

THIRD AMENDED AND RESTATED
BYLAWS
OF
NORTHWEST BIOTHERAPEUTICS, INC.

Adopted

June 15, 2007

	<u>Page</u>
Section 4.4	Quorum; Voting..... 12
Section 4.5	Conduct of Meetings 13
Section 4.6	Presumption of Assent..... 13
Section 4.7	Action Without Meeting..... 13
Section 4.8	Telephonic Meetings 13
ARTICLE V	COMMITTEES OF THE BOARD OF DIRECTORS 13
Section 5.1	Executive Committee 13
Section 5.2	Other Committees..... 14
Section 5.3	Term 14
Section 5.4	Committee Changes; Removal 14
Section 5.5	Alternate Members 14
Section 5.6	Rules and Procedures 14
Section 5.7	Presumption of Assent..... 15
Section 5.8	Action Without Meeting..... 15
Section 5.9	Telephonic Meetings 15
Section 5.10	Resignations 15
Section 5.11	Limitations on Authority 15
ARTICLE VI	OFFICERS 16
Section 6.1	Number; Titles; Qualification; Term of Office 16
Section 6.2	Election..... 16
Section 6.3	Removal..... 16
Section 6.4	Resignations 17
Section 6.5	Vacancies..... 17
Section 6.6	Salaries 17
Section 6.7	Chairman of The Board 17
Section 6.8	Chief Executive Officer..... 17
Section 6.9	President 17
Section 6.10	Chief Scientific Officer 18
Section 6.11	Vice Presidents 18
Section 6.12	Treasurer..... 18
Section 6.13	Assistant Treasurers..... 18
Section 6.14	Secretary 19
Section 6.15	Assistant Secretaries 19
ARTICLE VII	STOCK 19
Section 7.1	Certificates..... 19
Section 7.2	Signatures on Certificates..... 19
Section 7.3	Legends..... 20
Section 7.4	Lost, Stolen or Destroyed Certificates..... 20
Section 7.5	Transfers of Shares 20
Section 7.6	Registered Stockholders 21
Section 7.7	Regulations 21
Section 7.8	Stock Options, Warrants, etc. 21

	<u>Page</u>
ARTICLE VIII INDEMNIFICATION.....	21
Section 8.1 Third Party Actions	21
Section 8.2 Actions By or In The Right of The Corporation	22
Section 8.3 Expenses	22
Section 8.4 Non-Exclusivity.....	23
Section 8.5 Enforceability	23
Section 8.6 Insurance.....	23
Section 8.7 Survival.....	23
Section 8.8 Amendment	23
Section 8.9 Definitions	24
ARTICLE IX NOTICES AND WAIVERS.....	24
Section 9.1 Methods of Giving Notices	24
Section 9.2 Waiver of Notice	24
ARTICLE X BENEFICIAL OWNERSHIP NOTICES	25
Section 10.1 OWNERSHIP NOTICE	25
Section 10.2 DISCLOSURE NOTICE.....	25
Section 10.3 EFFECT OF DISCLOSURE NOTICE	25
ARTICLE XI MISCELLANEOUS PROVISIONS.....	27
Section 11.1 Dividends.....	27
Section 11.2 Reserves.....	27
Section 11.3 Checks	27
Section 11.4 Corporate Contracts and Instruments	27
Section 11.5 Attestation.....	27
Section 11.6 Securities of Other Corporations	27
Section 11.7 Fiscal Year.....	28
Section 11.8 Seal	28
Section 11.9 Invalid Provisions.....	28
Section 11.10 Headings	28
Section 11.11 References/Gender/Number	28
Section 11.12 Amendments.....	28
CERTIFICATE OF SECRETARY.....	28

THIRD AMENDED AND RESTATED BYLAWS
OF NORTHWEST BIOTHERAPEUTICS, INC.

PREAMBLE

These Bylaws are subject to, and governed by, the General Corporation Law of the State of Delaware (“DGCL”) and the Certificate of Incorporation (“Certificate of Incorporation”) of Northwest Biotherapeutics, Inc. (“Corporation”). In the event of a direct conflict between the provisions of these Bylaws and the mandatory provisions of the DGCL or the provisions of the Certificate of Incorporation, such provisions of the DGCL and the Certificate of Incorporation, as the case may be, will be controlling.

ARTICLE I

OFFICERS AND RECORDS

SECTION 1.1 REGISTERED OFFICE AND AGENT. The registered office and registered agent of the Corporation shall be as designated from time to time by the appropriate filing by the Corporation in the office of the Secretary of State of the State of Delaware.

SECTION 1.2 OTHER OFFICES. The Corporation may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors of the Corporation (“Board of Directors”) may from time to time determine or the business of the Corporation may require.

SECTION 1.3 BOOKS AND RECORDS. The books and records of the Corporation may be kept at the Corporation’s principal executive office or at such other locations as may from time to time be designated by the Board of Directors. Consents and notices may be received in the form of electronic communications provided that they are reproduced in paper form and delivered to the Corporation’s principal executive office unless otherwise provided in the Certificate of Incorporation or the DGCL. The use of reproductions of consents including, but not limited to copies, faxes, and other reliable reproductions, may be used in lieu of the original writing for any and all purposes for which the original writing could be used, provided the reproduction is a complete reproduction of the entire original writing pursuant to the DGCL.

ARTICLE II

MEETINGS OF STOCKHOLDERS

SECTION 2.1 ANNUAL MEETINGS. An annual meeting of the Corporation’s stockholders (the “Stockholders”) shall be held each calendar year for the purposes of (i) electing directors as provided in Article III and (ii) transacting such other business as may properly be brought before the meeting. Each annual meeting shall be held on such date (no later than 13 months after the date of the last annual meeting of Stockholders) and at such time as shall be designated by the Board of Directors and stated in the notice or waivers of notice of such meeting.

SECTION 2.2 SPECIAL MEETINGS. Special meetings of the Stockholders, for any purpose or purposes, may be called at any time by the Chairman of the Board (if any) or the Chief Executive Officer and shall be called by the Secretary at the written request, or by resolution adopted by the affirmative vote of a majority of the Corporation's directors, which request or resolution shall fix the date, time and place, and state the purpose or purposes, of the proposed meeting. Except as provided by applicable law, these Bylaws, or the Certificate of Incorporation, Stockholders shall not be entitled to call a special meeting of Stockholders or to require the Board of Directors or any officer to call such a meeting or to propose business at such a meeting. Business transacted at any special meeting of Stockholders shall be limited to the purposes stated in the notice or waivers of notice of such meeting.

SECTION 2.3 PLACE OF MEETINGS. The Board of Directors may designate the place of meeting (either within or without the State of Delaware) for any meeting of Stockholders. If no designation is made by the Board of Directors, the place of meeting shall be held at the principal executive office of the Corporation.

SECTION 2.4 NOTICE OF MEETINGS. (a) Written or electronic notice of each meeting of Stockholders shall be delivered to each Stockholder of record entitled to vote thereat, which notice shall (i) state the place, date and time of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called and (ii) be given not less than 10 nor more than 60 days before the date of the meeting.

(b) Each notice of a meeting of Stockholders shall be given as provided in Section 9.1, except that if no address appears on the Corporation's books or stock transfer records with respect to any Stockholder, notice to such Stockholder shall be deemed to have been given if sent by first-class mail or telecommunication to the Corporation's principal executive office or if published at least once in a newspaper of general circulation in the county where such principal executive office is located.

(c) If any notice addressed to a Stockholder at the address of such Stockholder appearing on the books of the Corporation is returned to the Corporation by the United States Postal Service marked to indicate that the United States Postal Service is unable to deliver the notice to the Stockholder at such address, all further notices to such Stockholder at such address shall be deemed to have been duly given without further mailing if the same shall be available to such Stockholder upon written demand of such Stockholder at the principal executive office of the Corporation for a period of one year from the date of the giving of such notice.

(d) Any previously scheduled meeting of the Stockholders may be postponed by resolution of the Board of Directors upon public notice given prior to the time previously scheduled for such meeting.

SECTION 2.5 VOTING LIST. At least 10 days before each meeting of Stockholders, the Secretary or other officer or agent of the Corporation who has charge of the Corporation's stock ledger shall prepare a complete list of the Stockholders entitled to vote at such meeting, arranged in alphabetical order and showing, with respect to each Stockholder, his address and the number of shares registered in his name. Such list shall be open to the examination of any Stockholder, for any purpose germane to the meeting, during ordinary business hours, for a

period of at least 10 days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice or waivers of notice of the meeting or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept open at the time and place of the meeting during the whole time thereof, and may be inspected by any Stockholder who is present. The stock ledger of the Corporation shall be the only evidence as to who are the Stockholders entitled to examine any list required by this Section 2.5 or to vote at any meeting of Stockholders.

SECTION 2.6 QUORUM AND ADJOURNMENT. The holders of a majority of the voting power of the outstanding shares of the Corporation entitled to vote generally in the election of directors (the "Voting Stock"), present in person or by proxy, shall constitute a quorum at any meeting of Stockholders, except as otherwise provided by applicable law, the Certificate of Incorporation, or these Bylaws. If a quorum is present at any meeting of Stockholders, such quorum shall not be broken by the withdrawal of enough Stockholders to leave less than a quorum and the remaining Stockholders may continue to transact business until adjournment. If a quorum shall not be present at any meeting of Stockholders, the holders of a majority of the voting stock represented at such meeting or, if no Stockholder entitled to vote is present at such meeting, any officer of the Corporation may adjourn such meeting from time to time until a quorum shall be present. Notwithstanding anything in these Bylaws to the contrary, the chairman of any meeting of Stockholders shall have the right, acting in his sole discretion, to adjourn such meeting from time to time.

SECTION 2.7 ADJOURNED MEETINGS. When a meeting of Stockholders is adjourned to another time or place, unless otherwise provided by these Bylaws, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken; provided, however, if an adjournment is for more than 30 days or if after an adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each Stockholder entitled to vote thereat. At any adjourned meeting at which a quorum shall be present in person or by proxy, the Stockholders entitled to vote thereat may transact any business which might have been transacted at the meeting as originally noticed.

SECTION 2.8 VOTING. (a) Election of directors at all meetings of Stockholders at which directors are to be elected shall be by written ballot or electronic communications and, except as otherwise provided in the Certificate of Incorporation, a plurality of the votes cast thereat shall elect. Except as otherwise provided by applicable law, the Certificate of Incorporation or these Bylaws, all matters other than the election of directors submitted to the Stockholders at any meeting shall be decided by a majority of the votes cast with respect to such matter. Except as otherwise provided in the Certificate of Incorporation or by applicable law, (i) no Stockholder shall have any right of cumulative voting and (ii) each outstanding share, regardless of class, shall be entitled to one vote on each matter submitted to a vote at a meeting of Stockholders.

(b) Shares standing in the name of another corporation (whether domestic or foreign) may be voted by such officer, agent or proxy as the bylaws of such corporation may prescribe or, in the absence of such provision, as the board of directors of such corporation may determine. Shares standing in the name of a deceased person may be voted by the executor or administrator

of such deceased person, either in person or by proxy. Shares standing in the name of a guardian, conservator, or trustee may be voted by such fiduciary, either in person or by proxy, but no fiduciary shall be entitled to vote shares held in such fiduciary capacity without a transfer of such shares into the name of such fiduciary. Shares standing in the name of a receiver may be voted by such receiver. A Stockholder whose shares are pledged shall be entitled to vote such shares, unless in the transfer by the pledgor on the books of the Corporation he has expressly empowered the pledgee to vote thereon, in which case only the pledgee (or his proxy) may represent the stock and vote thereon.

(c) If shares or other securities having voting power stand of record in the name of two or more persons (whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety or otherwise) or if two or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect:

- (i) if only one votes, his act binds all;
- (ii) if more than one votes, the act of the majority so voting binds all; and
- (iii) if more than one votes but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionately or any person voting the shares, or a beneficiary, (if any) may apply to the Delaware Court of Chancery or such other court as may have jurisdiction to appoint an additional person to act with the person so voting the shares, which shall then be voted as determined by a majority such persons and the person so appointed by the court.

If the instrument so filed shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of the paragraph (c) shall be a majority or even-split in interest.

SECTION 2.9 PROXIES. (a) At any meeting of Stockholders, each Stockholder having the right to vote thereat may be represented and vote either in person or by proxy executed in writing by such Stockholder or by his duly authorized attorney-in-fact. Each such proxy shall be filed with the Secretary of the Corporation at or before the beginning of each meeting at which such proxy is to be voted. Unless otherwise provided therein, no proxy shall be valid after three years from the date of its execution. Each proxy shall be revocable unless expressly provided therein to be irrevocable and coupled with an interest sufficient in law to support an irrevocable power or unless otherwise made irrevocable by applicable law.

(b) A proxy shall be deemed signed if the Stockholder's name is placed on the proxy (whether by manual signature, telegraphic transmission or otherwise) by the Stockholder or his attorney-in-fact. In the event any proxy shall designate two or more persons to act as proxies, a majority of such persons present at the meeting (or, if only one shall be present, then that one) shall have and may exercise all the powers conferred by the proxy upon all the persons so designated unless the proxy shall otherwise provide.

(c) Except as otherwise provided by applicable law, by the Certificate of Incorporation or by these Bylaws, the Board of Directors may, in advance of any meeting of Stockholders, prescribe additional regulations concerning the manner of execution and filing of proxies (and the validation of same) which may be voted at such meeting.

SECTION 2.10 RECORD DATE. For the purpose of determining the Stockholders entitled to notice of or to vote at any meeting of Stockholders (or any adjournment thereof) or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted by the Board of Directors or be more than 60 nor less than 10 days prior to the date of such meeting nor more than 60 days prior to any other action. If no record date is fixed, (i) the record date for determining Stockholders entitled to notice of or to vote at a meeting of Stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held and (ii) the record date for determining Stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of Stockholders of record entitled to notice of or to vote at a meeting of Stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

SECTION 2.11 CONDUCT OF MEETINGS; AGENDA. (a) Meetings of the Stockholders shall be presided over by the officer of the Corporation whose duties under these Bylaws require him to do so; provided, however, if no such officer of the Corporation shall be present at any meeting of Stockholders, such meeting shall be presided over by a chairman to be chosen by a majority of the Stockholders entitled to vote at the meeting who are present in person or by proxy. At each meeting of Stockholders, the officer of the Corporation whose duties under these Bylaws require him to do so shall act as secretary of the meeting; provided, however, if no such officer of the Corporation shall be present at any meeting of Stockholders, the chairman of such meeting shall appoint a secretary. The order of business at each meeting of Stockholders shall be as determined by the chairman of the meeting, including such regulation of the manner of voting and the conduct of discussion as seems to him in order.

(b) The Board of Directors may, in advance of any meeting of Stockholders, adopt an agenda for such meeting, adherence to which the chairman of the meeting may enforce.

SECTION 2.12 INSPECTORS OF ELECTION; OPENING AND CLOSING OF POLLS. (a) Before any meeting of Stockholders, the Board of Directors may, and if required by law shall, appoint one or more persons to act as inspectors of election at such meeting or any adjournment thereof. If any person appointed as inspector fails to appear or fails or refuses to act, the chairman of the meeting may, and if required by law or requested by any Stockholder entitled to vote or his proxy shall, appoint a substitute inspector. If no inspectors are appointed by the Board of Directors, the chairman of the meeting may, and if required by law or requested by any Stockholder entitled to vote or his proxy shall, appoint one or more inspectors at the meeting. Notwithstanding the foregoing, inspectors shall be appointed consistent with the mandatory provisions of Section 231 of the DGCL.

(b) Inspectors may include individuals who serve the Corporation in other capacities (including as officers, employees, agents or representatives); provided, however, that no director or candidate for the office of director shall act as an inspector. Inspectors need not be Stockholders.

(c) The inspectors shall (i) determine the number of shares of capital stock of the Corporation outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum and the validity and effect of proxies and (ii) receive votes or ballots, hear and determine all challenges and questions arising in connection with the right to vote, count and tabulate all votes and ballots, determine the results and do such acts as are proper to conduct the election or vote with fairness to all Stockholders. On request of the chairman of the meeting, the inspectors shall make a report in writing of any challenge, request or matter determined by them and shall execute a certificate of any fact found by them. The inspectors shall have such other duties as may be prescribed by Section 231 of the DGCL.

(d) The chairman of the meeting may, and if required by the DGCL shall, fix and announce at the meeting the date and time of the opening and the closing of the polls for each matter upon which the Stockholders will vote at the meeting.

SECTION 2.13 PROCEDURES FOR BRINGING BUSINESS BEFORE ANNUAL MEETINGS. (a) Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at an annual meeting of Stockholders except in accordance with the procedures hereinafter set forth in this Section 2.13; provided, however, that nothing in this Section 2.13 shall be deemed to preclude discussion by any Stockholder of any business properly brought before any annual meeting of Stockholders in accordance with such procedures.

(b) At any annual meeting of Stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (ii) otherwise properly brought before the meeting by or at the direction of the Board of Directors or (iii) properly brought before the meeting by a Stockholder. In addition to any other applicable requirements, for business to be properly brought before an annual meeting by a Stockholder, the Stockholder must have given timely notice thereof in writing to the Secretary. To be timely, a Stockholder's notice must be delivered to or mailed and received at the principal executive office of the Corporation not less than 120 days nor more than 150 days in advance of the first anniversary of the date of the Corporation's proxy statement released to Stockholders in connection with the previous year's annual meeting of Stockholders; provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting of Stockholders has been changed by more than 30 calendar days from the date contemplated at the time of the previous year's proxy statement, the notice must be received by the Corporation at least 80 days prior to the date the Corporation intends to distribute its proxy statement with respect to such meeting. Any meeting of Stockholders which is adjourned and will reconvene within 30 days after the meeting date as originally noticed shall, for purposes of any Stockholder's notice contemplated by this paragraph (b), be deemed to be a continuation of the original meeting, and no business may be brought before such adjourned meeting by any Stockholder unless timely notice of such business was given to the Secretary of the Corporation for the meeting as originally noticed.

(c) Each notice given by a Stockholder as contemplated by paragraph (b) above shall set forth, as to each matter the Stockholder proposes to bring before the annual meeting, (i) the nature of the proposed business with reasonable particularity, including the exact text of any proposal to be presented for adoption and any supporting statement, which proposal and supporting statement shall not in the aggregate exceed 500 words, and his reasons for conducting such business at the annual meeting, (ii) any material interest of the Stockholder in such business, (iii) the name, principal occupation and record address of the Stockholder, (iv) the class and number of shares of the Corporation which are held of record or beneficially owned by the Stockholder, (v) the dates upon which the Stockholder acquired such shares of stock and documentary support for any claims of beneficial ownership and (vi) such other matters as may be required by the Certificate of Incorporation.

(d) The foregoing right of a Stockholder to propose business for consideration at an annual meeting of Stockholders shall be subject to such conditions, restrictions and limitations as may be imposed by the Certificate of Incorporation. Nothing in this Section 2.13 shall entitle any Stockholder to propose business for consideration at any special meeting of Stockholders.

(e) The chairman of any meeting of Stockholders shall determine whether business has been properly brought before the meeting and, if the facts so warrant, may refuse to transact any business at such meeting which has not been properly brought before the meeting.

(f) Notwithstanding any other provision of these Bylaws, the Corporation shall be under no obligation to include any Stockholder proposal in its proxy statement or otherwise present any such proposal to Stockholders at a meeting of Stockholders if the Board of Directors reasonably believes that the proponents thereof have not complied with Sections 13 and 14 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations promulgated thereunder, and the Corporation shall not be required to include in its proxy statement to Stockholders any Stockholder proposal not required to be included in its proxy statement to Stockholders in accordance with the Exchange Act and such rules or regulations.

(g) Nothing in this Section 2.13 shall be deemed to affect any rights of Stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 of the Exchange Act.

(h) Reference is made to Section 3.4 for procedures relating to the nomination of any person for election or reelection as a director of the Corporation.

SECTION 2.14 ACTION WITHOUT MEETING. No action shall be taken by Stockholders except at a meeting of Stockholders. Stockholders may not act by written consent in lieu of a meeting.

ARTICLE III

BOARD OF DIRECTORS -- POWERS, NUMBER, CLASSIFICATION, NOMINATIONS, RESIGNATIONS, REMOVAL, VACANCIES AND COMPENSATION

SECTION 3.1 MANAGEMENT. The business and property of the Corporation shall be managed by and under the direction of the Board of Directors. In addition to the powers and authorities expressly conferred upon the Board of Directors by these Bylaws, the Board of Directors may exercise all the powers of the Corporation and do all such lawful acts and things as are not by law, by the Certificate of Incorporation or by these Bylaws directed or required to be exercised or done by the Stockholders.

SECTION 3.2 NUMBER AND QUALIFICATION. The number of directors shall be fixed from time to time exclusively pursuant to resolution adopted by a majority of the Corporation's directors, but shall consist of not less than one nor more than seven directors, subject, however, to increases above seven members as may be required in order to permit the holders of any series of preferred stock of the Corporation to elect directors under specified circumstances. The directors need not be Stockholders or residents of the State of Delaware. Each director must have attained 21 years of age.

SECTION 3.3 CLASSES OF DIRECTORS. The Board of Directors shall be divided into three classes designated as Class I, Class II and Class III, respectively, all as nearly equal in number as possible, with each director then in office receiving the classification to be determined with respect to such director by the Board of Directors.

SECTION 3.4 ELECTION; TERM OF OFFICE. (a) The initial term of office of Class I directors shall expire at the annual meeting of the Corporation's Stockholders in 2002. The initial term of office of Class II directors shall expire at the annual meeting of Stockholders in 2003. The initial term of office of Class III directors shall expire at the annual meeting of Stockholders in 2004. Subject to Sections 3.9 and 3.10, each director elected at an annual meeting of Stockholders to succeed a director whose term is expiring shall hold office until the third annual meeting of Stockholders after his election and until his successor is elected and qualified or until his earlier death, resignation or removal.

(b) Directors shall be elected by Stockholders only at annual meetings of Stockholders, except that if any such annual meeting is not held or if any director to be elected thereat is not elected, such director may be elected at any special meeting of Stockholders held for that purpose.

(c) No decrease in the number of directors constituting the Board of Directors shall have the effect of shortening the term of any incumbent director.

SECTION 3.5 ALLOCATION OF DIRECTORS AMONG CLASSES IN THE EVENT OF INCREASES OR DECREASES IN THE NUMBER OF DIRECTORS. In the event of any increase or decrease in the authorized number of directors, (i) each director then serving as such shall nevertheless continue as a director of the class of which he is a member and

(ii) the newly created or eliminated directorships resulting from such increase or decrease shall be apportioned by the Board of Directors among the three classes of directors so as to ensure that no one class has more than one director more than any other class. To the extent possible, consistent with the foregoing rule, any newly created directorships shall be added to those classes whose terms of office are to expire at the latest dates following such allocation, and any newly eliminated directorships shall be subtracted from those classes whose terms of office are to expire at the earliest dates following such allocation, unless otherwise provided from time to time by resolution adopted by the Board of Directors.

SECTION 3.6 NOMINATIONS. (a) Notwithstanding anything in these Bylaws to the contrary, only persons who are nominated in accordance with the procedures hereinafter set forth in this Section 3.6 shall be eligible for election as directors of the Corporation.

(b) Nominations of persons for election to the Board of Directors at a meeting of Stockholders may be made only (i) by or at the direction of the Board of Directors or (ii) by any Stockholder entitled to vote for the election of directors at the meeting who satisfies the eligibility requirements (if any) set forth in the Certificate of Incorporation and who complies with the notice procedures set forth in this Section 3.6 and in the Certificate of Incorporation; provided, however, Stockholders may not nominate persons for election to the Board of Directors at any special meeting of Stockholders unless the business to be transacted at such special meeting, as set forth in the notice of such meeting, includes the election of directors. Nominations by Stockholders shall be made pursuant to timely notice in writing to the Secretary. To be timely, a Stockholder's notice given in the context of an annual meeting of Stockholders shall be delivered to or mailed and received at the principal executive office of the Corporation not less than 120 days nor more than 150 days in advance of the first anniversary of the date of the Corporation's proxy statement released to Stockholders in connection with the previous year's annual meeting of Stockholders; provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting of Stockholders has been changed by more than 30 calendar days from the date contemplated at the time of the previous year's proxy statement, the notice must be received by the Corporation at least 80 days prior to the date the Corporation intends to distribute its proxy statement with respect to such meeting. To be timely, a Stockholder's notice given in the context of a special meeting of Stockholders shall be delivered to or mailed and received at the principal executive office of the Corporation not earlier than the ninetieth day prior to such special meeting and not later than the close of business on the later of the seventieth day prior to such special meeting or the tenth day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such special meeting. For purposes of the foregoing, "public announcement" means the disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service, or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act. Any meeting of Stockholders which is adjourned and will reconvene within 30 days after the meeting date as originally noticed shall, for purposes of any notice contemplated by this paragraph (b), be deemed to be a continuation of the original meeting and no nominations by a Stockholder of persons to be elected directors of the Corporation may be made at any such reconvened meeting other than pursuant to a notice that was timely for the meeting on the date originally noticed.

(c) Each notice given by a Stockholder as contemplated by paragraph (b) above shall set forth the following information, in addition to any other information or matters required by the Certificate of Incorporation:

(i) as to each person whom the Stockholder proposes to nominate for election or reelection as a director, (A) the exact name of such person, (B) such person's age, principal occupation, business address and telephone number and residence address and telephone number, (C) the number of shares (if any) of each class of stock of the Corporation owned directly or indirectly by such person and (D) all other information relating to such person that is required to be disclosed in solicitations of proxies for election of directors pursuant to Regulation 14A under the Exchange Act or any successor regulation thereto (including such person's notarized written acceptance of such nomination, consent to being named in the proxy statement as a nominee and statement of intention to serve as a director if elected);

(ii) as to the Stockholder giving the notice, (A) his name and address, as they appear on the Corporation's books, (B) his principal occupation, business address and telephone number and residence address and telephone number, (C) the class and number of shares of the Corporation which are held of record or beneficially owned by him and (D) the dates upon which he acquired such shares of stock and documentary support for any claims of beneficial ownership; and

(iii) a description of all arrangements or understandings between the Stockholder giving the notice and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by such Stockholder.

At the request of the Board of Directors, any person nominated by the Board of Directors for election as a director shall furnish to the Secretary of the Corporation that information required to be set forth in a Stockholder's notice of nomination which pertains to the nominee.

(d) The foregoing right of a Stockholder to nominate a person for election or reelection to the Board of Directors shall be subject to such conditions, restrictions and limitations as may be imposed by the Certificate of Incorporation.

(e) Nothing in this Section 3.6 shall be deemed to affect any rights of Stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 of the Exchange Act.

(f) The chairman of a meeting of Stockholders shall have the power and duty to determine whether a nomination was made in accordance with the procedures set forth in this Section 3.6 and, if any nomination is not in compliance with this Section 3.6, to declare that such defective nomination shall be disregarded.

SECTION 3.7 RESIGNATIONS. Any director may resign at any time by giving notice, either written or by electronic communications, to the Board of Directors or the Secretary. Such resignation shall take effect at the date of receipt of such notice or at any later time specified therein. Acceptance of such resignation shall not be necessary to make it effective. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall

have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office for the unexpired portion of the term of the director whose place shall be vacated and until his successor shall have been duly elected and qualified.

SECTION 3.8 REMOVAL. No director may be removed before the expiration of his term of office except for cause and then only by the affirmative vote of the holders of not less than a majority of the voting power of all outstanding Voting Stock, voting together as a single class. The Board of Directors may not remove any director, and no recommendation by the Board of Directors that a director be removed may be made to the Stockholders unless such recommendation is set forth in a resolution adopted by the affirmative vote of not less than 66-2/3% of the directors.

SECTION 3.9 VACANCIES. (a) In case any vacancy shall occur on the Board of Directors because of death, resignation or removal, such vacancy may be filled by a majority of the directors remaining in office (though less than a quorum) or by the sole remaining director. The director so appointed shall serve for the unexpired term of his predecessor or until his successor is elected and qualified or until his earlier death, resignation or removal. If there are no directors then in office, an election of directors may be held in the manner provided by applicable law.

(b) Any newly-created directorship resulting from any increase in the number of authorized directors may be filled by a majority of the directors then in office (though less than a quorum), or by the sole remaining director. The director so appointed shall be assigned to such class of directors as such majority of directors, or the sole remaining director, as the case may be, shall determine; provided however, that newly-created directorships shall be apportioned among the classes of directors so that all classes will be as nearly equal in number as possible. Each director so appointed shall hold office until his successor is elected and qualified or until his earlier death, resignation or removal.

(c) Except as expressly provided in these Bylaws or the Certificate of Incorporation or as otherwise provided by law, Stockholders shall not have any right to fill vacancies on the Board of Directors, including newly-created directorships.

(d) If, as a result of a disaster or emergency (as determined in good faith by the then remaining directors), it becomes impossible to ascertain whether or not vacancies exist on the Board of Directors, and a person is, or persons are, elected by the directors, who in good faith believe themselves to be a majority of the remaining directors, or the sole remaining director, to fill a vacancy or vacancies that such remaining directors in good faith believe exists, then the acts of such person or persons who are so elected as directors shall be valid and binding upon the Corporation and the Stockholders, although it may subsequently develop that at the time of the election (i) there was in fact no vacancy or vacancies existing on the Board of Directors or (ii) the directors, or the sole remaining director, who so elected such person or persons did not in fact constitute a majority of the remaining directors.

SECTION 3.10 SUBJECT TO RIGHTS OF HOLDERS OF PREFERRED STOCK. Notwithstanding the foregoing provisions of this Article III, if the resolutions of the Board of

Directors creating any series of preferred stock of the Corporation entitle the holders of such preferred stock, voting separately by series, to elect additional directors under specified circumstances, then all provisions of such resolutions relating to the nomination, election, term of office, removal, filling of vacancies and other features of such directorships shall, as to such directorships, govern and control over any conflicting provisions of this Article III.

SECTION 3.11 COMPENSATION. The Board of Directors shall have the authority to fix, and from time to time to change, the compensation of directors. Each director shall be entitled to reimbursement from the Corporation for his reasonable expenses incurred in attending meetings of the Board of Directors (or any committee thereof) and meetings of the Stockholders. Nothing contained in these Bylaws shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

ARTICLE IV

BOARD OF DIRECTORS -- MEETINGS AND ACTIONS

SECTION 4.1 PLACE OF MEETINGS. The directors may hold their meetings and have one or more offices, and keep the books of the Corporation, in such place or places, within or without the State of Delaware, as the Board of Directors may from time to time determine.

SECTION 4.2 REGULAR MEETINGS. Regular meetings of the Board of Directors may be held without notice at such time and place, within or without the State of Delaware, as shall from time to time be determined by the Board of Directors. Except as otherwise provided by applicable law, any business may be transacted at any regular meeting of the Board of Directors.

SECTION 4.3 SPECIAL MEETINGS. Special meetings of the Board of Directors shall be called by the Secretary at the request of the Chairman of the Board (if any) or the Chief Executive Officer on not less than 24 hours' notice to each director, specifying the time, place and purpose of the meeting. Special meetings shall be called by the Secretary on like notice at the request, in writing or by electronic communication, of any two directors, which request shall state the purpose of the meeting.

SECTION 4.4 QUORUM; VOTING. (a) At all meetings of the Board of Directors, a majority of the directors shall be necessary and sufficient to constitute a quorum for the transaction of business. If a quorum shall not be present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time (without notice other than announcement at the meeting) until a quorum shall be present. A meeting of the Board of Directors at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors; provided, however, that no action of the remaining directors shall constitute the act of the Board of Directors unless the action is approved by at least a majority of the required quorum for the meeting or such greater number of directors as shall be required by applicable law, by the Certificate of Incorporation or by these Bylaws.

(b) The act of a majority of the directors present at any meeting of the Board of Directors at which there is a quorum shall be the act of the Board of Directors unless, by express provision

of law, the Certificate of Incorporation, or these Bylaws, a different vote is required, in which case such express provision shall govern and control.

SECTION 4.5 CONDUCT OF MEETINGS. At meetings of the Board of Directors, business shall be transacted in such order as shall be determined by the chairman of the meeting unless the Board of Directors shall otherwise determine the order of business. The Board of Directors shall keep regular minutes of its proceedings which shall be placed in the minute book of the Corporation.

SECTION 4.6 PRESUMPTION OF ASSENT. A director who is present at a meeting of the Board of Directors at which action on any corporate matter is taken shall be presumed to have assented to such action unless his dissent shall be entered in the minutes of the meeting or unless he shall file his dissent, either in writing or by electronic communication, to such action with the person acting as secretary of the meeting before the adjournment thereof or shall forward any dissent by certified or registered mail to the Secretary immediately after the adjournment of the meeting. Such right to dissent shall not apply to any director who voted in favor of such action.

SECTION 4.7 ACTION WITHOUT MEETING. Unless otherwise provided in the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if all directors consent thereto in writing. All such written consents shall be filed with the minutes of proceedings of the Board of Directors.

SECTION 4.8 TELEPHONIC MEETINGS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the Board of Directors may participate in a meeting of the Board of Directors by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

ARTICLE V

COMMITTEES OF THE BOARD OF DIRECTORS

SECTION 5.1 EXECUTIVE COMMITTEE. (a) The Board of Directors may, by resolution adopted by the affirmative vote of a majority of the directors, designate an Executive Committee which, during the intervals between meetings of the Board of Directors and subject to Section 5.11, shall have and may exercise, in such manner as it shall deem to be in the best interests of the Corporation, all of the powers of the Board of Directors in the management or direction of the business and affairs of the Corporation, except as reserved to the Board of Directors or as delegated by the Board of Directors to another committee of the Board of Directors or as may be prohibited by law. The Executive Committee shall consist of not less than two directors, the exact number to be determined from time to time by the affirmative vote of a majority of the directors. None of the members of the Executive Committee need be an officer of the Corporation.

(b) Meetings of the Executive Committee may be called at any time by the Chairman of the Board (if any) or the Chief Executive Officer on not less than one day's notice to each member given verbally or in writing, which notice shall specify the time, place and purpose of the meeting.

SECTION 5.2 OTHER COMMITTEES. The board of directors may, by resolution adopted by a majority of the directors, establish additional standing or special committees of the Board of Directors, each of which shall consist of two or more directors (the exact number to be determined from time to time by the Board of Directors) and, subject to Section 5.11, shall have such powers and functions as may be delegated to it by the Board of Directors. No member of any such additional committee need be an officer of the Corporation.

SECTION 5.3 TERM. Each member of a committee of the Board of Directors shall serve as such until the earliest of (i) his death, (ii) the expiration of his term as a director, (iii) his resignation as a member of such committee or as a director and (iv) his removal as a member of such committee or as a director.

SECTION 5.4 COMMITTEE CHANGES; REMOVAL. The Board of Directors shall have the power at any time to fill vacancies in, to change the membership of, and to abolish any committee of the Board of Directors; provided, however, that no such action shall be taken in respect of the Executive Committee unless approved by a majority of the directors.

SECTION 5.5 ALTERNATE MEMBERS. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. If no alternate members have been so appointed or each such alternate committee member is absent or disqualified, the committee member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any absent or disqualified member.

SECTION 5.6 RULES AND PROCEDURES. (a) The Board of Directors may designate one member of each committee as chairman of such committee; provided, however, that, except as provided in the following sentence, no person shall be designated as chairman of the Executive Committee unless approved by a majority of the directors. If a chairman is not so designated for any committee, the members thereof shall designate a chairman.

(b) Each committee shall adopt its own rules (not inconsistent with these Bylaws or with any specific direction as to the conduct of its affairs as shall have been given by the Board of Directors) governing the time, place and method of holding its meetings and the conduct of its proceedings and shall meet as provided by such rules.

(c) If a committee is comprised of an odd number of members, a quorum shall consist of a majority of that number. If a committee is comprised of an even number of members, a quorum shall consist of one-half of that number. If a committee is comprised of two members, a quorum shall consist of both members. If a quorum is not present at a meeting of any committee, a majority of the members present may adjourn the meeting from time to time, without notice other than an announcement at the meeting, until a quorum is present. The act of a majority of

the members present at any meeting at which a quorum is in attendance shall be the act of a committee, unless the act of a greater number is required by law, the Certificate of Incorporation, these Bylaws or the committee's rules as adopted in Section 5.6(b).

(d) Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when requested.

(e) Unless otherwise provided by these Bylaws or by the rules adopted by any committee, notice of the time and place of each meeting of such committee shall be given to each member of such committee as provided in these Bylaws with respect to notices of special meetings of the Board of Directors.

SECTION 5.7 PRESUMPTION OF ASSENT. A member of a committee of the Board of Directors who is present at a meeting of such committee at which action on any corporate matter is taken shall be presumed to have assented to such action unless his dissent shall be entered in the minutes of the meeting or unless he shall file his dissent, in writing or by electronic communication, to such action with the person acting as secretary of the meeting before the adjournment thereof or shall forward any dissent by certified or registered mail to the Secretary of the Corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to any member who voted in favor of such action.

SECTION 5.8 ACTION WITHOUT MEETING. Unless otherwise provided in the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of a committee of the Board of Directors may be taken without a meeting if all members of such committee consent thereto in writing or by electronic communication. All such consents shall be filed with the minutes of proceedings of such committee.

SECTION 5.9 TELEPHONIC MEETINGS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of any committee of the Board of Directors may participate in a meeting of such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

SECTION 5.10 RESIGNATIONS. Any committee member may resign at any time by giving notice, in writing or by electronic communication, to the Board of Directors or the Secretary. Such resignation shall take effect at the date of receipt of such notice or at any later time specified therein. Acceptance of such resignation shall not be necessary to make it effective.

SECTION 5.11 LIMITATIONS ON AUTHORITY. Unless otherwise provided in the Certificate of Incorporation, no committee of the Board of Directors shall have the power or authority to (i) authorize an amendment to the Certificate of Incorporation, (ii) adopt an agreement of merger or consolidation, recommend to the Stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, (iii) recommend to the Stockholders a dissolution of the Corporation or a revocation of a dissolution, (iv) amend these Bylaws, (v) declare a dividend or other distribution on, or authorize the issuance, purchase

or redemption of, securities of the Corporation, (vi) elect any officer of the Corporation or (vii) approve any material transaction between the Corporation and one or more of its directors, officers or employees or between the Corporation and any corporation, partnership, association or other organization in which one or more of its directors, officers or employees are directors or officers or have a financial interest; provided, however, that the Executive Committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of preferred stock adopted by the Board of Directors as provided in the Certificate of Incorporation, fix the designations and any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes of stock of the Corporation or fix the number of shares of any series of stock or authorize the decrease or increase of the shares of any such series.

ARTICLE VI

OFFICERS

SECTION 6.1 NUMBER; TITLES; QUALIFICATION; TERM OF OFFICE. (a) The officers of the Corporation shall be a Chief Executive Officer, a President, a Chief Scientific Officer, a Secretary and a Treasurer. The Board of Directors from time to time may also elect such other officers (including, without limitation, a Chairman of the Board, Chief Financial Officer and one or more Vice Presidents) as the Board of Directors deems appropriate or necessary. Each officer shall hold office until his successor shall have been duly elected and shall have been qualified or until his earlier death, resignation or removal. Any two or more offices may be held by the same person, but no officer shall execute any instrument in more than one capacity if such instrument is required by law or any act of the Corporation to be executed or countersigned by two or more officers. None of the officers need be a Stockholder or a resident of the State of Delaware. No officer (other than the Chairman of the Board, if any) need be a director.

(b) The Board of Directors may delegate to the Chairman of the Board (if any) and/or the Chief Executive Officer the power to appoint one or more employees of the Corporation as divisional or departmental vice presidents and fix their duties as such appointees. However, no such divisional or departmental vice presidents shall be considered an officer of the Corporation, the officers of the Corporation being limited to those officers elected by the Board of Directors.

SECTION 6.2 ELECTION. At the first meeting of the Board of Directors after each annual meeting of Stockholders at which a quorum shall be present, the Board of Directors shall elect the officers of the Corporation.

SECTION 6.3 REMOVAL. Any officer may be removed, either with or without cause, by the Board of Directors; provided, however, that (i) the Chairman of the Board (if any) and the Chief Executive Officer may be removed only by the affirmative vote of a majority of the directors and (ii) the removal of any officer shall be without prejudice to the contract rights, if any, of such officer. Election or appointment of an officer shall not of itself create contract rights.

SECTION 6.4 RESIGNATIONS. Any officer may resign at any time by giving notice, in writing or by electronic communication, to the Board of Directors, the Chairman of the Board (if any) or the Chief Executive Officer. Any such resignation shall take effect on receipt of such notice or at any later time specified therein. Unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. Any such resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

SECTION 6.5 VACANCIES. If a vacancy shall occur in any office because of death, resignation, removal, disqualification or any other cause, the Board of Directors may elect or appoint a successor to fill such vacancy for the remainder of the term.

SECTION 6.6 SALARIES. The salaries of all officers of the Corporation shall be fixed by the Board of Directors or pursuant to its direction, and no officer shall be prevented from receiving such salary by reason of the fact that he is also a director of the Corporation.

SECTION 6.7 CHAIRMAN OF THE BOARD. The Chairman of the Board (if any) shall have all powers and shall perform all duties incident to the office of Chairman of the Board and such other powers and duties as may be prescribed by the Board of Directors or these Bylaws. The Chairman of the Board, if present, shall preside at all meetings of the Board of Directors and of the Stockholders. During the time of any vacancy in the office of Chief Executive Officer or in the event of the absence or disability of the Chief Executive Officer, the Chairman of the Board shall have the duties and powers of the Chief Executive Officer unless otherwise determined by the Board of Directors. In no event shall any third party having dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.7 for the exercise by the Chairman of the Board of the powers of the Chief Executive Officer.

SECTION 6.8 CHIEF EXECUTIVE OFFICER. (a) The Chief Executive Officer shall be the chief executive officer of the Corporation and, subject to the supervision, direction and control of the Board of Directors, shall have general supervision, direction and control of the business and officers of the Corporation with all such powers as may be reasonably incident to such responsibilities. He shall have the general powers and duties of management usually vested in the chief executive officer of a corporation.

(b) During the time of any vacancy in the office of the Chairman of the Board or in the event of the absence or disability of the Chairman of the Board, the Chief Executive Officer shall have the duties and powers of the Chairman of the Board unless otherwise determined by the Board of Directors. During the time of any vacancy in the office of President or in the event of the absence or disability of the President, the Chief Executive Officer shall have the duties and powers of the President unless otherwise determined by the Board of Directors. In no event shall any third party having any dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.8 for the exercise by the Chief Executive Officer of the powers of the Chairman of the Board or the President.

SECTION 6.9 PRESIDENT. (a) The President shall be the chief operating officer of the Corporation and, subject to the supervision, direction and control of the Chief Executive

Officer and the Board of Directors, shall manage the day-to-day operations of the Corporation. He shall have the general powers and duties of management usually vested in the chief operating officer of a corporation and such other powers and duties as may be assigned to him by the Board of Directors, the Chief Executive Officer or these Bylaws.

(b) During the time of any vacancy in the offices of the Chairman of the Board and Chief Executive Officer or in the event of the absence or disability of the Chairman of the Board and the Chief Executive Officer, the President shall have the duties and powers of the Chief Executive Officer unless otherwise determined by the Board of Directors. In no event shall any third party having any dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.9 for the exercise by the President of the powers the Chief Executive Officer.

SECTION 6.10 CHIEF SCIENTIFIC OFFICER. The Chief Scientific Officer shall be the chief scientific officer of the Corporation and, subject to the supervision, direction and control of the Board of Directors and President, shall have general supervision, direction and control of the Corporation's scientific endeavors with all such powers as may be reasonably incident to such responsibilities. He shall have the general powers and duties of management usually vested in the chief scientific officer of a corporation.

SECTION 6.11 VICE PRESIDENTS. In the absence or disability of the President, the Vice Presidents, if any, in order of their rank as fixed by the Board of Directors, or if not ranked, the Vice President designated by the President, shall perform all the duties of the President as chief operating officer of the Corporation, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the President as chief operating officer of the Corporation. In no event shall any third party having dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.11 for the exercise by any Vice President of the powers of the President as chief operating officer of the Corporation. The Vice Presidents shall have such other powers and perform such other duties as from time to time may be assigned to them by the Board of Directors, the Chief Executive Officer or the President.

SECTION 6.12 TREASURER. The Treasurer shall (i) have custody of the Corporation's funds and securities, (ii) keep full and accurate account of receipts and disbursements, (iii) deposit all monies and valuable effects in the name and to the credit of the Corporation in such depository or depositories as may be designated by the Board of Directors and (iv) perform such other duties as may be prescribed by the Board of Directors or the Chief Executive Officer.

SECTION 6.13 ASSISTANT TREASURERS. Each Assistant Treasurer shall have such powers and duties as may be assigned to him by the Board of Directors, the Chief Executive Officer or the President. In case of the absence or disability of the Treasurer, the Assistant Treasurer designated by the President (or, in the absence of such designation, the Treasurer) shall perform the duties and exercise the powers of the Treasurer during the period of such absence or disability. In no event shall any third party having dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.13 for the exercise by any Assistant Treasurer of the powers of the Treasurer under these Bylaws.

SECTION 6.14 SECRETARY. (a) The Secretary shall keep or cause to be kept, at the principal office of the Corporation or such other place as the Board of Directors may order, a book of minutes of all meetings and actions of the Board of Directors, committees of the Board of Directors and Stockholders, with the time and place of holding, whether regular or special, and, if special, how authorized, the notice thereof given, the names of those present at meetings of the Board of Directors and committees thereof, the number of shares present or represented at Stockholders' meetings and the proceedings thereof.

(b) The Secretary shall keep, or cause to be kept, at the principal office of the Corporation or at the office of the Corporation's transfer agent or registrar, a share register, or a duplicate share register, showing the names of all Stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates issued for the same and the number and date of cancellation of every certificate surrendered for cancellation.

(c) The Secretary shall give, or cause to be given, notice of all meetings of the Stockholders and of the Board of Directors required by these Bylaws or by law to be given, and he shall keep the seal of the Corporation, if one be adopted, in safe custody, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors, the Chairman of the Board (if any), the Chief Executive Officer, the President or these Bylaws.

(d) The Secretary may affix the seal of the Corporation, if one be adopted, to contracts of the Corporation.

SECTION 6.15 ASSISTANT SECRETARIES. Each Assistant Secretary shall have such powers and duties as may be assigned to him by the Board of Directors, the Chairman of the Board (if any), the Chief Executive Officer or the President. In case of the absence or disability of the Secretary, the Assistant Secretary designated by the President (or, in the absence of such designation, the Secretary) shall perform the duties and exercise the powers of the Secretary during the period of such absence or disability. In no event shall any third party having dealings with the Corporation be bound to inquire as to any facts required by the terms of this Section 6.15 for the exercise by any Assistant Secretary of the powers of the Secretary under these Bylaws.

ARTICLE VII

STOCK

SECTION 7.1 CERTIFICATES. Certificates for shares of stock of the Corporation shall be in such form as shall be approved by the Board of Directors. The certificates shall be signed (i) by the Chairman of the Board (if any), the Chief Executive Officer, the President or a Vice President and (ii) by the Secretary, an Assistant Secretary, the Treasurer or an Assistant Treasurer.

SECTION 7.2 SIGNATURES ON CERTIFICATES. Any or all of the signatures on the certificates may be a facsimile and the seal of the Corporation (or a facsimile thereof), if one has been adopted, may be affixed thereto. In case any officer, transfer agent or registrar who has signed, or whose facsimile signature has been placed upon, a certificate shall have ceased to be

such officer, transfer agent or registrar before such certificate is issued, such certificate may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

SECTION 7.3 LEGENDS. The Board of Directors shall have the power and authority to provide that certificates representing shares of stock of the Corporation bear such legends and statements (including, without limitation, statements relating to the powers, designations, preferences and relative, participating, optional or other special rights and qualifications, limitations or restrictions of the shares represented by such certificates) as the Board of Directors deems appropriate in connection with the requirements of federal or state securities laws or other applicable laws.

SECTION 7.4 LOST, STOLEN OR DESTROYED CERTIFICATES. The Board of Directors, the Secretary and the Treasurer each may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, in each case upon the making of an affidavit of that fact by the owner of such certificate, or his legal representative. When authorizing such issue of a new certificate or certificates, the Board of Directors, the Secretary or the Treasurer, as the case may be, may, in its or his discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as the Board of Directors, the Secretary or the Treasurer, as the case may be, shall require and/or to furnish the Corporation a bond in such form and substance and with such surety as the Board of Directors, the Secretary or the Treasurer, as the case may be, may direct as indemnity against any claim, or expense resulting from any claim, that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

SECTION 7.5 TRANSFERS OF SHARES. Shares of stock of the Corporation shall be transferable only on the books of the Corporation by the holders thereof in person or by their duly authorized attorneys or legal representatives. Upon surrender to the Corporation, or the transfer agent of the Corporation, of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, the Corporation or its transfer agent shall issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon the Corporation's books. Notwithstanding the foregoing, the Corporation will not register (and will instruct its transfer agent or registrar not to register) any transfer of shares of stock of the Corporation which are issued or sold pursuant to Regulation S under the Securities Act of 1933, as amended (the "Securities Act") unless such transfer is made in accordance with the provisions of Regulation S, pursuant to registration under the Securities Act or pursuant to an available exemption from registration under the Securities Act. The Board of Directors may from time to time determine whether a transfer of shares of stock of the Corporation is made in accordance with the provisions of Regulation S, pursuant to registration under the Securities Act or pursuant to an available exemption from registration under the Securities Act. In making its determination, the Board of Directors of the Corporation may require such opinions of counsel, affidavits, undertakings or agreements as it may deem necessary or advisable.

SECTION 7.6 REGISTERED STOCKHOLDERS. The Corporation shall be entitled to treat the holder of record of any share of stock of the Corporation as the holder in fact thereof and, accordingly, shall not be bound to recognize any equitable or other claim or interest in such share on the part of any other person, whether or not the Corporation shall have express or other notice thereof, except as expressly provided by the laws of the State of Delaware.

SECTION 7.7 REGULATIONS. The Board of Directors shall have the power and authority to make all such rules and regulations as they may deem expedient concerning the issue, transfer and registration or the replacement of certificates for shares of stock of the Corporation. The Board of Directors may (i) appoint and remove transfer agents and registrars of transfers and (ii) require all stock certificates to bear the signature of any such transfer agent and/or any such registrar of transfers.

SECTION 7.8 STOCK OPTIONS, WARRANTS, ETC. Unless otherwise expressly prohibited in the resolutions of the Board of Directors creating any class or series of preferred stock of the Corporation, the Board of Directors shall have the power and authority to create and issue (whether or not in connection with the issue and sale of any stock or other securities of the Corporation) warrants, rights or options entitling the holders thereof to purchase from the Corporation any shares of capital stock of the Corporation of any class or series or any other securities of the Corporation for such consideration and to such persons, firms or corporations as the Board of Directors, in its sole discretion, may determine, setting aside from the authorized but unissued stock of the Corporation the requisite number of shares for issuance upon the exercise of such warrants, rights or options. Such warrants, rights and options shall be evidenced by one or more instruments approved by the Board of Directors. The Board of Directors shall be empowered to set the exercise price, duration, time for exercise and other terms of such warrants, rights and operations; provided, however, that the consideration to be received for any shares of capital stock subject thereto shall not be less than the par value thereof.

ARTICLE VIII

INDEMNIFICATION

SECTION 8.1 THIRD PARTY ACTIONS. The Corporation (i) shall, to the maximum extent permitted from time to time under the laws of the State of Delaware, indemnify every person who is or was a party or is or was threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation), by reason of the fact that such person is or was a director or officer of the Corporation or any of its direct or indirect subsidiaries or is or was serving at the request of the Corporation or any of its direct or indirect subsidiaries as a director, officer or fiduciary of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, and (ii) may, to the maximum extent permitted from time to time under the laws of the State of Delaware, indemnify every person who is or was a party or is or was threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation), by reason of the fact that such person is or was an employee or agent of the Corporation or any of its direct or indirect subsidiaries or is or was

serving at the request of the Corporation or any of its direct or indirect subsidiaries as an employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against expenses (including counsel fees), judgments, fines and amounts paid or owed in settlement, actually and reasonably incurred by such person or rendered or levied against such person in connection with such action, suit or proceeding, if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of *nolo contendere* or its equivalent shall not, in itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation or, with respect to any criminal action or proceeding, that the person had reasonable cause to believe that his conduct was unlawful. Any person seeking indemnification under this Section 8.1 shall be deemed to have met the standard of conduct required for such indemnification unless the contrary is established.

SECTION 8.2 ACTIONS BY OR IN THE RIGHT OF THE CORPORATION. The Corporation (i) shall, to the maximum extent permitted from time to time under the laws of the State of Delaware, indemnify every person who is or was a party or who is or was threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Corporation or any of its direct or indirect subsidiaries or is or was serving at the request of the Corporation or any of its direct or indirect subsidiaries as a director, officer or fiduciary of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, and (ii) may, to the maximum extent permitted from time to time under the laws of the State of Delaware, indemnify every person who is or was a party or who is or was threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was an employee or agent of the Corporation or any of its direct or indirect subsidiaries or is or was serving at the request of the Corporation or any of its direct or indirect subsidiaries as an employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against expenses (including counsel fees) actually and reasonably incurred by such person in connection with the defense or settlement or such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation; provided, however, that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnification.

SECTION 8.3 EXPENSES. Expenses incurred by a director or officer of the Corporation or any of its direct or indirect subsidiaries in defending a civil or criminal action, suit or proceeding shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this Article VIII. Such expenses incurred by other employees and agents of the Corporation and other persons eligible for indemnification

under this Article VIII may be paid upon such terms and conditions, if any, as the Board of Directors deems appropriate.

SECTION 8.4 NON-EXCLUSIVITY. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VIII shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any provision of law, the Certificate of Incorporation, the certificate of incorporation or bylaws or other governing documents of any direct or indirect subsidiary of the Corporation, under any agreement, vote of Stockholders or disinterested directors or under any policy or policies of insurance maintained by the Corporation on behalf of any person or otherwise, both as to action in his official capacity and as to action in another capacity while holding any of the positions or having any of the relationships referred to in this Article VIII.

SECTION 8.5 ENFORCEABILITY. The provisions of this Article VIII (i) are for the benefit of, and may be enforced directly by, each director or officer of the Corporation the same as if set forth in their entirety in a written instrument executed and delivered by the Corporation and such director or officer and (ii) constitute a continuing offer to all present and future directors and officers of the Corporation. The Corporation, by its adoption of these Bylaws, (A) acknowledges and agrees that each present and future director and officer of the Corporation has relied upon and will continue to rely upon the provisions of this Article VIII in becoming, and serving as, a director or officer of the Corporation or, if requested by the Corporation, a director, officer or fiduciary or the like of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, (B) waives reliance upon, and all notices of acceptance of, such provisions by such directors and officers and (C) acknowledges and agrees that no present or future director or officer of the Corporation shall be prejudiced in his right to enforce directly the provisions of this Article VIII in accordance with their terms by any act or failure to act on the part of the Corporation.

SECTION 8.6 INSURANCE. The Board of Directors may authorize, by a vote of the majority of the directors, the Corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of this Article VIII.

SECTION 8.7 SURVIVAL. The provisions of this Article VIII shall continue as to any person who has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, executors, administrators, heirs, legatees and devisees of any person entitled to indemnification under this Article VIII.

SECTION 8.8 AMENDMENT. No amendment, modification or repeal of this Article VIII or any provision hereof shall in any manner terminate, reduce or impair the right of any past, present or future director or officer of the Corporation to be indemnified by the Corporation, nor the obligation of the Corporation to indemnify any such director or officer, under and in accordance with the provisions of this Article VIII as in effect immediately prior to

such amendment, modification or repeal with respect to claims arising, in whole or in part, from a state of facts extant on the date of, or relating to matters occurring prior to, such amendment, modification or repeal, regardless of when such claims may arise or be asserted.

SECTION 8.9 DEFINITIONS. For purposes of this Article VIII, (i) reference to any person shall include the estate, executors, administrators, heirs, legatees and devisees of such person, (ii) “employee benefit plan” and “fiduciary” shall be deemed to include, but not be limited to, the meaning set forth in Section 1002, subsections 3(3) and 21(A), respectively, of the Employee Retirement Income Security Act of 1974, as amended, (iii) references to the judgments, fines and amounts paid or owed in settlement or rendered or levied shall be deemed to encompass and include excise taxes required to be paid pursuant to applicable law in respect of any transaction involving an employee benefit plan and (iv) references to the Corporation shall be deemed to include any predecessor corporation or entity and any constituent corporation or entity absorbed in a merger, consolidation or other reorganization of or by the Corporation which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents and fiduciaries so that any person who was a director, officer, employee, agent or fiduciary of such predecessor or constituent corporation or entity, or served at the request of such predecessor or constituent corporation or entity as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, shall stand in the same position under the provisions of this Article VIII with respect to the Corporation as such person would have with respect to such predecessor or constituent corporation or entity if its separate existence had continued.

ARTICLE IX

NOTICES AND WAIVERS

SECTION 9.1 METHODS OF GIVING NOTICES. Whenever, by applicable law, the Certificate of Incorporation or these Bylaws, notice is required to be given to any Stockholder, any director or any member of a committee of the Board of Directors and no provision is made as to how such notice shall be given, personal notice shall not be required and such notice may be given (i) in writing, by mail, postage prepaid, addressed to such Stockholder, director or committee member at his address as it appears on the books or (in the case of a Stockholder) the stock transfer records of the Corporation or (ii) by any other method permitted by law (including, but not limited to, overnight courier service, telegram, telex or telecopier). Any notice required or permitted to be given by mail shall be deemed to be delivered and given at the time when the same is deposited in the United States mail as aforesaid. Any notice required or permitted to be given by overnight courier service shall be deemed to be delivered and given one business day after delivery to such service with all charges prepaid and addressed as aforesaid. Any notice required or permitted to be given by telegram, telex or telecopy shall be deemed to be delivered and given at the time transmitted with all charges prepaid and addressed as aforesaid.

SECTION 9.2 WAIVER OF NOTICE. Whenever any notice is required to be given to any Stockholder, director or member of a committee of the Board of Directors by applicable law, the Certificate of Incorporation, or these Bylaws, a waiver thereof in writing signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be

equivalent to the giving of such notice. Attendance of a Stockholder (whether in person or by proxy), director or committee member at a meeting shall constitute a waiver of notice of such meeting, except where such person attends for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

ARTICLE X

BENEFICIAL OWNERSHIP NOTICES

SECTION 10.1 OWNERSHIP NOTICE. (a) Without prejudice to, and in addition to any other obligation to disclose stockholder ownership interests under applicable law, where a Stockholder either (i) to such Stockholder's knowledge acquires an aggregate nominal value of a class or series of the Corporation's shares of stock in which such Stockholder's interest is equal to or more than 3% of the aggregate outstanding shares of that class of shares (a "Notifiable Interest"); (ii) ceases to have a Notifiable Interest; or (iii) becomes aware that such Stockholder has acquired a Notifiable Interest, or that such Stockholder has ceased to have a Notifiable Interest in which such Stockholder was previously interested, such Stockholder shall notify the Corporation in writing of such Stockholder's interest.

(b) Stockholders shall also notify the Corporation promptly following any increase or decrease in the percentage level of such Stockholder's Notifiable Interest. Only percentage level changes equal to at least a whole number are required to be notified to the Corporation.

(c) Any notification under this Section 10.1 shall identify the Stockholder so interested, the nature and extent of such Stockholder's interest, and the date on which such Stockholder acquired or ceased to hold a Notifiable Interest or on which there was an increase or decrease in the percentage level of such Stockholder's Notifiable Interest.

SECTION 10.2 DISCLOSURE NOTICE. The Board of Directors may serve a disclosure notice ("Disclosure Notice") in writing on any Stockholder whom the Board of Directors knows, or has reasonable cause to believe, to hold a Notifiable Interest, requiring such Stockholder to indicate in writing whether or not such Stockholder holds a Notifiable Interest and to provide the Board of Directors written information concerning such Stockholder's beneficial ownership of and voting rights and powers of the shares of the Corporation's stock held by such Stockholder.

SECTION 10.3 EFFECT OF DISCLOSURE NOTICE. (a) If a Disclosure Notice has been served on a Stockholder and the Corporation has not received the information required in respect of the specified shares in writing within a period of fourteen days after the service of the Disclosure Notice, then the Board of Directors may determine to apply one or more of the following restrictions (the "Restrictions"):

(i) the person holding the shares of the Corporation's stock in the share register of the Corporation which comprises or includes the shares in relation to which the default occurred (all of the relevant number, as appropriate, of such shares being the "Default Shares", which definition shall include any further shares of capital stock which are issued in respect of such shares and any other shares of capital stock of the Corporation held by such Stockholder) shall

not (for so long as the default occurs), nor shall any transferee to whom any of such shares are transferred, be entitled to be present or to vote (either personally, or by proxy or otherwise) at an annual or special meeting or at a separate meeting of the holders of a class or series of shares, or to exercise any other right in relation to an annual or special meeting or a separate class meeting;

(ii) no transfer the Default Shares shall be effective or shall be recognized by the Corporation; and

(iii) no dividends or other sums which would otherwise be payable on or in respect of the Default Shares shall be paid to such Stockholder holding the Default Shares and, in circumstances where an offer of the right to elect to receive shares instead of cash in respect of a dividend is or has been made, an election made in respect of the Default Shares shall not be effective.

(b) The Board of Directors may determine that one or more Restrictions imposed on Default Shares shall cease to apply at any time. If the Corporation receives the information required in the relevant Disclosure Notice, the Board of Directors shall, within seven days of receipt, determine that all Restrictions imposed on the Default Shares shall cease to apply. In addition, the Board of Directors may determine that all Restrictions imposed on the Default Shares shall cease to apply if the Corporation receives an executed and, if necessary, duly stamped instrument of transfer in respect of the Default Shares, which would otherwise be given effect to, by:

- (i) a sale of the Default Shares on the AIM market;
- (ii) acceptance of an offer to acquire all the shares of any class or series or classes or series in the Corporation (other than shares which at the date of the offer are already sold by the offeror), being an offer on terms which are the same in relation to all the shares to which the offer relates or, where such shares include shares of different classes, in relation to all the shares of each class; or
- (iii) a sale which is shown to the satisfaction of the Board of Directors to be a bona fide sale of the whole of the beneficial interest in the Default Shares to a person who is unconnected with the person or with another person appearing to be interested in the shares.

(c) Where dividends or other sums payable on Default Shares are not paid as a result of Restrictions having been imposed, the dividends or other sums shall accrue and be payable (without interest) once the relevant Restrictions cease to apply to such Stockholder.

(d) If the Board of Directors makes a determination as described in Section 10.3(b) above it shall notify the purported transferee as soon as practicable and any person may make representations in writing to the Board of Directors concerning the determination. Neither the Corporation nor the Board of Directors shall in any event be liable to any person as a result of the Board of Directors having imposed Restrictions, or failed to determine that Restrictions shall cease to apply, where the Board of Directors has acted in good faith.

ARTICLE XI

MISCELLANEOUS PROVISIONS

SECTION 11.1 DIVIDENDS. Subject to applicable law and the provisions of the Certificate of Incorporation, dividends may be declared by the Board of Directors at any meeting and may be paid in cash, in property or in shares of the Corporation's capital stock. Any such declaration shall be at the discretion of the Board of Directors. A director shall be fully protected in relying in good faith upon the books of account of the Corporation or statements prepared by any of its officers as to the value and amount of the assets, liabilities or net profits of the Corporation or any other facts pertinent to the existence and amount of surplus or other funds from which dividends might properly be declared.

SECTION 11.2 RESERVES. There may be created by the Board of Directors, out of funds of the Corporation legally available therefor, such reserve or reserves as the Board of Directors from time to time, in its absolute discretion, considers proper to provide for contingencies, to equalize dividends or to repair or maintain any property of the Corporation, or for such other purpose as the Board of Directors shall consider beneficial to the Corporation, and the Board of Directors may thereafter modify or abolish any such reserve in its absolute discretion.

SECTION 11.3 CHECKS. All checks, drafts or other orders for payment of money, notes or other evidences of indebtedness, issued in the name of or payable to the Corporation shall be signed by such officer or officers or by such employees or agents of the Corporation as may be designated from time to time by the Board of Directors.

SECTION 11.4 CORPORATE CONTRACTS AND INSTRUMENTS. Subject always to the specific directions of the Board of Directors, the Chairman of the Board (if any), the President, any Vice President, the Secretary or the Treasurer may enter into contracts and execute instruments in the name and on behalf of the Corporation. The Board of Directors and, subject to the specific directions of the Board of Directors, the Chairman of the Board (if any) or the President may authorize one or more officers, employees or agents of the Corporation to enter into any contract or execute any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

SECTION 11.5 ATTESTATION. With respect to any deed, deed of trust, mortgage or other instrument executed by the Corporation through its duly authorized officer or officers, the attestation to such execution by the Secretary or an Assistant Secretary of the Corporation shall not be necessary to constitute such deed, deed of trust, mortgage or other instrument a valid and binding obligation of the Corporation unless the resolutions, if any, of the Board of Directors authorizing such execution expressly state that such attestation is necessary.

SECTION 11.6 SECURITIES OF OTHER CORPORATIONS. The Chairman of the Board, the Chief Executive Officer, the President or any Vice President of the Corporation shall have the power and authority to transfer, endorse for transfer, vote, consent or take any other action with respect to any securities of another issuer which may be held or owned by the

Corporation and to make, execute and deliver any waiver, proxy or consent with respect to any such securities.

SECTION 11.7 FISCAL YEAR. The fiscal year of the Corporation shall be January 1 through December 31, unless otherwise fixed by the Board of Directors.

SECTION 11.8 SEAL. The seal of the Corporation, if any, shall be such as from time to time may be approved by the Board of Directors.

SECTION 11.9 INVALID PROVISIONS. If any part of these Bylaws shall be invalid or inoperative for any reason, the remaining parts, so far as is possible and reasonable, shall remain valid and operative.

SECTION 11.10 HEADINGS. The headings used in these Bylaws have been inserted for administrative convenience only and shall not limit or otherwise affect any of the provisions of these Bylaws.

SECTION 11.11 REFERENCES/GENDER/NUMBER. Whenever in these Bylaws the singular number is used, the same shall include the plural where appropriate. Words of any gender used in these Bylaws shall include the other gender where appropriate. In these Bylaws, unless a contrary intention appears, all references to Articles and Sections shall be deemed to be references to the Articles and Sections of these Bylaws.

SECTION 11.12 AMENDMENTS. These Bylaws may be altered, amended or repealed or new bylaws may be adopted by the affirmative vote of a majority of the directors; provided, however, that no such action shall be taken at any special meeting of the Board of Directors unless notice of such action is contained in the notice of such special meeting. These Bylaws may not be altered, amended or rescinded, nor may new bylaws be adopted, by the Stockholders except by the affirmative vote of the holders of not less than 66-2/3% of the voting power of all outstanding Voting Stock, voting together as a single class. Each alteration, amendment or repeal of these Bylaws shall be subject in all respects to Section 8.7.

CERTIFICATE OF SECRETARY

I, Alton L. Boynton, the duly appointed Secretary of Northwest Biotherapeutics, Inc., hereby certify that the foregoing Bylaws constitute the bylaws of Northwest Biotherapeutics, Inc. as adopted by the Board of Directors on [●], 2007.

Alton L. Boynton, Secretary