth below, will be regularly re-evaluated by the Board’s Nominating and Corporate Governance Committee in light of changing circumstances in order to continue serving the best interests of the Company and its stockholders. Accordingly, this summary of current corporate governance guidelines is not a fixed policy or resolution by the Board, but merely a statement of current guidelines that are subject to continuing assessment and change.

2. Role of Board. The Board serves as the representative and acts on behalf of all of the Company’s stockholders. The Board recognizes its responsibility to engage executive management that possesses the character, skills and experience required to attain the Company’s goals and objectives and to select nominees for the Board of Directors who possess appropriate qualifications and reflect a reasonable diversity of backgrounds and perspectives. In representing the Company’s stockholders, the basic responsibility of each director on the Board is to exercise their business judgment in good faith, with due care and in a manner he or she reasonably believes to be in the best interests of the Company. In discharging that obligation, directors should be entitled to rely on the honesty and integrity of their fellow directors and of the Company’s senior executives, outside advisors and outside auditors. Consistent with their fiduciary duties and obligations to the Company, directors are expected to maintain the confidentiality of the deliberations of the Board and its committees.

The Board’s primary functions are to:

- (a) Oversee management in the conduct of the Company’s businesses;
- (b) Oversee management’s efforts to establish and maintain for the Company the highest standards of legal and ethical conduct in all of its businesses, including conformity with all applicable laws and regulations;
- (c) Review, evaluate and, where appropriate, approve, the Company’s major strategies and long-term plans and its performance against broad financial objectives;
- (d) Select, evaluate and compensate the Company’s Chief Executive Officer and other senior officers and review management succession planning;
- (e) Oversee management’s efforts to protect the Company’s assets through the maintenance of appropriate accounting, financial reporting and financial and other controls;
- (f) Provide advice and counsel to senior management;

- (g) Evaluate the overall effectiveness of the Board and its committees; and
- (h) Evaluate, select and recommend an appropriate slate of candidates for election as directors.

3. Board Selection and Composition.

(a) Board Selection. The Board is responsible for selecting candidates for election as directors based on the recommendation of the Nominating and Corporate Governance Committee.

(b) Board Membership Criteria. The responsibilities of the Nominating and Corporate Governance Committee include reviewing with the Board from time to time the appropriate skills and characteristics required of Board members in the context of the make-up of the Board and developing criteria for identifying and evaluating candidates for the Board. These criteria generally include, among other things, an individual's business experience and skills (including skills in core areas such as operations, management, technology, relevant industry knowledge (e.g., research tools, contract research services, therapeutics, drug discovery, reimbursement, medical/surgical), accounting and finance, regulatory matters and clinical trials, leadership, strategic planning and international markets), independence, judgment, professional reputation, integrity and ability to represent the best interests of the Company and its stockholders. The Nominating and Corporate Governance Committee will also consider the ability to commit sufficient time and attention to the activities of the Board, as well as the absence of any potential conflicts with the Company's interests. The Nominating and Corporate Governance Committee considers these criteria in the context of an assessment of the perceived needs of the Board as a whole and seeks to achieve diversity of occupational and personal backgrounds on the Board.

(c) Board Independence. A majority of the Board must be comprised of directors who meet The Nasdaq Stock Market ("Nasdaq") definition of "independent" as determined by the Board in light of the totality of the facts and circumstances. The Company will strive to have all of its non-employee directors of the Board meet the Nasdaq definition of "independent." Under standards that the Board has adopted to assist it in assessing independence, the following persons shall not be considered independent:

(1) a director who is, or has been within the last three years, an employee of the Company (provided however, that in accordance with Nasdaq, service as an interim executive officer, by itself, does not disqualify a director from being considered independent following the conclusion of that service, provided such service did not last longer than one year);

(2) a director who has received, or has a family member who has received, more than \$120,000 in direct compensation from the Company, other than (i) director and committee fees, (ii) compensation paid to a family member of such director who is an employee but not an executive officer or (iii) benefits under a tax-qualified retirement plan or non-discretionary compensation, in any twelve-month period within the last three

years(provided however, that in accordance with Nasdaq, compensation received for service as an interim executive officer, need not be considered compensation, provided such service did not last longer than one year) ;

(3) a director who is a family member of an individual who is, or at any time during the past three years was, employed by the Company as an executive officer;

(4) a director who is, or has a family member who is, a partner in, or a controlling shareholder or an executive officer of, any organization to which the Company made, or from which the Company received, payments for property or services in the current or any of the past three fiscal years that exceed 5% of the recipient's consolidated gross revenues for that year, or \$200,000, whichever is more, other than: (i) payments arising solely from investments in the Company's securities; or (ii) payments under non-discretionary charitable contribution matching programs;

(5) a director of the Company who is, or has a family member who is, employed as an executive officer of another entity where at any time during the past three years any of the executive officers of the Company serve on the compensation committee of such other entity; or

(6) a director who is, or has a family member who is, a current partner of the Company's outside auditor, or was a partner or employee of the Company's outside auditor who worked on the Company's audit at any time during any of the past three years.

The Board assesses on a regular basis and at least annually the independence of each director and, based on the recommendation of the Nominating and Corporate Governance Committee, makes a determination as to which members are independent. References to the "Company" above would include any subsidiary in a consolidated group with the Company. The terms "family member" and "executive officer" above have the same meaning specified for such terms in the Nasdaq listing standards.

As discussed below in Section 4(a), in addition to the independence standards applicable to directors generally, the members of the Audit and the Compensation Committees are subject to additional requirements to qualify for service on these Committees.

(d) Board and Company Leadership. The Board is responsible for the selection of the Chairman of the Board and the Chief Executive Officer based on the criteria it deems appropriate and in the best interests of the Company given the circumstances at the time of such selection.

(e) Lead Independent Director. An independent director may be selected annually by the independent directors to preside at meetings of the non-management and independent directors, and may serve as the Lead Independent Director in performing such other functions as the Board may direct, including advising on the selection of Committee Chairs and advising management on the agenda for Board meetings. It is not anticipated that any independent director will be selected for more than three consecutive years as the Lead

Independent Director.

(f) Size of the Board. The Board, with the recommendation of the Nominating and Corporate Governance Committee, will regularly evaluate the size of the Board. Although the actual number may vary from time to time, the Board shall generally range in size from 6 to 9 members.

(g) Board Orientation and Continuing Education. A thorough understanding of the Company's business is required to enable a director to make a substantial contribution to the Board. Accordingly, all new directors will participate in an orientation program developed by the Company after their election to the Board. The orientation will include presentations by senior management to familiarize new directors with the Company's strategic plans, its significant financial, accounting and risk management issues, its compliance programs, its code of business conduct, its principal officers, and its internal and independent auditors. Directors are encouraged to participate in continuing education. Directors should endeavor to meet at key Company locations from time to time to conduct in-depth reviews of particular segments of the Company's operations.

(h) Continuation of Service.

(i) Re-Nomination. The Nominating and Corporate Governance Committee assesses the contributions and independence of directors on an annual basis in accordance with the criteria set forth in each Committee's charter to determine whether these directors should be requested to stand for reelection and continue service on the Board.

(ii) Director Elections. The Board is classified into three classes so that one class of directors is elected each year for a term of three years depending on such class of directors. Directors shall be elected by a plurality of the voting power of the shares present, in person or represented by proxy, at a meeting and entitled to vote on the election of directors.

(iii) Term Limits or Retirement Age. The Board does not believe it should establish term limits or a mandatory retirement age. While term limits and mandatory retirement can make fresh ideas and viewpoints available to the Board, these limitations can also result in the loss of directors who have been able to develop, over a period of time, an increasing insight into the Company and its operations. As an alternative to term limits and mandatory retirement, the Nominating and Corporate Governance Committee will review each director's continuation on the Board when he or she is considered for re-nomination. This will also allow each Director the opportunity to conveniently confirm his or her desire to continue as a member of the Board.

(iv) Change of Responsibility of Director. In the event a non-employee director changes his or her principal occupation or business association, publicly announces a future change in his or her principal occupation or business association or experiences changed circumstances that could pose a conflict of interest or otherwise be detrimental to the Company, during his or her tenure as a director, that director shall promptly provide notification of such change to the chair of the Nominating and Corporate Governance

Committee. The Board does not believe that a director should necessarily be required to leave the Board upon such a change, but that continued service on the Board should be considered under these circumstances. Accordingly, any such director shall be required to tender his or her resignation to the chair of the Nominating and Corporate Governance Committee no later than the date of the next meeting of the Board of Directors following the effective date of such change. The Nominating and Corporate Governance Committee will consider the tendered resignation and recommend to the Board the action, if any, to be taken with respect to the resignation. The Board in its discretion will determine whether such member should continue to serve as a director.

(v) Former Chief Executive Officer. When the Chief Executive Officer resigns or retires, he or she shall tender his or her resignation from the Board to the Nominating and Corporate Governance Committee at that time. Whether the individual continues to serve on the Board is a matter for discussion at that time with the Board.

(vi) Number of Other Directorships. Non-management directors should not serve on more than four public company boards in addition to the Company's Board, without the approval of the Board. Current positions in excess of these limits may be maintained unless the Board determines that doing so would impair the director's service on the Company's Board. Non-management directors should advise the Chairman of the Board, the Chairman of the Nominating and Corporate Governance Committee and the Secretary in advance of accepting an invitation to serve on another board, or establishing other significant relationships with businesses, institutions, governmental units or regulatory entities, particularly those that may result in significant time commitments or a change in the director's relationship to the Company.

(i) Consideration of Stockholder Nominees. The Nominating and Corporate Governance Committee will review a reasonable number of candidates for director recommended by a single stockholder who has held over 1% of the Company's common stock for over one year and who satisfies the notice, information and consent provisions set forth in the Company's By-laws. Candidates so recommended will be reviewed using the same process and standards for reviewing Board recommended candidates, including Board membership criteria set forth in these Corporate Governance Guidelines. A stockholder wishing to formally nominate an individual for election to the Board at the Company's annual meeting of stockholders must do so by following the procedures described in the Company's bylaws.

4. Committee Matters.

(a) Number, Structure and Independence of Committees. The three committees of the Board are the Audit, Compensation and Nominating and Corporate Governance Committees. From time to time, the Board may form a new committee or disband a current committee, depending upon the circumstances. The Audit, Compensation and Nominating and Corporate Governance Committees will be comprised of only directors who meet the Nasdaq definition of "independence," as determined by the Board. In addition, the charters of the Audit and Compensation Committee will set forth additional criteria, including any additional requirements under the rules and regulations of Nasdaq and the Securities and

Exchange Commission, for directors to serve as members on such Committees. For the avoidance of doubt, to the extent permitted by law or regulation, any action that may or is to be taken by a committee may be taken directly by the Board in lieu of committee action.

(b) Assignment of Committee Members. The Nominating and Corporate Governance Committee is responsible for recommending to the Board the assignment of Board members to various committees and the selection of committee Chairs. Consideration should be given to periodically rotating Committee members. However, the Board does not have a firm policy mandating rotation of committee assignments since special knowledge or experience may warrant a particular director serving for an extended period on one committee.

(c) Frequency of Committee Meetings. Each shall have the number of committee meetings set forth in its charter, with the Audit Committee meeting at least quarterly. Committees report regularly to the full Board with respect to their activities.

(d) Committee Agenda. The Chair of each committee, in consultation with the Chief Executive Officer, Corporate Secretary and appropriate management liaisons, establishes the committee's agenda for its meetings. Committee members are free to suggest the inclusion of items on the agenda.

5. Meetings of the Board.

(a) Frequency of Board Meetings. Currently, the Board has at least four regular meetings each year, with additional meetings as required or otherwise deemed appropriate. A calendar of Board meetings will be developed and circulated as far in advance as practicable.

(b) Agenda. The Chairman of the Board, in consultation with the Presiding Director, if applicable, the Corporate Secretary, and members of management, will establish the agenda for each Board meeting and review the information sent to the Board, to help assure that there is sufficient time for discussion of all agenda items. Each director is free to suggest the inclusion of items on the agenda.

(c) Advance Distribution of Board Materials. Information and material that are important to the Board's understanding of the business to be conducted at each Board meeting will be distributed to the Board before the Board meets. Highly confidential or sensitive matters, and matters that arise immediately prior to Board meetings, may be presented and discussed without prior distribution of background material.

(d) Executive Session of Independent Directors. The independent directors of the Board will meet in executive session at least three times each year. The Presiding Director will chair these meetings, or if no Presiding Director has been selected by the independent directors, then an independent director will be selected at the beginning of each executive session to preside over the meeting.

(e) Director Attendance. Absent unusual circumstances, each director is expected to attend all Board meetings and all meetings of the committee(s) of which the director is a member, and to spend the time needed and meet as frequently as necessary to properly discharge their responsibilities. Absent unusual circumstances, each director is expected to attend the annual meeting of stockholders.

(f) Board Access to Senior Management. At all times, directors have open access to the Company's senior management. Members of the Company's management are invited to attend and participate in Board meetings from time to time to brief the Board and the committees on particular topics. The Board encourages senior management to bring into Board or committee meetings and other scheduled events managers who can provide additional insight into matters being considered and/or whom senior management believes have future growth potential with the Company and should be given exposure to the members of the Board.

(g) Board Access to Independent Advisors. The Board and the Audit, Compensation and Nominating and Corporate Governance Committees, consistent with their respective charters, have the authority to retain such outside counsel, experts and other advisors as they determine appropriate to assist them in the full performance of their functions.

6. Assessment and Leadership Development.

(a) Evaluation and Compensation of the Chief Executive Officer and other Executive Officers. The Board, through the Compensation Committee, will conduct an annual evaluation of the performance of the Chief Executive Officer, and will review the annual evaluation of the performance of other executive officers conducted by the Chief Executive Officer, against criteria established by the Board. This evaluation will be shared with the Chief Executive Officer and will be used by the Compensation Committee in recommending to the Board the compensation of the Chief Executive Officer and other executive officers. The Compensation Committee will be responsible for approving the compensation for the Chief Executive Officer and other executive officers, including relevant goals and objectives and the evaluation of the performance and compensation of the Chief Executive Officer and other executive officers in light of those goals and objectives.

(b) Assessing Board and Committee Performance. The Nominating and Corporate Governance Committee will oversee an annual evaluation of the Board's effectiveness and performance, the results of which will be discussed with the full Board. Each of the Audit, Compensation and Nominating and Corporate Governance Committees will conduct an annual self-assessment. The Nominating and Corporate Governance Committee will also conduct an individual evaluation of each director, not less frequently than once every three years, the results of which will be shared with such individual director.

(c) Management Development and Succession Planning. The Board is responsible for planning for the succession to the position of Chief Executive Officer and other senior management positions. To assist the Board, the Chief Executive Officer annually will provide the Compensation Committee with an assessment of senior managers and their potential to succeed him or her. The Chief Executive Officer also will make available to the Board, on a

continuing basis, recommendations regarding an emergency succession plan which will address who should assume the role of Chief Executive Officer in the event that the Chief Executive Officer becomes unwilling or unable to perform his or her duties. The Chief Executive Officer also will provide the Compensation Committee with an assessment of persons considered potential successors to other senior management positions, including a review of any development plans recommended for such individuals. The results of these reviews will be reported to and discussed with the Board on a regular basis.

7. Other Matters.

(a) Ethics and Compliance. The Company will maintain, and the Audit Committee will oversee compliance with, a code of business conduct (known as the Code of Business Conduct) for its employees, including its executive officers, and directors. The full text of the code will be posted on the Company's website. The Company will disclose on its website future amendments to or waivers from its code for its executive officers and directors promptly upon any such amendment or waiver as required to be disclosed under applicable law. Any waiver from its code for directors or executive officers must be approved by the Audit Committee.

(b) Related Party Transactions. The Company will maintain a policy governing the evaluation, consideration and approval of related party transactions (known as the Related Party Transaction Policy and Procedures). The Audit Committee will be responsible for reviewing and approving the Company's Related Party Transaction Policy and Procedures.

(c) Review of Strategic Plans. The Board will review and evaluate at least annually the long-term strategic and business plans of the Company.

(d) Director Compensation. The form and amount of compensation offered to non-employee directors serving on the Board will be recommended by the Compensation Committee, and approved by the full Board, in accordance with the policies and principles set forth in its charter and any Nasdaq or other applicable rules, and that Committee and Board will conduct an annual review of director compensation. Changes in director compensation, if any, are recommended by the Compensation Committee, and approved by the full Board. To more closely align the interest of the directors with those of the Company's stockholders, typically, a significant portion of director compensation will be paid in the form of equity awards. The Board shall be responsible for approving the actual equity awards or warrants to be issued to the Company's non-employee directors. No additional compensation is paid to members of the Company's management for serving on the Board.

(e) Equity Pool for Non-Executive Officer Employees. The Board will be responsible for evaluating and setting the size of the equity pool available for the annual equity incentive awards to be issued to the Company's employees (other than the Company's executive officers). The Compensation Committee shall retain responsibility for approving the actual annual equity incentive awards issued to the Company's non-executive officer employees, within the limits of the equity pool authorized by the Board.

(f) Equity Compensation to Consultants and Service Providers. The Board

is responsible for approving any equity awards issued to the Company's consultants, financial advisors and other third-party service providers.

(g) Communications from Stockholders and other Interested Parties. The Board, or as applicable, any committee of the Board or any individual Board member or the non-management Board members as a group, will give appropriate attention to written communications on issues submitted by stockholders or other interested parties, and will respond if appropriate. Communications to directors must be in writing and sent in care of the Company's Corporate Secretary to the Company's headquarters address or delivered via e-mail to an e-mail address established by the Corporate Secretary's office for this purpose. The name(s) of any specific intended Board recipient(s) should be noted in the communication. The Company shall disclose the Company mailing address and e-mail address for such communications in its proxy statement for each annual meeting and on its website.

A copy of each communication received since the date of the last quarterly Board meeting shall be distributed to each director in advance of each regularly scheduled Board meeting, except items that are unrelated to the duties and responsibilities of the Board, such as: spam, junk mail and mass mailings, business solicitations and advertisements, and communications that advocate the Company's engaging in illegal activities or that, under community standards, contain offensive, scurrilous or abusive content.

The Company's Corporate Secretary shall be responsible for and oversee the receipt and processing of stockholder communications to Board members. An acknowledgement of receipt shall be sent by the Corporate Secretary or Assistant Secretary to each stockholder submitting a communication. The Company's Corporate Secretary shall retain a copy of each communication for one year from the date of its receipt by the Company.

Consistent with the Company's Disclosure Policy approved by the Board, management, rather than the members of the Board, is responsibility for communications and relationships on behalf of the Company with institutional investors, the media and customers.

(h) Prohibition on Personal Loans. The Company does not extend or maintain credit, arrange for the extension of credit, or renew an extension of credit, in the form of a personal loan to or for any Board member or executive officer.

(i) Stock Ownership Guidelines. The Board, based on the recommendation of the Compensation Committee, is responsible for establishing stock ownership guidelines applicable to the Company's executive officers and directors.

(j) Oversight of Risk. The Board's role in the Company's risk oversight process includes receiving regular reports from members of management on areas of material risk to the Company, including operational, financial, legal and regulatory. The Board receives these reports from the appropriate members of management to enable it to understand the Company's risk identification, risk management and risk mitigation strategies. The Board encourages management to promote a corporate culture that incorporates risk management into the Company's business operations. The Board can delegate oversight of certain areas of risk

management to the individual Board committees.

8. Annual Review. The Nominating and Corporate Governance Committee is responsible for reviewing these guidelines at least annually and making recommendations for appropriate changes to the Board.

Approved: April 18, 2012

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