REPLIGEN CORP Form DEF 14A July 22, 2002

SCHEDULE 14A INFORMATION (Rule 14a-101)

Proxy Statement Pursuant to Section 14(a) of the Securities

Exchange Act of 1934

Exchange Act of 1934	
Filed by the Registrant X	
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REPLIGEN CORPORATION	
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NOT APPLICABLE

Repligen Corporation
41 Seyon Street, Building 1
Waltham, MA 02453
(781-250-0111)

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To the Stockholders:

The Annual Meeting of Stockholders of Repligen Corporation, a Delaware Corporation ("Repligen") will be held on Thursday, September 12, 2002, 10:00 a.m. local time, at the offices of Repligen, 41 Seyon Street, Building 1, Waltham, Massachusetts for the following purposes:

- To elect five members to the Board of Directors to serve for staggered terms or, if Proposal 2 is not adopted by the stockholders, to elect five members to the Board of Directors to serve for a term of one year, and until their successors are elected and qualified, or until their earlier death, resignation or removal;
- To consider and vote upon a proposal to approve an amended and restated certificate of incorporation and amended and restated by-laws that together (a) establish a classified board of directors having three classes with staggered three-year terms, (b) eliminate stockholder actions by written consent, (c) eliminate the right of stockholders to call special stockholder meetings and restrict the right of stockholders to bring nominations and other business before regular stockholder meetings, (d) establish that directors may be removed by the stockholders only for cause upon a vote of 75% of the shares of the Company's capital stock entitled to vote at the election of directors, (e) provide that, with certain limited exceptions, the provisions of the amended and restated certificate of incorporation may be amended only upon a vote of 75% of the voting power of all outstanding shares of the Company's capital stock entitled to vote generally in the election of directors, voting together as a single class, (f) provide that the amended and restated by-laws may be amended by majority vote of the directors present at any meeting of the Board of Directors at which a quorum is present or upon the vote of 75% of the voting power of all outstanding shares of the Company's capital stock entitled to vote generally in the election of directors, voting together as a single class and (q) delineate certain factors that the Board of Directors may consider when evaluating an offer of another party to make a

tender or exchange offer or to effect a business combination.

- 3. To ratify the selection of Ernst & Young LLP as the independent auditors of Repligen for the fiscal year ending March 31, 2003;
- 4. To transact such other business as may properly come before the Annual Meeting and any adjournments thereof.

Stockholders entitled to notice of and to vote at the Annual Meeting shall be determined as of the close of business on July 15, 2002, the record date fixed by the Board of Directors for such purpose.

By Order of the Board of Directors

/s/ Daniel P. Witt Daniel P. Witt, Secretary

Waltham, Massachusetts July 22, 2002

IT IS IMPORTANT THAT YOUR SHARES BE REPRESENTED AT THE MEETING. WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING IN PERSON, YOU ARE REQUESTED TO COMPLETE, SIGN, DATE AND MAIL PROMPTLY THE ENCLOSED PROXY WHICH IS BEING SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS. A RETURN ENVELOPE WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES IS ENCLOSED FOR THAT PURPOSE. YOU MAY ALSO VOTE BY TELEPHONE OR VIA THE INTERNET IN ACCORDANCE WITH THE INSTRUCTIONS LISTED ON THE PROXY CARD.

REPLIGEN CORPORATION
41 SEYON STREET, BUILDING 1
WALTHAM, MA 02453

PROXY STATEMENT
FOR THE ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON SEPTEMBER 12, 2002

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July 22, 2002

Proxies in the form included with this proxy statement are solicited by the Board of Directors (the "Board") of Repligen Corporation, a Delaware corporation ("Repligen" or "Company"), for use at the Annual Meeting of Stockholders of Repligen to be held, pursuant to the accompanying Notice of Annual Meeting, on Thursday, September 12, 2002, 10:00 a.m. local time, or at any adjournments thereof (the "Annual Meeting" or the "Meeting"), at Repligen's principal executive offices at 41 Seyon Street, Building 1, Waltham, Massachusetts 02453. Only stockholders of record as of July 15, 2002 (the "Record Date") will be entitled to notice of and to vote at the Meeting and any adjournments thereof. As of the Record Date, 26,642,750 shares of Common Stock, \$.01 par value (the "Common Stock"), of Repligen were issued and outstanding.

Repligen's Annual Report to Stockholders, containing financial statements for the fiscal year ended March 31, 2002, is being provided together with this proxy statement to all stockholders entitled to vote. It is anticipated that this proxy statement and the accompanying proxy will be first provided to

stockholders on or about August 8, 2002.

The holders of Common Stock are entitled to one vote per share on any proposal presented at the Annual Meeting. Stockholders may vote in person or by proxy. Stockholders may vote by proxy by completing, signing, dating and returning the accompanying proxy card or by voting by telephone or via the internet in accordance with the instructions listed on the proxy card. Execution of a proxy will not in any way affect a stockholder's right to attend the Annual Meeting and vote in person. Any proxy given pursuant to this solicitation may be revoked by the person giving it any time before it is voted. Proxies may be revoked by: (1) filing with the Secretary of Repligen, or by telephone or internet, in accordance with the instructions listed on the proxy card, before the taking of the vote at the Annual Meeting, a written notice of revocation bearing a later date than the proxy; (2) duly executing a later-dated proxy relating to the same shares and delivering it to the Secretary of Repligen before the taking of the vote at the Annual Meeting; or (3) attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not in and of itself constitute a revocation of a proxy). For those stockholders who submit a proxy by telephone or via the internet, the date on which the proxy is submitted in accordance with the instructions listed on the proxy card is the date of the proxy. Any written notice of revocation or subsequent proxy should be sent so as to be delivered to Repligen Corporation, 41 Seyon Street, Building 1, Waltham, Massachusetts 02453, Attention: Secretary, at or before the taking of the vote at the Annual Meeting.

Each of the persons named as attorneys in the proxies is a director and/or officer of Repligen. All properly executed proxies returned in time to be counted at the Annual Meeting will be voted as stated below under the heading "Voting Procedures." Any stockholder submitting a proxy has the right to withhold authority to vote for any individual nominee to the Board by writing that nominee's name on the space provided on the proxy, checking the box next to the name of such individual if voting by proxy via the internet or, if using the telephone to vote by proxy, by following the verbal instructions for entering the two digit number appearing on the proxy card immediately before the name of such individual. In addition to the election of Directors, the stockholders will consider and vote upon a proposal to ratify the selection of auditors and will consider and vote upon a proposal to amend and restate Repligen's existing certificate of incorporation and by-laws, as further described in this proxy statement. Where a choice has been specified on the proxy with respect to a matter, the shares represented by the proxy will be voted in accordance with the specifications and will be voted FOR if no specification is indicated.

The Board knows of no other matters to be presented at the Annual Meeting. If any other matter should be presented at the Annual Meeting upon which a vote properly may be taken, shares represented by all proxies received by the Board will be voted with respect thereto in accordance with the judgment of the persons named as attorneys in the proxies.

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VOTING PROCEDURES

The representation, in person or by proxy, of at least a majority of the outstanding shares of Common Stock entitled to vote at the Annual Meeting is necessary to constitute a quorum for the transaction of business. Shares represented by proxies pursuant to which votes have been withheld from any nominee for director, or which contain one or more abstentions or broker "non-votes," are counted as present or represented for purposes of determining the presence or absence of a quorum for the Annual Meeting. A "non-vote" occurs when a broker or other nominee holding shares for a beneficial owner votes on

one proposal, but does not vote on another proposal because the broker does not have discretionary voting power and has not received instructions from the beneficial owner.

Election of Directors. Directors are elected by plurality of the votes cast, in person or by proxy, at the Annual Meeting. The five nominees who receive the highest number of affirmative votes of the shares present or represented and voting on the election of directors at the Annual Meeting will be elected to the Board of Directors. Shares present or represented and not so marked as to withhold authority to vote for a particular nominee will be voted in favor of a particular nominee and will be counted toward such nominee's achievement of a plurality. Shares present at the meeting or represented by proxy where the stockholder properly withholds authority to vote by marking the "WITHHOLD" box on the proxy for such nominee will not be counted toward such nominee's achievement of plurality.

Amendment and Restatement of Repligen's Certificate of Incorporation and By-laws. Approval of the proposal to amend and restate Repligen's existing certificate of incorporation and by-laws will require the affirmative vote of a majority of the outstanding shares of Common Stock of Repligen entitled to vote on the proposal. Shares voted to abstain and shares subject to broker "non-votes" are not considered to have voted for the proposal and have the practical effect of a vote against the proposal.

Other Matters. For all other matters being submitted to stockholders at the Annual Meeting, the affirmative vote of the majority of shares present, in person or represented by proxy, and voting on that matter is required for approval. Shares voted to abstain are included in the number of shares present or represented and voting on each matter. Shares subject to broker "non-votes" are not considered to have been voted for the particular matter and have the practical effect of reducing the number of affirmative votes required to achieve a majority for such matter by reducing the total number of shares from which the majority is calculated.

EquiServe will serve as the Inspector of Elections and will count all votes and ballots.

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PRINCIPAL HOLDERS OF VOTING SECURITIES

The following table sets forth, as of May 31, 2002, the name of each person who, to Repligen's knowledge, beneficially owned more than 5% of the shares of Common Stock of Repligen outstanding at that date, the number of shares beneficially owned by each of these persons, and the percentage of the outstanding shares of the Company beneficially owned by each of these persons.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership (1)	Percent of Class (2)
Lindsay A. Rosenwald, M.D. (3)	1,786,900	6.7%
BVF Partners L.P. (4)	3,370,400	12.7%

- (1) Beneficial ownership, as such terms is used herein, is determined in accordance with Rule 13d-3(d)(1) promulgated under the Securities Exchange Act of 1934 and includes voting and/or investment power with respect to shares of Common Stock of Repligen. Unless otherwise indicated, the named person possesses sole voting and investment power with respect to the shares. The shares shown include shares issuable pursuant to options or warrants held by the named person that may be exercised within 60 days of the dates indicated below.
- (2) Percentages of ownership are based upon the number of shares of Common Stock issued and outstanding as of the dates indicated in the respective footnotes. Shares of Common Stock that may be acquired pursuant to options or warrants that are exercisable within 60 days of such date are deemed outstanding for computing the percentage ownership of the person holding such options or warrants, but are not deemed outstanding for the percentage ownership of any other person.
- Of the Aries Domestic Fund II, L.P. ("Aries II"), a Delaware limited partnership, and also serves as the investment manager of the Aries Master Fund II, a Cayman Island exempted company (the "Master Fund"). Dr. Lindsay Rosenwald is the chairman and sole stockholder of PCAM. As a result, Dr. Rosenwald and PCAM may be deemed to have voting and investment control over the securities of Repligen held by Aries II and the Master Fund. Dr. Rosenwald and PCAM disclaim beneficial ownership of the securities held by Aries II and the Master Fund, except to the extent of their pecuniary interest therein, if any.

Securities beneficially owned by Dr. Rosenwald are presented on an as converted basis and consist of the following as of May 31, 2002:

- a) 1,449,909 shares of Common Stock owned by the Master Fund,
- b) 304,241 shares of Common Stock owned by Aries II, and
- c) 32,750 shares of Common Stock which may be acquired upon the exercise of presently exercisable warrants owned directly by Dr. Rosenwald.
- (4) According to a Form 4 filed on June 10, 2002, Biotechnology Value Fund, L.P. ("BVF") shares voting and dispositive power over the shares of the Common Stock it beneficially owns with BVF Partners L.P. ("Partners"). Biotechnology Value Fund II, L.P. ("BVF2") also shares voting and dispositive power over the shares of the Common Stock it beneficially owns with Partners. BVF Investments, L.L.C. ("Investments") also shares voting and dispositive power over the shares of the Common Stock it beneficially owns with Partners. Partners and BVF Inc. share voting and dispositive power over the shares of the Common Stock they beneficially own with, in addition to BVF, BVF2 and Investments, certain managed accounts on whose behalf Partners, as investment manager, purchased such shares. None of the managed accounts individually owns more than 5% of the Common Stock of Repligen. As of May 31, 2002, securities beneficially owned by BVF Inc. consist of the following:
 - a) 1,108,000 shares of Common Stock owned by BVF,
 - b) 697,179 shares of Common Stock owned by BVF2, and

1,565,221 shares of Common Stock owned by Investments. C)

PROPOSAL 1 ELECTION OF DIRECTORS

The number of directors is currently fixed at five. There are five nominees for director. The five nominees are Walter C. Herlihy, Ph.D., Robert J. Hennessey, G. William Miller, Alexander Rich, M.D. and Paul Schimmel, Ph.D. All five nominees are currently directors of Repligen.

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If Proposal 2 is approved by the stockholders, the Board will be divided into three classes, with Class I Directors to serve on the Board until the annual meeting in 2003, Class II Directors to serve on the Board until the annual meeting in 2004, and Class III Directors to serve on the Board until the annual meeting in 2005 and, in each case, until their successors have been duly elected and qualified, or until such director's earlier death, resignation or removal. The following table sets forth the nominees to be elected at the Annual Meeting, the year each such nominee was first elected a director, the position or positions with Repligen currently held by each nominee, and if Proposal 2 is approved by the stockholders, the class of director of each nominee and the year in which such nominee's term will expire:

		(If Proposal 2 .	Appro
Nominee's Name and Year Nominee First Became A Director	Position(s) with the Company	Class of Director	Yea Will
Walter C. Herlihy, Ph.D. 1996	President, Chief Executive Officer and Director	I	
Robert J. Hennessey 1998	Director	II	
G. William Miller 1982	Director	II	
Alexander Rich, M.D. 1981	Director	III	
Paul Schimmel, Ph.D. 1981	Director	III	

Alternatively, if Proposal 2 is not approved by the stockholders, the directors of the Company will be elected to hold office until the next annual meeting of stockholders and until their successors have been duly elected and qualified, or until their earlier death, resignation or removal.

Shares represented by all proxies received by the Board and not marked or voted so as to withhold authority to vote for any individual director or for any group of directors will be voted (unless one or more nominees are unable or unwilling to serve) for the election of the nominees named above. The Board knows of no reason why any nominee should be unable or unwilling to serve, but if any nominee should be unable or unwilling to serve, proxies will be voted or

withheld in accordance with the judgment of the persons named as attorneys in the proxies with respect to the directorship for which that nominee was unable or unwilling to serve.

The Board unanimously recommends a vote FOR each of the nominees for election as directors.

Occupations Of Directors And Executive Officers

Repligen's executive officers are appointed by, and serve at the discretion of, the Board. Each executive officer is a full-time employee of Repligen. The directors and executive officers of Repligen are as follows:

Name	Age 	Positions
Walter C. Herlihy, Ph.D. (3)	50	President, Chief Executive Officer and Director
James R. Rusche, Ph.D	48	Senior Vice President, Research and Development
Daniel P. Witt, Ph.D	55	Vice President, Business Development
Robert J. Hennessey (2)(4)	60	Director
G. William Miller (1)(2)(3)(4)	77	Director
Alexander Rich, M.D (2)	77	Director
Paul Schimmel, Ph.D. (1)(3)	61	Director

- (1) Member of the Compensation Committee
- (2) Member of the Audit Committee
- (3) Member of the Executive Committee
- (4) Member of the Nominating Committee

Biographical Information

Walter C. Herlihy, Ph.D. joined Repligen in March 1996 as President, Chief Executive Officer and Director in connection with Repligen's merger with Glycan Pharmaceuticals, Inc. From July 1993 to March 1996, Dr. Herlihy was the President and CEO of Glycan Pharmaceuticals, Inc. From October 1981 to June 1993, he held numerous research positions at Repligen, most recently as Senior Vice President, Research and Development. Dr. Herlihy holds an A.B. degree in chemistry from Cornell University and a Ph.D. in chemistry from MIT.

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James R. Rusche, Ph.D. joined Repligen in March 1996 as Vice President, Research and Development in connection with Repligen's merger with Glycan Pharmaceuticals, Inc. In January 2002, Dr. Rusche became Senior Vice President, Research and Development. From July 1994 to March 1996, Dr. Rusche was Vice President, Research and Development of Glycan Pharmaceuticals, Inc. From February 1985 to June 1994, he held numerous research positions at Repligen,

most recently as Vice President, Discovery Research. Dr. Rusche holds a B.S. degree in microbiology from the University of Wisconsin, LaCrosse and a Ph.D. in immunology from the University of Florida.

Daniel P. Witt, Ph.D. joined Repligen in March 1996 as Vice President, Business Development in connection with Repligen's merger with Glycan Pharmaceuticals, Inc. From October 1993 to March 1996, Dr. Witt was Vice President, Business Development of Glycan Pharmaceuticals, Inc. From April 1983 to September 1993, he held numerous research positions at Repligen, most recently as Vice President, Technology Acquisition. Dr. Witt holds a B.A. degree in chemistry from Gettysberg College and a Ph.D. in biochemistry from the University of Vermont.

Robert J. Hennessey has served as a director of Repligen since July 1998. Mr. Hennessey is currently the Chairman of the Board of Genome Therapeutics Corp., a biotechnology company. From 1993 to 2000, Mr. Hennessey also served as Chief Executive Officer. From 1990 to 1993, Mr. Hennessey served as the President of Hennessey & Associates Ltd., a strategic consulting firm to biotechnology and healthcare companies. Prior to 1990, Mr. Hennessey held a variety of management positions at Merck, SmithKline, Abbott and Sterling Drug. Mr. Hennessey is also a director of PenWest Pharmaceuticals.

G. William Miller has served as a Director of Repligen since January 1982. Mr. Miller is the Chairman of the Board of G. William Miller & Co., Inc., a private merchant-banking firm. He has served in that capacity for over five years. From January 1990 until February 1992, Mr. Miller was Chairman and Chief Executive Officer of Federated Stores, Inc., an owner and operator of retail department stores, supermarkets and real estate interests. Mr. Miller is a former Chairman of the Board of Governors of the Federal Reserve System and served as Secretary of the Treasury under President Carter. Mr. Miller is a director of the Simon Property Group, Inc., a real estate investment trust, and GS Industries, Inc., a producer of steel and related products. Mr. Miller is the Chairman of The H. John Heinz Center for Science, Economics and the Environment, and Trustee of the Marine Biological Laboratory.

Alexander Rich, M.D., Co-Founder and Co-Chairman of the Board of Directors of Repligen, has been on the faculty of MIT since 1958 and is the Sedgwick Professor of Biophysics. Internationally recognized for his contributions to the molecular biology of nucleic acids, he has determined their three-dimensional structure and has investigated their activity in biological systems. He is widely known for his work in elucidating the three-dimensional structure of transfer RNA, which is a component of the protein synthesizing mechanism and for his discovery of a novel, left-handed form of DNA. He is a member of the National Academy of Sciences, the American Philosophical Society, the Pontifical Academy of Sciences, Rome and a foreign member of the French Academy of Sciences, Paris. Dr. Rich has been a Director of Repligen since March 1981. Dr. Rich is a director of Alkermes, Inc.

Paul Schimmel, Ph.D., Co-Founder and Co-Chairman of the Board of Directors of Repligen, has been on the faculty of the Skaggs Institute of Chemical Biology at Scripps Research Institute since 1997. He is well known for his work in biophysical chemistry and molecular biology. His field of specialty is the mechanism of action of proteins and the manner in which they act upon the nucleic acids in the cell. This work involves broad applications of recombinant DNA technology. He is a member of the National Academy of Sciences, received the 1978 ACS/Pfizer award for excellence in enzyme research, and is co-author of a widely read textbook on biophysical chemistry. He also previously served as the Chairman, Director of Biological Chemistry, American Chemical Society. Dr. Schimmel has been a Director of Repligen since March 1981. Dr. Schimmel is a director of Alkermes, Inc.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

On March 9, 2000, Repligen sold an aggregate of 2,598,927 shares of Common Stock to investors at \$8.625 per share for an aggregate consideration of \$22.4 million in a private placement pursuant to a stock purchase agreement by and among the investors and Repligen. Paramount Capital, Inc. ("Paramount") acted as the placement agent for the transaction and Repligen paid Paramount approximately \$1.57 million for its services plus Paramount's related transactional expenses, and issued to Paramount a warrant to purchase up to 129,946 shares of our Common Stock at \$9.49 per share. Repligen engaged Paramount to act as placement agent for the private placement transaction pursuant to a finder's agreement and Repligen terminated the financial advisory agreement (described in the paragraph immediately below) with Paramount for an additional payment by Repligen to Paramount of \$200,000 in cash. Repligen registered the 129,946 shares of Common Stock issuable upon exercise of the warrant and the Securities and Exchange Commission declared such resale registration statement effective on May 4, 2000.

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Pursuant to a Financial Advisory Agreement dated as of July 15, 1999 by and between Repligen and Paramount, Repligen engaged Paramount as a non-exclusive financial adviser for an initial period of twelve months from the date thereof. In exchange and as consideration for Paramount's financial services, Repligen paid to Paramount \$100,000 in cash and issued to Paramount (and its designees) warrants to purchase an aggregate of 100,000 shares of Common Stock of Repligen (the "Warrants"). Each Warrant is exercisable at \$2.75 per share at any time prior to July 15, 2004. Pursuant to such Financial Advisory Agreement, Repligen issued the Warrants to such designees in a private placement transaction exempt from the registration requirements of the Securities Act of 1933 pursuant to Regulation D, Rule 506 of the Securities Act of 1933. There were no underwriters involved in such private placement transaction. Repligen registered the shares underlying these Warrants and the Securities and Exchange Commission declared such resale registration statement effective on March 10, 2000.

No family relationship exists among the officers and directors of Repligen.

INFORMATION REGARDING THE BOARD OF DIRECTORS AND ITS COMMITTEES

The Board met four times during the fiscal year ended March 31, 2002. During the fiscal year ended March 31, 2002, no director attended fewer than 75% of the aggregate of (i) the total number of meetings of the Board and (ii) the total number of meetings held by all committees of the Board on which such director served.

The Board has a standing Audit Committee, Compensation Committee, Executive Committee and Nominating Committee. The Audit Committee, currently consisting of Mr. Miller, Mr. Hennessey and Dr. Rich, is responsible for determining the adequacy of Repligen's internal accounting and financial controls. The Audit Committee met once with management and Repligen's independent public accountants to review matters pertaining to the 2002 fiscal year audit. No member of the Audit Committee is a member of Repligen's management. The Compensation Committee, currently consisting of Dr. Schimmel and Mr. Miller, is responsible for reviewing matters pertaining to the compensation of Repligen's officers and the granting of stock options (other than stock options which are automatically granted to certain members of the Board pursuant to Repligen's stock option plan) and contributions to Repligen's Employee Stock Ownership Plan. See "Compensation of Directors" and "Compensation Committee Report to Shareholders." The Compensation Committee met once during the fiscal

year ended March 31, 2002. No member of the Compensation Committee is a member of Repligen's management. The Executive Committee, currently consisting of Mr. Miller, Dr. Schimmel and Dr. Herlihy (an employee of Repligen), is authorized to exercise certain powers of the Board not specifically reserved to the Board by Repligen's By-Laws or the General Corporation Law of the State of Delaware. The Nominating Committee, currently consisting of Mr. Miller and Mr. Hennessey, is responsible for identifying, reviewing and evaluating candidates to serve as directors of Repligen and to recommend such candidates to the Board. The Nominating Committee was formed in June 2002 and thus did not meet during the fiscal year ended March 31, 2002. The Nominating Committee may, in its discretion, consider potential candidates for membership on the Board that have been recommended by stockholders. Any stockholder wishing to recommend a potential candidate should submit a recommendation in writing to Repligen's Secretary indicating the nominee's name, qualifications and other relevant biographical information and providing confirmation of the nominee's consent to serve as a director if nominated and elected. No member of the Nominating Committee is a member of Repligen's management.

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STOCK OWNERSHIP OF DIRECTORS AND EXECUTIVE OFFICERS

The following table sets forth certain information as of June 30, 2002 with respect to beneficial ownership of shares of Repligen's Common Stock by all directors and executive officers named in the Summary Compensation Table set forth below under "Summary of Executive Compensation" individually, and by all directors and executive officers of Repligen as a group.

Beneficial Owner	Amount and Nature of Beneficial Ownership (1)	Per
Paul Schimmel, Ph.D. (3)	664,682	
Alexander Rich, M.D. (4)	460,700	
G. William Miller (5)	129,000	
Robert J. Hennessey (6)	44,000	
Walter C. Herlihy (7)	735,668	
James R. Rusche (8)	249,668	
Daniel P. Witt (9)	198,668	
All directors and executive officers as group (7 persons) (10)	2,482,386	

^{*} Less than one percent

- (1) Unless otherwise indicated, the named person possesses sole voting and investment power with respect to the shares. The shares shown include shares issuable pursuant to options held by the named person that may be exercised within 60 days of June 30, 2002.
- (2) Percentages of ownership are based upon 26,642,750 shares of Common Stock issued and outstanding as of June 30, 2002. Shares of Common Stock that may be acquired pursuant to options that are exercisable within 60 days of June 30, 2002 are deemed outstanding for computing the percentage ownership of the person holding such options, but are not deemed outstanding for the percentage ownership of any other person.
- (3) Includes 19,000 shares held by a trust for the benefit of Dr. Schimmel's

sister, of which Dr. Schimmel is the trustee. Includes 30,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.

- (4) Includes 60,000 shares held by Dr. Rich's spouse. Includes 30,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (5) Includes 59,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (6) Includes 44,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (7) Includes 580,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (8) Includes 140,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (9) Includes 109,500 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.
- (10) Includes 992,000 shares issuable pursuant to stock options which are exercisable within 60 days of June 30, 2002.

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SUMMARY OF EXECUTIVE COMPENSATION

Summary Compensation Table

The table below shows compensation information with respect to services rendered to Repligen in all capacities during the fiscal years ended March 31, 2002, 2001 and 2000 for the Chief Executive Officer and each of Repligen's other most highly compensated executive or other officers who earned more than \$100,000 in salary and bonus in fiscal 2002 and were serving as executive officers or such other officers as of March 31, 2002 (collectively, the "Named Executive Officers").

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	D'and	Annu	al Compensation	n (1)	
Name and Principal Position	Fiscal Year	Salary	Bonus	Other(3)	Und Opt
Walter C. Herlihy, Ph.D	2002	\$242,000	\$50,000		ŗ
President and Chief Executive	2001	220,000	40,000		
Officer	2000	190,000	50,000		
James R. Rusche, Ph.D	2002	\$172,000	\$25 , 000		,
Senior Vice President, Research and	2001	150,000	25,000		,
Development	2000	136,000	20,000		2
Daniel P. Witt, Ph.D	2002	\$152 , 000	\$20,000		2
Vice President, Business	2001	142,000	10,000		

Development	2000	136,000	10,000		2
Patrice Rioux, MD, Ph.D	2002	185,000	\$ 7 , 000		
Vice President, Medical Affairs	2001	48,384	10,000		7
	2000				
Richard Boismenu, Ph.D	2002	115,000	1,500	\$18,113	
Senior Director, Immunology and	2001	18,615		13,747	2
Cell Biology	2000				

- (1) In accordance with the rules of the Securities and Exchange Commission, other compensation in the form of perquisites and other personal benefits has been omitted in those instances where the aggregate amount of such perquisites and other personal benefits was less than the lower of \$50,000 or 10% of the total annual salary and bonus for the Named Executive Officer for such year.
- (2) Represents stock options granted during the fiscal years ended March 31, 2002, 2001 or 2000. Repligen did not grant any restricted stock awards or stock appreciation rights or make any long-term incentive plan payouts during the fiscal years ended March 31, 2002, 2001 or 2000.
- (3) Represents relocation costs associated with Dr. Boismenu's employment.

Option Grants in Last Fiscal Year

The following table shows information regarding stock options granted to the Named Executive Officers during the fiscal year ending March 31, 2002.

OPTIONS GRANTED IN LAST FISCAL YEAR

	Number of Securities	Percent of Total Options			Realizab
	Underlying	Granted to	Exercise		Annual R
	Options	Employees in	Price	Expiration	App
Name	Granted (#)	Fiscal Year	(\$/Share)	Date	Ор
					5%
Walter Herlihy, Ph.D	50,000	18%	\$2.66	4/3/2011	\$83 , 6
James R. Rusche, Ph.D	25,000	9%	\$2.66	4/3/2011	\$41 , 8
Daniel P. Witt, Ph.D	20,000	7%	\$2.66	4/3/2011	\$33 , 4
Patrice Rioux, MD, Ph.D					
Richard Boismenu, Ph.D	20,000	7%	\$2.66	4/3/2011	\$33 , 4

⁽¹⁾ These amounts represent hypothetical gains that could be achieved from the exercise of respective options and the subsequent sale of the Common Stock underlying such options if the options were exercised immediately prior to the end of the option term. These gains are based on assumed rates of stock price appreciation of 5% and 10% compounded annually from the date the respective options were granted to their expiration dates. The gains shown are net of the option exercise price, but do not include deductions for taxes or other expenses associated with the exercise of the options or sale of the underlying shares. The actual gains, if any, on the stock option exercises will depend on the future performance of the Common

Stock, the optionholder's continued employment through the option period, the date on which the options are exercised, and the date on which the underlying shares of Common Stock are sold. These rates of appreciation are mandated by the rules of the Securities and Exchange Commission and do not represent Repligen's estimate or projection of the future Common Stock price.

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Option Exercises and Fiscal Year-End Values

The following table provides information regarding stock option exercises by the Named Executive Officers and the number and value of the Named Executive Officers' unexercised options at March 31, 2002.

Aggregated Option Exercises In Last Fiscal Year And Fiscal Year-End Option Values

	Shares		Number of	Securities	
	Acquired		Underlying	Unexercised	Value of Une
	on Exercise	Value	Options at F	iscal Year-End	Mone
Name	(1)	Realized (\$)		(2)	at Fisca
			Exercisable	Unexercisable	Exercisable
Walter C. Herlihy			460,000	190,000	\$1,065,700
James R. Rusche			117,500	67,500	257,740
Daniel P. Witt			97,500	37 , 500	222,580
Patrice Rioux			15,000	60,000	
Richard Boismenu				20,000	

- (1) None of the Named Executive Officers exercised any stock options during the fiscal year ended March 31, 2002.
- (2) Represents the aggregate number of stock options held as of March 31, 2002 which can and cannot be exercised pursuant to the terms and provisions of the applicable stock option agreements and the 2002 Repligen Corporation Stock Option Plan (the "Plan").
- (3) The dollar values have been calculated by determining the difference between the fair market value of the securities underlying the options and the exercise price of the options. The fair market value of in-the-money options was calculated on the basis of the closing price per share for Common Stock on the Nasdaq National Market of \$3.75 on March 29, 2002. Of the 1,065,000 options outstanding, 915,000 of these options were in the money as of March 31, 2002.

Compensation of Directors

Drs. Schimmel and Rich, the Co-Chairmen of the Board of Directors, are compensated pursuant to consulting agreements described below and receive no separate compensation for attendance at meetings or otherwise as directors.

Under the terms of the Plan, each non-employee director, beginning on September 14, 2000, is granted an option to purchase 10,000 shares of Common

Stock at an option price equal to the fair market value of the Common Stock on the date of grant, determined in accordance with the terms of the Plan (the "Board Options"). These options vest in full on the first anniversary of the date of the grant, provided such person is still a director on such anniversary. Additionally, each newly-elected, non-employee director who joins the Board is entitled to receive a Board Option to purchase 24,000 shares of Common Stock on the date he or she joins the Board. These initial Board Options vest equally over a three-year period from the date of grant. Board Options have a term of ten years, subject to early termination in the event of death, removal or resignation from the Board. No director is entitled to receive Board Options covering more than an aggregate of 100,000 shares.

Beginning in August 1999, Mr. Hennessey and Mr. Miller receive \$1,000 plus expenses for each board meeting attended.

Repligen paid Drs. Schimmel and Rich \$49,200 and \$43,200, respectively, during the fiscal year ended March 31, 2002 pursuant to consulting agreements, which have similar terms. These agreements are automatically extended for successive one-year terms unless terminated by either party at least 90 days prior to the next anniversary date. Dr. Schimmel's agreement continues until September 30, 2002 and Dr. Rich's agreement continues until October 31, 2002. Drs. Schimmel and Rich have advised Repligen that they have no present intention of terminating their agreements.

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Executive Employment Agreements

On March 14, 1996, Repligen entered into a letter of agreement with Drs. Herlihy, Rusche, and Witt in connection with Repligen's acquisition and merger with Glycan Pharmaceuticals, Inc. (the "Herlihy Agreement," the "Rusche Agreement," and the "Witt Agreement," respectively). Under the terms of the Herlihy Agreement, Dr. Herlihy is entitled to a minimum salary of \$160,000 per annum, subject to periodic increases at the discretion of the Board of Directors. Additionally, Dr. Herlihy is eligible for participation in all of Repligen's welfare, profit sharing, retirement and savings plans on the same basis as other employees of Repligen. Dr. Herlihy received a stock option to purchase 100,000 shares of the Common Stock at \$1.25 per share, vesting at 20% per annum over five years pursuant to the Herlihy Agreement. Dr. Herlihy's employment may be terminated, with or without cause, by either party upon 30 days prior written notice. In such event, Dr. Herlihy would be entitled to continue receiving his salary for a period of eight months or until he finds other employment, whichever occurs first.

Under the terms of the Rusche Agreement, Dr. Rusche is entitled to a minimum salary of \$115,000 per annum, subject to periodic increases at the discretion of the Board of Directors. Additionally, Dr. Rusche is eligible for participation in all of Repligen's welfare, profit sharing, retirement and savings plans on the same basis as other employees of Repligen. Dr. Rusche received a stock option to purchase 60,000 shares of the Common Stock at \$1.25 per share, vesting at 20% per annum over five years pursuant to the Rusche Agreement. Dr. Rusche's employment may be terminated, with or without cause, by either party upon 30 days prior written notice. In such event, Dr. Rusche would be entitled to continue receiving his salary for a period of six months or until he finds other employment, whichever occurs first.

Under the terms of the Witt Agreement, Dr. Witt is entitled to a minimum salary of \$115,000 per annum, subject to periodic increases at the discretion of the Board of Directors. Additionally, Dr. Witt is eligible for participation in all of Repligen's welfare, profit sharing, retirement and savings plans on the

same basis as other employees of Repligen. Dr. Witt received a stock option to purchase 60,000 shares of the Common Stock at \$1.25 per share, vesting at 20% per annum over five years pursuant to the Witt Agreement. Dr. Witt's employment may be terminated, with or without cause, by either party upon 30 days prior written notice. In such event, Dr. Witt would be entitled to continue receiving his salary for a period of six months or until he finds other employment, whichever occurs first.

Compensation Committee Interlocks and Insider Participation

The Compensation Committee currently consists of Dr. Schimmel and Mr. Miller. No member of the Compensation Committee is a current or former employee of Repligen. There are no Compensation Committee interlocks between Repligen and any other entities involving any of the executive officers or directors of such entities.

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STOCK PRICE PERFORMANCE GRAPH

The following graph compares the yearly percentage change in the cumulative total stockholder return (change in stock price plus reinvested dividends) on Repligen's Common Stock with the cumulative total return for the Nasdaq Stock Market Index (U.S.) (the "Nasdaq Composite Index") and the Nasdaq Pharmaceutical Stock Index (the "Nasdaq Pharmaceutical Index"). The comparisons in the graph are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of Repligen's Common Stock.

		NASDAQ	
	NASDAQ Stock	Pharmaceutical	RGEN Closing
YEAR	Market Index	Stock Index	Stock Price
	(U.S.)		
1997	100	100	100
1998	152	119	81
1999	205	151	209
2000	381	319	655
2001	152	240	196
2002	153	247	255

[LINE GRAPH OMITTED]

Assumes \$100 invested on March 31, 1997 in each of Repligen Corporation's Common Stock, the securities comprising the Nasdaq Composite Index and the securities comprising the Nasdaq Pharmaceutical Index.

COMPENSATION COMMITTEE REPORT TO STOCKHOLDERS

The Compensation Committee, which meets on a periodic basis, is comprised of two non-employee members of the Board of Directors. The Compensation Committee formulates and administers Repligen's compensation policies for the President and Chief Executive Officer and all vice presidents of Repligen. The Compensation Committee is also responsible for determining to whom and under what terms stock options should be granted (other than options which are automatically granted to members of the Board of Directors) under the Plan.

Compensation Philosophy

In designing its compensation programs, Repligen takes into account a number of considerations, some relevant to companies in general and some

relevant primarily to biotechnology and other research and development intensive companies. The ultimate goal of Repligen's compensation program is to motivate each employee to enhance stockholder value, to provide a fair reward for this effort, and to stimulate each employee's professional and personal growth. In addition, Repligen's compensation program attempts to achieve the following:

- o Provide compensation which is consistent with Repligen's annual and long-term objectives and achievements;
- o Promotion and reward of individual initiative, effort and accomplishment; and $% \left(1\right) =\left(1\right) \left(1\right) \left$
- o Establishment of a competitive total compensation package that enables Repligen to attract and retain qualified and motivated personnel.

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Performance Criteria

Since Repligen is still in the process of developing its proprietary products and because of the highly volatile nature of biotechnology stocks in general, it is not appropriate to use the traditional performance standards, such as profit levels and stock performance, to measure the success of Repligen and an individual's contribution to that success.

Accordingly, the compensation of executive officers is based, for the most part, on the achievement of certain goals by Repligen as a whole and the individual (and his or her business unit) concerned. The Compensation Committee therefore examines three specific areas in formulating the compensation packages of its three most senior executives. Criteria and specific goals within each category are as follows:

Company Performance:

- o The extent to which key research, clinical, product manufacturing, product sales and financial objectives of Repligen have been met during the preceding fiscal year;
 - o The development, acquisition and licensing of key technology; and
- o The achievement by Repligen of certain milestones, whether specified in agreements with third party collaborators or determined internally.

Executive Performance:

- o An executive's involvement in and responsibility for the development and implementation of strategic planning and the attainment of strategic objectives of Repligen;
- o The participation by an executive in the relationship between Repligen and the investment community;
- o The involvement of an executive in personnel recruitment, retention and morale; and
- o The responsibility of the executive in working within budgets, controlling costs and other aspects of expense management.

Other Factors:

o The necessity of being competitive with companies in the pharmaceutical and biotechnology industries, taking into account relative company size, stage of development, performance and geographic location as well as individual responsibilities and performance.

Mix of Compensation

Repligen's executive compensation has four principal components:

- o base salary;
- o annual cash bonuses;
- o incentive and/or non-qualified stock options; and
- o miscellaneous benefits.

In each case, the Committee regularly compares the individual elements comprising Repligen's executives' mix of compensation to that of a similar group of other biotechnology companies.

The comparison group is based on a multi-tiered classification of representative companies within the biotechnology industry according to numerous characteristics, including but not limited to company size, the number of proprietary products, stage of development of Repligen's products and total revenues. The tiered classification of biotechnology companies is reviewed annually and, if appropriate, revised as members of such tiers change from year to year.

After completing a review of the comparison group's compensation policies, the Committee determines competitive compensation levels for each executive position.

Levels of base salary are reviewed on an annual basis by the Committee. Base salary may be altered in line with changes in compensation amongst the companies included in the Committee's

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comparison group and further adjusted if the committee determines that an executive's contribution to Repligen has increased or decreased.

Annual cash bonuses are voted in April and calculated as a percentage of an executive's base salary as determined by both the bonus schedule that is established at the beginning of each fiscal year and by the various criteria set forth above. Stock options are also awarded from time to time based upon the same criteria and are intended both to retain and reward the executive and to provide further incentive for him or her to continue contributing to the long-term success of Repligen.

Respectfully submitted by the Compensation Committee,

G. William Miller Paul Schimmel, Ph.D.

The report of the Compensation Committee shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933 or under the Securities Exchange Act of 1934, except to the extent that Repligen specifically

incorporates this information by reference, and shall not otherwise be deemed filed under such $\mbox{Acts.}$

REPORT OF THE AUDIT COMMITTEE

The Audit Committee for the last fiscal year consisted of Dr. Rich, Committee Chairman, Mr. Hennessey and Mr. Miller. Each of the current members of the Audit Committee is independent (as defined in the NASDAQ's listing standards). That is, the Board has determined that none of the members of the Audit Committee has a relationship to Repligen that may interfere with his independence from Repligen and its management.

The primary function of the Audit Committee is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing financial reports and other financial information provided by the Company to any governmental body or the public, the Company's systems of internal controls regarding finance, accounting, legal compliance and ethics that management and the Board have established, and the Company's auditing, accounting and financial processes generally. The Audit Committee annually recommends to the Board of Directors the appointment of a firm of independent auditors to audit the financial statements of the Company and meets with such personnel of the Company to review the scope and the results of the annual audit, the amount of audit fees, the Company's internal accounting controls, the Company's financial statements contained in the Company's Annual Report to Stockholders and other related matters. The Audit Committee's Charter contains a more detailed description of the functions of the Audit Committee.

The Audit Committee has reviewed and discussed with management the financial statements for fiscal year 2002 audited by Arthur Andersen LLP, the Company's independent auditors. The Audit Committee has discussed with Arthur Andersen LLP various matters related to the financial statements, including those matters required to be discussed by SAS 61 (Codification of Statements on Auditing Standards, AU 380). The Audit Committee has also received the written disclosures and the letter from Arthur Andersen LLP required by Independence Standards Board Standard No. 1 (Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees), and has discussed with Arthur Andersen LLP its independence. Based upon such review and discussions, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ending March 31, 2002 for filing with the Securities and Exchange Commission.

AUDIT COMMITTEE

Dr. Alex Rich, Chairman Robert Hennessey G. William Miller

The report of the Audit Committee shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933 or under the Securities Exchange Act of 1934, except to the extent that Repligen specifically incorporates this information by reference, and shall not otherwise be deemed filed under such Acts.

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Audit Fees

The aggregate fees billed by Arthur Andersen LLP for professional services

rendered for the audit of Repligen's annual financial statements for the fiscal year ended March 31, 2002 and for the review of the financial statements included in Repligen's Forms 10-Q for the fiscal year ended March 31, 2002 were \$46,000.

Financial Information Systems Design and Implementation Fees

No fees were billed by Arthur Andersen LLP for financial information systems design and implementation professional services for the fiscal year ended March 31, 2002.

All Other Fees

The aggregate fees billed by Arthur Andersen LLP for services other than those described above for the fiscal year ended March 31, 2002 were \$12,000.

Repligen's Audit Committee has determined that the provision of the services provided by Arthur Andersen as set forth herein are compatible with maintaining Arthur Andersen's independence.

PROPOSAL 2 APPROVAL OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION AND BY-LAWS

In June 2002, the Board unanimously adopted, subject to stockholder approval, an Amended and Restated Certificate of Incorporation as set forth in Appendix A and Amended and Restated By-Laws as set forth in Appendix B. The proposed Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws implement the classification of the Board into three classes of directors with staggered terms of office and implement additional changes to the Company's existing certificate of incorporation and by-laws designed to deter hostile takeover attempts. The Board has determined that a hostile takeover attempt can disrupt the pursuit of the Company's day-to-day business objectives and long-term strategies, and thereby jeopardize long-term stockholder value. Also, a hostile acquirer may seek to acquire the Company on terms that are less favorable to the stockholders as a whole than those that might be obtained through a negotiated, Board-approved transaction. The Board believes, therefore, that the adoption of the anti-takeover provisions encompassed within Proposal 2 is in the best interests of the Company's stockholders.

The Board is not aware that any person or entity is seeking to accumulate Repligen stock or otherwise obtain control of Repligen through a tender offer, exchange offer or other means. The Board believes that the proposed changes should be adopted in any event, so that Repligen, its management and its stockholders may have greater assurance that Repligen will not be subject to the disruptions and costs often associated with hostile takeover efforts and that, in the event that a takeover proposal is received, the Board will be in a better position to fully study the proposal and, if appropriate, negotiate the most favorable transaction terms. The Company knows of no rules or practices of The Nasdaq National Market, on which the Company's common stock is traded, that limit the Company's ability to adopt the anti-takeover measures summarized below or that might cause The Nasdaq National Market to de-list the Company's common stock in the event that this Proposal 2 is adopted. The Board presently does not intend to propose other anti-takeover measures in future proxy solicitations.

Summary of Proposed Changes to the Certificate of Incorporation and By-Laws

The following is a summary of the principal changes that the proposed Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws together make to the Company's existing certificate of incorporation and by-laws. The Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws, which the Board voted unanimously to adopt subject to

stockholder approval, contain the anti-takeover provisions summarized below. Such anti-takeover provisions, therefore, all were considered and unanimously approved by the Board.

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Classified Board of Directors. The Company's existing by-laws provide that all directors are to be elected annually for terms of one year. As a result, a change in control of the Board can be completed by stockholders holding a majority of the votes cast at a single annual meeting. The proposed amendments to the Company's certificate of incorporation and by-laws provide that directors will be classified into three classes, with no one class having more than one director more than any other class. Class I Directors would hold office initially for a term expiring at the 2003 annual meeting; Class II Directors would hold office initially for a term expiring at the 2004 annual meeting; and Class III Directors would hold office initially for a term expiring at the 2005 annual meeting. At each annual meeting following this initial classification and election, the successors to the class of directors whose term expire at that meeting would be elected for a term of office to expire at the third annual meeting following the annual meeting at which the director was elected. See Proposal 1, Election of Directors, of this proxy statement for a description of the initial member composition of each class of directors if this Proposal 2 is adopted. If this Proposal 2 is approved, the classification of the Board will become effective immediately and will be applicable to every subsequent election of directors. The implementation of a classified board of directors will have the practical effect of requiring at least two annual meetings for a stockholder or group of stockholders to effect a change in control of the Board (absent resignations), because only a minority of the directors will be elected at each meeting. While the Company has not experienced problems with continuity and stability of the Board in the past, the Board is proposing to implement a classified board of directors to deter possible future hostile takeover attempts and to ensure that such continuity and stability will be retained into the future. A classified board of directors works to prevent a potential hostile acquirer from taking control of the board of directors at a single stockholders meeting, and thereby encourages a potential acquirer to pursue a negotiated acquisition on terms favorable to the Company and its stockholders. A potential disadvantage of a classified board of directors, however, is that each director serves for a three year term, not the current one year term, and consequently the stockholders may be required to wait longer to replace a director with whom they are dissatisfied.

Stockholder Action By Written Consent. Delaware law allows that, unless otherwise provided in the certificate of incorporation, the stockholders of a corporation may take action by written consent in lieu of a meeting. Repligen's current certificate of incorporation does not restrict the stockholders' ability to take action by written consent and Repligen's current by-laws expressly authorize stockholder action by written consent. The existing certificate of incorporation and by-laws accordingly present the possibility that stockholder action could be taken without prior notice to or the involvement of the Board. The proposed Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws prohibit stockholders from taking action by written consent in lieu of a meeting. The Board is proposing to eliminate stockholder actions by written consent to reduce the possibility that a potential acquirer might regard the Company as an attractive target for a hostile takeover attempt. If this Proposal 2 is approved, all stockholder actions sought by a hostile acquirer will be required to be taken at an annual meeting of the stockholders, and the Board will have prior notice of and an opportunity to evaluate and respond to all such proposed actions. At the same time, however, the elimination of stockholder actions by written consent could postpone the consideration of a

stockholder proposal, including a proposal supported by a majority of the stockholders, until the next stockholders meeting.

Special Meetings of the Stockholders. Delaware law provides that special meetings of stockholders may be called by the Board of Directors or by such persons as may be authorized by the certificate of incorporation or the by-laws. The Company's by-laws presently permit one or more stockholders holding at least a majority of the outstanding shares of stock to request that a special meeting of stockholders be called. The proposed Amended and Restated By-Laws provide that a special meeting may be called only by the Chairman of the Board, a majority of the Board or the President. The practical effect of this change, if approved, is that stockholders desiring to bring business before a stockholder meeting may be required to await the next annual meeting of stockholders and comply with the advance written notice requirements described below. By eliminating the right of stockholders to call a special meeting, and thereby lengthening the amount of time required to take stockholder actions, the Company is deterring hostile takeover attempts that otherwise would involve a special meeting of the stockholders called by the potential acquirer. The elimination of the right of the stockholders to a call a special meeting is potentially disadvantageous to stockholders, however, because a stockholder proposal that otherwise might have been considered at a special stockholders meeting called by a stockholder or group of stockholders possibly may not be considered until the next annual meeting of stockholders at which the proposal can be introduced in accordance with the applicable notice requirements.

Business at Meetings of Stockholders. The Company's existing by-laws do not require that a stockholder give advance written notice of business that it wishes to introduce at a meeting of stockholders. Under the proposed Amended and Restated By-Laws, a stockholder seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors at an annual meeting of stockholders, must provide timely notice of this intention in writing. To be timely, a stockholder's notice must be delivered to our Secretary at our principal executive offices not less than 120 days prior to the first anniversary of the date of our notice of annual meeting provided with respect to the previous year's annual meeting of stockholders, except that different notice requirements apply if the date of the annual meeting is more than 30 days before or more than 60 days after the first anniversary date of the preceding year's annual meeting or if no proxy statement was delivered to stockholders in connection with the preceding year's annual meeting. The proposed Amended and Restated By-Laws include a similar notice requirement for making nominations at special meetings and specify requirements as to the form and content of a stockholder's notice. These provisions, if approved, may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual or special meeting of stockholders. The proposed notice requirements can serve to discourage hostile takeover attempts owing to the amount of time required for introducing any takeover-related proposals at a stockholders meeting. In the event that a takeover proposal is offered for stockholder approval, the proposed notice requirements provide the directors adequate time to carefully consider and respond to the proposal. The proposed notice requirements are applicable to all stockholder proposals, however, and consequently can serve to delay efforts by stockholders to introduce a stockholder proposal unrelated to a takeover attempt, even if such proposal might be favored by a majority of the Company's stockholders.

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Removal of Directors. Delaware law provides that a director may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except that a director serving on

a classified board of directors may be removed only for cause, unless the certificate of incorporation provides otherwise. The Board presently is not a classified board of directors, and the Company's by-laws presently permit directors to be removed, with or without cause, by vote of a majority of the stockholders entitled to vote at an election of directors. The proposed Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws establish a classified board of directors having three classes with staggered three-year terms, and provide that a director may be removed only for cause upon the vote of at least 75% of the shares entitled to vote at an election of directors. The provisions requiring a 75% vote and cause for the removal of a director, if approved, will in practice make it more difficult for the stockholders to remove a director. The Company believes that these provisions limiting the rights of stockholders to remove directors may deter a potential hostile acquirer from attempting to gain control of the Company's Board. These provisions may be disadvantageous to the stockholders, however, for the reasons mentioned in the discussion of the effects of supermajority voting provisions in the following paragraph, and because it will be more difficult for the stockholders to remove a director prior to the conclusion of such director's term.

Required Vote to Amend the Certificate of Incorporation and By-Laws. The Company's existing certificate of incorporation and by-laws may be amended by a majority vote of the stockholders. Most provisions of the proposed Amended and Restated Certificate of Incorporation may be amended only by vote of at least 75% of the voting power of all outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class, except that the number of authorized shares of capital stock may be increased by majority vote. The proposed Amended and Restated By-Laws may be amended by a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present, or upon the vote of at least 75% of the voting power of all outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class. The Board believes that these supermajority voting requirements tend to deter hostile takeover attempts insofar as they make it more difficult for a potential acquirer to obtain charter and by-law changes integral to its hostile takeover strategy. The supermajority voting requirements could have the effect of enabling management to obtain a veto power over a potential future hostile takeover transaction, regardless of whether the transaction is desired by or beneficial to a majority of the stockholders, and in that way, could enable management in the future to retain their positions. In addition, the supermajority voting requirements could give the holder or holders of a minority of the outstanding shares entitled to vote on a hostile takeover proposal a veto over the proposal, even though the proposal is supported by management and/or a majority of the stockholders. Based on the beneficial ownership figures presented elsewhere in this proxy statement, however, the referenced veto powers currently are not present. As stated in the Stock Ownership of Directors and Executive Officers section of this proxy statement, the directors and executive officers of the Company as a group hold 9.3% of the outstanding shares entitled to vote, with the executive officers, some of whom are also directors, holding 4.4% and the outside directors holding 4.9% of the outstanding shares entitled to vote. As stated in the Principal Holders of Voting Securities section of this proxy statement, those stockholders that beneficially own more than 5% of the outstanding shares entitled to vote together own 19.4% of the total shares outstanding. More generally, the supermajority voting requirements also could prove disadvantageous in the future to stockholders that are seeking to amend the Company's charter or by-laws, because the proposal will need a supermajority vote rather than a simple majority vote for passage.

Factors That The Board May Consider When Evaluating A Tender or Exchange Offer or Potential Business Combination. The Company's existing certificate of incorporation and by-laws do not delineate the factors that the Board may consider when evaluating another party's offer to make a tender or exchange

offer or to effect a business combination. The proposed Amended and Restated Certificate of Incorporation provides that in such circumstances, the Board, in connection with the exercise of its judgment in determining what is in the best interests of the Company as a whole, shall be authorized to give due consideration to any such factors that it determines to be relevant, including, without limitation: (i) the interests of the Company's stockholders, including the possibility that these interests might be best served by the Company's continued independence; (ii) whether the proposed transaction might violate federal or state laws; (iii) not only the consideration being offered in the proposed transaction, in relation to the then current market price for the Company's outstanding capital stock, but also to the market price for the Company's capital stock over a period of years, the estimated price that might be achieved in a negotiated sale of the Company as a whole or in part or through orderly liquidation, the premiums over market price for the securities of other corporations in similar transactions, current political, economic and other factors bearing on securities prices and the Company's financial condition and future prospects; and (iv) the social, legal and economic effects upon employees, suppliers, customers, creditors and others having similar relationships with the Company, upon the communities in which the Company conducts its business and upon the economy of the state, region and nation. Such a provision affords the Board more latitude when evaluating a tender or exchange offer, but also may provide a basis upon which the Board might reject a proposal that may offer highest short-term share price.

Existing Takeover Defenses

Repligen has certain limited anti-takeover defenses in place at the present time. These defenses would be unaffected by the proposed changes to the certificate of incorporation and by-laws. The following is a summary of these existing takeover defenses.

Blank Check Preferred Stock. The Company's existing certificate of incorporation authorizes the Board to issue up to 5,000,000 shares of "blank check" preferred stock with voting and rights, preferences and privileges to be designated solely by the Board. The Board may issue such shares to any third party without seeking stockholder approval for the issuance. Although it currently has no intention to do so, the Board could issue shares of preferred stock with voting and conversion rights that could adversely affect the voting power and other rights of the holders of common stock, including the loss of voting control, and that could have economic rights senior to the common stock. As a consequence, the issuance of shares of preferred stock of the Company could have the effect of delaying or preventing a change in control of the Company, and could have a material adverse effect on the market value of the common stock.

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No Cumulative Voting. The Company's certificate of incorporation does not provide for cumulative voting rights. Cumulative voting provides that each share of stock normally having one vote is entitled to a number of votes equal to the number of directors to be elected. A stockholder may then cast all such votes for a single nominee or may allocate such votes among as many nominees as the stockholder may choose. In the absence of cumulative voting, the holders of the majority of the shares present or represented at a meeting in which directors are to be elected have the power to elect all the directors to be elected at such meeting, and no nominee can be elected without the support of holders of the majority of shares present or represented by proxy at such meeting. The absence of cumulative voting makes it difficult for a minority stockholder adverse to a majority of the stockholders to obtain representation on the board of directors.

Delaware anti-takeover law. Subject to certain exceptions, Section 203 of the Delaware General Corporation Law prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A "business combination" is defined as a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to various exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within the past three years did own, 15% or more of a corporation's voting stock. Section 203 could prohibit or delay the accomplishment of takeover attempts and, accordingly, may discourage such takeover attempts. Although a Delaware corporation to which Section 203 applies may elect not to be covered by Section 203, Repligen has made no such election and is subject to Section 203.

Summary of Advantages and Disadvantages of the Proposed Changes to the Certificate of Incorporation and $\mbox{By-Laws}$

The Board is recommending the proposed changes to the Company's certificate of incorporation and by-laws described in this Proposal 2 because these changes, taken together, tend to discourage hostile bids for control of the Company and, in the event that a third-party seeks to acquire the Company, will enable the Board to exercise greater influence over the sale process and thereby more effectively seek the most favorable acquisition terms. In particular, the classified board provisions and the other proposed anti-takeover provisions work to limit the ability of a hostile acquirer to take control of the Company's Board of Directors. In addition, the provisions eliminating stockholder actions by written consent and the right of stockholders to call special meetings, and the provision establishing notice requirements for the introduction of business at stockholders meetings, tend to lengthen the stockholder approval process. The lengthened approval process serves to deter hostile takeover offers, and encourage potential acquirers to pursue a negotiated takeover process.

The Board is seeking to implement the proposed anti-takeover provisions because the Board believes that a hostile takeover attempt may be disadvantageous to the Company and its stockholders. Hostile bids often are timed to take advantage of a temporarily depressed stock price and designed to thwart the possibility that more favorable bids or alternative transactions might be sought or considered. Hostile takeover attempts consequently present the risk that the Company might be sold on terms that are less favorable to the stockholders than would be available in a negotiated, board-approved transaction, which can be carefully planned and pursued at an opportune time in order to obtain maximum value for the Company and its stockholders.

In addition, the proposed changes to the Company's certificate of amendment and by-laws, particularly the implementation of a classified board of directors, will assure continuity and stability of the Board. Although the Company has not experienced problems with continuity and stability in the past, the Board wishes to ensure that continuity and stability will be retained into the future. The Board believes that continuity and stability of the Board enables the Company to more effectively conceive, implement and benefit from long-term strategic plans aimed at producing long-term value for the Company's stockholders.

As discussed in the summary section above, the proposed changes to the Company's certificate of incorporation and by-laws present certain potential disadvantages to the Company's stockholders. The proposed changes could discourage a possible future takeover attempt that a majority of the

stockholders would have favored or that would have paid a significant premium to stockholders. The changes implementing the elimination of stockholder action by written consent and the right of stockholders to call special meetings and establishing notice requirements for bringing business before stockholders meetings also may enable the Board to resist change and otherwise thwart the desires of a majority of the stockholders. In addition, the proposed changes, particularly the implementation of a classified board of directors and the imposition of more stringent requirements for the removal of a director, may be disadvantageous to stockholders because they may limit their flexibility to determine the composition of the Board or to make other changes even in circumstances where a majority of the stockholders may be dissatisfied with the performance of the incumbent directors or otherwise desire to make changes. Nevertheless, the Board has carefully weighed the advantages and disadvantages of the proposed changes to the stockholders of the Company, and has determined that the advantages outweigh the disadvantages. In addition, the Board is mindful that the board of directors of a Delaware corporation has a fiduciary duty to act in the best interests of the stockholders. The Board believes that that this duty mitigates to a great extent the potential disadvantages to stockholders of the changes proposed to the certificate of incorporation and by-laws under this Proposal 2.

The Board recommends a vote FOR the proposal to approve the Amended and Restated Certificate of Incorporation as set forth in Appendix A and the Amended and Restated By-Laws as set forth in Appendix B.

PROPOSAL 3 RATIFICATION OF SELECTION OF INDEPENDENT AUDITORS

The Audit Committee of the Board of Directors of Repligen Corporation annually considers and recommends to the Board the selection of Repligen's independent public accountants. Effective June 12, 2002, as recommended by the Audit Committee, the Board of Directors of Repligen dismissed Arthur Andersen LLP as its independent certifying accountants and engaged Ernst & Young LLP to serve as its independent certifying accountants for the fiscal year ending March 31, 2003, which engagement is being submitted to the stockholders for ratification at the Annual Meeting.

Arthur Andersen's audit reports on Repligen's financial statements for each of the two most recent fiscal years ended Mach 31, 2002 and 2001 did not contain an adverse opinion or disclaimer of opinion nor were they qualified or modified as to any uncertainty, audit scope or accounting principles.

In connection with the audits for the periods ending March 31, 2002 and 2001 and the subsequent interim period through the dismissal of Arthur Andersen LLP, there were no disagreements with Arthur Andersen LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which, if not resolved to the satisfaction of Arthur Andersen LLP, would have caused them to refer to such disagreement in connection with their report.

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Within the two most recent fiscal years of Repligen ended March 31, 2002 and 2001 and the subsequent interim period through the dismissal of Arthur Andersen LLP, none of the reportable events as defined in Item 304(a)(1)(v) of Regulation S-K occurred, and Repligen did not consult Ernst & Young LLP with respect to the application of accounting principles to a specified transaction, either completed or proposed, or type of audit opinion that might be rendered on Repligen's financial statements. Representatives of Ernst & Young LLP are

expected to be present at the Annual Meeting, with the opportunity to make a statement if they desire to do so, and to be available to respond to appropriate questions. Representatives of Arthur Andersen LLP are not expected to be present at the Annual Meeting, have the opportunity to make a statement or be available to respond to questions. The appointment of the independent auditors will be ratified if it receives the affirmative vote of the holders of a majority of shares of the Common Stock of Repligen present at the Annual Meeting, in person or by proxy. Submission of the appointment of the auditors to the stockholders for ratification will not limit the authority of the Board to appoint another accounting firm to serve as independent auditors if the present auditors resign or their engagement is otherwise terminated.

The Board recommends a vote FOR the ratification of Ernst & Young LLP as independent auditors.

SECTION 16 BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires Repligen's directors, executive officers, and holders of more than ten percent of Repligen's Common Stock (collectively, "Reporting Persons"), to file with the Securities and Exchange Commission ("SEC") initial reports of ownership and reports of changes in ownership of Common Stock of Repligen. Such Reporting Persons are required by SEC regulation to furnish Repligen with copies of all Section 16(a) reports they file. Based on its review of the copies of such filings received by it with respect to the fiscal year ended March 31, 2002, all required persons complied with all Section 16(a) filing requirements, except that Dr. Schimmel filed a late Form 4 that reported two open market purchases of the Company's Common Stock in February 2002 and Dr. Schimmel's appointment as trustee of the Alfred Schimmel Trust in 1997, which at the time of such appointment held shares of the Company's Common Stock.

STOCKHOLDERS' PROPOSALS

Repligen must receive any proposal by a stockholder of Repligen intended to be presented at the 2003 Annual Meeting of Stockholders at its principal executive office not later than February 1, 2003 for inclusion in Repligen's proxy statement and form of proxy relating to that meeting. Any such proposal must comply with the requirements of the proxy solicitation rules of the SEC.

OTHER BUSINESS

Management does not know of any other matters to be brought before the Meeting except those set forth in the notice thereof. If other business is properly presented for consideration at the Meeting, it is intended that the Proxies will be voted by the persons named therein in accordance with their judgment on such matters.

Even if you plan to attend the Meeting in person, please sign, date and return the enclosed Proxy promptly. A postage-paid return-addressed envelope is enclosed for your convenience. Your cooperation in giving this matter your immediate attention and in returning your proxies will be appreciated.

EXPENSES

The cost of solicitation will be borne by Repligen, and in addition to directly soliciting stockholders by mail, Repligen may request banks and brokers to solicit their customers who have stock of Repligen registered in the name of the nominee and, if so, will reimburse such banks and brokers for their reasonable out-of-pocket costs. Solicitation by officers and employees of Repligen may also be made of some stockholders in person or by mail or telephone following the original solicitation. Repligen may, if appropriate, retain an independent proxy solicitation firm to assist Repligen in soliciting proxies. If

Repligen does retain a proxy solicitation firm, Repligen would pay such firm's customary fees and expenses which such fees would be expected to be approximately \$10,000, plus expenses.

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APPENDIX A AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

REPLIGEN CORPORATION

(Incorporated May 29, 1981)

* * * * * *

I, Walter C. Herlihy, President and Chief Executive Officer of Repligen Corporation (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, do hereby certify that the Certificate of Incorporation of Repligen Corporation, as amended, has been further amended, and restated as amended, in accordance with provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware, and, as amended and restated, is set forth in its entirety as follows:

FIRST. The name of the Corporation is Repligen Corporation.

SECOND. The address of the registered office of the Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, New Castle County, Delaware 19808. The name of its registered agent at such address is Corporate Service Corporation.

THIRD. The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH. The total number of shares of all classes of capital stock which the Corporation shall have authority to issue is 45,000,000 shares, consisting of 40,000,000 shares of Common Stock with a par value of \$.01 per share (the "Common Stock") and 5,000,000 shares of Preferred Stock with a par value of \$.01 per share (the "Preferred Stock").

A description of the respective classes of stock and a statement of the designations, powers, preferences and rights, and the qualifications, limitations and restrictions of the Preferred Stock and Common Stock are as follows:

A. COMMON STOCK

- 1. General. All shares of Common Stock will be identical and will entitle the holders thereof to the same rights, powers and privileges. The rights, powers and privileges of the holders of the Common Stock are subject to and qualified by the rights of holders of the Preferred Stock.
- 2. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend rights of any then outstanding Preferred Stock.

- 3. Dissolution, Liquidation or Winding Up. In the event of any dissolution, liquidation or winding up of the affairs of the Corporation, whether voluntary or involuntary, each issued and outstanding share of Common Stock shall entitle the holder thereof to receive an equal portion of the net assets of the Corporation available for distribution to the holders of Common Stock, subject to any preferential rights of any then outstanding Preferred Stock.
- 4. Voting Rights. Except as otherwise required by law or this Amended and Restated Certificate of Incorporation, each holder of Common Stock shall have one vote in respect of each share of stock held of record by such holder on the books of the Corporation for the election of directors and on all matters submitted to a vote of stockholders of the Corporation. Except as otherwise required by law or provided herein, holders of Common Stock shall vote together with holders of the Preferred Stock as a single class, subject to any special or preferential voting rights of any then outstanding Preferred Stock. There shall be no cumulative voting.

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B. PREFERRED STOCK

The Preferred Stock may be issued in one or more series at such time or times and for such consideration or considerations as the Board of Directors of the Corporation may determine. Each series shall be so designated as to distinguish the shares thereof from the shares of all other series and classes. Except as otherwise provided in this Amended and Restated Certificate of Incorporation, different series of Preferred Stock shall not be construed to constitute different classes of shares for the purpose of voting by classes.

The Board of Directors is expressly authorized to provide for the issuance of all or any shares of the undesignated Preferred Stock in one or more series, each with such designations, preferences, voting powers (or special, preferential or no voting powers), relative, participating, optional or other special rights and privileges and such qualifications, limitations or restrictions thereof as shall be stated in the resolution or resolutions adopted by the Board of Directors to create such series, and a certificate of said resolution or resolutions (a "Certificate of Designation") shall be filed in accordance with the General Corporation Law of the State of Delaware. The authority of the Board of Directors with respect to each such series shall include, without limitation of the foregoing, the right to provide that the shares of each such series may be: (i) subject to redemption at such time or times and at such price or prices; (ii) entitled to receive dividends (which may be cumulative or non-cumulative) at such rates, on such conditions, and at such times, and payable in preference to, or in such relation to, the dividends payable on any other class or classes or any other series; (iii) entitled to such rights upon the dissolution of, or upon any distribution of the assets of, the Corporation; (iv) convertible into, or exchangeable for, shares of any other class or classes of stock, or of any other series of the same or any other class or classes of stock of the Corporation at such price or prices or at such rates of exchange and with such adjustments, if any; (v) entitled to the benefit of such limitations, if any, on the issuance of additional shares of such series or shares of any other series of Preferred Stock; or (vi) entitled to such other preferences, powers, qualifications, rights and privileges, all as the Board of Directors may deem advisable and as are not inconsistent with law and the provisions of this Amended and Restated Certificate of Incorporation.

FIFTH. The Corporation is to have perpetual existence.

SIXTH. The following provisions are included for the management of the

business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its Board of Directors and stockholders:

- 1. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors of the Corporation.
- 2. The Board of Directors of the Corporation is expressly authorized to adopt, amend or repeal the By-laws of the Corporation, subject to any limitation thereof contained in the By-laws. The stockholders shall also have the power to adopt, amend or repeal the By-laws of the Corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the By-laws of the Corporation.
- 3. Stockholders of the Corporation may not take any action by written consent in lieu of a meeting.
- 4. Special meetings of stockholders may be called at any time only by the President, the Chairman of the Board of Directors (if any) or a majority of the Board of Directors. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.
- 5. The books of the Corporation may be kept at such place within or without the State of Delaware as the By-laws of the Corporation may provide or as may be designated from time to time by the Board of Directors of the Corporation.

SEVENTH.

1. Number of Directors. The number of directors which shall constitute the whole Board of Directors shall be determined by resolution of a majority of the Board of Directors, but in no event shall the number of directors be less than three. The number of directors may be decreased at any time and from time to time by a majority of the directors then in office, but only to eliminate vacancies existing by reason of the death, resignation, removal or expiration of the term of one or more directors. The directors shall be

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elected at the annual meeting of stockholders (or, if so determined by the Board of Directors, at a special meeting of stockholders), by such stockholders as have the right to vote on such election. Directors need not be stockholders of the Corporation.

- 2. Classes of Directors. The Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. No one class shall have more than one director more than any other class.
- 3. Election of Directors. Elections of directors need not be by written ballot except as and to the extent provided in the By-laws of the Corporation.
- 4. Terms of Office. Each director shall serve for a term ending on the date of the third annual meeting following the annual meeting at which such director was elected; provided, however, that each initial director in Class I

shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2003; each initial director in Class II shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2004; and each initial director in Class III shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2005.

- 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 director of the class of which he or she is a member until the expiration of such director's current term or his or her prior death, removal or resignation 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 earliest dates following such allocation, unless otherwise provided for from time to time by resolution adopted by a majority of the directors then in office, though less than a quorum. No decrease in the number of directors constituting the whole Board of Directors shall shorten the term of an incumbent Director.
- 6. Tenure. Notwithstanding any provisions to the contrary contained herein, each director shall hold office until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.
- 7. Vacancies. Unless and until filled by the stockholders, any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board of Directors, may be filled only by vote of a majority of the directors then in office, even if less than a quorum, or by a sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office, if applicable, and a director chosen to fill a position resulting from an increase in the number of directors shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.
- 8. Quorum. A majority of the total number of the whole Board of Directors shall constitute a quorum at all meetings of the Board of Directors. In the event one or more of the directors shall be disqualified to vote at any meeting, then the required quorum shall be reduced by one for each such director so disqualified; provided, however, that in no case shall less than one-third (1/3) of the total number of the whole Board of Directors constitute a quorum. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.
- 9. Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law or the Corporation's By-laws.
- 10. Removal. Any one or more or all of the directors may be removed, only for cause, by the holders of at least seventy-five percent (75%) of the shares then entitled to vote at an election of directors.
- 11. Stockholder Nominations and Introduction of Business, Etc. Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before a meeting of stockholders shall be given in

the manner provided in the By-laws of the Corporation.

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12. Rights of Preferred Stock. The provisions of this Article are subject to the rights of the holders of any series of Preferred Stock from time to time outstanding.

EIGHTH. No director (including any advisory director) of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director notwithstanding any provision of law imposing such liability; provided, however, that, to the extent provided by applicable law, this provision shall not eliminate the liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derived an improper personal benefit. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

NINTH. The Board of Directors of the Corporation, when evaluating any offer of another party (a) to make a tender or exchange offer for any equity security of the Corporation or (b) to effect a business combination, shall, in connection with the exercise of its judgment in determining what is in the best interests of the Corporation as whole, be authorized to give due consideration to any such factors as the Board of Directors determines to be relevant, including, without limitation:

- (i) the interests of the Corporation's stockholders, including the possibility that these interests might be best served by the continued independence of the Corporation;
- (ii) whether the proposed transaction might violate federal or state laws;
- (iii) not only the consideration being offered in the proposed transaction, in relation to the then current market price for the outstanding capital stock of the Corporation, but also to the market price for the capital stock of the Corporation over a period of years, the estimated price that might be achieved in a negotiated sale of the Corporation as a whole or in part or through orderly liquidation, the premiums over market price for the securities of other corporations in similar transactions, current political, economic and other factors bearing on securities prices and the Corporation's financial condition and future prospects; and
- (iv) the social, legal and economic effects upon employees, suppliers, customers, creditors and others having similar relationships with the Corporation, upon the communities in which the Corporation conducts its business and upon the economy of the state, region and nation.

In connection with any such evaluation, the Board of Directors is authorized to conduct such investigations and engage in such legal proceedings as the Board of Directors may determine.

TENTH.

1. Actions, Suits and Proceedings Other than by or in the Right of the Corporation. The Corporation shall indemnify each person who was or is a party or is 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 he or she is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her or on his or her behalf in connection with such action, suit or proceeding and any appeal therefrom, if he or she acted in good faith and in a manner he or she 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 or her 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, of itself, create a presumption that the person did not act in good faith and in a manner which he or she 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 reasonable cause to believe that his or her conduct was unlawful. Notwithstanding anything to the contrary in this Article, except as set forth in Section 6 below, the Corporation shall not indemnify an Indemnitee seeking indemnification in connection with a proceeding (or part thereof) initiated by the Indemnitee unless the initiation thereof was approved by the Board of Directors of the Corporation.

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- 2. Actions or Suits by or in the Right of the Corporation. The Corporation shall indemnify any Indemnitee who was or is a party or is 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 he or she is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and amounts paid in settlement actually and reasonably incurred by him or her or on his or her behalf in connection with such action, suit or proceeding and any appeal therefrom, if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Corporation, except that no indemnification shall be made in respect of 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 the Court of Chancery of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses (including attorneys' fees) which the Court of Chancery of Delaware or such other court shall deem proper.
- 3. Indemnification for Expenses of Successful Party. Notwithstanding the other provisions of this Article, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article, or in defense of any

claim, issue or matter therein, or on appeal from any such action, suit or proceeding, he or she shall be indemnified against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. Without limiting the foregoing, if any action, suit or proceeding is disposed of, on the merits or otherwise (including a disposition without prejudice), without (i) the disposition being adverse to the Indemnitee, (ii) an adjudication that the Indemnitee was liable to the Corporation, (iii) a plea of guilty or nolo contendere by the Indemnitee, (iv) an adjudication that the Indemnitee did not act in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and (v) with respect to any criminal proceeding, an adjudication that the Indemnitee had reasonable cause to believe his or her conduct was unlawful, the Indemnitee shall be considered for the purpose hereof to have been wholly successful with respect thereto.

- 4. Notification and Defense of Claim. As a condition precedent to his or her right to be indemnified, the Indemnitee must notify the Corporation in writing as soon as practicable of any action, suit, proceeding or investigation involving him or her for which indemnity will or could be sought. With respect to any action, suit, proceeding or investigation of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to the Indemnitee. After notice from the Corporation to the Indemnitee of its election so to assume such defense, the Corporation shall not be liable to the Indemnitee for any legal or other expenses subsequently incurred by the Indemnitee in connection with such claim, other than as provided below in this Section 4. The Indemnitee shall have the right to employ his or her own counsel in connection with such claim, but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of the Indemnitee unless (i) the employment of counsel by the Indemnitee has been authorized by the Corporation, (ii) counsel to the Indemnitee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and the Indemnitee in the conduct of the defense of such action or (iii) the Corporation shall not in fact have employed counsel to assume the defense of such action, in each of which cases the fees and expenses of counsel for the Indemnitee shall be at the expense of the Corporation, except as otherwise expressly provided by this Article. The Corporation shall not be entitled, without the consent of the Indemnitee, to assume the defense of any claim brought by or in the right of the Corporation or as to which counsel for the Indemnitee shall have reasonably made the conclusion provided for in clause (ii) above.
- 5. Advance of Expenses. Subject to the provisions of Section 6 below, in the event that the Corporation does not assume the defense pursuant to Section 4 of this Article of any action, suit, proceeding or investigation of which the Corporation receives notice under this Article, any expenses (including attorneys' fees) incurred by an Indemnitee in defending a civil or criminal action, suit, proceeding or investigation or any appeal therefrom shall be paid by the Corporation in advance of the final disposition of such matter, provided, however, that the payment of such expenses incurred by an Indemnitee in advance of the final disposition of such matter shall be made only upon receipt of an undertaking by or on behalf of the Indemnitee to repay all amounts so advanced in the event that it shall ultimately be determined that the indemnitee is not entitled to be indemnified by the Corporation as authorized in this Article. Such undertaking may be accepted without reference to the financial ability of such person to make such repayment.

- 6. Procedure for Indemnification. In order to obtain indemnification or advancement of expenses pursuant to Section 1, 2, 3 or 5 of this Article, the Indemnitee shall submit to the Corporation a written request, including in such request such documentation and information as is reasonably available to the Indemnitee and is reasonably necessary to determine whether and to what extent the Indemnitee is entitled to indemnification or advancement of expenses. Any such indemnification or advancement of expenses shall be made promptly, and in any event within 60 days after receipt by the Corporation of the written request of the Indemnitee, unless with respect to requests under Section 1, 2 or 5 the Corporation determines, by clear and convincing evidence, within such 60-day period that the Indemnitee did not meet the applicable standard of conduct set forth in Section 1 or 2, as the case may be. Such determination shall be made in each instance by (a) a majority vote of the directors of the Corporation who are not at that time parties to the action, suit or proceeding in question ("disinterested directors"), even though less than a quorum, (b) if there are no such disinterested directors, or if such disinterested directors so direct, by independent legal counsel (who may be regular legal counsel to the corporation) in a written opinion, (c) a majority vote of a quorum of the outstanding shares of stock of all classes entitled to vote for directors, voting as a single class, which quorum shall consist of stockholders who are not at that time parties to the action, suit or proceeding in question, or (d) a court of competent jurisdiction.
- 7. Remedies. The right to indemnification or advances as granted by this Article shall be enforceable by the Indemnitee in any court of competent jurisdiction if the Corporation denies such request, in whole or in part, or if no disposition thereof is made within the 60-day period referred to above in Section 6. Unless otherwise provided by law, the burden of proving that the Indemnitee is not entitled to indemnification or advancement of expenses under this Article shall be on the Corporation. Neither the failure of the Corporation to have made a determination prior to the commencement of such action that indemnification is proper in the circumstances because the Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation pursuant to Section 6 that the Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the Indemnitee has not met the applicable standard of conduct. The Indemnitee's expenses (including attorneys' fees) incurred in connection with successfully establishing his or her right to indemnification, in whole or in part, in any such proceeding shall also be indemnified by the Corporation.
- 8. Subsequent Amendment. No amendment, termination or repeal of this Article or of the relevant provisions of the General Corporation Law of the State of Delaware or any other applicable laws shall affect or diminish in any way the rights of any Indemnitee to indemnification under the provisions hereof with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the final adoption of such amendment, termination or repeal.
- 9. Other Rights. The indemnification and advancement of expenses provided by this Article shall not be deemed exclusive of any other rights to which an Indemnitee seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), agreement or vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in any other capacity while holding office for the Corporation, and shall continue as to an Indemnitee who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of the Indemnitee. Nothing contained in this Article shall be deemed to prohibit, and the Corporation is specifically authorized to enter into, agreements with officers and directors providing indemnification rights and procedures different from those set forth in this Article. In addition, the Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification rights to other employees

or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article.

- 10. Partial Indemnification. If an Indemnitee is entitled under any provision of this Article to indemnification by the Corporation for some or a portion of the expenses (including attorneys' fees), judgments, fines or amounts paid in settlement actually and reasonably incurred by him or her or on his or her behalf in connection with any action, suit, proceeding or investigation and any appeal therefrom but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify the Indemnitee for the portion of such expenses (including attorneys' fees), judgments, fines or amounts paid in settlement to which the Indemnitee is entitled.
- 11. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) against any expense, liability or loss incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law of the State of Delaware.

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- 12. Merger or Consolidation. If the Corporation is merged into or consolidated with another corporation and the Corporation is not the surviving corporation, the surviving corporation shall assume the obligations of the Corporation under this Article with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the date of such merger or consolidation.
- 13. Savings Clause. If this Article or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any expenses (including attorneys' fees), judgments, fines and amounts paid in settlement in connection with any action, suit, proceeding or investigation, whether civil, criminal or administrative, including an action by or in the right of the Corporation, to the fullest extent permitted by an applicable portion of this Article that shall not have been invalidated and to the fullest extent permitted by applicable law.
- 14. Definitions. Terms used herein and defined in Section 145(h) and Section 145(i) of the General Corporation Law of the State of Delaware shall have the respective meanings assigned to such terms in such Section 145(h) and Section 145(i).
- 15. Subsequent Legislation. If the General Corporation Law of the State of Delaware is amended after adoption of this Article to expand further the indemnification permitted to Indemnitees, then the Corporation shall indemnify such persons to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

ELEVENTH. The Corporation reserves the right to amend or repeal any provision contained in this Amended and Restated Certificate of Incorporation in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation, provided, however, that in addition to any vote of the holders of any class or series of stock of the Corporation required by law, this Amended and Restated Certificate of Incorporation or a Certificate of Designation with respect to a series of

Preferred Stock, the affirmative vote of the holders of shares of voting stock of the Corporation representing at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to (i) reduce or eliminate the number of authorized shares of Common Stock or the number of authorized shares of Preferred Stock set forth in Article FOURTH or (ii) amend or repeal, or adopt any provision inconsistent with, Parts A and B of Article FOURTH and Articles FIFTH, SIXTH, SEVENTH, EIGHTH, NINTH, TENTH and this Article ELEVENTH of this Amended and Restated Certificate of Incorporation.

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IN WITNESS WHEREOF, the undersigned has hereunto signed his name and affirms that the statements made in this Amended and Restated Certificate of Incorporation are true under the penalties of perjury this ____ day of _____, 2002.

Walter C. Herlihy President and Chief Executive Officer

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AMENDED AND RESTATED

BY-LAWS

OF

REPLIGEN CORPORATION

BY-LAWS

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AMENDED AND RESTATED

BY-LAWS

OF

REPLIGEN CORPORATION (the "Corporation")

ARTICLE 1 - Stockholders

- 1.1 Place of Meetings. All meetings of stockholders shall be held at such place within or without the State of Delaware as may be designated from time to time by the Chairman of the Board (if any), the board of directors of the Corporation (the "Board of Directors") or the President or, if not so designated, at the registered office of the Corporation.
- 1.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date to be fixed by the Chairman of the Board (if any), Board of Directors or the President (which date shall not be a legal holiday in the place where the meeting is to be held) at the time and place to be fixed by the Chairman of the Board, the Board of Directors or the President and stated in the notice of the meeting.
- 1.3 Special Meetings. Special meetings of stockholders may be called at any time by the Chairman of the Board (if any), a majority of the Board of Directors or the President and shall be held at such place, on such date and at such time as shall be fixed by the Board of Directors or the person calling the meeting. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.
- 1.4 Notice of Meetings. Except as otherwise provided by law, written notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. The notices of all meetings shall state the place, date and hour of the meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the records of the Corporation.
- 1.5 Voting List. The officer who has charge of the stock ledger of the Corporation shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. 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 metropolitan area of the city where the meeting is to be held, which place shall be specified in the 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 at the time and place of the meeting during the whole time of the meeting, and may be inspected by any stockholder who is present. This list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.
 - 1.6 Quorum. Except as otherwise provided by law, the Certificate of

Incorporation or these By-Laws, the holders of a majority of the shares of the capital stock of the Corporation issued and outstanding and entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business. Shares held by brokers which such brokers are prohibited from voting (pursuant to their discretionary authority on behalf of beneficial owners of such shares who have not submitted a proxy with respect to such shares) on some or all of the matters before the stockholders, but which shares would otherwise be entitled to vote at the meeting ("Broker Non-Votes") shall be counted, for the purpose of determining the presence or absence of a quorum, both (a) toward the total voting power of the shares of capital stock of the Corporation and (b) as being represented by proxy. If a quorum has been established for the purpose of conducting the meeting, a quorum shall be deemed to be present for the purpose of all votes to be conducted at such meeting, provided that where a separate vote by a class or classes, or series thereof, is required, a majority of the voting power of the shares of such class or classes, or series, present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter. If a quorum shall fail to attend any meeting, the chairman of the meeting or the holders of a majority of the voting power of the shares of stock entitled to vote who are present, in person or by proxy, may adjourn the meeting to another place, date, or time.

1.7 Adjournments. Any meeting of stockholders may be adjourned to any other time and to any other place at which a meeting of stockholders may be held under these By-Laws by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum, or, if no stockholder is present, by any officer entitled to preside at or to act as Secretary of such meeting. It shall not be necessary to notify any stockholder of any adjournment of less than 30 days if the time and place of the adjourned meeting are announced at the meeting at which adjournment is taken, unless after the

adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting.

- 1.8 Voting and Proxies. At any meeting of the stockholders, each stockholder shall have one vote for each share of stock entitled to vote at such meeting held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided in the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders, may vote or express such consent or dissent in person or may authorize another person or persons to vote or act for such stockholder by written proxy executed by such stockholder or his or her authorized agent or by a transmission permitted by law and delivered to the Secretary of the Corporation. No such proxy shall be voted or acted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period. Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission created pursuant to this Section 1.8 may be substituted or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or reproduction shall be a complete reproduction of the entire original writing or transmission.
- 1.9 Action at Meeting. When a quorum is present at any meeting of stockholders, the holders of a majority of the stock present or represented and voting on a matter (or if there are two or more classes of stock entitled to vote as separate classes, then in the case of each such class, the holders of a majority of the stock of that class present or represented and voting on such matter) shall decide any matter to be voted upon by the stockholders at such meeting (other than the election of directors), except when a different vote is

required by express provision of law, the Certificate of Incorporation or these By-Laws. Any election of directors by the stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote at such election, except as otherwise provided by the Certificate of Incorporation. For the purposes of this paragraph, Broker Non-Votes represented at the meeting but not permitted to vote on a particular matter shall not be counted, with respect to the vote on such matter, in the number of (a) votes cast, (b) votes cast affirmatively, or (c) votes cast negatively.

- 1.10 Introduction of Business at Meetings.
 - A. Annual Meetings of Stockholders.
 - (1) Nominations of persons for election to the Board of Directors and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders (a) pursuant to the Corporation's notice of meeting, (b) by or at the direction of the Board of Directors or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this Section 1.10, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 1.10.
 - (2) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (A)(1) of this Section 1.10, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation and such other business must otherwise be a proper matter for stockholder action. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the one hundred twentieth (120th) day nor earlier than the close of business on the one hundred fiftieth (150th) day prior to the first anniversary of the date of the proxy statement delivered to stockholders in connection with the preceding year's annual meeting; provided, however, that if either (i) the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after the first anniversary date of the preceding year's annual meeting or (ii) no proxy statement was delivered to stockholders in connection with the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the ninetieth (90th) day prior to such annual meeting and not later than the close of business on the later of the sixtieth (60th) day prior to such annual meeting or the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Such stockholder's notice shall set forth (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made

(i) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner and (ii) the class and number of shares of capital stock of the Corporation that are owned beneficially and held of record by such stockholder and such beneficial owner.

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- (3) Notwithstanding anything in the second sentence of paragraph (A)(2) of this Section 1.10 to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least seventy (70) days prior to the first anniversary of the preceding year's annual meeting (or, if the annual meeting is held more than thirty (30) days before or sixty (60) days after such anniversary date, at least seventy (70) days prior to such annual meeting), a stockholder's notice required by this Section 1.10 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive office of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.
- B. Special Meetings of Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (a) by or at the direction of the Board of Directors or (b) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice of the special meeting, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 1.10. If the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by paragraph (A)(2) of this Section 1.10 shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the ninetieth (90th) day prior to such special meeting nor later than the later of (x) the close of business on the sixtieth (60th) day prior to such special meeting or (y) the close of business on the tenth (10th) day following the day on which public announcement is first made of the date of such special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting.

C. General.

(1) Only such persons who are nominated in accordance with the procedures set forth in this Section 1.10 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 1.10.

Except as otherwise provided by law, the Certificate of Incorporation or these By-Laws, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 1.10 and, if any proposed nomination or business is not in compliance herewith, to declare that such defective proposal or nomination shall be disregarded.

- (2) For purposes of this Section 1.10, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press, PR Newswire, Reuters 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.
- (3) Notwithstanding the foregoing provisions of this Section 1.10, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein. Nothing in this Section 1.10 shall be deemed to affect any rights of the holders of any series of Preferred Stock to elect directors under specified circumstances.
- 1.11 Action without Meeting. Stockholders of the Corporation may not take any action by written consent in lieu of a meeting. Notwithstanding any other provision of law, the Certificate of Incorporation or these By-Laws, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast at any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Section 1.11.

ARTICLE 2 - Directors

2.1 General Powers. The business and affairs of the Corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the Corporation except as otherwise provided by law or the Certificate of Incorporation. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law or the Certificate of Incorporation, may exercise the powers of the full Board of Directors until the vacancy is filled.

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- 2.2 Number; Election and Qualification. The number of directors which shall constitute the whole Board of Directors shall be determined by resolution of the Board of Directors, but in no event shall be less than three. The number of directors may be decreased at any time and from time to time by a majority of the directors then in office, but only to eliminate vacancies existing by reason of the death, resignation, removal or expiration of the term of one or more directors. The directors shall be elected at the annual meeting of stockholders (or, if so determined by the Board of Directors pursuant to Section 1.10 hereof, at a special meeting of stockholders), by such stockholders as have the right to vote on such election. Directors need not be stockholders of the Corporation.
- 2.3 Classes of Directors. The Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. No one class shall have more than one director more than any other class.

- 2.4 Terms in Office. Each director shall serve for a term ending on the date of the third annual meeting following the annual meeting at which such director was elected; provided, however, that each initial director in Class I shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2003; each initial director in Class II shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2004; and each initial director in Class III shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending March 31, 2005.
- 2.5 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 or she is a member until the expiration of such director's current term or his or her prior death, removal or resignation 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, subject to the second sentence of Section 2.3. 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 earliest dates following such allocation, unless otherwise provided for from time to time by resolution adopted by a majority of the directors then in office, although less than a quorum. No decrease in the number of directors constituting the whole Board of Directors shall shorten the term of an incumbent Director.
- 2.6 Tenure. Notwithstanding any provisions to the contrary contained herein, each director shall hold office until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.
- 2.7 Vacancies. Unless and until filled by the stockholders, any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement thereof, may be filled by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office, if any, and a director chosen to fill a position resulting from an increase in the number of directors shall hold office until the next election of directors of the class for which such director was chosen and until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.
- 2.8 Resignation. Any director may resign by delivering his or her written resignation to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.
- 2.9 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place, either within or without the State of Delaware, as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be given notice of the determination. Regular meetings of the Board of Directors shall be held at such place or places, on such date or dates, and at such time or times as shall have been established by the Board of Directors and publicized among all directors. A notice of each regular meeting shall not be required.
- 2.10 Special Meetings. Special meetings of the Board of Directors may be held at any time and place, within or without the State of Delaware, designated in a call by the Chairman of the Board (if any), the President, two or more directors, or by one director in the event that there is only a single director in office.

- 2.11 Notice of Special Meetings. Notice of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (i) by giving notice to such director in person or by telephone at least 48 hours in advance of the meeting, (ii) by sending a telegram or delivering written notice by facsimile transmission or by hand, to his or her last known business or home address at least 48 hours in advance of the meeting, or (iii) by mailing written notice to his or her last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.
- 2.12 Meetings by Telephone Conference Calls. Directors or any members of any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or such committee by means of conference

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telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall be deemed to constitute presence in person at such meeting.

- 2.13 Quorum. A majority of the total number of the whole Board of Directors shall constitute a quorum at all meetings of the Board of Directors. In the event one or more of the directors shall be disqualified to vote at any meeting, then the required quorum shall be reduced by one for each such director so disqualified; provided, however, that in no case shall less than one-third (1/3) of the total number of the whole Board of Directors constitute a quorum. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.
- 2.14 Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law, the Certificate of Incorporation or these By-Laws.
- 2.15 Action by Written Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee of the Board of Directors may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent to such action in writing, and the written consent is filed with the minutes of proceedings of the Board of Directors or committee.
- 2.16 Removal. Unless otherwise provided in the Certificate of Incorporation, any one or more or all of the directors may be removed, only for cause, by the holders of at least seventy-five percent (75%) of the shares then entitled to vote at an election of directors.
- 2.17 Committees. The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. 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 such committee. In the absence or disqualification of a member of a committee, the member or members of such committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at such meeting in the place of any such absent or disqualified member. Any such

committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of the General Corporation Law of the State of Delaware, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine or as provided herein, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-Laws for the Board of Directors. Adequate provisions shall be made for notice to members of all meeting of committees. One-third (1/3) of the members of any committee shall constitute a quorum unless the committee shall consist of one (1) or two (2) members, in which event one (1) member shall constitute a quorum; and all matters shall be determined by a majority vote of the members present. Action may be taken by any committee without a meeting if all members thereof consent thereto in writing, and the consent is filed with the minutes of the proceedings of such committee.

- 2.18 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the Corporation or any of its parent or subsidiary corporations in any other capacity and receiving compensation for such service.
- 2.19 Amendments to Article. Notwithstanding any other provisions of law, the Certificate of Incorporation or these By-Laws, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of a least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast at any annual election of directors or class of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article 2.

ARTICLE 3 - Officers

3.1 Enumeration. The officers of the Corporation shall consist of a President, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including, but not limited to, a Chairman of the Board, a Vice-Chairman of the Board, and one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

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- 3.2 Election. The President, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.
- 3.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.
- 3.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-Laws, each officer shall hold office until his or her successor is elected and qualified, unless a different term is specified in the vote choosing or appointing such officer, or until his or her earlier death, resignation or removal.

3.5 Resignation and Removal. Any officer may resign by delivering his or her written resignation to the Chairman of the Board (if any), to the Board of Directors at a meeting thereof, to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

Any officer may be removed at any time, with or without cause, by vote of a majority of the entire number of directors then in office.

Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following his or her resignation or removal, or any right to damages on account of such removal, whether his or her compensation be by the month or by the year or otherwise, unless such compensation is expressly provided in a duly authorized written agreement with the Corporation.

- 3.6 Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of President, Treasurer and Secretary. Each such successor shall hold office for the unexpired term of his predecessor and until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.
- 3.7 Chairman of the Board and Vice-Chairman of the Board. The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and stockholders at which he or she is present and shall perform such duties and possess such powers as are designated by the Board of Directors. If the Board of Directors appoints a Vice-Chairman of the Board, he or she shall, in the absence or disability of the Chairman of the Board, perform the duties and exercise the powers of the Chairman of the Board and shall perform such other duties and possess such other powers as may from time to time be designated by the Board of Directors.
- 3.8 President. The President shall, subject to the direction of the Board of Directors, have general charge and supervision of the business of the Corporation. Unless otherwise provided by the Board of Directors, and provided that there is no Chairman of the Board or that the Chairman and Vice-Chairman, if any, are not available, the President shall preside at all meetings of the stockholders, and, if a director, at all meetings of the Board of Directors. Unless the Board of Directors has designated another officer as the Chief Executive Officer, the President shall be the Chief Executive Officer of the Corporation. The President shall perform such other duties and shall have such other powers as the Board of Directors may from time to time prescribe. The President shall have the power to enter into contracts and otherwise bind the Corporation in matters arising in the ordinary course of the Corporation's business.
- 3.9 Vice Presidents. Any Vice President shall perform such duties and possess such powers as the Board of Directors or the President may from time to time prescribe. In the event of the absence, inability or refusal to act of the President, the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the President and, when so performing, shall have all the powers of and be subject to all the restrictions upon the President. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors. Unless otherwise determined by the Board of Directors, any Vice President shall have the power to enter into contracts and otherwise bind the Corporation in matters arising in the ordinary course of the Corporation's business.

3.10 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the President may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the President or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the

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Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary secretary to keep a record of the meeting.

3.11 Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as the Board of Directors or the President may from time to time prescribe. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the Corporation, to deposit funds of the Corporation in depositories selected in accordance with these By-Laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts for such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the Corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the President or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer (or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

- 3.12 Salaries. Officers of the Corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.
- 3.13 Action with Respect to Securities of Other Corporations. Unless otherwise directed by the Board of Directors, the President or any officer of the Corporation authorized by the President shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of stockholders of any other corporation in which the Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

ARTICLE 4 - Capital Stock

4.1 Issuance of Stock. Unless otherwise voted by the stockholders and

subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the Corporation or the whole or any part of any issued, authorized capital stock of the Corporation held in its treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such consideration and on such terms as the Board of Directors may determine.

4.2 Certificates of Stock. Every holder of stock of the Corporation shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, certifying the number and class of shares owned by such stockholder in the Corporation. Each such certificate shall be signed by, or in the name of the Corporation by, the Chairman or Vice-Chairman, if any, of the Board of Directors, or the President or a Vice President, and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation. Any or all of the signatures on such certificate may be a facsimile.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, the By-Laws, applicable securities laws or any agreement among any number of shareholders or among such holders and the Corporation shall have conspicuously noted on the face or back of such certificate either the full text of such restriction or a statement of the existence of such restriction.

- 4.3 Transfers. Except as otherwise established by rules and regulations adopted by the Board of Directors, and subject to applicable law, shares of stock may be transferred on the books of the Corporation by the surrender to the Corporation or its transfer agent of the certificate representing such shares, properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the Corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-Laws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these By-Laws.
- 4.4 Lost, Stolen or Destroyed Certificates. The Corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen, or destroyed, upon such terms and conditions as the President may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity as the President may require for the protection of the Corporation or any transfer agent or registrar.

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4.5 Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, 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 before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. 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 to such purpose.

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.

ARTICLE 5 - General Provisions

- 5.1 Fiscal Year. Except as otherwise designated from time to time by the Board of Directors, the fiscal year of the Corporation shall begin on the first day of April and end on the last day of March.
- 5.2 Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.
- 5.3 Notices. Except as otherwise specifically provided herein or required by law or the Certificate of Incorporation, all notices required to be given to any person pursuant to these by-laws shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mails, postage paid, or by sending such notice by prepaid telegram or facsimile transmission. Any such notice shall be addressed to such person at his or her last known address as the same appears on the books of the Corporation. The time when such notice is received shall be deemed to be the time of the giving of the notice.
- 5.4 Waiver of Notice. Whenever any notice whatsoever is required to be given by law, by the Certificate of Incorporation or by these By-Laws, a waiver of such notice either in writing signed by the person entitled to such notice or such person's duly authorized attorney, or by telegraph, facsimile transmission or any other available method, whether before, at or after the time stated in such waiver, or the appearance of such person or persons at such meeting in person or by proxy, shall be deemed equivalent to such notice.
- 5.5 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the Corporation shall, as to all persons who rely on the certificate in good faith, be conclusive evidence of such action.
- 5.6 Facsimile Signatures. In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these By-Laws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors or a committee thereof.
- 5.7 Reliance upon Books, Reports and Records. Each director, each member of any committee designated by the Board of Directors, and each officer of the Corporation shall, in the performance of his or her duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees or committees of the Board of Directors so designated, or by any other person as to matters which such director or committee member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.
- 5.8 Time Periods. In applying any provision of these By-Laws that requires that an act be done or not be done a specified number of days prior to an event

or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

- 5.9 Certificate of Incorporation. All references in these By-Laws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the Corporation, as amended and in effect from time to time.
- 5.10 Transactions with Interested Parties. No contract or transaction between the Corporation and one or more of the directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of the directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because such director or officer is present at or participates in the meeting of

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the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because his, her or their votes are counted for such purpose, if:

- (1) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;
- (2) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or
- (3) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee of the Board of Directors, or the stockholders.

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

- 5.11 Severability. Any determination that any provision of these By-Laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-Laws.
- 5.12 Pronouns. All pronouns used in these By-Laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the persons or persons so designated may require.

ARTICLE 6 - Amendments

- 6.1 By the Board of Directors. Except as is otherwise set forth in these By-Laws, these By-Laws may be altered, amended or repealed, or new by-laws may be adopted, by the affirmative vote of a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present.
- 6.2 By the Stockholders. Except as otherwise set forth in these By-Laws, these By-Laws may be altered, amended or repealed or new by-laws may be adopted

by the affirmative vote of the holders of at least 75% of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, provided notice of such alteration, amendment, repeal or adoption of new by-laws shall have been stated in the notice of such special meeting.

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Dear Shareholder:

Please take note of the important information enclosed with this Proxy. There are a number of issues related to the operation of the Company that require your immediate attention.

Your vote counts, and you are strongly encouraged to exercise your right to vote your shares.

Please mark the boxes on the proxy card to indicate how your shares will be voted. Then sign the card, detach it and return your proxy in the enclosed postage paid envelope.

Thank you in advance for your prompt consideration of these matters.

Sincerely, Repligen Corporation

PROXY

REPLIGEN CORPORATION

41 SEYON STREET, BUILDING 1 WALTHAM, MA 02453

SOLICITED BY THE BOARD OF DIRECTORS FOR THE ANNUAL MEETING OF SHAREHOLDERS

The undersigned hereby appoints Walter C. Herlihy and Daniel P. Witt, and each of them alone, proxies with full power of substitution, to vote all shares of common stock of the Corporation which the undersigned is entitled to vote at the Annual Meeting of Shareholders of Repligen Corporation to be held on the 12th day, September, 2002 at 10:00 a.m., local time, at the offices of the Corporation, 41 Seyon Street, Waltham, Massachusetts 02453, and any adjournments thereof, upon matters set forth in the Notice of Annual Meeting of Shareholders and Proxy Statement dated July 18, 2002, a copy of which has been received by the undersigned. The proxies are further authorized to vote, in their discretion, upon such other business as may be incidental to the meeting or any adjournments thereof.

SEE REVERSE SIDE	CONTINUED AND TO BE SIGNED ON REVERSE :	SIDE SEE RE

VOTE BY TELEPHONE It's fast, convenient, and

VOTE BY INTE It's fast, convenien

immediate! Call Toll-Free on a Touch-Tone Phone 1-877-PRX-VOTE (1-877-779-8683).			vote is immediately and posted.	
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	J. Hennessey, Wa M.D., Paul Schimr	alter C. Herlihy, Ph.D., G. William Miller mel, Ph.D		
For / /	Withheld //	For all nominees except as noted below / /	1	
2. To approve an and restated by-		tated certificate of incorporation and ame	ended	
For / /	Against //	Abstain / /		
		nst & Young LLP as the independent auditoring March 31, 2003.	rs of	
For / /	Against / /	Abstain / /		
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/ / MARK HERE FOR ADDRESS CHANGE AND NOTE AT LEFT.

(If signing as attorney, executor, trustee, or guardian, please give your full title as such. If stock is held jointly, each owner should sign.)

Signature: Date: Signature: Date: