

ORGANOVO HOLDINGS, INC.

CHARTER OF THE COMPENSATION COMMITTEE OF THE BOARD OF DIRECTORS

1. Members. The Board of Directors (the “*Board*”) of Organovo Holdings, Inc. (the “*Company*”) will appoint a Compensation Committee (the “*Committee*”) of at least three members. The members of the Committee shall meet the independence requirements of The Nasdaq Stock Market (“Nasdaq”), the rules and regulations of the Securities and Exchange Commission (the “*SEC*”) and the Company’s Corporate Governance Guidelines. Additionally, it is intended that members of the Committee also qualify as “non-employee directors” for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”) and as “outside directors” for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended.

For purposes of satisfying the independence requirements of Nasdaq, no director qualifies as “independent” unless the Board affirmatively determines that the director has no material relationship with the Company (either directly or as a partner, stockholder or officer of an organization that has a relationship with the Company), including whether such relationship would interfere with the exercise of independent judgment in carrying out the responsibilities of such director. In making this determination, the Board must consider all factors specifically relevant to determining whether the director has a relationship to the Company which is material to that director’s ability to be independent from management in connection with the duties of a member of the Committee, including, but not limited to: (a) the source of compensation of the director, including any consulting, advisory or other compensatory fee paid by the Company to such director; and (b) whether the director is affiliated with the Company, a subsidiary of the Company or an affiliate of a subsidiary of the Company.

The members of the Committee shall be appointed annually by the Board on the recommendation of the Company’s Corporate Governance and Nominating Committee and each member shall serve until his or her successor is appointed by the Board or until such member’s earlier resignation or removal. Committee members may be replaced by the Board on the recommendation of the Company’s Corporate Governance and Nominating Committee. Vacancies on the Committee shall be filled by appointment by the Board on the recommendation of the Company’s Corporate Governance and Nominating Committee. Unless a Chair of the Committee is designated by the Board, the members of the Committee may designate a Chair by majority vote of the full Committee membership.

A director shall not serve on the Committee if any executive officer of the Company serves on the board of directors of an entity that employs such director as an executive officer.

2. Purpose, Duties and Responsibilities. The purpose of the Committee is to assist the Board in discharging its responsibilities relating to compensation of the Company’s Section 16 officers (as defined in Rule 16a-1(f) issued under the Exchange Act) and other executive officers; to review Company strategies for attracting, developing, retaining and motivating management and employees; and to oversee the succession of leadership talent for the Company. The duties and responsibilities of the Committee include the following:

(a) Periodically review and approve an executive compensation policy that (i) supports the Company's overall business strategy and objectives; (ii) attracts and retains key executives; (iii) links compensation with business objectives and organizational performance; and (iv) provides competitive compensation opportunities;

(b) Review and approve the compensation for the Company's Chief Executive Officer ("*CEO*") (including, but not limited to, salary, bonus, incentive compensation, equity awards, benefits and perquisites) without the CEO present, and review and approve relevant corporate and personal performance goals and objectives and conduct an annual evaluation of the CEO's performance and compensation in light of those goals and objectives;

(c) Review and approve the compensation for the Company's Section 16 and other executive officers (including, but not limited to, salary, bonus, incentive compensation, equity awards, benefits and perquisites), and review and approve relevant corporate and personal performance goals and objectives and assess and conduct an annual evaluation, in consultation with the CEO, for such Section 16 and other executive officers in light of those goals and objectives;

(d) Review and approve any employment agreements or arrangements with executive officers of the Company, including with respect to any severance arrangements and perquisites and other personal benefits to the Company's executive officers;

(e) Review and make recommendations to the Board with respect to the adoption of equity-based compensation, incentive compensation, severance arrangements, retirement (including 401(k) plans) and other employee benefit plans that are subject to Board approval;

(f) (i) Act on behalf of the Board in administering equity-based compensation (including recommending to the Board the approval of Forms S-8 with respect to shares under equity compensation plans), incentive compensation, retirement and other employee benefit plans approved by the Board and/or stockholders in a manner consistent with the terms of such plans, unless otherwise specified by the Board, by the terms of the plan, by the Corporate Governance Guidelines or as otherwise delegated by the Committee, and (ii) in that administrative capacity, discharge any responsibilities imposed on the Committee under those plans, including making and authorizing grants, establishing performance goals for the relevant period and determining whether performance goals have been achieved at the end of the period; provided, however, that the Board reserves the authority to (A) approve equity awards or warrants issued to the Company's consultants, financial advisors and other third-party service providers, (B) evaluate and set 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). For purposes of clarity, 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 and (C) to approve the equity awards issued to the Company's non-employee directors;

(g) Review the compensation of the non-employee directors for their service on the Board and its committees and recommend for approval by the Board the compensation to be offered to the non-employee directors and any changes to the compensation of non-employee directors as appropriate;

(h) Oversee the management succession process for the CEO and selected senior executives;

(i) Oversee workplace diversity initiatives and progress;

(j) Consult with and advise management on major policies affecting employee relations;

(k) Oversee the actions of any person or group to whom it delegates its authority;

(l) Review and discuss the disclosures in the Company's "Compensation Discussion and Analysis" with management and, based on such review and discussions, make a recommendation to the Board as to the inclusion of the "Compensation Discussion and Analysis" in the Company's annual proxy statement or Form 10-K, as applicable;

(m) Oversee the risks assessment of the Company's compensation policies and practices and review and discuss at least annually whether the Company's compensation policies and practices are reasonably likely to have a material adverse effect on the Company, including any disclosure related thereto that may be required in the Company's annual proxy statement;

(n) Approve an annual Committee report for inclusion in the Company's annual proxy statement or Form 10-K, as applicable, in accordance with applicable rules and regulations;

(o) Review and approve the composition of the peer group used by the Company for benchmarking and other analyses related to executive compensation;

(p) Review and recommend to the Board for approval the stock ownership guidelines applicable to the Company's executive officers and directors and any changes thereto;

(q) Review and approve the form of indemnification agreement entered into between the Company and the Company's executive officers and directors;

(r) Review and recommend for approval by the Board the procedures for reimbursement of outside directors travel and other expenses;

(s) Annually evaluate the performance of the Committee and the adequacy of the Committee's charter, and update the Committee's charter as necessary or appropriate;

(t) Oversee the Company's submission to, and consider the results of stockholder votes of matters relating to compensation, including stockholder proposals or

advisory votes on executive compensation and the frequency of such votes;

(u) Oversee the Company's compliance with legal and regulatory requirements associated with compensation of its executive officers, other employees and non-employee directors; and

(v) Perform such other duties and responsibilities as are consistent with the purpose of the Committee and as the Board or the Committee deems appropriate.

3. Authority; Outside Advisors. The Committee has the authority to take any actions it considers appropriate to fulfill the above duties and responsibilities, including, without limitation, the authority to retain such compensation consultants, outside counsel, experts, and other advisors as it determines appropriate to assist it in the performance of its functions, including, without limitation, sole authority to retain and terminate one or more compensation consulting firms, and to approve the fees and other retention terms for any such firm that is retained by it. The Committee shall have full access to any relevant records of the Company and may request that any officer or other employee of the Company or the Company's outside counsel meet with any members of, or consultants to, the Committee. The Company shall provide appropriate funding, as determined by the Committee, for payment of compensation to any advisors employed by the Committee, as well as funding for the payment of ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties. The formation and establishment of the Committee and all actions taken by the Committee (or by any subcommittee or committee member) shall be valid and effective even if one or more members of the Committee who was "independent," or who qualified to be a "non-employee director" and/or an "outside director," as defined above is determined subsequently not to have so qualified.

4. Assessment of Outside Advisor Independence. Notwithstanding Section 3 above, the Committee may select a compensation consultant, outside counsel, experts or other advisers only after taking into consideration, all factors relevant to that person's independence from management, including the following:

(a) The provision of other services to the Company by the entity that employs the compensation consultant, outside counsel, expert or other adviser;

(b) The amount of fees received from the Company by the entity that employs the compensation consultant, outside counsel, expert or other adviser, as a percentage of the total revenue of such entity;

(c) The policies and procedures of the entity that employs the compensation consultant, outside counsel, expert or other adviser that are designed to prevent conflicts of interest;

(d) Any business or personal relationship of the compensation consultant, outside counsel, expert or other adviser with a member of the Committee;

(e) Any stock of the Company owned by the compensation consultant, outside counsel, expert or other adviser; and

(f) Any business or personal relationship of the compensation consultant, outside counsel, expert or other adviser or the entity employing such adviser with an

executive officer of the Company.

5. Subcommittees and Delegation. To the extent permitted by law or regulation, the Committee may delegate authority to one or more members of the Committee or to one or more executives of the Company, and may form and delegate authority to one or more subcommittees and to one or more committees of executives of the Company, except that the Committee may not delegate authority to approve compensation for the Company's CEO or its other Section 16 and other executive officers to any person or committee (other than to a subcommittee consisting exclusively of at least three members of the Committee). Any such subcommittee or officer of the Company shall regularly report to the Committee on any actions taken pursuant to such delegated authority.

6. Meetings; Reporting to Board. The majority of the members of the Committee constitutes a quorum. All determinations of the Committee shall be by a majority of the disinterested members present at a meeting duly called or held, provided that any decision or determination of the Committee reduced to writing and consented to (including, but not limited to, by means of electronic transmission) by all of the members of the Committee shall be fully as effective as if it had been made at a meeting duly called and held. For the purposes hereof, a member of the Committee shall be considered to be disinterested if he or she has no direct or indirect financial interest in the matters to be considered by the Committee. Notwithstanding the foregoing, a member of the Committee that recommends compensation determinations for service on the Board or its committees shall be considered disinterested, provided that such action does not affect such member's compensation disproportionately to that of other directors. Meetings of the Committee will be held at least four times a year at such times and places as the Committee determines. Such meetings may be held through any communications equipment if all persons participating can hear each other. The Committee may request any officer or employee of the Company or the Company's outside counsel or accounting firm to attend a meeting of the Committee or to meet with members of, or consultants to, the Committee. The Committee shall meet periodically in executive session without the presence of management.

The Committee shall report regularly to the Board with respect to its meetings and any significant developments in the course of performing the duties and responsibilities set forth in this Charter or as otherwise requested by the Board. The Committee shall maintain written minutes of its meetings, which minutes will be filed with the minutes of the meetings of the Board.

Approved: February 19, 2014

Restated: March 2, 2016

Restated: August 17, 2016