UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

February 21, 2023

Courtney M. Hetrick
Goodwin Procter LLP

Re: Repligen Corporation (the "Company")
Incoming letter dated February 17, 2023

Dear Courtney M. Hetrick:

This letter is in regard to your correspondence concerning the shareholder proposal (the "Proposal") submitted to the Company by Myra K. Young (the "Proponent") for inclusion in the Company's proxy materials for its upcoming annual meeting of security holders. Your letter indicates that the Proponent has withdrawn the Proposal and that the Company therefore withdraws its December 30, 2022 request for a no-action letter from the Division. Because the matter is now moot, we will have no further comment.

Copies of all of the correspondence related to this matter will be made available on our website at https://www.sec.gov/corpfin/2022-2023-shareholder-proposals-no-action.

Sincerely,

Rule 14a-8 Review Team

cc: James McRitchie

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December 30, 2022

Via Email (shareholderproposals@sec.gov)

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Chief Counsel
100 F Street, N.E.
Washington, D.C. 20549

Re: Repligen Corporation – 2023 Annual Meeting of Stockholders – Omission of Shareholder Proposal Submitted by Ms. Myra K. Young (with John Chevedden as proxy)

Ladies and Gentlemen:

On behalf of our client Repligen Corporation, a Delaware corporation (the "Company"), and pursuant to Rule 14a-8(j) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), we hereby request confirmation that the Staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") will not recommend enforcement action against the Company if, in reliance on Rule 14a-8 under the Exchange Act, the Company omits the proposal submitted by Myra K. Young (the "Proponent"), with John Chevedden designated as proxy, from the Company's proxy statement and form of proxy for its annual meeting of stockholders (the "2023 Annual Meeting") expected to be held in May 2023 (the "2023 Proxy Materials"). The Company currently anticipates that it will file its definitive 2023 Proxy Materials with the Commission no earlier than 80 calendar days after the date of this letter, or on or around March 24, 2023.

In accordance with Section C of Staff Legal Bulletin No. 14D (Nov. 7, 2008) ("SLB 14D"), we are emailing this letter and its attachments to the Staff at *shareholderproposals@sec.gov.* A copy of this letter is also being sent concurrently to the Proponent as notice of the Company's intent to exclude the Proponent's proposal from the 2023 Proxy Materials.

Rule 14a-8(k) of the Exchange Act and SLB 14D provide that shareholder proponents are required to send companies a copy of any correspondence that the proponents elect to submit to the Commission or the Staff. Accordingly, the Company is taking this opportunity to inform the Proponent that if the Proponent elects to submit additional correspondence to the Commission or the Staff with respect to the Proponent's proposal, a copy of that correspondence should be furnished concurrently to the undersigned on behalf of the Company pursuant to Rule 14a-8(k) of the Exchange Act and SLB 14D.

I. The Proposal

On November 28, 2022, the Company received by email a letter from the Proponent containing a shareholder proposal (the "Proposal") for inclusion in the 2023 Proxy Materials. The Proposal and accompanying cover letter are attached hereto as Exhibit A. The text of the resolution set forth in the Proposal is set forth below:

> **Resolved**:
>
> Myra K. Young and other shareholders request that directors of Repligen Corporation ("Company") amend its bylaws to include the following language:
>
> Shareholder approval is required for any advance notice bylaw amendments that:
>
> 1. require the nomination of candidates more than 90 days before the annual meeting,
>
> 2. impose new disclosure requirements for director nominees, including disclosures related to past and future plans, or
>
> 3. require nominating shareholders to disclose limited partners or business associates, except to the extent such investors own more than 5% of the Company's shares.

II. Bases for Exclusion

On behalf of the Company, we hereby respectfully request that the Staff concur with the Company's view that it may exclude the Proposal from the 2023 Proxy Materials pursuant to:

- Rule 14a-8(i)(2) because implementing the Proposal would cause the Company to violate Delaware law;
- Rule 14a-8(i)(6) because the Company lacks the power or authority to implement the Proposal;
- Rule 14a-8(i)(10) because the Proposal has been substantially implemented; and
- Rule 14a-8(i)(3) because the Proposal is impermissibly vague and indefinite as to be inherently misleading.

III. Legal Analysis

A. The Proposal May Be Excluded Under Rule 14a-8(i)(2) Because Implementing The Proposal Would Cause The Company To Violate Delaware Law

1. Background on Rule 14a-8(i)(2).

Rule 14a-8(i)(2) allows the exclusion of a proposal if implementation of the proposal would "cause the company to violate any state, federal, or foreign law to which it is subject." *See The Goldman Sachs Group, Inc.* (Feb. 1, 2016); *Kimberly-Clark Corp.* (Dec. 18, 2009); *Bank of America Corp.* (Feb. 11, 2009). For the reasons set forth in the legal opinion provided by Richards Layton & Finger, P.A. regarding Delaware law (the "Delaware Law Opinion"), the Company believes that the Proposal is excludable under Rule 14a-8(i)(2), because implementation of the Proposal would cause the Company to violate Delaware law. A copy of the Delaware Law Opinion is attached to this letter as Exhibit B.

2. The Proposal May Be Excluded Because Implementing The Proposal Would Cause The Company To Violate Delaware Law.

The Proposal requests that the "directors of Repligen Corporation ("Company") amend its bylaws" to include certain language specified in the Proposal. The Company is incorporated in Delaware and is subject to Delaware law. As discussed in detail in the Delaware Law Opinion, as a Delaware corporation, the Company is subject to the provisions of the General Corporation Law of the State of Delaware, as amended (the "DGCL"), including Section 109, the principal provision governing the adoption, amendment, and repeal of a corporation's bylaws.

Section 109(a) of the DGCL provides, in relevant part, that

> "After a corporation other than a nonstock corporation has received any payment for any of its stock, the power to adopt, amend or repeal bylaws shall be in the stockholders entitled to vote . . . . Notwithstanding the forgoing, any corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal the bylaws upon the directors." 8 Del. C. §109(a).

As stated in the Delaware Law Opinion, "under Section 109(a), after a corporation has received payment for its stock, the stockholders generally have the power, by statutory default, to adopt, amend, or repeal bylaws, but the power of directors to amend, alter or repeal the bylaws may only be exercised if such power has been conferred upon them in the certificate of incorporation."

The Company's Certificate of Incorporation, as amended (the "Charter"), attached as Exhibit C hereto, does not provide the Board of Directors of the Company (the "Board") with the power to

amend the Company's Bylaws (the "Bylaws"). As a result, the power to amend the Bylaws is vested in the Company's stockholders entitled to vote. As stated in the Delaware Law Opinion, "if the Board were to adopt the amendment to the Bylaws contemplated by the Proposal, the amendment would be void." In the opinion of Delaware counsel, "the Proposal, if implemented, would violate Delaware law."

On numerous occasions, the Staff has concurred in exclusion of shareholder proposals where the proposal, if implemented, would, according to a legal opinion signed by counsel, require the certificate of incorporation or bylaws of the company to be amended in a manner that violates a provision of state law. *See, e.g., eBay Inc.* (Apr. 1, 2020) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that requested that the company's charter and bylaws be amended to permit employees to elect 20% of the board of directors, and where such action would violate the Delaware General Corporation Law which provides that only stockholders are entitled to elect directors of the company); *Trans World Entertainment Corp*. (May 2, 2019) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that requested that the company's bylaws be amended to provide for an elevated quorum requirement where such action would violate the New York Business Corporation Law which prescribes that such elevated quorum requirement may only be provided in the charter, and the amendment of which requires board action and shareholder approval); *IDACORP, Inc.* (Mar. 13, 2012) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that requested the board to amend the company's bylaws to require a majority voting standard for uncontested director elections and plurality voting standard for contested elections where the board could not do so without violating the Idaho Business Corporation Act, which prescribes plurality voting as the default standard, absent a contrary provision in a company's charter); and *AT&T Inc.* (Feb. 19, 2008) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal requesting amendment of the company's bylaws allowing shareholder action by written consent where the company submitted that such an amendment was only valid if set forth in the company's certificate of incorporation).[1]

For example, in *Sigma Designs, Inc*. (Jun. 9, 2015), the Staff concurred with Sigma's request to exclude under Rule 14a-8(i)(2) a proposal requesting that the board initiate the appropriate

[1] *See also Oshkosh Corp.* (Nov. 21, 2019) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that would cause the company to violate Wisconsin law relating to the removal of directors); *Bank of America Corp.* (Feb. 23, 2012) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that requested that the company take action, including amending the bylaws, to "minimize" the indemnification of directors because it would violate the indemnification provisions of Delaware law); *Ball Corp*. (Jan. 25, 2010, *recon. denied* Mar. 12, 2010) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that would cause the company to violate Indiana law relating to board classification); *Bank of America Corp.* (Feb. 11, 2009) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal to amend the company's bylaws to establish a board committee and authorize the board chairman to appoint members of the committee that would cause the company to violate Delaware law); and *CA, Inc*. (Jul. 17, 2008) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal because the bylaw amendment requested by the proposal had the potential to prevent the board of directors from exercising their full managerial power in accordance with their fiduciary duties).

process to amend the company's articles of incorporation and/or bylaws to provide that director nominees be elected by the affirmative vote of the majority of votes cast at an annual meeting of shareholders, with a plurality vote standard retained for contested director elections. Notably, the Staff did not grant the proponent leave to revise the proposal. Sigma argued that the California Corporations Code, to which it was subject, prohibited the amendment of Sigma's articles of incorporation and/or bylaws to provide that director nominees be elected by the affirmative vote of the majority of votes cast at an annual meeting of shareholders *unless* cumulative voting had first been eliminated by amendment of the articles or bylaws. Sigma and its shareholders, however, had not eliminated cumulative voting for election of directors, and thus it argued that if it were to initiate a process to amend the articles of incorporation or bylaws to provide for majority voting as the proposal requested, Sigma would be pursuing an amendment that would be in violation of California state law. *See also Reliance Steel Aluminum Co*. (Mar. 10, 2011) (concurring in exclusion under Rule 14a-8(i)(2) of a proposal that requested Reliance Steel adopt a bylaw specifying that the election of directors be decided by majority of the votes cast with plurality vote standard used in those director elections in which the number of nominees exceeds the number of directors to be elected).

In *Sigma Designs*, Sigma's cumulative voting provision was required to be eliminated first by amendment of the articles or bylaws before Sigma could potentially amend its articles of incorporation and/or bylaws to provide for a majority of votes cast standard at an annual meeting as requested in the proposal. Here, the DGCL permits the Board to amend the Bylaws only if such power has been conferred upon the Board in the certificate of incorporation. The Company's Charter, however, does not provide the Board such power. As such, similar to the facts in *Sigma Designs*, the Company's Charter would have to be amended first through stockholder approval to provide the Board the authority to amend the Bylaws before the Board could potentially amend the Bylaws to implement the Proposal's request. As it did in *Sigma*, the Staff should likewise concur here with exclusion of the Proposal under Rule 14a-8(i)(2).

If the Board were to amend the Bylaws to provide for the provisions specified in the Proposal, the resulting amendment would be void and in violation of Delaware law. Therefore, the Board cannot implement the Proposal without violating state law. Accordingly, the Company believes that the Proposal is excludable under Rule 14a-8(i)(2).

B. The Proposal May Be Excluded Under Rule 14a-8(i)(6) Because the Company Lacks the Power or Authority To Implement The Proposal

Rule 14a-8(i)(6) provides that a company may properly omit a shareholder proposal from its proxy materials if the company lacks the power or authority to implement the proposal. As discussed above and more broadly in the Delaware Law Opinion, the Board cannot implement the Proposal by amending the Bylaws without violating Section 109(a) of the DGCL, because the Board does not have the power to amend the Bylaws. As a result, the Company cannot

implement the Proposal without violating the DGCL, and therefore lacks the authority to implement the Proposal.

The Staff has consistently concurred with requests to exclude shareholder proposals under both Rules 14a-8(i)(6) and 14a-8(i)(2) when the implementation of the proposal would violate state corporate law and, accordingly, the company lacks the authority to implement the proposal. For example, in *The Boeing Company* (Feb. 20, 2008), the Staff concurred in exclusion of a proposal requesting that the board of directors adopt cumulative voting under Rule 14a-8(i)(2) and Rule 14a-8(i)(6), citing the opinion of the company's counsel that implementing the proposal would cause the company to violate the DGCL. In *AT&T, Inc.* (Feb. 19, 2008), the Staff concurred in exclusion under Rule 14a-8(i)(2) and Rule 14a-8(i)(6) of a proposal requesting the company to amend its bylaws and any other appropriate governing documents to "lift restrictions on shareholder ability to act by written consent," citing the opinion of the company's counsel that the board of directors of the company cannot amend its certificate of incorporation without violating the DGCL.

Just as in the precedents cited above, implementation of the Proposal would cause the Company to violate the DGCL, and the Company lacks the power or authority under Delaware law to implement the Proposal. Accordingly, the Company believes that the Proposal is excludable under Rule 14a-8(i)(6) and Rule 14a-8(i)(2).

C. The Proposal May Be Excluded Under Rule 14a-8(i)(10) Because the Proposal Has Been Substantially Implemented

1. Background on Rule 14a-8(i)(10).

Pursuant to Rule 14a-8(i)(10), a company is permitted to exclude a shareholder proposal if the company has already substantially implemented the proposal. The purpose of this rule, as set forth by the Commission, is to "avoid the possibility of shareholders having to consider matters which already have been favorably acted upon by the management." *See* Exchange Act Release No. 34-20091 (Aug. 15, 1983); Exchange Act Release No. 34-12598 (Jul. 1976). The Commission has clarified that the proposal's requested actions do not need to be "fully effected" or implemented exactly as presented for a company to exclude the proposal under Rule 14a-8(i)(10); the actions of the proposal need only be "substantially implemented." *See* Exchange Act Release No. 34-20091 (Aug. 15, 1983). Whether a proposal has been "substantially implemented" by a company "depends on whether its particular policies, practices and procedures compare favorably with the guidelines of the proposal." *Texaco, Inc*. (Mar. 28, 1991).

2. The Proposal May Be Excluded Because the Proposal Has Been Substantially Implemented.

The Proposal's essential objective is to provide shareholder approval for certain advance notice bylaw amendments. The Proposal requests that the directors of the Company amend the Bylaws to include language requiring shareholder approval for certain advance notice bylaw amendments. The supporting statement evidences this same essential objective of providing shareholder approval for certain advance notice bylaw amendments. For example, it says that "boards must not undertake bylaw amendments that deter legitimate efforts by shareholders to submit nominees." It also states that "[t]his resolution simply asks the board to commit not to amend the bylaws to deter legitimate efforts to seek board representation, without submitting such amendments to shareholders," and "[t]o ensure shareholders can vote on any proposal that would impose inequitable restrictions, we urge a vote FOR Fair Elections."

The Staff has concurred in exclusion of proposals under Rule 14a-8(i)(10) where a company's actions have substantially addressed the "essential objective" and underlying concerns of the proposal, even if the specific actions may not be exactly as requested or required by the proposal. For example, the Staff in *General Electric Co*. (Mar. 3, 2015) concurred in exclusion of a proxy access proposal because the company's board of directors had already adopted a proxy access bylaw that adequately addressed the "proposal's essential objective." Additionally, the Staff in *Walgreen Co.* (Sept. 26, 2013) concurred in exclusion of a proposal that requested amendment of the company's articles of incorporation to eliminate certain supermajority voting requirements, where the company eliminated all but one such requirement for which the requisite shareholder approval was not obtained. *See also, e.g., Invesco Ltd*. (Mar. 8, 2019); *Eli Lilly & Co*. (Feb. 22, 2019); *PepsiCo, Inc*. (Feb. 14, 2019); *State Street Corporation* (Mar. 15, 2018); *The Goodyear Tire & Rubber Company* (Jan. 19, 2018); *Mattel, Inc.* (Feb. 3, 2017); *AbbVie, Inc.* (Dec. 22, 2016); *The Wendy's Co*. (Mar. 2, 2016); *Starbucks Corp*. (Dec. 1, 2011); *Exxon Mobil Corp.* (Mar. 23, 2009); *Chevron Corp.* (Feb. 19, 2008); and *Johnson & Johnson* (Feb. 17, 2006).

The Staff has also recognized that a proposal may be found to be substantially implemented where a default provision of applicable state corporate law in a company's charter, which has not been overridden by the company in its charter or bylaws, compares favorably with the guidelines of the proposal. For example, in *FirstEnergy Corp.* (Jan. 15, 2021), the Staff concurred in exclusion under Rule 14a-8(i)(10) of a proposal that requested the board of directors undertake such steps as may be necessary to permit written consent by shareholders entitled to cast the minimum number of votes that would be necessary to authorize the action at a meeting at which all shareholders entitled to vote thereon were present and voting. FirstEnergy argued that it was subject to the right of shareholders to act by written consent by default under Ohio corporate law and did not, in its governing documents or otherwise, restrict that shareholder right. *See also FirstEnergy Corp*. (Mar. 10, 2014); *Wells Fargo & Company* (Mar. 1, 2019); *American Tower*

Corp. (Mar. 5, 2015); *Johnson & Johnson* (Feb. 10, 2014); and *Exxon Mobil Corp*. (Mar. 19, 2010).

Like the precedents discussed above, the "essential objective" of the Proposal has been implemented. As the Bylaws may only be amended by the stockholders entitled to vote, stockholder approval is already required for any amendment to the Bylaws, including advance notice bylaw amendments. In *FirstEnergy* (2021), FirstEnergy was subject to the right of shareholders to act by written consent by default under Ohio law. Similarly here, the Company's Charter is silent about the ability of the Board to amend the Bylaws. As discussed previously in sections A and B of this letter and in the attached Delaware Law Opinion, because the Company's Charter does not include a provision expressly providing the Board with the power to amend the Company's Bylaws, by statutory default under Delaware law, the power to amend the Bylaws is vested solely in the Company's stockholders entitled to vote. This statutory default provision has not been overridden in the Company's governing documents. Accordingly, the Board cannot unilaterally adopt amendments to the Bylaws, including advance notice bylaw amendments. Any such amendments would require approval of the stockholders entitled to vote. As in *FirstEnergy Corp.* (2021), the Staff should concur here that a default provision of applicable state corporate law that has not been overridden substantially implements the Proposal.

Accordingly, the Company believes that its particular policies, practices and procedures compare favorably with the guidelines of the Proposal such that the Proposal has been substantially implemented and is excludable under Rule 14a-8(i)(10).

D. The Proposal May Be Excluded Under Rule 14a-8(i)(3) Because It Is Materially False and Misleading In Violation of Rule 14a-9

1. Background on Rule 14a-8(i)(3).

Rule 14a-8(i)(3) permits a company to exclude all or portions of a shareholder proposal "[i]f the proposal or supporting statement is contrary to any of the Commission's proxy rules, including Rule 14a-9, which prohibits materially false or misleading statements in proxy soliciting materials." Specifically, Rule 14a-9 provides that no solicitation may be made by means of any proxy materials "containing any statement which, at the time and in the light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements therein not false or misleading or necessary to correct any statement in any earlier communication with respect to the solicitation of a proxy for the same meeting or subject matter which has become false or misleading." Further, the Staff takes the view that a proposal may be excluded pursuant to Rule 14a-8(i)(3) on the basis that the proposal is so vague and indefinite as to be misleading where "neither the stockholders voting on the proposal, nor the company in implementing the proposal

(if adopted), would be able to determine with any reasonable certainty exactly what actions or measures the proposal requires." Staff Legal Bulletin No. 14B (Sept. 15, 2004) ("SLB 14B"). A proposal may be so vague and indefinite as to be materially misleading when the "meaning and application of terms and conditions . . . in the proposal would have to be made without guidance from the proposal and would be subject to differing interpretations" such that "any action ultimately taken by the [c]ompany upon implementation [of the proposal] could be significantly different from the actions envisioned by shareholders voting on the proposal." *See Fuqua Industries, Inc.* (Mar. 12, 1991).

2. The Proposal May Be Excluded Because It Is Materially False and Misleading In Violation of Rule 14a-9.

The Proposal requests that the directors of the Company amend the Company's bylaws to include specific language requiring shareholder approval for any advance notice bylaw amendments that, among other things, "impose new disclosure requirements for director nominees, including disclosures related to *past and future plans*, . . ." (emphasis added). The Proposal's key term "past and future plans" is vague and indefinite, and the meaning of past and future plans could be subject to differing interpretations by the Company and shareholders voting on the Proposal.

The Staff has traditionally read within the four corners of a proposal to determine whether a proposal as a whole or certain of its terms are so vague and indefinite as to be misleading. That is, a proposal may be deemed to be materially misleading because it is vague and indefinite when interpretation of the meaning and application of terms and conditions in the proposal would have to be made without guidance from the proposal. Here, neither the Proposal's resolved clause nor the supporting statement shed light on the meaning of the term "past and future plans," nor is it self-evident what the term "past and future plans" means within the context of the Proposal. Because the meaning of the key term "past and future plans" is not ascertainable within the four corners of the Proposal, stockholders voting on the Proposal might interpret it in materially different ways from each other, and in materially different ways from the Company.

The term "past and future plans" is so vague and indefinite as to make the Proposal itself materially misleading, because the specific term is requested to be included in the language of a bylaw amendment. The term's importance is heightened because, if the amendment were legally adopted, the term's exact words would be included in the Bylaws. If the Company were to amend its Bylaws to include the exact language provided in the Proposal as requested in the Proposal, it would create a great amount of legal uncertainty as to the meaning and application of the words "past and future plans." Contrary to other shareholder proposals where a vague or uncertain term may simply be deemed a detail of implementation left to the Company's discretion to interpret or resolve as it sees fit, here the Proposal requests specific language to be added to the Company's Bylaws. The Proposal, by virtue of asking for a bylaw amendment "to

include the following language," does not provide the Company leeway to revise the term "past and future plans" to clarify its meaning. In fact, any potential Company clarification or definition of such term could be materially different from that contemplated by the Proposal or a stockholder voting on the Proposal. Thus, "neither the stockholders voting on the proposal, nor the company in implementing the proposal (if adopted), would be able to determine with any reasonable certainty exactly what actions or measures the proposal requires." SLB 14B.

Staff precedent confirms that the Proposal is excludable as impermissibly vague and misleading. For example, the Staff has consistently concurred in the exclusion of proposals that fail to provide any guidance on implementation and "would be subject to differing interpretation both by shareholders voting on the proposal and the [c]ompany's board in implementing the proposal, if adopted, with the result that any action ultimately taken by the [c]ompany could be significantly different from the action envisioned by shareholders voting on the proposal." *Exxon Corporation* (Jan. 29, 1992). *See, e.g., The Walt Disney Company* (Jan. 19, 2022) (concurring in exclusion of a proposal concerning "politically charged biases" where the Staff noted in its no-action letter that "neither shareholders nor the Company would be able to determine with reasonable certainty exactly what actions or measures the [p]roposal requests"); *Apple, Inc*. (Dec. 6, 2019) (concurring in exclusion of a proposal seeking to "improve [the] guiding principles of executive compensation" because "the [p]roposal lacks sufficient description about the changes, actions or ideas for the Company and its shareholders to consider that would potentially improve the guiding principles"); *Ebay, Inc.* (Apr. 10, 2019) (concurring in exclusion of a proposal requesting that the company "reform the company's executive compensation committee" because "neither shareholders nor the Company would be able to determine with any reasonable certainty the nature of the 'reform' the [p]roposal is requesting"); *Pfizer Inc.* (Dec. 22, 2014) (concurring in exclusion of a proposal requesting that the chairman be an independent director whose only "nontrivial professional, familial or financial connection to the company or its CEO is the directorship," because the scope of prohibited "connections" was unclear).

The Staff has also concurred in exclusion of proposals that fail to define key terms. *See Moody's Corp*. (Feb. 10, 2014) (concurring in exclusion of a proposal when the term "ESG risk assessments" was not defined); *The Boeing Company* (Mar. 2, 2011) (concurring in exclusion of a proposal because it failed to "sufficiently explain the meaning of 'executive pay rights'"); and *NSTAR* (Jan. 5, 2007) (concurring in exclusion of a proposal requesting standards of "record keeping of financial records" as inherently vague and indefinite because the terms "record keeping" and "financial records" were undefined).

As discussed above, because the Proposal includes a material term that is so inherently vague or indefinite that neither the shareholders voting on it, nor the Company in implementing the proposal (if adopted), would be able to determine with any reasonable certainty exactly what actions or measures the Proposal requires, the Proposal may properly be excluded under Rule

14a-8(i)(3) on the basis that the Proposal is materially false and misleading in violation of Rule 14a-9.

IV. Conclusion

For the reasons discussed above, the Company respectfully requests that the Staff concur with its view that the Proposal may be properly omitted from the Company's 2023 Proxy Materials and that the Staff not recommend any enforcement action to the Commission if the Company omits the Proposal from its 2023 Proxy Materials.

If you have any questions, or if the Staff is unable to concur with the Company's conclusions without additional information or discussions, the Company respectfully requests the opportunity to confer with members of the Staff prior to the issuance of any response to this letter. Please do not hesitate to contact the undersigned at (202) 346-4207.

Respectfully submitted,

/s/ Sean M. Donahue

Sean M. Donahue

Enclosure

cc: Myra K. Young
John Chevedden
James McRitchie
Karen A. Dawes, Chairperson, *Repligen Corporation*
Tony J. Hunt, President and Chief Executive Officer, *Repligen Corporation*
Kimberly Cornwell, Senior Vice President, General Counsel, *Repligen Corporation*
Jacqueline Mercier, *Goodwin Procter LLP*

Exhibit A

The Proposal

Corporate Governance
CorpGov.net: improving accountability through democratic corporate governance since 1995

Myra K. Young & James McRitchie
[redacted]

Repligen Corporation
Attention: Corporate Secretary Squire Servance <sservance@repligen.com>
41 Seyon Street, Building #1, Suite 100 Waltham, Massachusetts
Phone: (718) 250-0111
Fax: (718) 250-0115
cc: investors@repligen.com

Attention: Squire Servance or current Corporate Secretary

I am submitting the attached shareholder proposal, which I support, requesting Fair Elections in bylaw provisions for presentation at the next shareholder meeting. I pledge to continue to hold the required amount of stock until after the date of that meeting.

I will meet Rule 14a-8 requirements including the continuous ownership of the required stock until after the date of the next shareholder meeting. I have owned the stock continuously since 2010. My submitted format, with the shareholder-supplied emphasis and graphic, is intended to be used for definitive proxy publication.

I am available to meet with the Company representative via phone or Zoom on December 16 at 11:00 am, 11:30 pm Pacific, or at another time that is mutually convenient to discuss the proposal.

This letter confirms I am delegating John Chevedden to act as my agent regarding this Rule 14a-8 proposal, including presentation at the forthcoming shareholder meeting. Any agreed upon amendments will be submitted by me. My husband, James McRitchie is hereby authorized as Mr. Chevedden's backup. Please direct all future communications regarding my rule 14a-8 proposal to James McRitchie at [redacted] and John Chevedden [redacted] at: [redacted] to facilitate prompt communication. Please identify Myra K. Young as the proponent of the proposal exclusively.

Your consideration and that of the Board of Directors are appreciated in support of the long-term performance of our company. You can avoid the time and expense of filing a deficiency letter to verify ownership by simply acknowledging receipt of my proposal promptly by email to [redacted] with a cc to [redacted], also letting me know if you wish to meet on December 8. That will prompt me to request the required letter from my broker and submit it to the Company. Per the most recent SEC SLB 14L https://www.sec.gov/corpfin/staff-legal-bulletin-14l-shareholder-proposals, Section F, Staff "encourages both companies and shareholder proponents to acknowledge receipt of emails when requested." I so request.

Sincerely,

Myra K. Young

11/28/2022
Date

[RGEN: Rule 14a-8 Proposal, November 28, 2022]
[This line and any line above it – *Not* for publication.]

Proposal [4*] – Fair Elections

Resolved

Myra K. Young and other shareholders request that directors of Repligen Corporation ("Company") amend its bylaws to include the following language:

Shareholder approval is required for any advance notice bylaw amendments that:

1. require the nomination of candidates more than 90 days before the annual meeting,

2. impose new disclosure requirements for director nominees, including disclosures related to past and future plans, or

3. require nominating shareholders to disclose limited partners or business associates, except to the extent such investors own more than 5% of the Company's shares.

Supporting Statement

Under SEC Rule 14a-19, the universal proxy card must include all director nominees presented by management and shareholders for election.[1] Although the Rule implies each side's nominees must be grouped together and clearly identified as such, in a fair and impartial manner, most rules for director elections are set in company bylaws.

For Rule 14a-19 to be implemented equitably, boards must not undertake bylaw amendments that deter legitimate efforts by shareholders to submit nominees. The bylaw amendments set forth in the proposed resolution would presumptively deter legitimate use of Rule 14a-19 by deterring legitimate efforts by shareholders to seek board representation through a proxy contest.

The power to amend bylaws is shared by directors and shareholders. Although directors have the power to adopt bylaw amendments, shareholders have the power to check that authority by repealing board-adopted bylaws. Directors should not amend the bylaws in ways that inequitably restrict shareholders' right to nominate directors. This resolution simply asks the board to commit not to amend the bylaws to deter legitimate

[1] https://www.ecfr.gov/current/title-17/chapter-II/part-240/section-240.14a-19

efforts to seek board representation, without submitting such amendments to shareholders. We urge the Board not to further amend its advance notice bylaws until shareholders have at least voted on this proposal.

Bloomberg's Matt Levine speculates bylaws might require disclosure submissions "on paper woven from unicorns' manes,"[2] with requirements waived for the board's nominees. While Mr. Levine depicts humorous and exaggerated possibilities, some companies are adopting amendments clearly designed to discourage fair elections.

Directors of at least one company (Masimo Corp.) recently adopted bylaw amendments that could deter legitimate efforts by shareholders to seek board representation through a proxy contest. Masimo's advance notice bylaws "resemble the 'nuclear option' and offers a case study in how rational governance devices can become unduly weaponized, writes Lawrence Cunningham.[3] Directors of other companies are considering similar proposals.

To ensure shareholders can vote on any proposal that would impose inequitable restrictions, we urge a vote FOR Fair Elections.

To Enhance Shareholder Value, Vote FOR
Fair Elections – Proposal [4*]

[This line and any below are *not* for publication]
Number 4* to be assigned by Company

The graphic above is intended to be published with the rule 14a-8 proposal.
The graphic would be the same size as the largest management graphic (and/or accompanying bold or highlighted management text with a graphic, box or shading) or any highlighted management executive summary used in conjunction with a management proposal or any other rule 14a-8 shareholder proposal in the 2023 proxy.

The proponent is willing to discuss the mutual elimination of both shareholder graphic and management graphic in the proxy in regard to specific proposals.

Reference: SEC Staff Legal Bulletin No. 14I (CF)[16] Companies should not minimize or otherwise diminish the appearance of a shareholder's graphic. For example, if the company includes its own graphics in its proxy statement, it should give similar prominence to a shareholder's graphics. If a company's proxy statement appears in black and white, however, the shareholder proposal and accompanying graphics may also appear in black and white.

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[2] https://www.bloomberg.com/opinion/articles/2022-10-27/credit-suisse-gives-first-boston-gets-a-second-chance?sref=a7KhiWzs

[3] https://corpgov.law.harvard.edu/2022/10/23/the-hottest-front-in-the-takeover-battles-advance-notice-bylaws/

Notes: This proposal is believed to conform with Staff Legal Bulletin No. 14B (CF), September 15, 2004 including (emphasis added):

> Accordingly, going forward, we believe that it would not be appropriate for companies to exclude supporting statement language and/or an entire proposal in reliance on rule 14a-8(i)(3) in the following circumstances:
>
> - the company objects to factual assertions because they are not supported;
> - the company objects to factual assertions that, while not materially false or misleading, may be disputed or countered;
> - the company objects to factual assertions because those assertions may be interpreted by shareholders in a manner that is unfavorable to the company, its directors, or its officers; and/or
> - the company objects to statements because they represent the opinion of the shareholder proponent or a referenced source, but the statements are not identified specifically as such.
>
> **We believe that it is appropriate under rule 14a-8 for companies to address these objections in their statements of opposition.**

See also Sun Microsystems, Inc. (July 21, 2005)

The stock supporting this proposal will be held until after the annual meeting and the proposal will be presented at the annual meeting. Please acknowledge this proposal promptly by email to [redacted].

Exhibit B

Delaware Law Opinion

RICHARDS LAYTON & FINGER

December 30, 2022

Repligen Corporation
41 Seyon Street
Building #1, Suite 100
Waltham, MA 02453

Re: Stockholder Proposal Submitted by Myra K. Young

Ladies and Gentlemen:

We have acted as special Delaware counsel to Repligen Corporation, a Delaware corporation (the "Company"), in connection with a stockholder proposal (the "Proposal"), dated November 28, 2022, that has been submitted to the Company by Myra K. Young (the "Proponent") for the 2023 annual meeting of stockholders of the Company (the "Annual Meeting"). In this connection, you have requested our opinion as to certain matters under the laws of the State of Delaware. For the purpose of rendering our opinion as expressed herein, we have been furnished with and have reviewed the following documents: (i) the Certificate of Incorporation of the Company, as filed with the Secretary of State of the State of Delaware (the "Secretary of State") on May 29, 1981, as amended by the Restated Certificate of Incorporation, as filed with the Secretary of State on September 15, 1981, the Restated Certificate of Incorporation, as filed with the Secretary of State on September 6, 1983, the Certificate of Amendment of the Restated Certificate of Incorporation, as filed with the Secretary of State on February 6, 1986, the Certificate of Correction of the Certificate of Amendment of the Restated Certificate of Incorporation, as filed with the Secretary of State on February 28, 1986, the Certificate of Retirement, as filed with the Secretary of State on June 27, 1986, the Certificate of Amendment of the Restated Certificate of Incorporation, as filed with the Secretary of State on September 17, 1987, the Certificate of Amendment of the Restated Certificate of Incorporation, as filed with the Secretary of State on September 12, 1991, the Restated Certificate of Incorporation, as field with the Secretary of State on July 13, 1992, the Certificate of Amendment of Certificate of Incorporation, as filed with the Secretary of State on September 17, 1999, the Certificate of Designation of the Series A Junior Participating Preferred Stock, as filed with the Secretary of State on March 4, 2003, the Certificate of Amendment to Certificate of Incorporation, as filed with the Secretary of State on May 16, 2014, the Certificate of Ownership and Merger as filed with the Secretary of State on June 30, 2017, and the Certificate of Merger, as filed with the Secretary of State on June 11, 2021 (the "Charter"); (ii) the Third Amended and Restated Bylaws of the Company, as adopted by the Company's stockholders on May 18, 2017 (the "Bylaws"); and (iii) the Proposal.

With respect to the foregoing documents, we have assumed: (i) the authenticity of all documents submitted to us as originals; (ii) the conformity to authentic originals of all documents submitted to us as copies; (iii) the genuineness of all signatures and the legal capacity of natural persons; and (iv) that the foregoing documents, in the forms thereof submitted to us for our review, have not been and will not be altered or amended in any respect material to our opinion as expressed herein. We have not reviewed any document other than the documents listed above for purposes of rendering this opinion, and we assume that there exists no provision of any such other document that bears upon or is inconsistent with our opinion as expressed herein. In addition, we have conducted no independent factual investigation of our own but rather have relied solely on the foregoing documents, the statements and information set forth therein and the additional factual matters recited or assumed herein, all of which we assume to be true, complete and accurate in all material respects.

THE PROPOSAL

The Proposal states as follows:

"Proposal [4*] – Fair Elections

Resolved

Myra K. Young and other shareholders request that directors of Repligen Corporation ("Company") amend its bylaws to include the following language:

Shareholder approval is required for any advance notice bylaw amendments that:

1. require the nomination of candidates more than 90 days before the annual meeting,

2. impose new disclosure requirements for director nominees, including disclosures related to past and future plans, or

3. require nominating shareholders to disclose limited partners or business associates, except to the extent such investors own more than 5% of the Company's shares."

The Proposal includes the following supporting statement:

"Under SEC Rule 14a-19, the universal proxy card must include all director nominees presented by management and shareholders for election. Although the Rule implies each side's nominees must be grouped together and clearly identified as such, in a fair and impartial manner, most rules for director elections are set in company bylaws.

For Rule 14a-19 to be implemented equitably, boards must not undertake bylaw amendments that deter legitimate efforts by

> shareholders to submit nominees. The bylaw amendments set forth in the proposed resolution would presumptively deter legitimate use of Rule 14a-19 by deterring legitimate efforts by shareholders to seek board representation through a proxy contest.
> The power to amend bylaws is shared by directors and shareholders. Although directors have the power to adopt bylaw amendments, shareholders have the power to check that authority by repealing board-adopted bylaws. Directors should not amend the bylaws in ways that inequitably restrict shareholders' right to nominate directors. This resolution simply asks the board to commit not to amend the bylaws to deter legitimate efforts to seek board representation, without submitting such amendments to shareholders. We urge the Board not to further amend its advance notice bylaws until shareholders have at least voted on this proposal.
>
> Bloomberg's Matt Levine speculates bylaws might require disclosure submissions "on paper woven from unicorns' manes," with requirements waived for the board's nominees. While Mr. Levine depicts humorous and exaggerated possibilities, some companies are adopting amendments clearly designed to discourage fair elections.
>
> Directors of at least one company (Masimo Corp.) recently adopted bylaw amendments that could deter legitimate efforts by shareholders to seek board representation through a proxy contest. Masimo's advance notice bylaws "resemble the 'nuclear option' and offers a case study in how rational governance devices can become unduly weaponized, writes Lawrence Cunningham. Directors of other companies are considering similar proposals.
>
> To ensure shareholders can vote on any proposal that would impose inequitable restrictions, we urge a vote FOR Fair Elections."

We have been advised that the Company is considering excluding the Proposal from the Company's proxy statement for the Annual Meeting pursuant to, *inter alia*, Rule 14a-8(i)(2) promulgated under the Securities Exchange Act of 1934, as amended. Rule 14a-8(i)(2) provides that a registrant may omit a proposal from its proxy statement when "the proposal would, if implemented, cause the company to violate any state, federal, or foreign law to which it is subject." In this connection, you have requested our opinion as to whether, under Delaware law, the Proposal would, if implemented, cause the Company violate Delaware law.

For the reasons set forth below, in our opinion, the Proposal, if implemented, would cause the Company to violate Delaware law.

DISCUSSION

Under the General Corporation Law, the Board lacks the corporate power to amend the Bylaws to include the specific language set forth in the Proposal. Thus, if the Board were to purport to amend the Bylaws pursuant to the Proposal, the resulting amendment, having been adopted in contravention of the strictures of the General Corporation Law, would be void. Accordingly, the Proposal, if implemented, would cause the Company to violate Delaware law.

As a Delaware corporation, the Company's internal affairs are governed by the General Corporation Law of the State of Delaware (the "General Corporation Law"). *See Sagarra Inversiones, S.L. v. Cementos Portland Valderrivas, S.A.*, 34 A.3d 1074, 1081–82 (Del. 2011) ("The term 'internal affairs' encompasses 'those matters that pertain to the relationships among or between the corporation and its officers, directors, and shareholders.' The doctrine requires that the law of the state ... of incorporation must govern those relationships."). Adopting, amending and repealing the bylaws falls squarely within the internal affairs of the corporation, and the General Corporation Law prescribes the manner in which any such adoption, amendment or repeal may be validly authorized and implemented.

Section 121(a) of the General Corporation Law provides that, "[i]n addition to the powers enumerated in § 122 of [the General Corporation Law]"—which specifically enumerates powers a corporation may exercise—"every corporation may, its officers, directors and stockholders shall possess and may exercise all the powers and privileges granted by [the General Corporation Law] or by any other law or by its certificate of incorporation . . . ." 8 *Del. C.* § 121(a). Section 121(a), however, "intentionally avoids any implication as to which intra-corporate actors or combinations of actors could cause the corporation to exercise its powers," and the General Corporation Law "'elsewhere ascribes to each of these groups specific powers and authority with respect to specific types of transactions. It is to these latter provisions that one must look to determine which group or groups can exercise, singly or jointly, particular powers.'" *Applied Energetics, Inc. v. Farley*, 239 A.3d 409, at 441 (Del. Ch. 2020). While Sections 121(a) and 122 broadly empower the corporation and its officers, directors and stockholders, "Section 121(b) provides that when exercising the powers conferred by Section 121(a), the corporation 'shall be governed by the provisions and be subject to the restrictions and liabilities contained in [the General Corporation Law.'" *Id.* (citing 8 *Del. C.* § 121(b)).

Under this statutory construct, for purposes of determining "which intra-corporate actors or combinations of actors" would have the power to amend the bylaws, reference must be made to Section 109 of the General Corporation Law, the principal provision governing the adoption, amendment, and repeal of a corporation's bylaws. Section 109(a) provides:

> (a) The original or other bylaws of a corporation may be adopted, amended or repealed by the incorporators, by the initial directors of a corporation other than a nonstock corporation or initial members of the governing body of a nonstock corporation if they were named in the certificate of incorporation, or, before a corporation other than a nonstock corporation has received any payment for any of its stock, by its board of directors. <u>After a corporation other than a nonstock corporation has received any payment for any of its stock, the power to</u>

> adopt, amend or repeal bylaws shall be in the stockholders entitled to vote. In the case of a nonstock corporation, the power to adopt, amend or repeal bylaws shall be in its members entitled to vote. Notwithstanding the foregoing, any corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors or, in the case of a nonstock corporation, upon its governing body. The fact that such power has been so conferred upon the directors or governing body, as the case may be, shall not divest the stockholders or members of the power, nor limit their power to adopt, amend or repeal bylaws."

8 *Del. C.* § 109(a) (emphasis added). Thus, under Section 109(a), after a corporation has received payment for its stock, the stockholders generally have the power, by statutory default, to adopt, amend, or repeal bylaws, but the power of directors to amend, alter or repeal the bylaws may only be exercised if such power has been conferred upon them in the certificate of incorporation.

Because the Company's Charter does not provide its directors the power to adopt, amend or repeal its Bylaws, by operation of Section 109 of the General Corporation Law, the power to amend or repeal the Bylaws is vested exclusively in the Company's stockholders entitled to vote. The Delaware Court of Chancery highlighted the structure of the statute in *Applied Energetics v. Farley*, 239 A.3d 409, 441 (Del. Ch. 2020), where it observed:

> Section 122(6) grants a Delaware corporation the power to "[a]dopt, amend and repeal bylaws." Another section of the [General Corporation Law]—Section 109—governs how particular intra-corporate actors can authorize the corporation to exercise this power. Section 109(a) states that for a corporation with capital stock, the following intra-corporate actors can authorize the exercise of that corporate power: (i) the incorporators until a board of directors is designated, (ii) the board of directors until the corporation has received any payment for any of its stock, (iii) the stockholders after the corporation has received any payment for any of its stock, and (iv) the board of directors concurrently with the stockholders if the certificate of incorporation so provides, except where otherwise limited by the [General Corporation Law].

The Proposal purports to require that the Company's directors amend the Bylaws to include the specific language referenced therein. By operation of the General Corporation Law, however, given that the Company's Charter does not empower the directors to adopt, amend or repeal the Bylaws, the directors do not have the power to amend the Bylaws. Indeed, if the Board were to adopt the amendment to the Bylaws contemplated by the Proposal, the amendment would be void. *See Lions Gate Entertainment Corp. v. Image Entertainment Inc.*, 2006 WL 1668051, at *7 (Del. Ch. June 5, 2006) ("Because the charter does not confer the power to amend the bylaws upon the board, the Bylaw Amendment Provision [i.e., a board-adopted bylaw purporting to confer upon the board the power to adopt, amend or repeal the bylaws] is invalid, *ultra vires*, and void.").

CONCLUSION

Based upon and subject to the foregoing and subject to the limitations stated herein, it is our opinion that the Proposal, if implemented, would violate Delaware law.

The foregoing opinion is limited to the laws of the State of Delaware. We have not considered and express no opinion on the laws of any other state or jurisdiction, including federal laws regulating securities or any other federal laws, or the rules and regulations of stock exchanges or of any other regulatory body.

The foregoing opinion is rendered solely for your benefit in connection with the matters addressed herein. We understand that you may furnish a copy of this opinion letter to the Securities and Exchange Commission and to the Proponent in connection with the matters addressed herein, and we consent to your doing so. Except as stated in this paragraph, this opinion letter may not be furnished or quoted to, nor may the foregoing opinion be relied upon by, any other person or entity for any purpose without our prior written consent.

Very truly yours,

Richards, Layton & Finger, P.A.

JMZ/MAK

Exhibit C

Certificate of Incorporation

CERTIFICATE OF INCORPORATION

OF

REPLIGEN CORPORATION

I, the undersigned, for the purpose of forming a corporation under the laws of the State of Delaware, hereby certify 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 229 South State Street, City of Dover, County of Kent. The name of the registered agent of the corporation at such address is The Prentice-Hall Corporation System, Inc.

THIRD. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware, and specifically, without limiting the generality of the foregoing, to engage in research, development, manufacture and marketing of products produced in part by application of genetic engineering techniques.

FOURTH. The total number of shares of stock which the corporation shall have authority to issue is five million (5,000,000). The par value of each of such shares is one cent. All such shares are of one class and are shares of common stock.

FIFTH. The name and mailing address of the incorporator are as follows:

NAME	MAILING ADDRESS
Peter Karl Wirth	Palmer & Dodge One Beacon Street Boston, Massachusetts 02108

SIXTH. The corporation is to have perpetual existence.

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SEVENTH. Election of directors need not be by written ballot unless the by-laws of the corporation shall so provide.

EIGHTH. The corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as that section may be amended and supplemented from time to time, indemnify any and all persons whom it shall have power to indemnify under that section against any expenses, liabilities or other matters referred to in or covered by that section. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

NINTH. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

Signed this 22nd day of May, 1981.

Peter Karl Wirth, Incorporator

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FILED

SEP 15 1981

SECRETARY OF STATE

RESTATED

CERTIFICATE OF INCORPORATION

OF

REPLIGEN CORPORATION

Incorporated pursuant to an original Certificate
of Incorporation filed with the Secretary of State
May 29, 1981

We, the undersigned, for the purpose of restating the Certificate of Incorporation of Repligen Corporation under the laws of the State of Delaware, hereby certify 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 229 South State Street, City of Dover, County of Kent. The name of the registered agent of the corporation at such address is The Prentice-Hall Corporation System, Inc.

THIRD. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware, and specifically, without limiting the generality of the foregoing, to engage in research, development, manufacture and marketing of products produced in part by application of genetic engineering techniques.

FOURTH. The total number of shares of stock which the corporation shall have authority to issue is six million, eight hundred thousand (6,800,000) of which six million (6,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, and eight hundred thousand (800,000) shares shall constitute Class A Common Stock ("Class A Stock"), each such share having a par value of one dollar. The powers, preferences and rights of the Common Stock and the Class A Stock shall be as follows:

1. Dividends. No dividend or distribution in cash, shares of stock or other property on Common Stock shall be declared or paid or set apart for payment, unless, at the same time, an equivalent dividend or distribution is declared or paid or set apart, as the case may be, on Class A Stock payable on the same date, at the rate per share of Class A Stock based upon the shares of Common Stock or other securities which the holders of Class A Stock would be entitled to receive if they had converted the Class A Stock as provided in paragraph 4 hereof on the same record date as the dividend or distribution on Common Stock.

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2. Preference on Liquidation, etc. In the event of any voluntary or involuntary liquidation, distribution of assets (other than the payment of dividends), dissolution or winding-up of the Company, before any payment or distribution of the assets of the Company (whether capital or surplus) shall be made to or set apart for the holders of shares of Common Stock, the holders of shares of Class A Stock shall be entitled to receive payment of $5.75 per share held by them. If, upon any liquidation, distribution of assets, dissolution or winding-up of the Company, the assets of the Company, or proceeds thereof, distributable among the holders of shares of Class A Stock shall be insufficient to pay in full the respective preferential amounts of shares of Class A Stock, then such assets, or the proceeds thereof, shall be distributed among such holders ratably in accordance with the respective amounts which would be payable on such shares if all amounts payable thereon were paid in full. After payment in full of the preferential amounts on shares of Class A Stock and the payment or distribution of $5.75 per share of Common Stock then outstanding to the holders of Common Stock, the holders of shares of Class A stock shall be entitled to receive the same payment or distribution of assets per share of Class A Stock as shall be paid or distributed per share of Common Stock to the holders of Common Stock. For the purposes of this paragraph 2, the voluntary sale, lease or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of the assets of the Company to, or a consolidation or merger of the Company with, one or more Persons shall not be deemed to be a liquidation, distribution of assets, dissolution or winding-up, voluntary or involuntary.

3. Voting. (a) In addition to the special voting rights provided in subparagraph 3(b) below and by applicable law, the holders of shares of Class A Stock shall be entitled to vote upon all matters upon which holders of the Common Stock have the right to vote, and shall be entitled to the number of votes equal to the largest number of full shares of Common Stock into which such shares of Class A Stock could be converted pursuant to the provisions of paragraph 4 hereof, at the record date for the determination of the stockholders entitled to vote on such matters, or, if no such record date is established, at the date such vote is taken or any written consent of stockholders is solicited, such votes to be counted together with all other shares of capital stock having general voting powers and not separately as a class. In all cases where the holders of shares of Class A Stock have the right to vote separately as a class, such holders shall be entitled to one vote for each such share held by them respectively.

(b) Without the consent of the holders of at least

(i) a majority of the shares of Class A Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) increase the authorized amount of Class A Stock or (B) create any other class of stock entitled to a preference prior to or on parity with Class A Stock upon any liquidation, distribution of assets, dissolution or

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winding-up of the Company or increase the authorized amount of any such other class; and

(ii) two-thirds of the shares of Class A Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) amend, alter or repeal any provision of the Certificate of Incorporation so as to adversely affect the preferences, rights or powers of the Class A Stock or (B) merge or consolidate with or into any other Person, or sell substantially all of its assets or business to any other Person, except that the Company may merge with any other Person if the Company is the entity surviving such merger and such merger does not adversely affect the preferences, rights or power of the Class A Stock.

4. Conversion Rights. The Class A Stock shall be convertible into Common Stock as follows:

(a) Optional Conversion. Subject to and upon compliance with the provisions of this paragraph 4, the holder of any shares of Class A Stock shall have the right at such holders' option, at any time or from time to time, to convert any of such shares of Class A Stock into fully paid and nonassessable shares of Common Stock at the Conversion Price (as hereinafter defined) in effect on the Conversion Date (as hereinafter defined) upon the terms hereinafter set forth. In case any share of Class A Stock is called for redemption, such right of conversion shall terminate on the close of business on the day fixed for redemption unless the Company shall default in the payment due upon redemption thereof.

(b) Automatic Conversion. Each outstanding share of Class A Stock shall automatically be converted, without any further act of the Company or its stockholders, into fully paid and nonassessable shares of Common Stock at the Conversion Price then in effect upon the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offering and sale of the Company's Common Stock for the account of the Company in which the aggregate gross proceeds received by the Company equal or exceed $5,000,000 and the public offering price per share of which equals or exceeds twice the Conversion Price in effect immediately prior to the closing of the sale of such shares.

(c) Conversion Price. Each share of Class A Stock shall be converted into the number of shares of Common Stock as is determined by dividing (i) the sum of (A) $5.75 plus (B) any dividends on such share of Class A Stock which such holder is entitled to receive, but has not yet received, by (ii) the Conversion Price in effect on the Conversion Date. The Conversion Price at which shares of Common Stock shall initially be issuable upon conversion of the shares of Class A Stock shall be $5.75. The Conversion Price shall be subject to adjustment as set forth in subparagraph 4(f). No payment or adjustment shall be made for any dividends on the Common Stock issuable upon such conversion.

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(d) Mechanics of Conversion. Upon the occurrence of the event specified in subparagraph 4(b), the outstanding shares of Class A Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; provided that the Company shall not be obligated to issue to any such holder certificates evidencing the shares of Common Stock issuable upon such conversion unless certificates evidencing the shares of Class A Stock are either delivered to the Company or any transfer agent of the Company. The holder of any shares of Class A Stock may exercise the conversion right specified in subparagraph 4(a) as to any part thereof by surrendering to the Company or any transfer agent of the Company the certificate or certificates for the shares to be converted, accompanied by written notice stating that the holder elects to convert all or a specified portion of the shares represented thereby. Conversion shall be deemed to have been effected on the date of the occurrence of the event specified in subparagraph 4(b) or on the date when delivery of notice of an election to convert and certificates for shares is made, as the case may be, and such date is referrred to herein as the "Conversion Date." Subject to the provision of subparagraph 4(f)(viii), as promptly as practicable thereafter (and after surrender of the certificate or certificates representing shares of Class A Stock to the Company or any transfer agent of the Company in the case of conversions pursuant to subparagraph 4(b)) the Company shall issue and deliver to or upon the written order of such holder a certificate or certificates for the number of full shares of Common Stock to which such holder is entitled and a check or cash with respect to any fractional interest in a share of Common Stock as provided in subparagraph 4(e). Subject to the provisions of subparagraph 4(f)(viii), the Person in whose name the certificate or certificates for Common Stock are to be issued shall be deemed to have become a holder of record of such Common Stock on the applicable Conversion Date. Upon conversion of only a portion of the number of shares covered by a certificate representing shares of Class A Stock surrendered for conversion (in the case of conversion pursuant to subparagraph 4(a)), the Company shall issue and deliver to or upon the written order of the holder of the certificate so surrendered for conversion, at the expense of the Company, a new certificate covering the number of shares of Class A Stock representing the unconverted portion of the certificate so surrendered.

(e) Fractional Shares. No fractional shares of Common Stock or scrip shall be issued upon conversion of shares of Class A Stock. If more than one share of Class A Stock shall be surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Class A Stock so surrendered. Instead of any fractional shares of Common Stock which would otherwise be issuable upon conversion of any shares of Class A Stock, the Company shall pay a cash adjustment in respect of such fractional interest in an amount equal to that fractional interest of the then Current Market Price.

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(f) Conversion Price Adjustments. The Conversion Price shall be subject to adjustment from time to time as follows:

(i) Common Stock Issued Prior to the Third Anniversary of the Date of Issuance of the Class A Stock at less than $5.75 per Share. If the Company shall issue Common Stock other than Excluded Stock prior to the third anniversary of the date of the first issuance of Class A Stock for a consideration of less than $5.75 per share, the Conversion Price in effect immediately prior to any such issuance shall immediately be reduced to a price equal to the consideration per share received by the Company.

(ii) Common Stock Issued After the Third Anniversary of the Date of Issuance of the Class A Stock at Less Than the Conversion Price. If, after the third anniversary of the date of the first issuance of the Class A Stock, the Company shall issue any Common Stock other than Excluded Stock without consideration or for a consideration per share less than the Conversion Price in effect immediately prior to such issuance, the Conversion Price in effect immediately prior to each such issuance shall immediately (except as provided below) be reduced to the price determined by dividing (1) an amount equal to the sum of (A) the number of shares of Common Stock outstanding immediately prior to such issuance multiplied by the Conversion Price in effect immediately prior to such issuance and (B) the consideration, if any, received by the Company upon such issuance, by (2) the total number of shares of Common Stock outstanding immediately after such issuance.

For the purposes of any adjustment of the Conversion Price pursuant to clauses (i) and (ii), the following provisions shall be applicable:

(A) Cash. In the case of the issuance of Common Stock for cash, the amount of the consideration received by the Company shall be deemed to be the amount of the cash proceeds received by the Company for such Common Stock before deducting therefrom any reasonable discounts, commissions, taxes or other expenses allowed, paid or incurred by the Company for any underwriting or otherwise in connection with the issuance and sale thereof.

(B) Consideration Other Than Cash. In the case of the issuance of Common Stock (otherwise than upon the conversion of shares of capital stock or other securities of the Company) for a consideration in whole or in part other than cash, including securities acquired in exchange therefor (other than securities by their terms so exchangeable), the consideration other than cash shall be deemed to be the fair value thereof as determined by the Board of Directors, irrespective of any accounting treatment; provided that such fair value as determined by the Board of Directors shall not exceed the aggregate Current Market Price of the shares of Common Stock being issued as of the date the Board of Directors authorizes the issuance of such shares.

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(C) Options and Convertible Securities. In the case of the issuance of (i) options, warrants or other rights to purchase or acquire Common Stock (whether or not at the time exercisable), (ii) securites by their terms convertible into or exchangeable for Common Stock (whether or not at the time so convertible or exercisable) or options, warrants or rights to purchase such convertible or exchangeable securities (whether or not at the time exercisable):

(1) the aggregate maximum number of shares of Common Stock deliverable upon exercise of such options, warrants or other rights to purchase or acquire Common Stock shall be deemed to have been issued at the time such options, warrants or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subclauses (A) and (B) above), if any, received by the Company upon the issuance of such options, warrants or rights plus the minimum purchase price provided in such options, warrants or rights for the Common Stock covered thereby;

(2) the aggregate maximum number of shares of Common Stock deliverable upon conversion of or in exchange for any such convertible or exchangeable securities, or upon the exercise of options, warrants or other rights to purchase or acquire such convertible or exchangeable securities and the subsequent conversion or exchange thereof, shall be deemed to have been issued at the time such securities were issued or such options, warrants or rights were issued and for a consideration equal to the consideration, if any, received by the Company for any such securities and related options, warrants or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the additional consideration, if any, to be received by the Company upon the conversion or exchange of such securities and the exercise of any related options, warrants or rights (the consideration in each case to be determined in the manner provided in subclauses (A) and (B) above);

(3) on any change in the number of shares of Common Stock deliverable upon exercise of any such options, warrants or rights or conversion of or exchange for such convertible or exchangeable securities or any change in the consideration to be received by the Company upon such exercise, conversion or exchange, including, but not limited to, a change resulting from the antidilution provisions thereof, the Conversion Price as then in effect shall forthwith be readjusted to such Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants or rights not exercised prior to such change, or securities not converted or exchanged prior to such change, upon the basis of such change;

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(4) on the expiration or cancellation of any such options, warrants or rights, or the termination of the right to convert or exchange such convertible or exchangeable securities, if the Conversion Price shall have been adjusted upon the issuance thereof, the Conversion Price shall forthwith be readjusted to such Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants, rights or securities on the basis of the issuance of only the number of shares of Common Stock actually issued upon the exercise of such options, warrants or rights, or upon the conversion or exchange of such securities; and

(5) if the Conversion Price shall have been adjusted upon the issuance of any such options, warrants, rights or convertible or exchangeable securities, no further adjustment of the Conversion Price shall be made for the actual issuance of Common Stock upon the exercise thereof;

provided, however, that no increase in the Conversion Price shall be made pursuant to subclauses (1) or (2) of this subclause (C).

(iii) Excluded Stock. "Excluded Stock" shall mean (A) shares of Common Stock issued or reserved for issuance by the Company as a stock dividend payable in shares of Common Stock, or upon any subdivision or split-up of the outstanding shares of Common Stock, or upon conversion of shares of Class A Stock and (B) 1,420,000 shares of Common Stock issuable upon exercise of options granted or to be granted to key employees or consultants of the Company or to be issued to new investors in the Company. All shares of Excluded Stock which the Company has reserved for issuance shall be deemed to be outstanding for all purposes of computations under subparagraph 4(f)(i) and (ii).

(iv) Stock Dividends. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Class A Stock is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then immediately after the record date fixed for the determination of holders of Common Stock entitled to receive such stock dividend or the effective date of such subdivision or split-up, as the case may be, the Conversion Price shall be appropriately reduced so that the holder of any shares of Class A Stock thereafter converted shall be entitled to receive the number of shares of Common Stock of the Company which he would have owned immediately following such action had such shares of Class A Stock been converted immediately prior thereto.

(v) Combination of Stock. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Class A Stock is decreased by a combination of the outstanding shares of Common Stock, then, immediately after the effective date of such combination, the Conversion Price shall be appropriately

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increased so that the holder of any shares of Class A Stock thereafter converted shall be entitled to receive the number of shares of Common Stock of the Company which he would have owned immediately following such action had such shares of Class A Stock been converted immediately prior thereto.

(vi) Reorganizations, etc. In case of any capital reorganization of the Company, or of any reclassification of the Common Stock, or in case of the consolidation of the Company with or the merger of the Company with or into any other Person or of the sale, lease or other transfer of all or substantially all of the assets of the Company to any other Person, each share of Class A Stock shall after such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer be convertible into the number of shares of stock or other securities or property to which the Common Stock issuable (at the time of such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer) upon conversion of such share of Class A Stock would have been entitled upon such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer; and in any such case, if necessary, the provisions set forth herein with respect to the rights and interests thereafter of the holders of the shares of Class A Stock shall be appropriately adjusted so as to be applicable, as nearly as may reasonably be, to any shares of stock or other securities or property thereafter deliverable on the conversion of the shares of Class A Stock. The subdivision or combination of shares of Common Stock issuable upon conversion of shares of Class A Stock at any time outstanding into a greater or lesser number of shares of Common Stock (whether with or without par value) shall not be deemed to be a reclassification of the Common Stock of the Company for the purposes of this clause (vi).

(vii) Rounding of Calculations; Minimum Adjustment. All calculations under this subparagraph (d) shall be made to the nearest cent or to the nearest one hundredth (1/100th) of a share, as the case may be. Any provision of this paragraph 4 to the contrary notwithstanding, no adjustment in the Conversion Price shall be made if the amount of such adjustment would be less than $0.05, but any such amount shall be carried forward and an adjustment with respect thereto shall be made at the time of and together with any subsequent adjustment which, together with such amount and any other amount or amounts so carried forward, shall aggregate $0.05 or more.

(viii) Timing of Issuance of Additional Common Stock Upon Certain Adjustments. In any case in which the provisions of this subparagraph (i) shall require that an adjustment shall become effective immediately after a record date for an event, the Company may defer until the occurrence of such event (A) issuing to the holder of any share of Class A Stock converted after such record date and before the occurrence of such event the additional shares of Common Stock

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issuable upon such conversion by reason of the adjustment required by such event over and above the shares of Common Stock issuable upon such conversion before giving effect to such adjustment and (B) paying to such holder any amount of cash in lieu of a fractional share of Common Stock pursuant to subparagraph (e) of this paragraph 4; provided that the Company upon request shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares, and such cash, upon the occurrence of the event requiring such adjustment.

(g) Current Market Price. The Current Market Price at any date shall mean the price per share of Common Stock on such date determined by the Board of Directors as provided below. The Current Market Price shall be the average of the daily closing prices per share of Common Stock for 30 consecutive business days ending no more than 15 business days before the date in question (as adjusted for any stock dividend, split, combination or reclassification that took effect during such 30 business day period). The closing price for each day shall be the last reported sales price regular way or, in case no such reported sales take place on such day, the average of the last reported bid and asked prices regular way, in either case on the principal national securities exchange on which the Common Stock is listed or admitted to trading, or if not listed or admitted to trading on any national securities exchange, the average of the highest bid and the lowest asked prices quoted on the National Association of Securities Dealers Automated Quotation System; provided that if the Common Stock is not traded in such manner that the quotations referred to above are available for the period required hereunder, Current Market Price per share of Common Stock shall be deemed to be the fair value as determined by the Board of Directors, irrespective of any accounting treatment.

(h) Statement Regarding Adjustments. Whenever the Conversion Price shall be adjusted as provided in subparagraph 4(f), the Company shall forthwith file, at the office of any transfer agent for the Class A Stock and at the principal office of the Company, a statement showing in detail the facts requiring such adjustment and the Conversion Price that shall be in effect after such adjustment, and the Company shall also cause a copy of such statement to be sent by mail, first class postage prepaid, to each holder of shares of Class A Stock at its address appearing on the Company's records. Each such statement shall be signed by the Company's independent public accountants. Where appropriate, such copy may be given in advance and may be included as part of a notice required to be mailed under the provisions of subparagraph 4(i).

(i) Notice to Holders. In the event the Company shall propose to take any action of the type described in clause (i) or (ii) (but only if the action of the type described in clause (i) or (ii) would result in an adjustment in the Conversion Price), (iv), (v) or (vi) of subparagraph 4(f), the Company shall give notice to each holder of shares of Class A Stock, in the manner set forth in subparagraph 4(h), which notice shall specify the record date, if any, with respect to any such

action and the approximate date on which such action is to take place. Such notice shall also set forth such facts with respect thereto as shall be reasonably necessary to indicate the effect of such action (to the extent such effect may be known at the date of such notice) on the Conversion Price and the number, kind or class of shares or other securities or property which shall be deliverable or purchasable upon the occurrence of such action or deliverable upon conversion of shares of Class A Stock. In the case of any action which would require the fixing of a record date, which notice shall be given at least 10 days prior to the date so fixed, and in case of all other action, such notice shall be given at least 15 days prior to the taking of such proposed action. Failure to give notice, or any defect therein, shall not affect the legality or validity of any such action.

(j) Treasury Stock. For the purposes of this paragraph 4, the sale or other disposition of any Common Stock of the Company theretofore held in its treasury shall be deemed to be an issuance thereof.

(k) Costs. The Company shall pay all documentary, stamp, transfer or other transactional taxes attributable to the issuance or delivery of shares of Common Stock of the Company upon conversion of any shares of Class A Stock; provided that the Company shall not be required to pay any taxes which may be payable in respect of any transfer involved in the issuance or delivery of any certificate for such shares in a name other than that of the holder of the share of Class A Stock in respect of which such shares are being issued.

(l) Reservation of Shares. The Company shall reserve at all times so long as any shares of Class A Stock remain outstanding, free from preemptive rights, out of its treasury stock or its authorized but unissued shares of Common Stock, or both, solely for the purpose of effecting the conversion of the shares of Class A Stock, sufficient shares of Common Stock to provide for the conversion of all outstanding shares of Class A Stock.

(m) Approvals. If any shares of Common Stock to be reserved for the purpose of conversion of shares of Class A Stock require registration with or approval of any governmental authority under any Federal or state law before such shares may be validly issued or delivered upon conversion, then the Comapny will in good faith and as expeditiously as possible endeavor to secure such registration or approval, as the case may be. If, and so long as, any Common Stock into which the shares of Class A Stock are then convertible is listed on any national securities exchange, the Company will, if permitted by the rules of such exchange, list and keep listed on such exchange, upon official notice of issuance, all shares of such Common Stock issuable upon conversion.

(n) Valid Issuance. All shares of Common Stock which may be issued upon conversion of the shares of Class A Stock will upon issuance by the Company be duly and validly issued, fully paid and nonassessable

and free from all taxes, liens and char with respect to the issuance thereof and the Company shall take no action which will cause a contrary result (including without limitation, any action which would cause the Conversion Price to be less than the par value, if any, of the Common Stock).

5. Other Rights. Except as otherwise provided in this Article, each share of Class A Stock and each share of Common Stock shall be identical in all respects, shall have the same powers, preferences and rights, without preference of any such class or share over any other such class or share, and shall be treated as a single class of stock for all purposes.

6. Redemption.

(a)(i) Optional. On and after January 1, 1988, Class A Stock may be redeemed in whole at any time or from time to time in part, at the option of the Company, at the redemption price of $5.75 per share in cash out of monies legally available therefor (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Class A Stock) together in each case with an amount equal to any declared but unpaid dividends to the date fixed for redemption. Such redemption shall be made pro rata in proportion to the number of shares of Class A Stock held by each holder as indicated on the books of the Company immediately prior to the mailing of the notice of redemption as provided in clause (b) below.

(a)(ii) Mandatory. The Company shall, on January 1 of each year commencing January 1, 1990, redeem 20% of the Class A Stock originally issued, at a redemption price of $5.75 per share in cash out of monies legally available therefor (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Class A Stock) together with an amount equal to any declared but unpaid dividends to the date fixed for redemption. Such redemption shall be made pro rata in proportion to the number of shares of Class A Stock held by each holder as indicated on the books of the Company immediately prior to the mailing of the notice of redemption as provided in clause (b) below. The required redemption shall be cumulative, so that in any year the full number of shares of Class A Stock required to be redeemed, for any reason, are not so redeemed, the deficiency shall be added to the requirements for the next year.

(b) Redemption Notice. At least thirty (30) days prior to the date fixed for any redemption of Class A Stock (the "Redemption Date"), written notice shall be mailed by first class certified mail, postage prepaid, to each holder of record of Class A Stock to be redeemed, at such holder's post office address last shown on the records of the Company, notifying such holder of the election of the Company to redeem such shares, specifying the Redemption Date and the date on which such holder's rights of conversion as to such shares terminates and calling upon such holder to surrender to the Company, in the manner and at the place designated, his certificate or certificates representing the shares to be redeemed (such notice is hereinafter referred to as the

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"Redemption Notice"). On or after the Redemption Date, each holder of Class A Stock to be redeemed shall surrender his certificate or certificates representing such shares to the Company, in the manner and at the place designated in the Redemption Notice, and thereupon the redemption price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be cancelled. From and after the Redemption Date, unless there shall have been a default in payment of the redemption price, all rights of the holders of such shares as holders of Class A Stock of the Company (except the right to receive the redemption price without interest upon surrender of their certificate or certificates) shall cease with respect to such shares, and such shares shall not thereafter be transferred on the books of the Company or be deemed to be outstanding for any purpose whatsoever.

7. Retirement of Shares. Shares of Class A Stock which have been issued and have been redeemed, repurchased or reacquired in any manner by the Company shall be retired and shall not be reissued.

8. General Provisions.

(a) The term "Person" as used herein means any corporation, partnership, trust, organization, association, other entity or individual.

(b) The term "outstanding," except as otherwise provided herein, when used with reference to shares of stock, shall mean issued shares, excluding shares held by the Company or a subsidiary.

(c) All accounting terms used herein and not expressly defined herein shall have the meanings given to them in accordance with generally accepted accounting principles.

(d) The headings of the paragraphs, subparagraphs, clauses and subclauses of this Article are for convenience of reference only and shall not define, limit or affect any of the provisions hereof.

FIFTH. The corporation is to have perpetual existence.

SIXTH. Election of directors need not be by written ballot unless the by-laws of the corporation shall so provide.

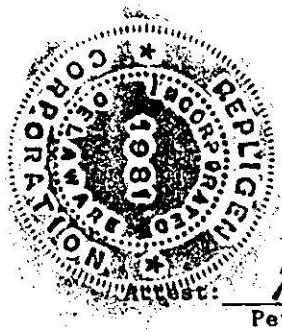
SEVENTH. The corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as that section may be amended and supplemented from time to time, indemnify any and all persons whom it shall have power to indemnify under that section against any expenses, liabilities or other matters referred to in or covered by that section. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while

holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

EIGHTH. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

NINTH. This Restated Certificate of Incorporation has been duly adopted by the stockholders of the corporation upon the recommendation of the board of directors in accordance with the provisions of §245 of the Delaware General Corporation Law.

Signed this 11 day of September, 1981.



William M. Jackson, President

Attest:

Peter Karl Wirth, Secretary

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FILED

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SECRETARY OF STATE

RESTATED

CERTIFICATE OF INCORPORATION

OF

REPLIGEN CORPORATION

Incorporated pursuant to an original Certificate of Incorporation filed with the Secretary of State May 29, 1981

We, the undersigned, for the purpose of restating the Certificate of Incorporation of Repligen Corporation under the laws of the State of Delaware, hereby certify 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 229 South State Street, City of Dover, County of Kent. The name of the registered agent of the corporation at such address is The Prentice-Hall Corporation System, Inc.

THIRD. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware, and specifically, without limiting the generality of the foregoing, to engage in research, development, manufacture and marketing of products produced in part by application of genetic engineering techniques.

FOURTH. The total number of shares of stock which the corporation shall have authority to issue is seven million, five hundred and seventy-eight thousand, nine hundred and fifty-four (7,578,954) of which six million (6,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, six hundred and seventy-eight thousand, nine hundred and fifty-four (678,954) shares shall constitute Series A Convertible Preferred Stock ("Series A Preferred Stock"), each such share having a

par value of one dollar and nine hundred thousand (900,000) shares shall constitute Series B Convertible Preferred Stock ("Series B Preferred Stock"), each such share having a par value of one dollar. The powers, preferences and rights of the Common Stock, Series A Preferred Stock and the Series B Preferred Stock shall be as follows:

1. Dividends. No dividend or distribution in cash, shares of stock or other property on Common Stock shall be declared or paid or set apart for payment, unless, at the same time, an equivalent dividend or distribution is declared or paid or set apart, as the case may be, on Series A Preferred Stock and Series B Preferred Stock payable on the same date, at the rate per share of Series A Preferred Stock and Series B Preferred Stock based upon the shares of Common Stock or other securities which the holders of Series A Preferred Stock and Series B Preferred Stock would be entitled to receive if they had converted the Series A Preferred Stock and Series B Preferred Stock as provided in paragraph 4 hereof on the same record date as the dividend or distribution on Common Stock.

2. Preference on Liquidation, etc. In the event of any voluntary or involuntary liquidation, distribution of assets (other than the payment of dividends), dissolution or winding-up of the Company, any payment or distribution of the assets of the Company (whether capital or surplus), or proceeds thereof, shall be made to or set apart in the following order of preference: (i) the holders of shares of Series A Preferred Stock and the holders of shares of Series B Preferred Stock shall be entitled to receive payment of $5.75 and $9.50, respectively, per share of Series A Preferred Stock or Series B Preferred Stock held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (i), then such assets shall be distributed among such holders ratably in accordance with the respective amounts which would be payable on such shares if all amounts payable thereon were paid in full; (ii) after payment in full of the preferential amounts set forth in clause (i) above, the holders of shares of Common Stock shall be entitled to receive payment of $5.75 per share held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (ii), then such assets shall be distributed among such

holders ratably in accordance with the amounts which would be payable on such shares if all amounts payable thereon were paid in full; (iii) after payment in full of the preferential amounts set forth in clauses (i) and (ii) above, the holders of shares of Series A Preferred Stock and the holders of Common Stock shall be entitled to receive payment of $3.75 per share held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (iii), then such assets shall be distributed among such holders ratably in accordance with the amounts which would be payable on such shares if all amounts payable thereon were paid in full; and (iv) after payment in full of the preferential amounts set forth in clauses (i), (ii) and (iii) above, the holders of shares of Series A Preferred Stock and the holders of shares of Series B Preferred Stock shall be entitled to receive the same payment or distribution of assets per share of Series A Preferred Stock or Series B Preferred Stock, respectively, as shall be paid or distributed per share of Common Stock to the holders of Common Stock. For the purposes of this paragraph 2, the voluntary sale, lease or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of the assets of the Company to, or a consolidation or merger of the Company with, one or more Persons shall not be deemed to be a liquidation, distribution of assets, dissolution or winding-up, voluntary or involuntary.

3. Voting. (a) In addition to the special voting rights provided in subparagraph 3(b) below and by applicable law, the holders of shares of Series A Preferred Stock and Series B Preferred Stock shall be entitled to vote upon all matters upon which holders of the Common Stock have the right to vote, and shall be entitled to the number of votes equal to the largest number of full shares of Common Stock into which such shares of Series A Preferred Stock and Series B Preferred Stock could be converted pursuant to the provisions of paragraph 4 hereof, at the record date for the determination of the stockholders entitled to vote on such matters, or, if no such record date is established, at the date such vote is taken or any written consent of stockholders is solicited, such votes to be counted together with all other shares of capital stock having general voting powers and not separately as a class. Where a class vote is required by law, the Series A and Series B Preferred Stock will

be considered a single separate class if the rights, preferences, privileges and restrictions granted to or imposed upon both the Series A and Series B Preferred Stock are affected in a manner different from that of any other class of capital stock then outstanding and the Series A and Series B Preferred Stock will each be considered a separate class if the rights, preferences, privileges and restrictions granted to or imposed upon one such class are affected in a manner different from that of the other. In all such cases where the holders of shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, have the right to vote separately as a class, such holders shall be entitled to one vote for each such share held by them respectively.

(b) Without the consent of the holders of at least

(i) a majority of the aggregate number of shares of Series A Preferred Stock and Series B Preferred Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) increase the authorized amount of Series A Preferred Stock or Series B Preferred Stock or (B) create or increase the authorized amount of any amount of any other class of stock entitled to a preference prior to or on parity with Series A Preferred Stock and Series B Preferred Stock upon any liquidation, distribution of assets, dissolution or winding-up of the Company; and

(ii) two-thirds of the shares of Series A Preferred Stock and Series B Preferred Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) amend, alter or repeal any provision of the Certificate of Incorporation so as to adversely affect the preferences, rights or powers of the Series A Preferred Stock or Series B Preferred Stock or (B) merge or consolidate with or into any other Person, or sell, lease or transfer substantially all of its assets or business to any other Person, except that the Company may merge with any other Person if the Company is the entity surviving such

merger and such merger does not adversely affect the preferences, rights or power of the Series A Preferred Stock and Series B Preferred Stock.

4. Conversion Rights. The Series A Preferred Stock and Series B Preferred Stock shall be convertible into Common Stock as follows:

(a) Optional Conversion. Subject to and upon compliance with the provisions of this paragraph 4, (i) the holder of any shares of Series A Preferred Stock shall have the right at such holders' option, at any time or from time to time, to convert any of such shares of Series A Preferred Stock into fully paid and nonassessable shares of Common Stock at the Series A Conversion Price (as hereinafter defined) in effect on the Series A Conversion Date (as hereinafter defined) upon the terms hereinafter set forth and (ii) the holder of any shares of Series B Preferred Stock shall have the right at such holders' option, at any time or from time to time to convert any of such shares of Series B Preferred Stock into fully paid and nonassessable shares of Common Stock at the Series B Conversion Price (as hereinafter defined) in effect on the Series B Conversion Date (as hereinafter defined) upon the terms hereinafter set forth. In case any share of Series A Preferred Stock or Series B Preferred Stock is called for redemption, such right of conversion shall terminate on the close of business on the day fixed for redemption unless the Company shall default in the payment due upon redemption thereof.

(b) Automatic Conversion. Each outstanding share of Series A Preferred Stock and Series B Preferred Stock shall automatically be converted, without any further act of the Company or its stockholders, into fully paid and nonassessable shares of Common Stock pursuant to the formula as set forth in Section 4(c)(i) and Section 4(c)(ii), respectively, upon the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offering and sale of the Company's Common Stock for the account of the Company in which the aggregate gross proceeds received by the Company equal or exceed $10,000,000 and the public offering price per share is at least $11.50.

(c)(i) Series A Conversion Price. Each share of Series A Preferred Stock shall be converted into the number of shares of Common Stock as is determined by dividing (i) the sum of (A) $5.75 plus (B) any dividends on such share of Series A Preferred Stock which such holder is entitled to receive, but has not yet received, by (ii) the Series A Conversion Price in effect on the Conversion Date. The Series A Conversion Price at which shares of Common Stock shall initially be issuable upon conversion of the shares of Series A Preferred Stock shall be $5.75. The Series A Conversion Price shall be subject to adjustment as set forth in subparagraph 4(f)(i) and (ii). No payment or adjustment shall be made for any dividends on the Common Stock issuable upon such conversion.

(ii) Series B Conversion Price. Each share of Series B Preferred Stock shall be converted into the number of shares of Common Stock as is determined by dividing (x) the sum of (A) $9.50 plus (B) any dividends on such share of Series B Preferred Stock which such holder is entitled to receive, but has not yet received, by (y) the Series B Conversion Price in effect on the Series B Conversion Date. The Series B Conversion Price at which shares of Common Stock shall initially be issuable upon conversion of the shares of Series B Preferred Stock shall be $9.50. The Series B Conversion Price shall be subject to adjustment as set forth in subparagraph 4(f)(iii). No payment or adjustment shall be made for any dividends on the Common Stock issuable upon such conversion.

(d) Mechanics of Conversion. Upon the occurrence of the event specified in subparagraph 4(b), the outstanding shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; provided that the Company shall not be obligated to issue to any such holder certificates evidencing the shares of Common Stock issuable upon such conversion unless certificates evidencing the shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, are either delivered to the Company or any transfer agent of the Company. The holder of any shares of Series A Preferred Stock or Series B Preferred Stock may exercise the conversion right specified in subparagraph

4(a) as to any part thereof by surrendering to the Company or any transfer agent of the Company the certificate or certificates for the shares to be converted, accompanied by written notice stating that the holder elects to convert all or a specified portion of the shares represented thereby. Conversion shall be deemed to have been effected on the date of the occurrence of the event specified in subparagraph 4(b) or on the date when delivery of notice of an election to convert and certificates for shares is made, as the case may be, and such date is referred to herein with respect to the Series A Preferred Stock as the "Series A Conversion Date" and with respect to the Series B Preferred Stock as the "Series B Conversion Date." Subject to the provision of subparagraph 4(f)(viii), as promptly as practicable thereafter (and after surrender of the certificate or certificates representing shares of Series A Preferred Stock or Series B Preferred Stock to the Company or any transfer agent of the Company in the case of conversions pursuant to subparagraph 4(b)) the Company shall issue and deliver to or upon the written order of such holder a certificate or certificates for the number of full shares of Common Stock to which such holder is entitled and a check or cash with respect to any fractional interest in a share of Common Stock as provided in subparagraph 4(e). Subject to the provisions of subparagraph 4(f)(viii), the Person in whose name the certificate or certificates for Common Stock are to be issued shall be deemed to have become a holder of record of such Common Stock on the applicable Series A Conversion Date or Series B Conversion Date. Upon conversion of only a portion of the number of shares covered by a certificate representing shares of Series A Preferred Stock or Series B Preferred Stock surrendered for conversion (in the case of conversion pursuant to subparagraph 4(a)), the Company shall issue and deliver to or upon the written order of the holder of the certificate so surrendered for conversion, at the expense of the Company, a new certificate covering the number of shares of Series A Preferred Stock or Series B Preferred Stock representing the unconverted portion of the certificate so surrendered.

(e) Fractional Shares. No fractional shares of Common Stock or scrip shall be issued upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock. If more than one share of Series A Preferred Stock or Series B Preferred Stock shall be

surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Series A Preferred Stock or Series B Preferred Stock so surrendered. Instead of any fractional shares of Common Stock which would otherwise be issuable upon conversion of any shares of Series A Preferred Stock or Series B Preferred Stock, the Company shall pay a cash adjustment in respect of such fractional interest in an amount equal to that fractional interest of the then Current Market Price.

(f) Conversion Price Adjustments. The Conversion Price for the Series A Preferred Stock and Series B Preferred Stock shall be subject to adjustment from time to time as follows:

(i) Common Stock Issued Prior to the Third Anniversary of the Date of Issuance of the Series A Preferred Stock at less than $5.75 per Share. If the Company shall issue Common Stock other than Excluded Stock prior to the third anniversary of the date of the first issuance of Series A Preferred Stock without consideration or for a consideration of less than $5.75 per share, the Series A Conversion Price in effect immediately prior to any such issuance shall immediately be reduced to a price equal to the consideration per share received by the Company.

(ii) Common Stock Issued After the Third Anniversary of the Date of Issuance of the Series A Preferred Stock at Less Than the Series A Conversion Price. If, after the third anniversary of the date of the first issuance of the Series A Preferred Stock, the Company shall issue any Common Stock other than Excluded Stock without consideration or for a consideration per share less than the Series A Conversion Price in effect immediately prior to such issuance, the Series A Conversion Price in effect immediately prior to each such issuance shall immediately (except as provided below) be reduced to the price determined by dividing (1) an amount equal to the sum of (A) the number of shares of Common Stock plus the

number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately prior to such issuance multiplied by the Series A Conversion Price in effect immediately prior to such issuance and (B) the consideration, if any, received by the Company upon such issuance, by (2) the total number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately after such issuance.

(iii) Common Stock Issued at Less Than the Series B Conversion Price. If the Company shall issue any Common Stock other than Excluded Stock without consideration or for a consideration per share less than the Series B Conversion Price in effect immediately prior to such issuance, the Series B Conversion Price in effect immediately prior to each such issuance shall immediately (except as provided below) be reduced to the price determin d by dividing (1) an amount equal to the sum of (A) the number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately prior to such issuance, multiplied by the Series B Conversion Price in effect immediately prior to such issuance and (B) the consideration, if any, received by the Company upon such issuance, by (2) the total number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstaning immediately after such issuance.

For the purposes of any adjustment of the Series A Conversion Price and Series B Conversion Price pursuant to clauses (i), (ii) and (iii), the following provisions shall be applicable:

(A) Cash. In the case of the issuance of Common Stock for cash, the amount of the consideration

received by the Company shall be deemed to be the amount of the cash proceeds received by the Company for such Common Stock before deducting therefrom any reasonable discounts, commissions, taxes or other expenses allowed, paid or incurred by the Company for any underwriting or otherwise in connection with the issuance and sale thereof.

(B) Consideration Other Than Cash. In the case of the issuance of Common Stock (otherwise than upon the conversion of shares of capital stock or other securities of the Company) for a consideration in whole or in part other than cash, including securities acquired in exchange therefore (other than securities by their terms so exchangeable), the consideration other than cash shall be deemed to be the fair value thereof as determined by the Board of Directors, irrespective of any accounting treatment; provided that such fair value as determined by the Board of Directors shall not exceed the aggregate Current Market Price of the shares of Common Stock being issued as of the date the Board of Directors authorizes the issuance of such shares.

(C) Options and Convertible Securities. In the case of the issuance of (i) options, warrants or other rights to purchase or acquire Common Stock (whether or not at the time exercisable), (ii) securities by their terms convertible into or exchangeable for Common Stock (whether or not at the time so convertible or exercisable) or options, warrants or rights to purchase such convertible or exchangeable securities (whether or not at the time exercisable) (other than the Series A Preferred Stock or Series B Preferred Stock):

(1) the aggregate maximum number of shares of Common Stock deliverable upon exercise of such options, warrants or other rights to purchase or acquire Common Stock shall be deemed to have been issued at the time such options, warrants or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subclauses (A) and (B) above), if any, received by the Company upon the issuance of such options, warrants or rights plus the minimum purchase price provided in

such options, warrants or rights for the Common Stock covered thereby;

(2) the aggregate maximum number of shares of Common Stock deliverable upon conversion of or in exchange for any such convertible or exchangeable securities, or upon the exercise of options, warrants or other rights to purchase or acquire such convertible or exchangeable securities and the subsequent conversion or exchange thereof, shall be deemed to have been issued at the time such securities were issued or such options, warrants or rights were issued and for a consideration equal to the consideration, if any, received by the Company for any such securities and related options, warrants or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the additional consideration, if any, to be received by the Company upon the conversion or exchange of such securities and the exercise of any related options, warrants or rights (the consideration in each case to be determined in the manner provided in subclauses (A) and (B) above);

(3) on any change in the number of shares of Common Stock deliverable upon exercise of any such options, warrants or rights or conversion of or exchange for such convertible or exchangeable securities or any change in the consideration to be received by the Company upon such exercise, conversion or exchange, including, but not limited to, a change resulting from the antidilution provisions thereof, the Series A Conversion Price or Series B Conversion Price, as the case may be, as then in effect shall forthwith be readjusted to such Series A Conversion Price or Series B Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants or rights not exercised prior to such change, or securities not converted or exchanged prior to such change, upon the basis of such change;

(4) on the expiration or cancellation of any such options, warrants or rights, or the termination of the right to convert or exchange such convertible or exchangeable securities, if the Series A Conversion Price or Series B Conversion Price, as the case may be, shall have been adjusted upon the issuance thereof, such Series A Conversion Price or Series B Conversion Price shall forthwith be readjusted to such Series A Conversion Price or Series B Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants, rights or securities on the basis of the issuance of only the number of shares of Common Stock actually issued upon the exercise of such options, warrants or rights, or upon the conversion or exchange of such securities; and

(5) if the Series A Conversion Price or Series B Conversion Price shall have been adjusted upon the issuance of any such options, warrants, rights or convertible or exchangeable securities, no further adjustment of the Series A Conversion Price or Series B Conversion Price shall be made for the actual issuance of Common Stock upon the exercise thereof;

provided, however, that no increase in the Series A Conversion Price and Series B Conversion Price shall be made pursuant to subclauses (1), (2) or (3) of this subclause (C).

(iv) Excluded Stock. "Excluded Stock" shall mean (A) shares of Common Stock issued or reserved for issuance by the Company as a stock dividend payable in shares of Common Stock, or upon any subdivision or split-up of the outstanding shares of of Common Stock, or upon conversion of shares of Series A Preferred Stock, or upon conversion of shares of Series B Preferred Stock and (B) 1,420,000 shares of Common Stock issuable upon exercise of options granted or to be granted to key employees or consultants of the Company

or to be issued to new investors in the Company. All shares of Excluded Stock which the Company has reserved for issuance shall be deemed to be outstanding for all purposes of computations under subparagraph 4(f)(i), (ii) and (iii).

(v) Stock Dividends. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Series A Preferred Stock or Series B Preferred Stock is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then immediately after the record date fixed for the determination of holders of Common Stock entitled to received such stock dividend or the effective date of such subdivision or split-up, as the case may be, the Conversion Price shall be appropriately reduced so that the holder of any shares of Series A Preferred Stock or Series B Preferred Stock thereafter converted shall be entitled to receive the number of shares of Common Stock of the Company which he would have owned immediately following such action had such shares of Series A Preferred Stock or Series B Preferred Stock been converted immediately prior thereto.

(vi) Combination of Stock. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Series A Preferred Stock or Series B Preferred Stock is decreased by a combination of the outstanding shares of Common Stock, then, immediately after the effective date of such combination, the Series A Conversion Price or Series B Conversion Price, as the case may be, shall be appropriately increased so that the holder of any shares of Series A Preferred Stock or Series B Preferred Stock thereafter converted shall be entitled to receive the number of shares

of Common Stock of the Company which he would have owned immediately following such action had such shares of Series A Preferred Stock or Series B Preferred Stock been converted immediately prior thereto.

(vii) Reorganizations, etc. In case of any capital reorganization of the Company, or of any reclassification of the Common Stock, or in the case of the consolidation of the Company with or the merger of the Company with or into any other Person or of the sale, lease or other transfer of all or substantially all of the assets of the Company to any other Person, each share of Series A Preferred Stock or Series B Preferred Stock shall after such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer be convertible into the number of shares of stock or other securities or property to which the Common Stock issuable (at the time of such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer) upon conversion of such share of Series A Preferred Stock or Series B Preferred Stock would have been entitled upon such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer; and in any such case, if necessary, the provisions set forth herein with respect to the rights and interests thereafter of the holders of the shares of Series A Preferred Stock or Series B Preferred Stock shall be appropriately adjusted so as to be applicable, as nearly as may reasonably be be, to any shares of stock or other securities or property thereafter deliverable on the conversion of the shares of Series A Preferred Stock or Series B Preferred Stock. The subdivision or combination of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock at any time

outstanding into a greater or lesser number of shares of Common Stock (whether with or without par value) shall not be deemed to be a reclassification of the Common Stock of the Company for the purposes of this clause (vii).

(viii) Rounding of Calculations; Minimum Adjustment. All calculations under this subparagraph (d) shall be made to the nearest cent or to the nearest one hundredth (1/100th) of a share, as the case may be. Any provision of this paragraph 4 to the contrary notwithstanding, no adjustment in the Series A Conversion Price or Series B Conversion Price shall be made if the amount of such adjustment would be less than $0.05, but any such amount shall be carried forward and an adjustment with respect thereto shall be made at the time of and together with any subsequent adjustment which, together with such amount and any other amount or amounts so carried forward, shall aggregate $0.05 or more.

(ix) Timing of Issuance of Additional Common Stock Upon Certain Adjustments. In any case in which the provisions of this subparagraph (f) shall require that an adjustment shall become effective immediately after a record date for an event, the Company may defer until the occurrence of such event (A) issuing to the holder of any share of Series A Preferred Stock or Series B Preferred Stock converted after such record date and before the occurrence of such event the additional shares of Common Stock issuable upon such conversion by reason of the adjustment required by such event over and above the shares of Common Stock issuable upon such conversion before giving effect to such adjustment and (B) paying to such holder any amount of cash in lieu of a fractional share of Common

Stock pursuant to subparagraph (e) of this paragraph 4; provided that the Company upon request shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares, and such cash, upon the occurrence of the event requiring such adjustment.

(g) Current Market Price. The Current Market Price at any date shall mean the price per share of Common Stock on such date determined by the Board of Directors as provided below. The Current Market Price shall be the average of the daily closing prices per share of Common Stock for 30 consecutive business days ending no more than 15 business days before the date in question (as adjusted for any stock dividend, split, combination or reclassification that took effect during such 30 business day period). The closing price for each day shall be the last reported sales price regular way or, in case no such reported sales take place on such day, the average of the last reported bid and asked prices regular way, in either case on the principal national securities exchange on which the Common Stock is listed or admitted to trading, or if not listed or admitted to trading on any national securities exchange, the average of the highest bid and the lowest asked prices quoted on the National Association of Securities Dealers Automated Quotation System; provided that if the Common Stock is not traded in such manner that the quotations referred to above are available for the period required hereunder, Current Market Price per share of Common Stock shall be deemed to be the fair value as determined by the Board of Directors, irrespective of any accounting treatment.

(h) Statement Regarding Adjustments. Whenever the Series A Conversion Price or Series B Conversion Price shall be adjusted as provided in subparagraph 4(f), the Company shall forthwith file, at the office of any transfer agent for the Series A Preferred Stock or Series B Preferred Stock, as the case may be, and at the principal office of the Company, a statement showing in

detail the facts requiring such adjustment and the Series A Conversion Price or Series B Conversion Price that shall be in effect after such adjustment, and the Company shall also cause a copy of such statement to be sent by mail, first class postage prepaid, to each holder of shares of Series A Preferred Stock or Series B Preferred Stock at its address appearing on the Company's records. Each such statement shall be signed by the Company's independent public accountants. Where appropriate, such copy may be given in advance and may be included as part of a notice required to be mailed under the provisions of subparagraph 4(i).

(i) Notice to Holders. In the event the Company shall propose to take any action of the type described in clause (i), (ii) or (iii) (but only if the action of the type described in clause (i), (ii) or (iii) would result in an adjustment in the Series A Conversion Price or Series B Conversion Price), (v), (vi) or (vii) of subparagraph 4(f), the Company shall give notice to each holder of shares of Series A Preferred Stock or Series B Preferred Stock, in the manner set forth in subparagraph 4(h), which notice shall specify the record date, if any, with respect to any such action and the approximate date on which such action is to take place. Such notice shall also set forth such facts with respect thereto as shall be reasonably necessary to indicate the effect of such action (to the extent such effect may be known at the date of such notice) on the Series A Conversion Price or Series B Conversion Price and the number, kind or class of shares or other securities or property which shall be deliverable or purchasable upon the occurrence of such action or deliverable upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock. In the case of any action which would require the fixing of a record date, which notice shall be given at least 10 days prior to the date so fixed, and in case of all other action, such notice shall be given at least 15 days prior to the taking of such proposed action. Failure to give notice, or any defect therein, shall not affect the legality or validity of any such action.

(j) Treasury Stock. For the purposes of this paragraph 4, the sale or other disposition of any Common Stock of the Company theretofore held in its treasury shall be deemed to be an issuance thereof.

(k) Costs. The Company shall pay all documentary, stamp, transfer or other transactional taxes attributable to the issuance or delivery of shares of Common Stock of the Company upon conversion of any shares of Series A Preferred Stock or Series B Preferred Stock; provided that the Company shall not be required to pay any taxes which may be payable in respect of any transfer involved in the issuance or delivery of any certificate for such shares in a name other than that of the holder of the share of Series A Preferred Stock or Series B Preferred Stock in respect of which such shares are being issued.

(l) Reservation of Shares. The Company shall reserve at all times so long as any shares of Series A Preferred Stock or Series B Preferred Stock remain outstanding, free from preemptive rights, out of its treasury stock or its authorized but unissued shares of Common Stock, or both, solely for the purpose of effecting the conversion of the shares of Series A Preferred Stock or Series B Preferred Stock, sufficient shares of Common Stock to provide for the conversion of all outstanding shares and Series A Preferred Stock or Series B Preferred Stock.

(m) Approvals. If any shares of Common Stock to be reserved for the purpose of conversion of shares of Series A Preferred Stock or Series B Preferred Stock require registration with or approval of any governmental authority under any Federal or State law before such shares may be validly issued or delivered upon conversion, then the Company will in good faith and as expeditiously as possible endeavor to secure such registration or approval, as the case may be. If, and so long as, any Common Stock into which the shares of Series A Preferred Stock or Series B Preferred Stock are then convertible is listed on any national securities exchange, the Company will, if permitted by the rules of such exchange, list and keep listed on such exchange, upon offi-

cial notice of issuance, all shares of such Common Stock issuable upon conversion.

(n) Valid Issuance. All shares of Common Stock which may be issued upon conversion of the shares of Series A Preferred Stock or Series B Preferred Stock will upon issuance by the Company be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issuance thereof and the Company shall take no action which will cause a contrary result (including, without limitation, any action which would cause the Series A Conversion Price or Series B Conversion Price to be less than the par value, if any, of the Common Stock).

5. Redemption.

(a)(i) Optional. On and after January 1, 1988, Series A Preferred Stock may be redeemed in whole at any time or from time to time in part, at the option of the Company, at the redemption price of $5.75 per share in cash out of monies legally available therefor (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Series A Preferred Stock) together in each case with an amount equal to any declared but unpaid dividends to the date fixed for redemption. Such redemption shall be made pro rata in proportion to the number of shares of Series A Preferred Stock held by each holder as indicated on the books of the Company immediately prior to the mailing of the notice of redemption as provided in clause (b) below.

On and after January 1, 1990, Series B Preferred Stock may be redeemed in whole at any time or from time to time in part, at the option of the Company, at the redemption price of $9.50 per share (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Series B Preferred Stock) together in each case with an amount equal to any declared but unpaid dividend to the date fixed for redemption. Such redemption shall be made pro rata in proportion to the number of shares of Series B Preferred Stock held by each holder as indicated on the books of the Company immediately

prior to the mailing of the notice of redemption as provided in clause (b) below.

(a)(ii) Mandatory. The Company shall, (i) on January 1 of each year commencing January 1, 1990, redeem 20% of the Series A Preferred Stock originally issued, at a redemption price of $5.75 per share in cash out of monies legally available therefor (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Series A Preferred Stock) together with an amount equal to any declared but unpaid dividends to the date fixed for redemption and (ii) on January 1 of each year commencing January 1, 1992, redeem 20% of the Series B Preferred Stock originally issued at a redemption price of $9.50 per share, in cash out of moneys legally available therefore, (as appropriately adjusted for any stock dividend, stock split, recapitalization or consolidation of Series B Preferred Stock), together with an amount equal to any declared but unpaid dividends to the date fixed for redemption. Each such redemption shall be made pro rata in proportion to the number of shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, held by each holder as indicated on the books of the Company immediately prior to the mailing of the notice of redemption as provided in clause (b) below. Each such required redemption shall be cumulative, so that if in any year the full number of shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, required to be redeemed, for any reason, are not so redeemed, the deficiency shall be added to the requirements for the next year.

(b) Redemption Notice. At least thirty (30) days prior to the date fixed for any redemption of Series A Preferred Stock or Series B Preferred Stock (the "Redemption Date"), written notice shall be mailed by first class certified mail, postage prepaid, to each holder of record of Series A Preferred Stock or Series B Preferred Stock, as the case may be, to be redeemed, at such holder's post office address last shown on the records of the Company, notifying such holder of the election of the Company to redeem such shares, specifying the Redemption Date and the date on

which such holder's rights of conversion as to such shares terminate and calling upon such holder to surrender to the Company, in the manner and at the place designated, his certificate or certificates representing the shares to be redeemed (such notice is hereinafter referred to as the "Redemption Notice"). On or after the Redemption Date, each holder of Series A Preferred Stock or Series B Preferred Stock to be redeemed shall surrender his certificate or certificates representing such shares to the Company, in the manner and at the place designated in the Redemption Notice, and thereupon the redemption price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be cancelled. From and after the Redemption Date, unless there shall have been a default in payment of the redemption price, all rights of the holders of such shares as holders of Series A Preferred Stock or Series B Preferred Stock of the Company (except the right to receive the redemption price without interest upon surrender of their certificate or certificates) shall cease with respect to such shares, and such shares shall not thereafter be transferred on the books of the Company or be deemed to be outstanding for any purpose whatsoever.

6. Retirement of Shares. Shares of Series A Preferred Stock or Series B Preferred Stock which have been issued and have been redeemed, repurchased or reacquired in any manner by the Company shall be retired and shall not be reissued.

7. General Provisions.

(a) The term "Person" as used herein means any corporation, partnership, trust, organization, association, other entity or individual.

(b) The term "outstanding," except as otherwise provided herein, when used with reference to shares of stock, shall mean issued shares, excluding shares held by the Company or subsidiary.

(c) All accounting terms used herein and not expressly defined herein shall have the meanings given to them in accordance with generally accepted accounting principles.

(d) The headings of the paragraphs, subparagraphs, clauses and subclauses of this Article are for convenience of reference only and shall not define, limit or affect any of the provisions hereof.

FIFTH. The corporation is to have perpetual existence.

SIXTH. Election of directors need not be by written ballot unless the by-laws of the corporation shall so provide.

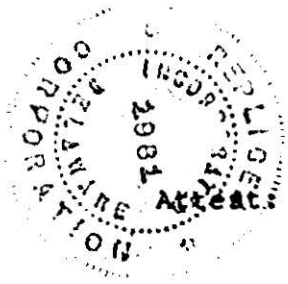
SEVENTH. The corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as that section may be amended and supplemented from time to time, indemnify any and all persons whom it shall have power to indemnify under that section against any expenses, liabilities or other matters referred to in or covered by that section. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

EIGHTH. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

NINTH. This Restated Certificate of Incorporation has been duly adopted by the stock-

holders of the corporation upon the recommendation of the board of directors in accordance with the provisions of §245 of the Delaware General Corporation Law.

Signed this 2nd day of September, 1983.



Thomas H. Fraser, President

Attest:

Peter Wirth, Secretary

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FILED
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CERTIFICATE OF AMENDMENT OF
RESTATED CERTIFICATE OF
INCORPORATION OF
REPLIGEN CORPORATION

It is hereby certified that:

1. The name of the corporation is Repligen Corporation (the "Company").

2. The Restated Certificate of Incorporation of the Company is hereby amended by striking out Article FOURTH thereof and substituting in lieu of said Article the following Article FOURTH:

"FOURTH. The total number of shares of stock which the Company shall have authority to issue is twenty-one million, three hundred and seventy-four thousand, four hundred and eighty-nine (21,374,489) of which fifteen million (15,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, six hundred and seventy-eight thousand, nine hundred and fifty-four (678,954) shares shall constitute Series A Convertible Preferred Stock ("Series A Preferred Stock"), each such share having a par value of one dollar, six hundred and ninety-five thousand, five hundred and thirty-five (695,535) shares shall constitute Series B Convertible Preferred Stock ("Series B Preferred Stock"), each such share having a par value of one dollar and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent.

The powers, preferences and rights of the Common Stock, Series A Preferred Stock, Series B Preferred Stock and the Preferred Stock shall be as set forth below:

Series A and B Preferred Stock

1. Dividends. No dividend or distribution in cash, shares of stock or other property on Common Stock shall be declared or paid or set apart for payment, unless, at the same time, an equivalent dividend or distribution is declared or paid or set apart, as the case may be, on Series A Preferred Stock and Series B Preferred Stock payable on the same date, at the rate per share of Series A Preferred Stock and Series B Preferred Stock based upon the shares of Common Stock or other securities which the holders of Series A Preferred Stock

and Series B Preferred Stock would be entitled to receive if they had converted the Series A Preferred Stock and Series B Preferred Stock as provided in paragraph 4 hereof on the same record date as the dividend or distribution on Common Stock.

2. Preference on Liquidation, etc. In the event of any voluntary or involuntary liquidation, distribution of assets (other than the payment of dividends), dissolution or winding-up of the Company, any payment or distribution of the assets of the Company (whether capital or surplus), or proceeds thereof, shall be made to or set apart in the following order of preference: (i) the holders of shares of Series A Preferred Stock and the holders of shares of Series B Preferred Stock shall be entitled to receive payment of $5.75 and $9.50, respectively, per share of Series A Preferred Stock or Series B Preferred Stock held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (i), then such assets shall be distributed among such holders ratably in accordance with the respective amounts which would be payable on such shares if all amounts payable thereon were paid in full; (ii) after payment in full of the preferential amounts set forth in clause (i) above, the holders of shares of Common Stock shall be entitled to receive payment of $5.75 per share held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (ii), then such assets shall be distributed among such holders ratably in accordance with the amounts which would be payable on such shares if all amounts payable

thereon were paid in full; (iii) after payment in full of the preferential amounts set forth in clauses (i) and (ii) above, the holders of shares of Series A Preferred Stock and the holders of Common Stock shall be entitled to receive payment of $3.75 per share held by them and, if the assets of the Company shall be insufficient to pay in full the preferential amounts set forth in this clause (iii), then such assets shall be distributed among such holders ratably in accordance with the amounts which would be payable on such shares if all amounts payable thereon were paid in full; and (iv) after payment in full of the preferential amounts set forth in clauses (i), (ii) and (iii) above, the holders of shares of Series A Preferred Stock and the holders of shares of Series B Preferred Stock shall be entitled to receive the same payment or distribution of assets per share of Series A Preferred Stock or Series B Preferred Stock, respectively, as shall be paid or distributed per share of Common Stock to the holders of Common Stock. For the purposes of this paragraph 2, the voluntary sale, lease or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of the assets of the Company to, or a consolidation or merger of the Company with, one or more Persons shall not be deemed to be a liquidation, distribution of assets, dissolution or winding-up, voluntary or involuntary.

3. Voting. (a) In addition to the special voting rights provided in subparagraph 3(b) below and by applicable law, the holders of shares of Series A Preferred Stock and Series B Preferred Stock shall be entitled to vote upon all matters upon which holders of the Common Stock have the right to vote, and shall be entitled to the number of votes equal to the largest number of full shares of Common Stock into which such shares of Series A Preferred Stock and Series B Preferred Stock could be converted pursuant to the provisions of paragraph 4 hereof, at the record date for the determination of the stockholders entitled to vote on such matters, or, if no such record date is established, at the date such vote is taken or any written consent of stockholders is solicited, such votes to be counted together with all other shares of capital stock having general voting powers and not separately as a class. Where a class vote is required by law, the Series A and Series B Preferred Stock will

be considered a single separate class if the rights, preferences, privileges and restrictions granted to or imposed upon both the Series A and Series B Preferred Stock are affected in a manner different from that of any other class of capital stock then outstanding and the Series A and Series B Preferred Stock will each be considered a separate class if the rights, preferences, privileges and restrictions granted to or imposed upon one such class are affected in a manner different from that of the other. In all such cases where the holders of shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, have the right to vote separately as a class, such holders shall be entitled to one vote for each such share held by them respectively.

(b) Without the consent of the holders of at least

(i) a majority of the aggregate number of shares of Series A Preferred Stock and Series B Preferred Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) increase the authorized amount of Series A Preferred Stock or Series B Preferred Stock or (B) create or increase the authorized amount of any amount of any other class of stock entitled to a preference prior to or on parity with Series A Preferred Stock and Series B Preferred Stock upon any liquidation, distribution of assets, dissolution or winding-up of the Company; and

(ii) two-thirds of the shares of Series A Preferred Stock and Series B Preferred Stock then outstanding, given in writing or by vote at a meeting of stockholders called for such purpose, the Company will not (A) amend, alter or repeal any provision of the Certificate of Incorporation so as to adversely affect the preferences, rights or powers of the Series A Preferred Stock or Series B Preferred Stock or (B) merge or consolidate with or into any other Person, or sell, lease or transfer substantially all of its assets or business to any other Person, except that the Company may merge with any other Person if the Company is the entity surviving such

merger and such merger does not adversely affect the preferences, rights or power of the Series A Preferred Stock and Series B Preferred Stock.

4. Conversion Rights. The Series A Preferred Stock and Series B Preferred Stock shall be convertible into Common Stock as follows:

(a) Optional Conversion. Subject to and upon compliance with the provisions of this paragraph 4, (i) the holder of any shares of Series A Preferred Stock shall have the right at such holders' option, at any time or from time to time, to convert any of such shares of Series A Preferred Stock into fully paid and nonassessable shares of Common Stock at the Series A Conversion Price (as hereinafter defined) in effect on the Series A Conversion Date (as hereinafter defined) upon the terms hereinafter set forth and (ii) the holder of any shares of Series B Preferred Stock shall have the right at such holders' option, at any time or from time to time to convert any of such shares of Series B Preferred Stock into fully paid and nonassessable shares of Common Stock at the Series B Conversion Price (as hereinafter defined) in effect on the Series B Conversion Date (as hereinafter defined) upon the terms hereinafter set forth. In case any share of Series A Preferred Stock or Series B Preferred Stock is called for redemption, such right of conversion shall terminate on the close of business on the day fixed for redemption unless the Company shall default in the payment due upon redemption thereof.

(b) Automatic Conversion. Each outstanding share of Series A Preferred Stock and Series B Preferred Stock shall automatically be converted, without any further act of the Company or its stockholders, into fully paid and nonassessable shares of Common Stock pursuant to the formula as set forth in Section 4(c)(i) and Section 4(c)(ii), respectively, upon the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offering and sale of the Company's Common Stock for the account of the Company in which the aggregate gross proceeds received by the Company equal or exceed $10,000,000 and the public offering price per share is at least $11.50.

(c)(i) Series A Conversion Price. Each share of Series A Preferred Stock shall be converted into the number of shares of Common Stock as is determined by dividing (i) the sum of (A) $5.75 plus (B) any dividends on such share of Series A Preferred Stock which such holder is entitled to receive, but has not yet received, by (ii) the Series A Conversion Price in effect on the Conversion Date. The Series A Conversion Price at which shares of Common Stock shall initially be issuable upon conversion of the shares of Series A Preferred Stock shall be $5.75. The Series A Conversion Price shall be subject to adjustment as set forth in subparagraph 4(f)(i) and (ii). No payment or adjustment shall be made for any dividends on the Common Stock issuable upon such conversion.

(ii) Series B Conversion Price. Each share of Series B Preferred Stock shall be converted into the number of shares of Common Stock as is determined by dividing (x) the sum of (A) $9.50 plus (B) any dividends on such share of Series B Preferred Stock which such holder is entitled to receive, but has not yet received, by (y) the Series B Conversion Price in effect on the Series B Conversion Date. The Series B Conversion Price at which shares of Common Stock shall initially be issuable upon conversion of the shares of Series B Preferred Stock shall be $9.50. The Series B Conversion Price shall be subject to adjustment as set forth in subparagraph 4(f)(iii). No payment or adjustment shall be made for any dividends on the Common Stock issuable upon such conversion.

(d) Mechanics of Conversion. Upon the occurrence of the event specified in subparagraph 4(b), the outstanding shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; provided that the Company shall not be obligated to issue to any such holder certificates evidencing the shares of Common Stock issuable upon such conversion unless certificates evidencing the shares of Series A Preferred Stock or Series B Preferred Stock, as the case may be, are either delivered to the Company or any transfer agent of the Company. The holder of any shares of Series A Preferred Stock or Series B Preferred Stock may exercise the conversion right specified in subparagraph

4(a) as to any part thereof by surrendering to the Company or any transfer agent of the Company the certificate or certificates for the shares to be converted, accompanied by written notice stating that the holder elects to convert all or a specified portion of the shares represented thereby. Conversion shall be deemed to have been effected on the date of the occurrence of the event specified in subparagraph 4(b) or on the date when delivery of notice of an election to convert and certificates for shares is made, as the case may be, and such date is referred to herein with respect to the Series A Preferred Stock as the "Series A Conversion Date" and with respect to the Series B Preferred Stock as the "Series B Conversion Date." Subject to the provision of subparagraph 4(f)(viii), as promptly as practicable thereafter (and after surrender of the certificate or certificates representing shares of Series A Preferred Stock or Series B Preferred Stock to the Company or any transfer agent of the Company in the case of conversions pursuant to subparagraph 4(b)) the Company shall issue and deliver to or upon the written order of such holder a certificate or certificates for the number of full shares of Common Stock to which such holder is entitled and a check or cash with respect to any fractional interest in a share of Common Stock as provided in subparagraph 4(e). Subject to the provisions of subparagraph 4(f)(viii), the Person in whose name the certificate or certificates for Common Stock are to be issued shall be deemed to have become a holder of record of such Common Stock on the applicable Series A Conversion Date or Series B Conversion Date. Upon conversion of only a portion of the number of shares covered by a certificate representing shares of Series A Preferred Stock or Series B Preferred Stock surrendered for conversion (in the case of conversion pursuant to subparagraph 4(a)), the Company shall issue and deliver to or upon the written order of the holder of the certificate so surrendered for conversion, at the expense of the Company, a new certificate covering the number of shares of Series A Preferred Stock or Series B Preferred Stock representing the unconverted portion of the certificate so surrendered.

(e) Fractional Shares. No fractional shares of Common Stock or scrip shall be issued upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock. If more than one share of Series A Preferred Stock or Series B Preferred Stock shall be

surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Series A Preferred Stock or Series B Preferred Stock so surrendered. Instead of any fractional shares of Common Stock which would otherwise be issuable upon conversion of any shares of Series A Preferred Stock or Series B Preferred Stock, the Company shall pay a cash adjustment in respect of such fractional interest in an amount equal to that fractional interest of the then Current Market Price.

(f) Conversion Price Adjustments. The Conversion Price for the Series A Preferred Stock and Series B Preferred Stock shall be subject to adjustment from time to time as follows:

(i) Common Stock Issued Prior to the Third Anniversary of the Date of Issuance of the Series A Preferred Stock at less than $5.75 per Share. If the Company shall issue Common Stock other than Excluded Stock prior to the third anniversary of the date of the first issuance of Series A Preferred Stock without consideration or for a consideration of less than $5.75 per share, the Series A Conversion Price in effect immediately prior to any such issuance shall immediately be reduced to a price equal to the consideration per share received by the Company.

(ii) Common Stock Issued After the Third Anniversary of the Date of Issuance of the Series A Preferred Stock at Less Than the Series A Conversion Price. If, after the third anniversary of the date of the first issuance of the Series A Preferred Stock, the Company shall issue any Common Stock other than Excluded Stock without consideration or for a consideration per share less than the Series A Conversion Price in effect immediately prior to such issuance, the Series A Conversion Price in effect immediately prior to each such issuance shall immediately (except as provided below) be reduced to the price determined by dividing (I) an amount equal to the sum of (A) the number of shares of Common Stock plus the

number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately prior to such issuance multiplied by the Series A Conversion Price in effect immediately prior to such issuance and (B) the consideration, if any, received by the Company upon such issuance, by (2) the total number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately after such issuance.

(iii) Common Stock Issued at Less Than the Series B Conversion Price. If the Company shall issue any Common Stock other than Excluded Stock without consideration or for a consideration per share less than the Series B Conversion Price in effect immediately prior to such issuance, the Series B Conversion Price in effect immediately prior to each such issuance shall immediately (except as provided below) be reduced to the price determined by dividing (1) an amount equal to the sum of (A) the number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstanding immediately prior to such issuance, multiplied by the Series B Conversion Price in effect immediately prior to such issuance and (B) the consideration, if any, received by the Company upon such issuance, by (2) the total number of shares of Common Stock plus the number of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock and Series B Preferred Stock outstaning immediately after such issuance.

For the purposes of any adjustment of the Series A Conversion Price and Series B Conversion Price pursuant to clauses (i), (ii) and (iii), the following provisions shall be applicable:

(A) Cash. In the case of the issuance of Common Stock for cash, the amount of the consideration

received by the Company shall be deemed to be the amount of the cash proceeds received by the Company for such Common Stock before deducting therefrom any reasonable discounts, commissions, taxes or other expenses allowed, paid or incurred by the Company for any underwriting or otherwise in connection with the issuance and sale thereof.

(B) Consideration Other Than Cash. In the case of the issuance of Common Stock (otherwise than upon the conversion of shares of capital stock or other securities of the Company) for a consideration in whole or in part other than cash, including securities acquired in exchange therefore (other than securities by their terms so exchangeable), the consideration other than cash shall be deemed to be the fair value thereof as determined by the Board of Directors, irrespective of any accounting treatment; provided that such fair value as determined by the Board of Directors shall not exceed the aggregate Current Market Price of the shares of Common Stock being issued as of the date the Board of Directors authorizes the issuance of such shares.

(C) Options and Convertible Securities. In the case of the issuance of (i) options, warrants or other rights to purchase or acquire Common Stock (whether or not at the time exercisable), (ii) securities by their terms convertible into or exchangeable for Common Stock (whether or not at the time so convertible or exercisable) or options, warrants or rights to purchase such convertible or exchangeable securities (whether or not at the time exercisable) (other than the Series A Preferred Stock or Series B Preferred Stock):

(1) the aggregate maximum number of shares of Common Stock deliverable upon exercise of such options, warrants or other rights to purchase or acquire Common Stock shall be deemed to have been issued at the time such options, warrants or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subclauses (A) and (B) above), if any, received by the Company upon the issuance of such options, warrants or rights plus the minimum purchase price provided in

such options, warrants or rights for the Common Stock covered thereby;

(2) the aggregate maximum number of shares of Common Stock deliverable upon conversion of or in exchange for any such convertible or exchangeable securities, or upon the exercise of options, warrants or other rights to purchase or acquire such convertible or exchangeable securities and the subsequent conversion or exchange thereof, shall be deemed to have been issued at the time such securities were issued or such options, warrants or rights were issued and for a consideration equal to the consideration, if any, received by the Company for any such securities and related options, warrants or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the additional consideration, if any, to be received by the Company upon the conversion or exchange of such securities and the exercise of any related options, warrants or rights (the consideration in each case to be determined in the manner provided in subclauses (A) and (B) above);

(3) on any change in the number of shares of Common Stock deliverable upon exercise of any such options, warrants or rights or conversion of or exchange for such convertible or exchangeable securities or any change in the consideration to be received by the Company upon such exercise, conversion or exchange, including, but not limited to, a change resulting from the antidilution provisions thereof, the Series A Conversion Price or Series B Conversion Price, as the case may be, as then in effect shall forthwith be readjusted to such Series A Conversion Price or Series B Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants or rights not exercised prior to such change, or securities not converted or exchanged prior to such change, upon the basis of such change;

(4) on the expiration or cancellation of any such options, warrants or rights, or the termination of the right to convert or exchange such convertible or exchangeable securities, if the Series A Conversion Price or Series B Conversion Price, as the case may be, shall have been adjusted upon the issuance thereof, such Series A Conversion Price or Series B Conversion Price shall forthwith be readjusted to such Series A Conversion Price or Series B Conversion Price as would have been obtained had an adjustment been made upon the issuance of such options, warrants, rights or securities on the basis of the issuance of only the number of shares of Common Stock actually issued upon the exercise of such options, warrants or rights, or upon the conversion or exchange of such securities; and

(5) if the Series A Conversion Price or Series B Conversion Price shall have been adjusted upon the issuance of any such options, warrants, rights or convertible or exchangeable securities, no further adjustment of the Series A Conversion Price or Series B Conversion Price shall be made for the actual issuance of Common Stock upon the exercise thereof;

provided, however, that no increase in the Series A Conversion Price and Series B Conversion Price shall be made pursuant to subclauses (1), (2) or (3) of this subclause (C).

(iv) Excluded Stock. "Excluded Stock" shall mean (A) shares of Common Stock issued or reserved for issuance by the Company as a stock dividend payable in shares of Common Stock, or upon any subdivision or split-up of the outstanding shares of of Common Stock, or upon conversion of shares of Series A Preferred Stock, or upon conversion of shares of Series B Preferred Stock and (B) 1,420,000 shares of Common Stock issuable upon exercise of options granted or to be granted to key employees or consultants of the Company

or to be issued to new investors in the Company. All shares of Excluded Stock which the Company has reserved for issuance shall be deemed to be outstanding for all purposes of computations under subparagraph 4(f)(i), (ii) and (iii).

(v) Stock Dividends. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Series A Preferred Stock or Series B Preferred Stock is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then immediately after the record date fixed for the determination of holders of Common Stock entitled to received such stock dividend or the effective date of such subdivision or split-up, as the case may be, the Conversion Price shall be appropriately reduced so that the holder of any shares of Series A Preferred Stock or Series B Preferred Stock thereafter converted shall be entitled to receive the number of shares of Common Stock of the Company which he would have owned immediately following such action had such shares of Series A Preferred Stock or Series B Preferred Stock been converted immediately prior thereto.

(vi) Combination of Stock. If the number of shares of Common Stock outstanding at any time after the date of issuance of the Series A Preferred Stock or Series B Preferred Stock is decreased by a combination of the outstanding shares of Common Stock, then, immediately after the effective date of such combination, the Series A Conversion Price or Series B Conversion Price, as the case may be, shall be appropriately increased so that the holder of any shares of Series A Preferred Stock or Series B Preferred Stock thereafter converted shall be entitled to receive the number of shares

of Common Stock of the Company which he would have owned immediately following such action had such shares of Series A Preferred Stock or Series B Preferred Stock been converted immediately prior thereto.

(vii) Reorganizations, etc. In case of any capital reorganization of the Company, or of any reclassification of the Common Stock, or in the case of the consolidation of the Company with or the merger of the Company with or into any other Person or of the sale, lease or other transfer of all or substantially all of the assets of the Company to any other Person, each share of Series A Preferred Stock or Series B Preferred Stock shall after such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer be convertible into the number of shares of stock or other securities or property to which the Common Stock issuable (at the time of such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer) upon conversion of such share of Series A Preferred Stock or Series B Preferred Stock would have been entitled upon such capital reorganization, reclassification, consolidation, merger, sale, lease or other transfer; and in any such case, if necessary, the provisions set forth herein with respect to the rights and interests thereafter of the holders of the shares of Series A Preferred Stock or Series B Preferred Stock shall be appropriately adjusted so as to be applicable, as nearly as may reasonably be be, to any shares of stock or other securities or property thereafter deliverable on the conversion of the shares of Series A Preferred Stock or Series B Preferred Stock. The subdivision or combination of shares of Common Stock issuable upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock at any time

outstanding into a greater or lesser number of shares of Common Stock (whether with or without par value) shall not be deemed to be a reclassification of the Common Stock of the Company for the purposes of this clause (vii).

(viii) Rounding of Calculations; Minimum Adjustment. All calculations under this subparagraph (d) shall be made to the nearest cent or to the nearest one hundredth (1/100th) of a share, as the case may be. Any provision of this paragraph 4 to the contrary notwithstanding, no adjustment in the Series A Conversion Price or Series B Conversion Price shall be made if the amount of such adjustment would be less than $0.05, but any such amount shall be carried forward and an adjustment with respect thereto shall be made at the time of and together with any subsequent adjustment which, together with such amount and any other amount or amounts so carried forward, shall aggregate $0.05 or more.

(ix) Timing of Issuance of Additional Common Stock Upon Certain Adjustments. In any case in which the provisions of this subparagraph (f) shall require that an adjustment shall become effective immediately after a record date for an event, the Company may defer until the occurrence of such event (A) issuing to the holder of any share of Series A Preferred Stock or Series B Preferred Stock converted after such record date and before the occurrence of such event the additional shares of Common Stock issuable upon such conversion by reason of the adjustment required by such event over and above the shares of Common Stock issuable upon such conversion before giving effect to such adjustment and (B) paying to such holder any amount of cash in lieu of a fractional share of Common

Stock pursuant to subparagraph (e) of this paragraph 4; provided that the Company upon request shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares, and such cash, upon the occurrence of the event requiring such adjustment.

(g) Current Market Price. The Current Market Price at any date shall mean the price per share of Common Stock on such date determined by the Board of Directors as provided below. The Current Market Price shall be the average of the daily closing prices per share of Common Stock for 30 consecutive business days ending no more than 15 business days before the date in question (as adjusted for any stock dividend, split, combination or reclassification that took effect during such 30 business day period). The closing price for each day shall be the last reported sales price regular way or, in case no such reported sales take place on such day, the average of the last reported bid and asked prices regular way, in either case on the principal national securities exchange on which the Common Stock is listed or admitted to trading, or if not listed or admitted to trading on any national securities exchange, the average of the highest bid and the lowest asked prices quoted on the National Association of Securities Dealers Automated Quotation System; provided that if the Common Stock is not traded in such manner that the quotations referred to above are available for the period required hereunder, Current Market Price per share of Common Stock shall be deemed to be the fair value as determined by the Board of Directors, irrespective of any accounting treatment.

(h) Statement Regarding Adjustments. Whenever the Series A Conversion Price or Series B Conversion Price shall be adjusted as provided in subparagraph 4(f), the Company shall forthwith file, at the office of any transfer agent for the Series A Preferred Stock or Series B Preferred Stock, as the case may be, and at the principal office of the Company, a statement showing in

detail the facts requiring such adjustment and the Series A Conversion Price or Series B Conversion Price that shall be in effect after such adjustment, and the Company shall also cause a copy of such statement to be sent by mail, first class postage prepaid, to each holder of shares of Series A Preferred Stock or Series B Preferred Stock at its address appearing on the Company's records. Each such statement shall be signed by the Company's independent public accountants. Where appropriate, such copy may be given in advance and may be included as part of a notice required to be mailed under the provisions of subparagraph 4(i).

(i) Notice to Holders. In the event the Company shall propose to take any action of the type described in clause (i), (ii) or (iii) (but only if the action of the type described in clause (i), (ii) or (iii) would result in an adjustment in the Series A Conversion Price or Series B Conversion Price), (v), (vi) or (vii) of subparagraph 4(f), the Company shall give notice to each holder of shares of Series A Preferred Stock or Series B Preferred Stock, in the manner set forth in subparagraph 4(h), which notice shall specify the record date, if any, with respect to any such action and the approximate date on which such action is to take place. Such notice shall also set forth such facts with respect thereto as shall be reasonably necessary to indicate the effect of such action (to the extent such effect may be known at the date of such notice) on the Series A Conversion Price or Series B Conversion Price and the number, kind or class of shares or other securities or property which shall be deliverable or purchasable upon the occurrence of such action or deliverable upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock. In the case of any action which would require the fixing of a record date, which notice shall be given at least 10 days prior to the date so fixed, and in case of all other action, such notice shall be given at least 15 days prior to the taking of such proposed action. Failure to give notice, or any defect therein, shall not affect the legality or validity of any such action.

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FEB 28 1986 9AM

CERTIFICATE OF CORRECTION
OF
CERTIFICATE OF AMENDMENT OF
RESTATED CERTIFICATE OF
INCORPORATION OF
REPLIGEN CORPORATION

It is hereby certified that:

1. The name of the corporation is Repligen Corporation (the "Company").

2. The Certificate of Amendment of the Restated Certificate of Incorporation the Company, which was filed by the Secretary of State of Delaware on February 6, 1986, is hereby corrected.

3. The inaccuracies to be corrected in said instrument are (a) the total number of shares of stock which the Company shall have authority to issue and (b) the number of shares of Series A Convertible Preferred Stock authorized for issuance.

4. The portion of the instrument in corrected form, the first paragraph of ARTICLE FOURTH appearing on the first page thereof, is as follows:

> "FOURTH. The total number of shares of stock which the Company shall have authority to issue is twenty-one million, three hundred and six thousand, nine hundred and fifty-five (21,306,955) of which fifteen million (15,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, six hundred and eleven thousand, four hundred and twenty (611,420) shares shall constitute Series A Convertible Preferred Stock ("Series A Preferred Stock"), each such share having a par value of one dollar, six hundred and ninety-five thousand, five hundred and thirty-five (695,535) shares shall constitute Series B Convertible Preferred Stock ("Series B Preferred Stock"), each such share having a par value of one dollar and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent."

Signed and attested to on
February 26, 1986.

REPLIGEN CORPORATION

By: _____
Vice President-Finance

Attest:

_____
Assistant Secretary

8601780200

FILED

JUN 27 1986

SECRETARY OF STATE

CERTIFICATE OF RETIREMENT

Pursuant to Section 243(b)
of the Delaware General Corporation Law

It is hereby certified that:

1. The name of the corporation is Repligen Corporation (the "Company").

2. Pursuant to the Restated Certificate of Incorporation of the Company, as amended and corrected, all of the shares of Series A Convertible Preferred Stock and Series B Convertible Preferred Stock, each having a par value of one dollar, have been automatically converted into shares of Common Stock of the Company, each having a par value of one cent.

3. The Restated Certificate of Incorporation of the Company, as amended and corrected, provides that shares of Series A Convertible Preferred Stock and Series B Convertible Preferred Stock converted into shares of Common Stock shall be retired and shall not be reissued.

4. Pursuant to the Restated Certificate of Incorporation of the Company, as amended and corrected, all of the issued and outstanding shares of Series A Convertible Preferred Stock and of Series B Convertible Preferred Stock, being all of the authorized shares of Series A Convertible Preferred Stock and of Series B Convertible Preferred Stock, have been retired.

Signed and attested to on June 10, 1986.

REPLIGEN CORPORATION

By: _____
President and Chief
Executive Officer

Attest:

_____
Assistant Secretary

15,000,000 Shares Common @ .01

5,000,000 Shares Preferred @ .01

9Am

FILED

SEP 17 1987

CERTIFICATE OF AMENDMENT OF
RESTATED CERTIFICATE OF
INCORPORATION OF
REPLIGEN CORPORATION

It is hereby certified that:

1. The name of the corporation is Repligen Corporation (the "Company").

2. The Restated Certificate of Incorporation of the Company is hereby amended by

(a) adding as new Article EIGHTH the following:

"EIGHTH: A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (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.

The foregoing provisions of this Article EIGHTH shall not eliminate the liability of a director for any act or omission occurring prior to the date on which this Article EIGHTH becomes effective.

If the General Corporation Law of the State of Delaware is amended after approval of this Article EIGHTH by the stockholders to authorize the further elimination or limitation of the liability of directors, then the liability of directors shall be eliminated or limited to the full

extent authorized by the General Corporation Law of the State of Delaware, as so amended.

Any repeal or modification of this Article EIGHTH shall not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification.", and by

(b) renumbering Articles EIGHTH and NINTH, Articles NINTH and TENTH respectively.

This amendment of the Restated Certificate of Incorporation of the Company herein certifed has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

Signed and attested to on August 20, 1987.

CORPORATE SEAL

REPLIGEN CORPORATION

By _____
Sandford D. Smith
President

ATTEST:

By _____
Robert T. Hamlin, Jr.
Assistant Secretary

0843c

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 10:00 AM 09/12/1991
912555176 - 915374

REPLIGEN CORPORATION

Certificate of Amendment

of the

Restated Certificate of Incorporation

(Pursuant to Section 242 of the General Corporation Law of the State of Delaware)

The undersigned, Sandford D. Smith, President and Chief Executive Officer of Repligen Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Company"), on behalf of the Company, hereby certifies as follows:

FIRST: That Article FOURTH of the Restated Certificate of Incorporation of Repligen Corporation is hereby amended in its entirety to read as follows:

> FOURTH, the total number of shares of stock which the Company shall have authority to issue is thirty-five million (35,000,000), of which thirty million (30,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent.
>
> The powers, preferences and rights of the Common Stock and the Preferred Stock shall be as set forth below:
>
> Preferred Stock
>
> 1. Designation of Series by Board of Directors. The shares of Preferred Stock may be divided by the Board of Directors into and issued in one or more series, and each series shall be designated so as to distinguish the shares thereof from the shares of all other series. All shares of Preferred Stock shall be identical with all other shares of Preferred Stock, except in

respect of particulars which may be fixed by the Board of Directors as hereinafter provided pursuant to the authority which is hereby expressly vested in the Board of Directors. Each share of a series shall be identical in all respects with all other shares of such series, except as to the date from which dividends thereon (if any) shall be cumulative on any series as to which dividends are cumulative.

2. Terms That May Be Set by Board of Directors. Before any shares of Preferred Stock of any series shall be issued, the Board of Directors, pursuant to authority hereby expressly vested in it, shall fix by resolution or resolutions the following provisions in respect of the shares for each such series provided that such provisions are not inconsistent with the provisions of this Article FOURTH applicable to shares of all series of Preferred Stock then outstanding:

(a) The distinctive designations of each such series and the number of shares which shall constitute such series, if any, which number may be increased (except where otherwise provided by the Board of Directors in creating such series) or decreased (but not below the number of shares thereof then outstanding) from time to time by like action of the Board of Directors;

(b) The annual rate or amount of dividends payable on shares of such series, if any, whether such dividends shall be cumulative or non-cumulative, the conditions upon which and/or the dates when such dividends shall be payable and the date from which dividends on cumulative series shall accrue and be cumulative on all shares of such series issued prior to the payment date for the first dividend of such series;

(c) Whether such series shall be redeemable or callable and, if so, the terms and conditions of such redemption or call, including the time or times when and the price or prices at which shares of such

series shall be redeemed or called, and including the terms and conditions of any retirement or sinking fund for the purchase or redemption of shares of such series;

(d) The amount payable on shares of such series in the event of liquidation, dissolution or winding up of the affairs of the Company;

(e) Whether such series shall be convertible into or exchangeable for shares of any other class, or any series of the same or any other class and, if so, the terms and conditions thereof, including the date or dates when such shares shall be convertible into or exchangeable for shares of any other class, or any series of the same or any other class, the price or prices or the rate or rates at which shares of such series shall be so convertible or exchangeable, and any adjustments which shall be made, and the circumstances in which any such adjustments shall be made, in such conversion or exchange prices or rates;

(f) Whether such series shall have any voting rights in addition to those prescribed by law and, if so, the terms and conditions of exercise of such voting rights;

(g) The conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption, or other acquisition by the Company or any subsidiary of, the Common Stock or of any other class (or other series of the same class) ranking junior to the shares of such series as to dividends or upon liquidation, dissolution or winding up;

(h) The conditions and restrictions, if any, on the creation of indebtedness of the Company, or any subsidiary, or on the issue of any additional stock ranking on a parity with or prior to the shares of such series as to dividends or upon liquidation, dissolution or winding up; and

(i) Such other powers, preferences and relative, participating, optional or other special rights, qualifications, limitations or restrictions as shall not be inconsistent with any such resolution or resolutions previously adopted as to shares then still outstanding or with the laws of the State of Delaware.

3. Consideration for Issuance. The authorized but unissued shares of Common Stock and the authorized but unissued shares of Preferred Stock of the Company may be issued for such consideration, having a value, not less than the par value thereof (if any), as is determined from time to time by the Board of Directors.

4. Matters Pertaining to Voting.

(a) Except as otherwise determined by the provisions of this Article FOURTH or pursuant to authority of the Board of Directors as hereinbefore provided or by the General Corporation Law of the State of Delaware, all voting rights shall be vested exclusively in the holders of the outstanding shares of Common Stock and each such holder shall be entitled to one (1) vote per share for all purposes for such share of Common Stock held of record by him.

(b) Except as otherwise determined pursuant to authority of the Board of Directors hereinbefore provided, or by the General Corporation Law of the State of Delaware, the holders of shares of Preferred Stock shall not be entitled to vote for any purpose nor shall they be entitled to notice of meetings of stockholders.

SECOND: That the amendment to Article FOURTH of its Restated Certificate of Incorporation has been duly adopted by Repligen Corporation by due and appropriate action of the Corporation and its shareholders at the Annual Meeting of Shareholders held on July 25, 1991.

IN WITNESS WHEREOF, this certificate has been made under the seal of Repligen Corporation and has been signed by the undersigned, its President and Chief Executive Officer, this 4th day of September 1991.

REPLIGEN CORPORATION

By _____
Sandford D. Smith,
President and Chief Executive Officer

[Seal]

ATTEST:

_____
Ramesh L. Ratan,
Senior Vice President, Administration
and Chief Financial Officer

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 04:00 PM 07/13/1992
921955423 - 915374

RESTATED

CERTIFICATE OF INCORPORATION

OF

REPLIGEN CORPORATION

Incorporated pursuant to an original Certificate of Incorporation filed with the Secretary of State May 29, 1981

We, the undersigned, for the purpose of restating the Certificate of Incorporation of Repligen Corporation (hereinafter referred to as the "corporation" or the "Company") under the laws of the State of Delaware, hereby certify 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 32 Loockerman Square, Suite L-100, Dover, Kent County, Delaware, 19901. The name of the registered agent of the corporation at such address is The Prentice-Hall Corporation System, Inc.

THIRD. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware, and specifically, without limiting the generality of the foregoing, to engage in research, development, manufacture and marketing of products produced in part by application of genetic engineering techniques.

FOURTH. The total number of shares of stock which the Company shall have authority to issue is thirty-five million (35,000,000), of which thirty million (30,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent.

The powers, preferences and rights of the Common Stock and the Preferred Stock shall be as set forth below:

Preferred Stock

1. Designation of Series by Board of Directors. The shares of Preferred Stock may be divided by the Board of Directors into and issued in one or more series, and each series shall be designated so as to distinguish the shares thereof from the shares of all other series. All shares of Preferred Stock shall be identical with all other shares of Preferred Stock, except in

respect of particulars which may be fixed by the Board of Directors as hereinafter provided pursuant to the authority which is hereby expressly vested in the Board of Directors. Each share of a series shall be identical in all respects with all other shares of such series, except as to the date from which dividends thereon (if any) shall be cumulative on any series as to which dividends are cumulative.

2. Terms That May Be Set by Board of Directors. Before any shares of Preferred Stock of any series shall be issued, the Board of Directors, pursuant to authority hereby expressly vested in it, shall fix by resolution or resolutions the following provisions in respect of the shares for each such series provided that such provisions are not inconsistent with the provisions of this Article FOURTH applicable to shares of all series of Preferred Stock then outstanding:

(a) The distinctive designations of each such series and the number of shares which shall constitute such series, if any, which number may be increased (except where otherwise provided by the Board of Directors in creating such series) or decreased (but not below the number of shares thereof then outstanding) from time to time by like action of the Board of Directors;

(b) The annual rate or amount of dividends payable on shares of such series, if any, whether such dividends shall be cumulative or non-cumulative, the conditions upon which and/or the dates when such dividends shall be payable and the date from which dividends on cumulative series shall accrue and be cumulative on all shares of such series issued prior to the payment date for the first dividend of such series;

(c) Whether such series shall be redeemable or callable and, if so, the terms and conditions of such redemption or call, including the time or times when and the price or prices at which shares of such series shall be redeemed or called, and including the terms and conditions of any retirement or sinking fund for the purchase or redemption of shares of such series;

(d) The amount payable on shares of such series in the event of liquidation, dissolution or winding up of the affairs of the Company;

(e) Whether such series shall be convertible into or exchangeable for shares of any other class, or any series of the same or any other class and, if so, the terms and conditions thereof, including the date or dates when such shares shall be convertible into or exchangeable for shares of any other class, or any series of the same or

any other class, the price or prices or the rate or rates at which shares of such series shall be so convertible or exchangeable, and any adjustments which shall be made, and the circumstances in which any such adjustments shall be made, in such conversion or exchange prices or rates;

(f) Whether such series shall have any voting rights in addition to those prescribed by law and, if so, the terms and conditions of exercise of such voting rights;

(g) The conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption, or other acquisition by the Company or any subsidiary of, the Common Stock or of any other class (or other series of the same class) ranking junior to the shares of such series as to dividends or upon liquidation, dissolution or winding up;

(h) The conditions and restrictions, if any, on the creation of indebtedness of the Company, or any subsidiary, or on the issue of any additional stock ranking on a parity with or prior to the shares of such series as to dividends or upon liquidation, dissolution or winding up; and

(i) Such other powers, preferences and relative, participating, optional or other special rights, qualifications, limitations or restrictions as shall not be inconsistent with any such resolution or resolutions previously adopted as to shares then still outstanding or with the laws of the State of Delaware.

3. Consideration for Issuance. The authorized but unissued shares of Common Stock and the authorized but unissued shares of Preferred Stock of the Company may be issued for such consideration, having a value, not less than the par value thereof (if any), as is determined from time to time by the Board of Directors.

4. Matters Pertaining to Voting.

(a) Except as otherwise determined by the provisions of this Article FOURTH or pursuant to authority of the Board of Directors as hereinbefore provided or by the General Corporation Law of the State of Delaware, all voting rights shall be vested exclusively in the holders of the outstanding shares of Common Stock and each such holder shall be entitled to one (1) vote per share for all purposes for such share of Common Stock held of record by him.

(b) Except as otherwise determined pursuant to authority of the Board of Directors as hereinbefore provided, or by the

General Corporation Law of the State of Delaware, the holders of shares of Preferred Stock shall not be entitled to vote for any purpose nor shall they be entitled to notice of meetings of stockholders.

FIFTH. The corporation is to have perpetual existance.

SIXTH. Election of directors need not be by written ballot unless the by-laws of the corporation shall so provide.

SEVENTH. The corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as that section may be amended and supplemented from time to time, indemnify any and all persons whom it shall have power to indemnify under that section against any expenses, liabilities or other matters referred to in or covered by that section. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

EIGHTH. A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (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.

The foregoing provisions of this Article EIGHTH shall not eliminate the liability of a director for any act or omission occurring prior to the date on which this Article EIGHTH becomes effective.

If the General Corporation Law of the State of Delaware is amended after approval of this Article EIGHTH by the stockholders to authorize the further elimination or limitation of the liability of directors, then the liability of directors shall be eliminated or limited to the full extent authorized by the General Corporation Law of the State of Delaware, as so amended.

Any repeal or modification of this Article EIGHTH shall not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification.

NINTH. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

TENTH. This Restated Certificate of Incorporation has been duly adopted by the Board of Directors of the corporation in accordance with the provisions of Section 245 of the Delaware General Corporation Law. This Restated Certificate of Incorporation only restates and integrates, and does not further amend, the provisions of the corporation's Certificate of Incorporation as heretofore amended or supplemented, and there is no discrepancy between those provisions and the provisions of this Restated Certificate of Incorporation.

Signed this 30th day of June, 1992.

Sandford D. Smith,
President and Chief Executive Officer

Attest:

Ramesh L. Ratan,
Senior Vice President,
Administration, Chief
Financial Officer and
Secretary

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 04:00 PM 09/17/1999
991390917 - 0915374

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION

Repligen Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware ("DGCL"), DOES HEREBY CERTIFY pursuant to Section 242 of the DGCL:

FIRST: That the Board of Directors of Repligen Corporation (the "Corporation"), by unanimous written consent dated June 21, 1999 in accordance with the provisions of Sections 141(f) and 242 of the DGCL, duly and validly adopted the following resolutions:

RESOLVED: To amend, restate or amend and restate the Certificate of Incorporation to allow the Company the authority to issue forty-five million (45,000,000) shares of capital stock, of which forty million (40,000,000) shares shall constitute Common Stock ("Common Stock"), each share having a par value of one cent, and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent.

RESOLVED: That the Board of Directors deems the proposal set forth immediately above advisable and in the best interest of the Corporation and its stockholders; and that the approval of such proposal be recommended to the stockholders for approval at the Annual Meeting of Stockholders of the Corporation.

RESOLVED: That the officers of the Corporation hereby are and each of them hereby is authorized to execute all such instruments, make all such payments and do all such other acts and things as in their opinion, or in the opinion of any of them, may be necessary or appropriate in order to carry out the intent and purposes of the foregoing resolutions.

SECOND: That the stockholders of the Corporation duly adopted such resolutions stated immediately above and approved of the amendment to the Certificate of Incorporation of the Corporation by a vote of the stockholders of the Corporation at the Annual Meeting of Stockholders held on September 16, 1999, in accordance with the provisions of Section 242 of the DGCL.

THIRD: That the aforesaid amendment was duly adopted by such written consent of the Board of Directors of the Corporation and by a vote of the stockholders of the Corporation in accordance with the applicable provisions of Section 242 of the

DGCL, and the first paragraph of Article Fourth of the Certificate of Incorporation is hereby deleted in its entirety and replaced in its entirety to read as follows:

> "FOURTH. The total number of shares of stock which the Company shall have authority to issue is forty-five million (45,000,000), of which forty million (40,000,000) shares shall constitute Common Stock ("Common Stock"), each such share having a par value of one cent, and five million (5,000,000) shares shall constitute Preferred Stock ("Preferred Stock"), each such share having a par value of one cent."

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, said Repligen Corporation has caused this certificate to be executed by Walter C. Herlihy, its President and Chief Executive Officer, and attested to by Barbara Burnim Day, its Director of Finance, on this 17th day of September, 1999.

REPLIGEN CORPORATION

By: _____
Walter C. Herlihy
President and Chief Executive Officer

ATTEST:

By: _____
Barbara Burnim Day
Director of Finance

TUTUN6806/1.857273v1

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 10:00 AM 03/04/2003
030140999 – 0915374

CERTIFICATE OF DESIGNATION
of
SERIES A JUNIOR PARTICIPATING PREFERRED STOCK
of
REPLIGEN CORPORATION

(Pursuant to Section 151 of the
Delaware General Corporation Law)

Repligen Corporation, a corporation organized and existing under the General Corporation Law of the State of Delaware (hereinafter called the "Corporation"), hereby certifies that the following resolution was adopted by the Board of Directors of the Corporation as required by Section 151 of the General Corporation Law at a meeting duly called and held on March 3, 2003:

RESOLVED, that pursuant to the authority granted to and vested in the Board of Directors of this Corporation (hereinafter called the "Board of Directors" or the "Board") in accordance with the provisions of the Restated Certificate of Incorporation of the Corporation (the "Certificate of Incorporation"), the Board of Directors hereby creates a series of Preferred Stock, par value $0.01 per share (the "Preferred Stock"), of the Corporation and hereby states the designation and number of shares, and fixes the relative rights, preferences, and limitations thereof as follows:

Section 1. Designation and Amount. The shares of this series shall be designated as "Series A Junior Participating Preferred Stock" (the "Series A Preferred Stock") and the number of shares constituting the Series A Preferred Stock shall be forty thousand (40,000). Such number of shares may be increased or decreased by resolution of the Board of Directors; provided, that no decrease shall reduce the number of shares of Series A Preferred Stock to a number less than the number of shares then outstanding plus the number of shares reserved for issuance upon the exercise of outstanding options, rights or warrants or upon the conversion of any outstanding securities issued by the Corporation convertible into Series A Preferred Stock.

Section 2. Dividends and Distributions.

(a) Subject to the rights of the holders of any shares of any series of Preferred Stock (or any other stock) ranking prior and superior to the Series A Preferred Stock with respect to dividends, the holders of shares of Series A Preferred Stock shall be entitled to receive, when, as and if declared by the Board of Directors out of funds legally available for the purpose,

quarterly dividends payable in cash on the last day of March, June, September and December in each year (each such date being referred to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series A Preferred Stock, in an amount (if any) per share of Series A Preferred Stock (rounded to the nearest cent), subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate per share amount of all cash dividends, and 1,000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions, other than a dividend payable in shares of Common Stock, par value $0.01 per share (the "Common Stock"), of the Corporation or a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise), declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series A Preferred Stock. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under the preceding sentence shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) The Corporation shall declare a dividend or distribution on the Series A Preferred Stock as provided in paragraph (A) of this Section immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock).

(c) Dividends due pursuant to paragraph (A) of this Section shall begin to accrue and be cumulative on outstanding shares of Series A Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series A Preferred Stock entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Series A Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix a record date for the determination of holders of shares of Series A Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than 60 days prior to the date fixed for the payment thereof.

Section 3. Voting Rights. The holders of shares of Series A Preferred Stock shall have the following voting rights:

(a) Subject to the provision for adjustment hereinafter set forth, each share of Series A Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters submitted to a vote of the stockholders of the Corporation. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) Except as otherwise provided the Certificate of Incorporation, including any other Certificate of Designations creating a series of Preferred Stock or any similar stock, or by law, the holders of shares of Series A Preferred Stock and the holders of shares of Common Stock and any other capital stock of the Corporation having general voting rights shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation.

(c) Except as set forth herein, or as otherwise required by law, holders of Series A Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action. Without limiting the generality of the foregoing, the number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

Section 4. Certain Restrictions.

(a) Whenever quarterly dividends or other dividends or distributions payable on the Series A Preferred Stock as provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series A Preferred Stock outstanding shall have been paid in full, the Corporation shall not:

(i) declare or pay dividends, or make any other distributions, on any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock, other than dividends on the Common Stock payable solely in additional shares of Common Stock;

(ii) declare or pay dividends, or make any other distributions, on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Preferred Stock, except dividends paid ratably on the Series A Preferred Stock

and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled; or

(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such junior stock in exchange for shares of any stock of the Corporation ranking junior (as to dividends and upon dissolution, liquidation or winding up) to the Series A Preferred Stock.

(b) The Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under paragraph (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

Section 5. Reacquired Shares. Any shares of Series A Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock subject to the conditions and restrictions on issuance set forth herein or in the Restated Certificate of Incorporation, including any Certificate of Designations creating a series of Preferred Stock or any similar stock, or as otherwise required by law.

Section 6. Liquidation, Dissolution or Winding Up. Upon any liquidation, dissolution or winding up of the Corporation the holders of shares of Series A Preferred Stock shall be entitled to receive an aggregate amount per share of Series A Preferred Stock, subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate amount to be distributed per share to holders of shares of Common Stock plus an amount equal to any accrued and unpaid dividends. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the aggregate amount to which holders of shares of Series A Preferred Stock were entitled immediately prior to such event under the preceding sentence shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 7. Consolidation, Merger, etc. In case the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each share of Series A Preferred Stock shall at the same time be similarly exchanged or changed into an amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of

Common Stock is changed or exchanged. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount set forth in the preceding sentence with respect to the exchange or change of shares of Series A Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 8. Amendment. The Restated Certificate of Incorporation shall not be amended in any manner, including in a merger or consolidation, which would alter, change, or repeal the powers, preferences or special rights of the Series A Preferred Stock so as to affect them adversely without the affirmative vote of the holders of at least two-thirds of the outstanding shares of Series A Preferred Stock, voting together as a single class.

Section 9. Rank. The Series A Preferred Stock shall rank, with respect to the payment of dividends and upon liquidation, dissolution and winding up, junior to all series of Preferred Stock.

[Remainder of Page Left Intentionally Blank]

IN WITNESS WHEREOF, this Certificate of Designation is executed on behalf of the Corporation by its President and CEO this 4th day of March, 2003.

REPLIGEN CORPORATION

By: /s/ Walter C. Herlihy
Name: Walter C. Herlihy
Title: President and CEO

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:00 AM 04/14/2008
FILED 08:00 AM 04/14/2008
SRV 080426663 - 0915374 FILE

STATE OF DELAWARE
CERTIFICATE FOR RENEWAL
AND REVIVAL OF CHARTER

The corporation organized under the laws of Delaware, the charter of which was voided for non-payment of taxes, now desires to procure a restoration, renewal and revival of its charter, and hereby certifies as follows:

1. The name of this corporation is Repligen Corporation.

2. Its registered office in the State of Delaware is located at Corporation Trust CT, 1209 Orange (street), City of Wilmington Zip Code 19801 County of New Castle the name of its registered agent is The Corporation Trust Company.

3. The date of filing of the original Certificate of Incorporation in Delaware was May 29, 1981.

4. The date when restoration, renewal, and revival of the charter of this company is to commence is the 29th day of February 2008, same being prior to the date of the expiration of the charter. This renewal and revival of the charter of this corporation is to be perpetual.

5. This corporation was duly organized and carried on the business authorized by its charter until the 1st day of March A.D. 2008, at which time its charter became inoperative and void for non-payment of taxes and this certificate for renewal and revival is filed by authority of the duly elected directors of the corporation in accordance with the laws of the State of Delaware.

IN TESTIMONY WHEREOF, and in compliance with the provisions of Section 312 of the General Corporation Law of the State of Delaware, as amended, providing for the renewal, extension and restoration of charters the last and acting authorized officer hereunto set his/her hand to this certificate this 8th day of April A.D. 2008.

By: _____
Authorized Officer

Name: William Kelly
Print or Type

Title: Vice President Finance & Adm.

State of Delaware
Secretary of State
Division of Corporations
Delivered 10:22 AM 05/16/2014
FILED 10:18 AM 05/16/2014
SRV 140643615 - 0915374 FILE

CERTIFICATE OF AMENDMENT
TO
CERTIFICATE OF INCORPORATION
OF
REPLIGEN CORPORATION

Repligen Corporation (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "DGCL"), does hereby certify:

1. Pursuant to Section 242 of the DGCL, this Certificate of Amendment to Certificate of Incorporation (this "Amendment") amends certain provisions of the Certificate of Incorporation of the Corporation, filed with the Secretary of State of the State of Delaware on May 29, 1981 and amended September 17, 1999, as currently in effect (the "Certificate").

2. This Amendment has been approved and duly adopted by the Corporation's Board of Directors, and written consent of the stockholders has been given in accordance with the provisions of Sections 228 and 242 of the DGCL, and the provisions of the Certificate.

3. The Certificate is hereby amended by deleting the first paragraph of Article Fourth and replacing it in its entirety with the following:

"**FOURTH** The total number of shares of stock which the Corporation shall have authority to issue is eighty-five million (85,000,000), of which eighty million (80,000,000) shares shall constitute Common Stock, $0.01 par value per share ("Common Stock"), and five million (5,000,000) shares shall constitute Preferred Stock, $0.01 par value per share ("Preferred Stock")."

* - * - * - *

IN WITNESS WHEREOF, the undersigned authorized officer of the Corporation has executed this Certificate of Amendment to Certificate of Incorporation as of May 16, 2014.

REPLIGEN CORPORATION

By: _____

Name: Walter C. Herlihy

Title: President and Chief Executive Officer

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:06 AM 06/30/2017
FILED 11:06 AM 06/30/2017
SR 20175038949 - File Number 915374

CERTIFICATE OF OWNERSHIP AND MERGER

MERGING

TANGENX HOLDING, INC. AND

TANGENX TECHNOLOGY CORPORATION

INTO

REPLIGEN CORPORATION

(pursuant to Sections 103 and 253 of the General Corporation Law of Delaware)

* * * * * * *

Repligen Corporation, a corporation incorporated pursuant to the provisions of the General Corporation Law of the State of Delaware;

DOES HEREBY CERTIFY:

FIRST: That this corporation (i) owns 100% of the issued and outstanding capital stock of TangenX Holding, Inc., a corporation incorporated pursuant to the provisions of the Delaware General Corporation Law and (ii) owns 100% of the issued and outstanding capital stock of TangenX Technology Corporation., a corporation incorporated pursuant to the Massachusetts Business Corporation Act of Commonwealth of Massachusetts, and that these corporations, by a resolution of its Board of Directors, determined to merge into itself said TangenX Holding, Inc., which resolution is in the following words to wit:

WHEREAS, Repligen Corporation (the "**Corporation**") is the beneficial and record owner of all of the issued and outstanding capital stock of TangenX Holding, Inc., a corporation organized and existing under the laws of the State of Delaware (the "**TangenX Holding**"); and

WHEREAS, the Corporation is the beneficial and record owner of all of the issued and outstanding capital stock of TangenX Technology Corporation., a corporation organized and existing under the laws of the Commonwealth of Massachusetts (the "**TangenX Technology**", collectively with TangenX Holding, the **"Subsidiaries");** and

WHEREAS, the Corporation desires to merge into itself the Subsidiaries, and to be possessed of all the estate, property, rights, privileges and franchises of the Subsidiaries (the "**Merger**"), pursuant to an Agreement and Plan of Merger attached hereto as Exhibit A (the "**Merger Agreement**") pursuant to which the Corporation shall be the surviving entity;

NOW, THEREFORE, BE IT RESOLVED, that each of the Merger Agreement and the Merger is hereby approved and adopted in all respects and the Corporation is hereby directed to assume all of the Subsidiaries liabilities and obligations;

FURTHER RESOLVED, that the President and Secretary of the Corporation be and he or she is hereby directed to make and execute the Merger Agreement and a certificate of ownership setting forth a copy of the resolution to merge the Subsidiaries into the Corporation with the Corporation as the surviving corporation and assume the Subsidiaries liabilities and obligations, and the date of adoption thereof, and to file the same in the office of the Secretary of State of Delaware, a certified copy thereof in the office of the Recorder of Deeds of New Castle County and with the Commonwealth of Massachusetts; and

FURTHER RESOLVED, that the officers of the Corporation be and they hereby are authorized and directed to do all acts and things whatsoever, whether within or without the State of Delaware; which may be in any way necessary or proper to effect said Merger.

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IN WITNESS WHEREOF, said parent corporation has caused this Certificate to be signed by an authorized officer this 30th day of June, 2017.

REPLIGEN CORPORATION

By: /s/ Tony Hunt
Name: Tony Hunt
Title: President

Exhibit A
Merger Agreement

AGREEMENT AND PLAN OF MERGER

This Agreement and Plan of Merger (this "**Agreement**") is entered into as of June 29, 2017, by and between Repligen Corporation, a Delaware corporation (the "**Parent**"), and TangenX Holding, Inc., a Delaware corporation (the "**TX Holding**") and TangenX Technology Corp., a Massachusetts corporation (the "**TX Tech**" collectively, the "**Subsidiaries**").

RECITALS

WHEREAS, the Parent is the owner of all of the issued and outstanding capital stock of the Subsidiaries; and

WHEREAS, the Parent desires, among other things, to simplify its organizational and operational structure by merging the Subsidiaries with and into the Parent with the Parent as the surviving corporation.

NOW, THEREFORE, the undersigned parties to this Agreement, in consideration of the mutual covenants, agreements and provisions set forth herein, hereby agree as follows:

AGREEMENT

1. Merger. At the Effective Time (as defined below), the Subsidiaries will merge with and into the Parent (the "**Merger**") and the Parent will be merged with the Subsidiaries, whereby the Parent will be the surviving corporation (the "**Surviving Corporation**"), without further action by the parties to this Agreement.

2. Treatment of Issued Securities. The issued shares of the Subsidiaries capital stock will not be converted in any manner, but each said share which is issued as of the Effective Time will be surrendered and extinguished.

3. Certificate of Incorporation of the Surviving Corporation. The Certificate of Incorporation of the Parent as in effect as of the Effective Time (the "**Certificate of Incorporation**"), will continue in full force in effect as the Certificate of Incorporation of the Surviving Corporation following the Merger.

4. Bylaws of the Surviving Corporation. The Bylaws of the Parent as in effect as of the Effective Time (the "**Bylaws**"), will continue in full force in effect as the Bylaws of the Surviving Corporation following the Merger.

5. Internal Revenue Code; Tax Matters. Parent and Subsidiaries hereby agree and acknowledge that the upstream merger of Subsidiaries into Parent will be treated as a liquidation pursuant to Sections 332, 334, and 337 of the United States Internal Revenue Code of 1986, as amended, and, immediately thereafter, Parent, as the successor in interest, will assume responsibility for all tax matters of Subsidiaries.

6. Capital Stock. The authorized and issued shares of the Subsidiaries' capital stock immediately prior to the Effective Time are as follows:

Entity	Class	Authorized Shares	Issued Shares	Shares Owned by Parent
TX Holding	Common Stock	1,000	1,000	1,000
TX Tech	Class A Voting Common Stock	2,000	415	415
TX Tech	Class B Nonvoting Common Stock	198,000	14,865	14,865

7. Other Terms and Conditions of Merger. The terms and conditions of the Merger are as follows:

(a) The directors and officers of Parent as of the Effective Time shall be the directors and officers of the Surviving Corporation, until their respective successors shall have been duly elected or appointed and qualified or until their earlier death, resignation or removal in accordance with the Certificate of Incorporation and Bylaws.

(b) The Merger shall become effective as of the time the Certificate of Ownership and Merger is filed with the Secretary of State of the State of Delaware (the "**Effective Time**").

(c) At the Effective Time, all the property, rights, privileges, franchises, patents, trademarks, licenses, registrations and other assets of every kind and description of the Subsidiaries will be transferred to, vested in and devolve upon the Surviving Corporation without further act or deed and all property, rights, and every other interest of the Parent and the Subsidiaries will be as effectively the property of the Surviving Corporation as they were of the Parent and the Subsidiaries respectively. The Subsidiaries hereby agrees from time to time, as and when requested by the Surviving Corporation or by its successors or assigns, to execute and deliver or cause to be executed and delivered all such deeds and instruments and to take or cause to be taken such further or other action as the Surviving Corporation may deem to be necessary or desirable in order to vest in and confirm to the Surviving Corporation title to and possession of any property of the Subsidiaries acquired or to be acquired by reason of or as a result of the Merger herein provided for and otherwise to carry out the intent and purposes of this Agreement and the proper officers and directors of the Subsidiaries and the proper officers and directors of the Surviving Corporation are fully authorized in the name of the Subsidiaries or otherwise to take any and all such action.

[*REMAINDER OF THE PAGE INTENTIONALLY LEFT BLANK*]

The parties to this Agreement have caused this Agreement and Plan of Merger to be executed as of the date set forth in the preamble to this Agreement and Plan of Merger.

REPLIGEN CORPORATION,
a Delaware corporation

By: _____
Name: Tony Hunt
Title: President

TANGENX HOLDING, INC.,
a Delaware corporation

By: _____
Name: Tony Hunt
Title: President

TANGENX TECHNOLOGY CORP.,
a Massachusetts corporation

By: _____
Name: Tony Hunt
Title: President

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:35 AM 06/11/2021
FILED 09:35 AM 06/11/2021
SR 20212421839 - File Number 915374

CERTIFICATE OF MERGER

OF

ENGINEERED MOLDING TECHNOLOGY LLC
a New York limited liability company

WITH AND INTO

REPLIGEN CORPORATION
a Delaware corporation

Pursuant to Title 8, Section 264(c) of the Delaware General Corporation Law, the undersigned corporation executed the following Certificate of Merger:

FIRST: The name of the surviving corporation is Repligen Corporation, a Delaware Corporation, and the name of the limited liability company being merged into this surviving corporation is Engineered Molding Technology LLC, a New York limited liability company.

SECOND: The Plan and Agreement of Merger, dated as of May 11, 2021 (the "Merger Agreement), by and between Repligen Corporation and Engineered Molding Technology LLC has been approved, adopted, certified, executed and acknowledged by the surviving corporation and the merging limited liability company.

THIRD: The name of the surviving corporation is Repligen Corporation

FOURTH: The merger is to become effective at such time as of this Certificate of Merger has been filed with the Secretary of State of the State of Delaware.

FIFTH: The Merger Agreement is on file at 41 Seyon Street, Building #1, Suite 100, Waltham, MA 02453, the place of business of the surviving corporation.

SIXTH: A copy of the Merger Agreement will be furnished by the surviving corporation on request, without cost, to any stockholder of any constituent corporation or member of any constituent limited liability company.

SEVENTH: The Certificate of Incorporation of the surviving corporation shall be its Certificate of Incorporation.

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IN WITNESS WHEREOF, the undersigned has caused this certificate to be executed as of the 11th day of May, 2021.

REPLIGEN CORPORATION

By: DocuSigned by: Tony Hunt
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Name: Tony J. Hunt
Title: President and CEO

CERTIFICATE OF MERGER
MERGING
NON-METALLIC SOLUTIONS, INC., A MASSACHUSETTS CORPORATION
WITH AND INTO
REPLIGEN CORPORATION, A DELAWARE CORPORATION

Pursuant to Section 252 of the
General Corporation Law of the State of Delaware

Pursuant to Title 8, Section 252 of the Delaware General Corporation Law, the undersigned corporation executed the following Certificate of Merger:

FIRST: The name of the surviving corporation is Repligen Corporation, a Delaware corporation ("Repligen"), and the name of the corporation being merged into this surviving corporation is Non-Metallic Solutions, Inc., a Massachusetts corporation ("NMS").

SECOND: The Agreement and Plan of Merger, by and between Repligen and NMS, dated as of the December 22, 2021 (the "Merger Agreement") has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations pursuant to Title 8 Section 252 of the General Corporation Law of the State of Delaware.

THIRD: The Certificate of Incorporation of Repligen as in effect immediately prior to the effective time of the merger shall be the Certificate of Incorporation of the surviving corporation.

FOURTH: The merger is to become effective at 11:59pm EST on December 31, 2021.

FIFTH: That the executed Merger Agreement is on file at an office of the surviving corporation located at 41 Seyon Street, Building 1, Suite 100, Waltham, Massachusetts 02453.

SIXTH: A copy of the Merger Agreement will be furnished by the surviving corporation on request, without cost, to any stockholder of the constituent corporations.

State of Delaware
Secretary of State
Division of Corporations
Delivered 12:52 PM 12/23/2021
FILED 12:52 PM 12/23/2021
SR 20214203740 - File Number 915374

IN WITNESS WHEREOF, the undersigned corporation has caused this Certificate of Merger to be duly executed as of this 22nd day of December, 2021.

REPLIGEN CORPORATION,
a Delaware Corporation

DocuSigned by:
By: Tony Hunt
E8EDD5C7E208411...
Name: Tony J. Hunt
Title: President and Chief Executive Officer

Corporate Governance
CorpGov.net: improving accountability through democratic corporate governance since 1995

VIA EMAIL: shareholderproposals@sec.gov
Office of Chief Counsel
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549
cc: KCornwell@Repligen.com, SChehames@repligen.com, SDonahue@goodwinlaw.com, SNewman@repligen.com, sanfordlewis@strategiccounsel.net, brittany@rhiaventures.org

January 28, 2023

Re: Rebuttal to No-action Request by Repligen Corporation (RGEN)

To Division of Corporate Finance Staff Assigned:

This letter is in response to a December 30, 2022, no-action request by Sean M. Donahue, acting as an agent of Repligen Corporation (the "Company" or “Repligen”).

Mr. Donahue asserts the shareholder proposal ("Proposal"), submitted by my wife, Myra K. Young (Proponent), can be omitted under Rule 14a-8(e)(2), alleging the following violations:

- Rule 14a-8(i)(2) because implementing the Proposal would cause the Company to violate Delaware law;
- Rule 14a-8(i)(6) because the Company lacks the power or authority to implement the Proposal;
- Rule 14a-8(i)(10) because the Proposal has been substantially implemented; and
- Rule 14a-8(i)(3) because the Proposal is impermissibly vague and indefinite as to be inherently misleading.

Background

The Proposal requests that the board amend its bylaws to provide that shareholder approval be required for any advance notice bylaw amendments that

1. require the nomination of candidates more than 90 days before the annual meeting,
2. imposes new disclosure requirements for director nominees or
3. requires nominating shareholders to disclose limited partners or business associates except to the extent such investors own more than 5% of the company’s shares.

Rebuttal Summarized

The Company asserts the proposal may be excluded based on a host of exclusions, most of which turn on their attached Delaware Law opinion asserting the Board of Directors is unable to

amend the bylaws without shareholder approval. This is based on their interpretation of Delaware law, asserting that only an amendment to the articles of incorporation can empower the Board of Directors to amend the bylaws without shareholder approval.

Interestingly, the opinion provided by the Company conflicts with actual board and shareholder activities under which first, shareholders amended the bylaws in 2017 (Exhibit A) to allow the Board of Directors to amend the bylaws without shareholder approval, and secondly, the Board of Directors adopted bylaw amendments in 2021 (Exhibit B) without shareholder approval. As such, we believe the Company and its counsel are estopped from asserting that it does not have the necessary powers. It has acted as if it has such powers, including both allowing shareholders to provide such powers to the board and then acting upon such powers.

As such, the objections asserting that implementing the proposal would cause the company to violate Delaware law, or that the company lacks the power or authority to implement the proposal, or that the proposal has been substantially implemented are mooted by the existing company actions.

In addition, the Company asserts that the proposal is impermissibly vague, indefinite, and excludable under Rule 14a-8(i)(3). The language in question regarding disclosure requirements for director nominees' “past and future plans” is neither vague nor indefinite and is subject to reasonable interpretation by shareholders voting on the proposal and by the board and management. This is especially true given the Proposal’s explicit reference to widely discussed advance notice bylaws filed by Masimo Corporation.

I. The Board is estopped from asserting it has no power to amend the bylaws

The Board has acted as if it can amend the Bylaws, allowing shareholders to pass an amendment to the bylaws permitting Board bylaw amendments and then acting pursuant to that bylaw amendment in 2021.

Most of the company letter is devoted to arguing that it cannot implement the Proposal because, under Delaware law, the Board does not have the power to amend the Company Bylaws in the absence of shareholder approval. The board is estopped from making this assertion because it both allowed and encouraged shareholders to provide the board with precisely such power and then, the Board, without stockholder approval, amended the Bylaws pursuant to that bylaw amendment in 2021.

2017 stockholder approved amendment to bylaws: authorizing directors to amend bylaws

As shown in exhibit A, on May 18, 2017, the stockholders approved an amendment to Article VII of the Bylaws “to permit the board of directors to amend the By-laws” as well as an amendment to Article I, Section 10 of the Bylaws “to adopt advance notice procedures for director nominations and stockholder proposals” (the “Second Amended Bylaws”):

> As described below, effective as of May 18, 2017, stockholders of the Repligen Corporation (the "Company") approved an amendment to Article I, Section 6 of the Amended and Restated By-laws of the Company to adopt majority voting in uncontested director election, **Article I, Section 10 to adopt advance notice procedures for director nominations and stockholder proposals,** and **Article VII to permit the board of directors to amend the By-laws.** Effective as of the same date, the Board of Directors of the Company (the "Board") amended Article I, Section 4 and Section 6 to define certain terms and clarify notice provisions, respectively. (Emphasis added).

Board action consistent with the bylaw amendment

On January 27, 2021, the Board amended the Bylaws (Exhibit B), apparently without stockholder approval (the "Third Amended Bylaws"):

> On January 27, 2021, **the Board of Directors** (the "Board") of Repligen Corporation (the "Company") **approved the amendment and restatement of the Company's Bylaws** (as so amended, the "Third Amended and Restated Bylaws"), which took effect immediately. The Third Amended and Restated Bylaws supersede the previously existing Second Amended and Restated Bylaws, which took effect on May 18, 2017. (Emphasis added).

At present, the Third Amended Bylaws are apparently in effect.

Also, Article VII of the Third Amended Bylaws continues to state, in part:

> **These by-laws also may be altered, amended or repealed by a vote of the majority of the Board of Directors;** provided, however, that the Board of Directors shall not have power to alter, amend or repeal the provisions of Section 6 of Article I, Section 1 of Article V or this Article VII of the by-Laws and provided, further, that **the Board of Directors may not alter, amend or repeal any amendment to these by-laws adopted by the stockholders after May 18, 2017.** (Emphasis added).

Importantly, as quoted above, May 18, 2017, is the date the advance notice procedures were adopted. This leaves a convenient carve out for the Board to amend the advance notice procedures because they were adopted *on* and not *after* May 18, 2017. This means that the Board has the power to adopt the amendments to the Bylaws as requested by the Proposal. Furthermore, the board has acted consistent with the prior bylaw amendments to amend the bylaws without stockholder approval. As such, we believe the board is estopped from asserting that it does not have the power to act as it has, in fact, acted in the recent past.

II. The Company does hold the power and authority to implement the Proposal and the Proposal has not been substantially implemented.

Sections (A), (B), and (C) of the Company's No-Action Request all rely on the assumption that the Board does not have the ability to amend the Bylaws, and that all amendments to the Bylaws would require shareholder approval. As explained above, the board appears to be estopped from making this claim by its actions inconsistent with such a legal argument.

First, the Company argues that because it believes that the Proposal would cause it to violate Delaware law, this intrinsically means that the Board does not have the power to implement the Proposal. Second, the Company further argues, "As the Bylaws may only be amended by the stockholders entitled to vote, stockholder approval is already required for any amendment to the Bylaws, including advance notice bylaw amendments." Finally, they argue that this means that the Proposal has been substantially implemented.

Because, as explained above, each of these arguments argument is estopped by the practical reality that the board has, in fact, allowed an amendment to the bylaws granting authority to amend the bylaws and then, in 2021, acting consistent with that bylaw amendment.

From the plain language of Article VII of the governing Third Amended Bylaws, the Proposal has not been substantially implemented because the Board has the power to amend the advance notice bylaws adopted on May 18, 2017, without shareholder approval.

Thus, the board is acting as if it can amend the advance notice bylaws *without* shareholder approval (see Article VII of the Third Amended Bylaws). However, the Proposal requests that such an amendment occur only *with* Shareholder approval. This means that the Board has the power to implement the Proposal, and has not already been substantially implemented.

III. The Proposal is not impermissibly vague and indefinite under Rule 14a-8(i)(3).

In addition, the Company asserts that the proposal is impermissibly vague and indefinite, and excludable under Rule 14a-8(i)(3). The language in question regarding disclosure requirements for director nominees' "past and future plans" is neither vague nor indefinite and is subject to reasonable interpretation by shareholders voting on the proposal and by the board and management.

This is especially true given the Proposal's explicit reference to controversial and widely discussed advance notice bylaws adopted by the Masimo Corporation that require disclosure of the ownership interests of the nominating shareholder's limited partners, including partners, the nominating shareholder's **past or future plans** to nominate directors at other public companies, and the nominating shareholder's prior communications with fellow shareholders.[1] (Emphasis added)

[1] https://ccrcorp.com/deal-lawyers/articles/advance-notice-bylaws-battlelines-are-drawn-on-amendments-targeting-activists/

Indeed, Vice Chancellor Nathan Cook of Delaware Chancery Court ruled[2] from the bench that Masimo cannot compel Politan to reveal its backers as the company and the hedge fund fight over the validity of Masimo's controversial bylaw amendment.[3] As stated on page 7 of that ruling, "The Bylaw Amendments also allegedly require investment fund stockholders that seek to nominate a director to Masimo's board to divulge **past and future plans** for running Masimo or companies related to or competitive with it." (Emphasis added)

Conclusion

In permitting the exclusion of proposals, Rule 14a-8(g) imposes the burden of proof on companies. Therefore, companies seeking to establish the availability of exclusion under Rule 14a-8 have the burden of showing ineligibility. As argued above, the Company has failed to meet that burden. Accordingly, staff must deny the no-action request.

We would be pleased to respond to Staff questions or negotiate with Repligen on mutually agreeable terms for withdrawing the Proposal. If Staff concurs with the Company's position, we would appreciate an opportunity to confer with Staff concerning this matter prior to the final determination. You can reach James McRitchie by emailing [redacted].

Sincerely,

James McRitchie
Shareholder Advocate

[2] https://fingfx.thomsonreuters.com/gfx/legaldocs/lgpdkkgxwvo/frankel-politanvmasimo--discoveryopinion.pdf
[3] https://www.reuters.com/legal/transactional/delaware-judge-rejects-early-unmasking-activist-fund-investors-proxy-bylaw-fight-2022-12-22/

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 18, 2017

Repligen Corporation
(Exact name of registrant as specified in its charter)

Delaware	000-14656	04-2729386
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

41 Seyon Street, Bldg. 1, Suite 100, Waltham, MA 02453
(Address of Principal Executive Offices) (Zip Code)

(781) 250-0111
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 5.03. Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.

As described below, effective as of May 18, 2017, stockholders of the Repligen Corporation (the "Company") approved an amendment to Article I, Section 6 of the Amended and Restated By-laws of the Company to adopt majority voting in uncontested director election, Article I, Section 10 to adopt advance notice procedures for director nominations and stockholder proposals and Article VII to permit the board of directors to amend the By-laws. Effective as of the same date, the Board of Directors of the Company (the "Board") amended Article I, Section 4 and Section 6 to define certain terms and clarify notice provisions, respectively. The Company's Second Amended and Restated By-laws is attached hereto as Exhibit 3.1, incorporated herein by reference.

Item 5.07. Submission of Matters to a Vote of Security Holders.

The 2017 Annual Meeting of Stockholders (the "Annual Meeting") of the Company was held on May 18, 2017. Proxies were solicited pursuant to the Company's proxy statement filed on April 21, 2017, with the Securities and Exchange Commission under Section 14(a) of the Securities Exchange Act of 1934, as amended.

The number of shares of the Company's common stock, $0.01 par value per share ("Common Stock"), entitled to vote at the Annual Meeting was 34,076,544. The number of shares of Common Stock present or represented by valid proxy at the Annual Meeting was 31,952,897, representing 93.76% of the total number of shares of Common Stock entitled to vote at the Annual Meeting. Each share of Common Stock was entitled to one vote with respect to matters submitted to the Company's stockholders at the Annual Meeting.

At the Annual Meeting, the Company's stockholders were asked (i) to elect the Company's Board of Directors, (ii) to ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017, (iii) to vote to approve, on an advisory basis, the compensation paid to the Company's named executive officers, (iv) to vote, on an advisory basis, on the frequency of future advisory votes on the compensation of the Company's named executive officers, (v) to approve an amendment to the Company's By-laws to adopt majority voting in uncontested director elections, (vi) to approve an amendment to the Company's By-laws to adopt advance notice procedures for director nominations and stockholder proposals and (vii) to approve an amendment to the Company's By-laws to permit the board of directors to amend the By-laws.

The voting results reported below are final.

Proposal 1 – Election of the Board of Directors

Nicolas M. Barthelemy, Glenn L. Cooper, John G. Cox, Karen A. Dawes, Tony J. Hunt, Glenn P. Muir, and Thomas F. Ryan, Jr. were duly elected as the Company's Board of Directors. The results of the election were as follows:

NOMINEE	FOR	% FOR	WITHHELD	% WITHHELD	BROKER NON-VOTES
Nicolas M. Barthelemy	27,413,229	99.22%	214,192	0.78%	4,325,476
Glenn L. Cooper	27,420,520	99.25%	206,901	0.75%	4,325,476
John G. Cox	27,425,348	99.27%	202,073	0.73%	4,325,476
Karen A. Dawes	27,279,755	98.74%	347,666	1.26%	4,325,476
Glenn P. Muir	27,424,276	99.26%	203,145	0.74%	4,325,476
Tony J. Hunt	27,496,155	99.52%	131,266	0.48%	4,325,476
Thomas F. Ryan, Jr.	27,274,482	98.72%	352,939	1.28%	4,325,476

Proposal 2 – Ratify the Appointment of Independent Registered Public Accounting Firm

The appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017 was ratified. The results of the ratification were as follows:

	FOR	AGAINST	ABSTAIN	BROKER NON-VOTES
NUMBER	31,684,913	241,005	26,979	
PERCENTAGE OF VOTED	99.16%	0.75%	0.08%	

Proposal 3 – Advisory Vote on Compensation of the Named Executive Officers

The compensation paid to the Company's named executive officers was approved on an advisory basis. The results of the vote were as follows:

	FOR	AGAINST	ABSTAIN	BROKER NON-VOTES
NUMBER	26,444,798	1,153,666	28,957	4,325,476
PERCENTAGE OF VOTED	95.71%	4.17%	0.10%	

Proposal 4 – Advisory Vote on the Frequency of Future Advisory Votes on the Compensation of the Company's Named Executive Officers

The frequency of the advisory vote on executive compensation was approved on an advisory basis. The results of the vote were as follows:

	1 YEAR	2 YEARS	3 YEARS	ABSTAIN
NUMBER	24,078,211	26,533	3,494,835	27,842
PERCENTAGE OF VOTED	87.15%	0.09%	12.64%	0.10%

Based on the votes set forth above, the Company's stockholders approved, on a non-binding, advisory basis, a frequency of 1 year for the non-binding, advisory vote on the compensation of the Company's named executive officers. The Board considered the voting results with respect to the frequency proposal and other factors, and the Board currently intends for the Company to hold a non-binding, advisory vote on the compensation of the Company's named executive officers every year until the next required advisory vote on the frequency of holding the non-binding, advisory vote on the compensation of the Company's named executive officers.

Proposal 5 – Amendment to the Company's By-laws to Adopt Majority Voting in Uncontested Director Elections

The amendment to the Company's By-laws to adopt majority voting in uncontested director elections was approved. The results of the vote were as follows:

	FOR	AGAINST	ABSTAIN	BROKER NON-VOTES
NUMBER	27,553,101	49,755	24,565	4,325,476
PERCENTAGE OF VOTED	99.73%	0.18%	0.08%	

Proposal 6 – Amendment to the Company's By-laws to Adopt Advance Notice Procedures for Director Nominations and Stockholder Proposals

The amendment to the Company's By-laws to adopt advance notice procedures for director nominations and stockholder proposals was approved. The results of the vote were as follows:

	FOR	AGAINST	ABSTAIN	BROKER NON-VOTES
NUMBER	22,519,798	5,075,829	31,794	4,325,476
PERCENTAGE OF VOTED	81.51%	18.37%	0.11%	

Proposal 7 – Amendment to the Company's By-laws to Permit the Board of Directors to Amend the By-laws

The amendment to the Company's By-laws to permit the board of directors to amend the By-laws was approved. The results of the vote were as follows:

	FOR	AGAINST	ABSTAIN	BROKER NON-VOTES
NUMBER	23,295,598	4,291,631	40,192	4,325,476
PERCENTAGE OF VOTED	84.32%	15.53%	0.14%	

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

3.1 Second Amended and Restated By-laws

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

REPLIGEN CORPORATION

Date: May 23, 2017

By: /s/ Tony J. Hunt
Tony J. Hunt
President and Chief Executive Officer

EXHIBIT INDEX

Exhibit Number	Description
3.1	Second Amended and Restated By-laws

Exhibit 3.1

SECOND AMENDED AND RESTATED BY-LAWS OF

REPLIGEN CORPORATION

ARTICLE I STOCKHOLDERS

SECTION 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 Board of Directors or, if not so designated, at the principal office of the corporation.

SECTION 2. Annual Meeting. The annual meeting of stockholders of the election of directors and the transaction of such other business as may properly come before the meeting shall be held at 10 a.m. on the last Thursday in July of each year or on such other date or at such hour as may be specified by resolution of the Board of Directors. If the date of the annual meeting shall fall upon a legal holiday at the place of the meeting, the meeting shall be held at the same hour on the next succeeding business day. If the annual meeting is not held on the date designated therefor, the directors shall cause the meeting to be held as soon thereafter as convenient.

SECTION 3. Special Meetings. Special meetings of the stockholders may be called at any time by the President, the Chairman or the Board of Directors; and shall be called by the Secretary or any officer upon the written request of one or more stockholders holding, in the aggregate, at least 30% of the outstanding shares of stock of the corporation entitled to vote at such meeting. Such written request shall state the purpose or purposes of the proposed 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.

SECTION 4. Notice of Meetings. Except where some other notice is required by law, written notice of each meeting of stockholders, stating the place, date and hour thereof and the purposes for which the meeting is called, shall be given by or under the direction of the Secretary, not less than ten nor more than sixty days before the date fixed for such meeting, to each stockholder entitled to vote at such meeting of record at the close of business on the day fixed by the Board of Directors as a record date for the determination of the stockholders entitled to vote at such meeting or, if not such date has been fixed, of record at the close of business on the day before the day on which notice is given. Notice shall be given personally to each stockholder or left at his or her residence or usual place of business or mailed postage prepaid and addressed to the stockholder at his or her address as it appears upon the records of the corporation. Without limiting the manner by which notice may otherwise be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the Delaware General Corporation Law (the "DGCL"). In case of the death, absence, incapacity or refusal of the Secretary, such notice may be given by a person designated either by a Secretary or by the person or persons calling the meeting or by the Board of Directors. A waiver of such notice in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent to such notice. Attendance of a person at a meeting of stockholders shall constitute a waiver of notice of such meeting, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice. Notice of any meeting of the stockholders shall be deemed to have been given to any person who may become a stockholder of record after the mailing of such notice and prior to such meeting. Except as required by statute, notice of any adjourned meeting of the stockholders shall not be required.

SECTION 5. Voting List. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders, 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 ten days prior to the meeting, either at a place within the city or other municipality or community 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 thereof, and may be inspected by an stockholder who is present. The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by this section or the books of the corporation, or to vote at any meeting of stockholders.

SECTION 6. Quorum of Stockholders. At any meeting of the stockholders, the holders of a majority in interest of all stock issued and outstanding and entitled to vote upon a question to be considered at the meeting, present in person or represented by proxy, shall constitute a quorum for the consideration of such question, but a smaller group may adjourn any meeting from time to time. When a quorum is present at any meeting, a majority of the stock represented and entitled to vote at such meeting shall, except where a larger vote is required by law, by the certificate of incorporation, or by these by-laws, decide any question brought before such meeting. A nominee for director shall be elected to the Board of Directors if the number of votes cast for such nominee's election exceed the number of votes cast against such nominee's election; provided, however, that in a contested election a nominee shall be elected by a plurality of the vote cast by the stockholders entitled to vote on such election of directors. An election shall be considered contested if, as of the last date on which nominees for director may be submitted in accordance with these by-laws, the nominees for election to the Board of Directors exceeds the number of positions on the Board of Directors to be filled by election at that meeting. If an incumbent director is not re-elected, the director shall tender his or her resignation to the Board of Directors. The Nominating and Corporate Governance Committee of the Board of Directors (or any future committee the equivalent thereof) will make a recommendation to the Board of Directors on whether to accept or reject the resignation, or whether other action should be taken. The Board of Directors will act on the recommendation of such committee and will publicly disclose its decision within ninety (90) days from the date of the certification of the election results. An incumbent director who tenders his or her resignation may not participate in such decisions of the committee or the Board of Directors.

SECTION 7. Proxies and Voting. Each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the capital stock held of record by such stockholder, but no proxy shall be voted on after three years from its date, unless said proxy provides for a longer period. Persons holding stock in a fiduciary capacity shall be entitled to vote the shares so held, and persons whose stock is pledged shall be entitled to vote, unless in the transfer by the pledgor on the books of the corporation the pledgee shall have been expressly empowered to vote thereon, in which case only the pledgee or the pledgee's proxy may represent said stock and vote thereon. Shares of the capital stock of the corporation belonging to the corporation or to another corporation, a majority of whose shares entitled to vote in the election of directors is owned by the corporation, shall not be entitled to vote nor counted for quorum purposes.

SECTION 8. Conduct of Meeting. Meetings of the stockholders shall be presided over by one of the following officers in the order of seniority and in present and acting: the Chairman of the Board, if any, the Vice-Chairman of the Board, if any, the President, a Vice-President, or, if none of the foregoing is in office and present and acting, a chairman to be chosen by the stockholders. The Secretary of the corporation, if present, or an Assistant Secretary, shall act as secretary of every meeting, but if neither the Secretary nor an Assistant Secretary is present the chairman of the meeting shall appoint a secretary of the meeting.

SECTION 9. Action Without Meeting. Any action required or permitted to be taken at any annual or special meeting of stockholders of the corporation may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, is signed by the holders or by proxy for the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such action were present and voted. Prompt notice of the taking of corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

SECTION 10. Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors and the proposal of other business to be considered by the stockholders may be brought before an annual meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this by-law, who is entitled to vote at the meeting, who is present (in person or by proxy) at the meeting and who complies with the notice procedures set forth in this by-law as to such nomination or business. For the avoidance of doubt, the foregoing clause (ii) shall be the exclusive means for a stockholder to bring nominations or business properly before an annual meeting (other than matters properly brought under Rule 14a-8 (or any successor rule) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), and such stockholder must comply with the notice and other procedures set forth in Article I, Section 10(a)(2) and (3) of this by-law to bring such nominations or business properly before an annual meeting. In addition to the other requirements set forth in this by-law, for any proposal of business to be considered at an annual meeting, it must be a proper subject for action by stockholders of the Corporation under Delaware law.

(2) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (ii) of Article I, Section 10(a)(1) of this by-law, the stockholder must (i) have given Timely Notice (as defined below) thereof in writing to the Secretary of the Corporation, and (ii) together with the beneficial owner(s), if any, on whose behalf the nomination or business proposal is made, have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by this by-law. To be timely, a stockholder's written notice shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the sixtieth (60th) day nor earlier than the close of business on the ninetieth (90th) day prior to the one-year anniversary of the preceding year's annual meeting; provided, however, that in the event the annual meeting is first convened more than thirty (30) days before or more than sixty (60) days after such anniversary date, or if no annual meeting were held in the preceding year, notice by the stockholder to be timely must be received by the Secretary of the Corporation not later than the close of business on the later of the ninetieth (90th) day prior to the scheduled date of such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods shall be referred to as "Timely Notice"). Such stockholder's Timely 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 in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under 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 each Proposing Person (as defined below);

(C)(i) the name and address of the stockholder giving the notice, as they appear on the Corporation's books, and the names and addresses of the other Proposing Persons (if any) and (ii) as to each Proposing Person, the following information: (a) the class or series and number of all shares of capital stock of the Corporation which are, directly or indirectly, owned beneficially or of record by such Proposing Person or any of its affiliates or associates (as such terms are defined in Rule 12b-2 promulgated under the Exchange Act), including any shares of any class or series of capital stock of the Corporation as to which such Proposing Person or any of its affiliates or associates has a right to acquire beneficial ownership at any time in the future, (b) all Synthetic Equity Interests (as defined below) in which such Proposing Person or any of its affiliates or associates, directly or indirectly, holds an interest including a description of the material terms of each such Synthetic Equity Interest, including without limitation, identification of the counterparty to each such Synthetic Equity Interest and disclosure, for each such Synthetic Equity Interest, as to (x) whether or not such Synthetic Equity Interest conveys any voting rights, directly or indirectly, in such shares to such Proposing Person, (y) whether or not such Synthetic Equity Interest is required to be, or is capable of being, settled through delivery of such shares and (z) whether or not such Proposing Person and/or, to the extent known, the counterparty to such Synthetic Equity Interest has entered into other transactions that hedge or mitigate the economic effect of such Synthetic Equity Interest, (c) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (d) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, and (e) any performance-related fees (other than an asset based fee) that such Proposing Person, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Synthetic Equity Interests (the disclosures to be made pursuant to the foregoing clauses (a) through (e) are referred to, collectively, as "Material Ownership Interests") and (iii) a description of the material terms of all agreements, arrangements or understandings (whether or not in writing) entered into by any Proposing Person or any of its affiliates or associates with any other person for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Corporation;

(D)(i) a description of all agreements, arrangements or understandings by and among any of the Proposing Persons, or by and among any Proposing Persons and any other person (including with any proposed nominee(s)), pertaining to the nomination(s) or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), and (ii) identification of the names and addresses of other stockholders (including beneficial owners) known by any of the Proposing Persons to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s); and

(E) a statement whether or not the stockholder giving the notice and/or the other Proposing Person(s), if any, will deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to approve the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by such Proposing Person to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder (such statement, the "Solicitation Statement").

For purposes of this Article I of these by-laws, the term "Proposing Person" shall mean the following persons: (i) the stockholder of record providing the notice of nominations or business proposed to be brought before a stockholders' meeting, and (ii) the beneficial owner(s), if different, on whose behalf the nominations or business proposed to be brought before a stockholders' meeting is made. For purposes of this Section 10 of Article I of these by-laws, the term "Synthetic Equity Interest" shall mean any transaction, agreement or arrangement (or series of transactions, agreements or arrangements), including, without limitation, any derivative, swap, hedge, repurchase or so-called "stock borrowing" agreement or arrangement, the purpose or effect of which is to, directly or indirectly: (a) give a person or entity economic benefit and/or risk similar to ownership of shares of any class or series of capital stock of the Corporation, in whole or in part, including due to the fact that such transaction, agreement or arrangement provides, directly or indirectly, the opportunity to profit or avoid a loss from any increase or decrease in the value of any shares of any class or series of capital stock of the Corporation, (b) mitigate loss to, reduce the economic risk of or manage the risk of share price changes for, any person or entity with respect to any shares of any class or series of capital stock of the Corporation, (c) otherwise provide in any manner the opportunity to profit or avoid a loss from any decrease in the value of any shares of any class or series of capital stock of the Corporation, or (d) increase or decrease the voting power of any person or entity with respect to any shares of any class or series of capital stock of the Corporation.

(3) Notwithstanding anything in the second sentence of Article I, Section 10(a)(2) of this by-law to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the Corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with the second sentence of Article I, Section 10(a)(2), a stockholder's notice required by this by-law shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary 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) General.

(1) Only such persons who are nominated in accordance with the provisions of this by-law shall be eligible for election and to serve as directors and only such business shall be conducted at an annual meeting as shall have been brought before the meeting in accordance with the provisions of this by-law or in accordance with Rule 14a-8 under the Exchange Act. The Board of Directors or a designated committee thereof shall have the power to determine whether a nomination or any business proposed to be brought before the meeting was made in accordance with the provisions of this by-law.

(2) Except as otherwise required by law, nothing in this Article I, Section 10 shall obligate the Corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the Corporation or the Board of Directors information with respect to any nominee for director or any other matter of business submitted by a stockholder.

(3) Notwithstanding the foregoing provisions of this Article I, Section 10, if the nominating or proposing stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting to present a nomination or any business, such nomination or business shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Article I, Section 10, to be considered a qualified representative of the proposing stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, to the presiding officer at the meeting of stockholders.

(4) For purposes of this by-law, "public announcement" shall mean disclosure in a press release reported by the Dow Jones Newswire, Bloomberg, GlobeNewswire, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(5) Notwithstanding the foregoing provisions of this by-law, 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 in this by-law. Nothing in this by-law shall be deemed to affect any rights of stockholders to have proposals included in the Corporation's proxy statement pursuant to Rule 14a-8 (or any successor rule), as applicable, under the Exchange Act and, to the extent required by such rule, have such proposals considered and voted on at an annual meeting.

ARTICLE II
DIRECTORS

SECTION 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 which are not by law required to be exercised by the stockholders. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board until the vacancy is filled.

SECTION 2. Number; Election; Tenure and Qualification. The initial Board of Directors shall consist of three persons and shall be elected by the incorporator. Thereafter, the number of directors which shall constitute the whole Board shall be fixed by resolution of the stockholders or the Board of Directors, but in no event shall be less than one. Each director shall be elected by the stockholders at the annual meeting and all directors shall hold office until the next annual meeting and until their successors are elected and qualified, or until their earlier death, resignation or removal. The number of directors may be increased or decreased by action of the stockholders or the Board of Directors. Directors need not be stockholders of the corporation.

SECTION 3. Enlargement of the Board. The number of the Board of Directors may be increased at any time, such increase to be effective immediately, by resolution of the stockholders or the Board of Directors.

SECTION 4. Vacancies. Any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board and an unfilled vacancy resulting from an enlargement of the Board and an unfilled vacancy resulting from the removal of any director for cause or without cause, may be filled by resolution of the Board. A director elected to fill a vacancy shall hold office until the next annual meeting of stockholders and until his or her successor is elected and qualified or until his or her earlier death, resignation or removal. When one or more directors shall resign from the Board, effective at a future date, the Board, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective. If at any time there are no directors in office, then an election of directors may be held in accordance with the General Corporation Law of the State of Delaware.

SECTION 5. Resignation. Any director may resign at any time upon written notice to the corporation. Such resignation shall take effect at the time specified therein, or if no time is specified, at the time of its receipt by the President or Secretary.

SECTION 6. Removal. Except as may otherwise be provided by the General Corporation Law, any director or the entire Board of Directors may be removed, with or without cause, at an annual meeting or at a special meeting called for that purpose, by the holders of a majority of the shares then entitled to vote at an election of directors. The vacancy or vacancies thus created may be filled by the stockholders at the meeting held for the purpose of removal.

SECTION 7. Committees. The Board of Directors may, by resolution or resolutions passed by a majority of the whole Board of Directors, designate one or more committees, each committee to consist of two or more 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 the committee. In the absence or disqualification of any member of such committee or committees, the member or members thereof 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 the meeting in the place of such absent or disqualified member.

A majority of all the members of any such committee may fix its rules of procedure, determine its action and fix the time and place, whether within or without the State of Delaware, of its meetings and specify what notice thereof, if any, shall be given, unless the Board of Directors shall otherwise by resolution provide. The Board of Directors shall have the power to change the members of any such committee at any time, to fill vacancies therein and to discharge any such committee, either with or without cause, at any time.

Any such committee, unless otherwise provided in the resolution of the Board of Directors, or in these by-laws, 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; but no such committee shall have such power or authority in reference to amending the certificate of incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, recommending a dissolution of the corporation or a revocation of a dissolution, or amending the by-laws of the corporation, and, unless the resolution or these by-laws expressly so provide, no such committee shall have the power or the authority to declare a dividend or to authorize the issuance of stock.

Each committee shall keep regular minutes of its meetings and make such reports as the Board of Directors may from time to time request.

SECTION 8. Meetings of the Board of Directors. Regular meetings of the Board of Directors may be held without call or formal notice at such places either within or without the State of Delaware and at such times as the Board may by vote from time to time determine. A regular meeting of the Board of Directors may be held without call or formal notice immediately after and at the same place as the annual meeting of the stockholders, or any special meeting of the stockholders at which a Board of Directors is elected.

Special meetings of the Board of Directors may be held at any place either within or without the State of Delaware at any time when called by the Chairman of the Board of Directors, the President, Treasurer, Secretary, or two or more directors. Reasonable notice of the time and place of a special meeting shall be given to each director unless such notice is waived by attendance or by written waiver in the manner provided in these by-laws for waiver of notice of stockholders. No notice of any adjourned meeting of the Board of Directors shall be required. In any case it shall be deemed sufficient notice to a director to send notice by mail at least seventy-two hours, or by telegram at least forty-eight hours, before the meeting, addressed to such director at his or her usual or last known business or home address.

Directors or members of any committee designated by the directors may participate in a meeting of the Board of Directors or such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

SECTION 9. Quorum and Voting. A majority of the total number of directors shall constitute a quorum, except that when a vacancy or vacancies exist in the Board, a majority of the directors then in office (but not less than one-third of the total number of the directors) shall constitute a quorum, and except that a lesser number of directors consisting of a majority of the directors then in office who are not officers (but not less than one-third of the total number of directors) may constitute a quorum for the purpose of acting on any matter relating to the

compensation (including fringe benefits) of an officer of the corporation. A majority of the directors present, whether or not a quorum is present, may adjourn any meeting from time to time. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board of Directors, except where a different vote is required or permitted by law, by the certificate of incorporation, or by these by-laws.

SECTION 10. Compensation. The Board of Directors may fix fees for their services and for their membership on committees, and expenses of attendance may be allowed for attendance at each meeting. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent or otherwise, and receiving compensation therefor.

SECTION 11. Action Without Meeting. Any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting, and without notice, if a written consent thereto is signed by all members of the Board of Directors, or of such committee, as the case may be, and such written consent is filed with the minutes of proceedings of the Board of Directors or such committee.

ARTICLE III
OFFICERS

SECTION 1. Titles. 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 without limitation a Chairman of the Board, a Vice-Chairman of the Board, and one or more Vice-Presidents, Assistant Treasurers, or Assistant Secretaries.

SECTION 2. Election and Term of Office. The officers of the corporation shall be elected annually by the Board of Directors at its first meeting following the annual meeting of the stockholders. Each officer shall hold office until his or her successor is elected and qualified, unless a different term is specified in the vote electing such officer, or until his or her earlier death, resignation or removal.

SECTION 3. Qualification. Unless otherwise provided by resolution of the Board of Directors, no officer, other than the Chairman or Vice-Chairman of the Board, need be a director. No officer need be a stockholder. Any number of offices may be held by the same person, as the directors shall determine, but no person may hold the offices of President and Secretary simultaneously.

SECTION 4. Removal. Any officer may be removed, with or without cause, at any time, by resolution adopted by the Board of Directors.

SECTION 5. Resignation. Any officer may resign by delivering a written resignation to the corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt or at such later time as shall be specified therein.

SECTION 6. Vacancies. The Board of Directors may at any time fill any vacancy occurring in any office for the unexpired portion of the term and may leave unfilled for such period as it may determine any office other than those of President, Treasurer and Secretary.

SECTION 7. Powers and Duties. The officers of the corporation shall have such powers and perform such duties as are specified herein and as may be conferred upon or assigned to them by the Board of Directors, and shall have such additional powers and duties as are incident to their office except to the extent that resolutions of the Board of Directors are inconsistent therewith.

SECTION 8. President and Vice-Presidents. The President shall be the chief executive officer of the corporation, shall preside at all meetings of the stockholders and the Board of Directors unless a Chairman or Vice-Chairman of the Board is elected by the Board, empowered to preside, and present at such meeting, shall have general and active management of the business of the corporation and general supervision of its officers, agents and employees, and shall see that all orders and resolutions of the Board of Directors are carried into effect.

In the absence of the President or in the event of his or her inability or refusal to act, the Vice-President if any (or in the event there be more than one Vice-President, the Vice-Presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and

when so acting, 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.

SECTION 9. Secretary and Assistant Secretaries. The Secretary shall attend all meetings of the Board of Directors and of the stockholders and record all the proceedings of such meetings in a book to be kept for that purpose, shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, shall maintain a stock ledger and prepare lists of stockholders and their addresses as required and shall have custody of the corporate seal which the Secretary or any Assistant Secretary shall have authority to affix to any instrument requiring it and attest by any of their signatures. The Board of Directors may give general authority to any other officer to affix and attest the seal of the corporation.

The Assistant Secretary if any (or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors of if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of the Secretary's inability or refusal to act, perform the duties and exercise the powers of the Secretary.

SECTION 10. Treasurer and Assistant Treasurers. The Treasurer shall have the custody of the corporate funds and securities, shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the corporation as may be ordered by the Board of Directors or the President, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or whenever they may require it, an account of all transactions and of the financial condition of the corporation.

The Assistant Treasurer if any (or if there be more than one, the Assistant Treasurers in the order determined by the Board of Directors or if there be no such determination, then in the order of their election) shall, in the absence of the Treasurer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Treasurer.

SECTION 11. Bonded Officers. The Board of Directors may require any officer to give the corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors upon such terms and conditions as the Board of Directors may specify, including without limitation a bond for the faithful performance of the duties of such officer and for the restoration to the corporation of all property in his or her possession or control belonging to the corporation.

SECTION 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.

ARTICLE IV
STOCK

SECTION 1. Certificates of Stock. One or more certificates of stock, signed by the Chairman or Vice-Chairman of the Board of Directors or by the President or Vice-President and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary, shall be issued to each stockholder certifying, in the aggregate, the number of shares owned by the stockholder in the corporation. Any or all signatures on any such certificate may be facsimile. In case any officer who shall have signed or whose facsimile signature shall have been placed upon a certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer at the date of issue.

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 the certificate either the full text of the restriction or a statement of the existence of such restriction.

SECTION 2. Transfer of Share of Stock. Subject to the restrictions, if any, stated or noted on the stock certificates, 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. 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 that stock, regardless of any transfer, pledge or other disposition of that stock, until the shares have been transferred on the books of the corporation in accordance with the requirements of these by-laws.

SECTION 3. Lost Certificates. A new certificate of stock may be issued in the place of any certificate theretofore issued by the corporation and alleged to have been lost, stolen, destroyed, or mutilated, upon such terms in conformity with law as the Board of Directors shall prescribe. The directors may, in their discretion, require the owner of the lost, stolen, destroyed or mutilated certificate, or the owner's legal representatives, to give the corporation a bond, in such sum as they may direct, to indemnify the corporation against any claim that may be made against it on account of the alleged loss, theft, destruction or mutilation of any such certificate, or the issuance of any such new certificate.

SECTION 4. Record Date. The Board of Directors may fix in advance a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or to express consent to corporate action in writing without a meeting, 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 entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is expressed. 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.

SECTION 5. Fractional Share Interests. The corporation may, but shall not be required to, issue fractions of a share. If the corporation does not issue fractions of a share, it shall (1) arrange for the disposition of fractional interests by those entitled thereto, (2) pay in cash the fair value of fractions are determined, or (3) issue scrip or warrants in registered or bearer form which shall entitle the holder to receive a certificate for a full share upon the surrender of such scrip or warrants aggregating a full share. A certificate for a fractional share shall, but scrip or warrants shall not unless otherwise provided therein, entitle the holder to exercise voting rights, to receive dividends thereon, and to participate in any of the assets of the corporation in the event of liquidation. The Board of Directors may cause scrip or warrants to be issued subject to the conditions that they shall become void if not exchanged for certificates representing full shares before a specified date, or subject to the conditions that the shares for which scrip or warrants are exchangeable may be sold by the corporation and the proceeds thereof distributed to the holders of scrip or warrants, or subject to any other conditions which the Board of Directors may impose.

SECTION 6. Dividends. Subject to the provisions of the certificate of incorporation, the Board of Directors may, out of funds legally available therefor, at any regular or special meeting, declare dividends upon the common stock of the corporation as and when they deem expedient.

ARTICLE V
INDEMNIFICATION AND INSURANCE

SECTION 1. Indemnification. The corporation shall, to the full extent permitted by the General Corporation Law of the State of Delaware, as amended from time to time, and the certificate of incorporation, indemnify each person whom it may indemnify pursuant thereto.

SECTION 2. Insurance. The corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of the General Corporation Law of the State of Delaware.

ARTICLE VI
GENERAL PROVISIONS

SECTION 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 January and end on the last day of December.

SECTION 2. Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors. The Secretary shall be the custodian of the seal. The Board of Directors may authorize a duplicate seal to be kept and used by any other officer.

SECTION 3. 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 in effect from time to time.

SECTION 4. Execution of Instruments. The President, any Vice-President, or the Treasurer shall have power to execute and deliver on behalf and in the name of the corporation any instrument requiring the signature of an officer of the corporation, including deeds, contracts, mortgages, bonds, notes, debentures, checks, drafts, and other orders for the payment of money. In addition, the Board of Directors may expressly delegate such powers to any other officer or agent of the corporation.

SECTION 5. Voting of Securities. Except as the directors may otherwise designate, the President or Treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at any meeting of stockholders or shareholders of any other corporation or organization the securities of which may be held by this corporation.

SECTION 6. 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 that action.

SECTION 7. 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 that reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because the vote of any such director is counted for such purpose, if:

(1) The material facts as to the 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 votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(2) The material facts as to the relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote therein, and the contract or transaction is approved by 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.

SECTION 8. Books and Records. The books and records of the corporation shall be kept at such places within or without the State of Delaware as the Board of Directors may from time to time determine.

ARTICLE VII
AMENDMENTS

SECTION 1. By the Stockholders or the Board of Directors. These by-laws may be altered, amended or repealed by the affirmative vote of the holders of a majority of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at any regular meeting of stockholders, or at any special meeting of stockholders provided notice of such alteration, amendment, repeal or adoption of new by-laws shall have been stated in the notice of such special meeting. These by-laws also may be altered, amended or repealed by a vote of the majority of the Board of Directors; provided, however, that the Board of Directors shall not have power to alter, amend or repeal the provisions of Section 6 of Article I, Section 1 of Article V or this Article VII of the by-Laws and provided, further, that the Board of Directors may not alter, amend or repeal any amendment to these by-laws adopted by the stockholders after May 18, 2017.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 27, 2021

REPLIGEN CORPORATION
(Exact name of registrant as specified in charter)

Delaware	000-14656	04-2729386
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

41 Seyon Street, Bldg. 1, Suite 100, Waltham, MA 02453
(Address of Principal Executive Offices) (Zip Code)

(781) 250-0111
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	**RGEN**	**The Nasdaq Global Select Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 5.03 Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.

On January 27, 2021, the Board of Directors (the "Board") of Repligen Corporation (the "Company") approved the amendment and restatement of the Company's Bylaws (as so amended, the "Third Amended and Restated Bylaws"), which took effect immediately. The Third Amended and Restated Bylaws supersede the previously existing Second Amended and Restated Bylaws, which took effect on May 18, 2017.

The Third Amended and Restated Bylaws were amended to implement "stockholder proxy access." Under Article I, Section 11 of the Third Amended and Restated Bylaws, a stockholder, or group of up to 20 stockholders, may nominate up to twenty percent (20%) of the number of directors then in office, rounded down to the nearest whole number and subject to other stated reductions, if the stockholder or group has owned at least three percent (3%) of the Company's common stock continuously for at least three years and satisfies certain eligibility, procedural and disclosure requirements set forth in the Third Amended and Restated Bylaws. A proxy access nomination must be made not earlier than 150 days nor later than 120 days prior to the first anniversary of the date of the proxy statement for the preceding year's annual meeting of stockholders.

The foregoing summary and description of the provisions of the Third Amended and Restated Bylaws does not purport to be complete and is qualified in its entirety by reference to the full text of the Third Amended and Restated Bylaws, a copy of which is filed as Exhibit 3.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No	Description
3.1	Third Amended and Restated Bylaws
104	Cover page from this Current Report on Form 8-K, formatted in Inline XBRL

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

REPLIGEN CORPORATION

Dated: January 28, 2021

By: /s/ Tony J. Hunt
Tony J. Hunt
President and Chief Executive Officer

Exhibit 3.1

THIRD AMENDED AND RESTATED BY-LAWS OF

REPLIGEN CORPORATION

ARTICLE I STOCKHOLDERS

SECTION 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 Board of Directors or, if not so designated, at the principal office of Repligen Corporation (the "Corporation").

SECTION 2. Annual Meeting. The annual meeting of stockholders of the election of directors and the transaction of such other business as may properly come before the meeting shall be held at 10 a m. on the last Thursday in July of each year or on such other date or at such hour as may be specified by resolution of the Board of Directors. If the date of the annual meeting shall fall upon a legal holiday at the place of the meeting, the meeting shall be held at the same hour on the next succeeding business day. If the annual meeting is not held on the date designated therefor, the directors shall cause the meeting to be held as soon thereafter as convenient.

SECTION 3. Special Meetings. Special meetings of the stockholders may be called at any time by the President, the Chairman or the Board of Directors; and shall be called by the Secretary or any officer upon the written request of one or more stockholders holding, in the aggregate, at least 30% of the outstanding shares of stock of the Corporation entitled to vote at such meeting. Such written request shall state the purpose or purposes of the proposed 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.

SECTION 4. Notice of Meetings. Except where some other notice is required by law, written notice of each meeting of stockholders, stating the place, date and hour thereof and the purposes for which the meeting is called, shall be given by or under the direction of the Secretary, not less than ten nor more than sixty days before the date fixed for such meeting, to each stockholder entitled to vote at such meeting of record at the close of business on the day fixed by the Board of Directors as a record date for the determination of the stockholders entitled to vote at such meeting or, if not such date has been fixed, of record at the close of business on the day before the day on which notice is given. Notice shall be given personally to each stockholder or left at his or her residence or usual place of business or mailed postage prepaid and addressed to the stockholder at his or her address as it appears upon the records of the Corporation. Without limiting the manner by which notice may otherwise be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the Delaware General Corporation Law (the "DGCL"). In case of the death, absence, incapacity or refusal of the Secretary, such notice may be given by a person designated either by a Secretary or by the person or persons calling the meeting or by the Board of Directors. A waiver of such notice in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent to such notice. Attendance of a person at a meeting of stockholders shall constitute a waiver of notice of such meeting, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice. Notice of any meeting of the stockholders shall be deemed to have been given to any person who may become a stockholder of record after the mailing of such notice and prior to such meeting. Except as required by statute, notice of any adjourned meeting of the stockholders shall not be required.

SECTION 5. Voting List. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders, 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 ten days prior to the meeting, either at a place within the city or other municipality or community 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 thereof, and may be inspected by any stockholder who is present. The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by this section or the books of the Corporation, or to vote at any meeting of stockholders.

SECTION 6. Quorum of Stockholders. At any meeting of the stockholders, the holders of a majority in interest of all stock issued and outstanding and entitled to vote upon a question to be considered at the meeting, present in person or represented by proxy, shall constitute a quorum for the consideration of such question, but a smaller group may adjourn any meeting from time to time. When a quorum is present at any meeting, a majority of the stock represented and entitled to vote at such meeting shall, except where a larger vote is required by law, by the certificate of incorporation, or by these by-laws, decide any question brought before such meeting. A nominee for director shall be elected to the Board of Directors if the number of votes cast for such nominee's election exceed the number of votes cast against such nominee's election; provided, however, that in a contested election a nominee shall be elected by a plurality of the vote cast by the stockholders entitled to vote on such election of directors. An election shall be considered contested if, as of the last date on which nominees for director may be submitted in accordance with these by-laws, the nominees for election to the Board of Directors exceeds the number of positions on the Board of Directors to be filled by election at that meeting. If an incumbent director is not re-elected, the director shall tender his or her resignation to the Board of Directors. The Nominating and Corporate Governance Committee of the Board of Directors (or any future committee the equivalent thereof) will make a recommendation to the Board of Directors on whether to accept or reject the resignation, or whether other action should be taken. The Board of Directors will act on the recommendation of such committee and will publicly disclose its decision within ninety (90) days from the date of the certification of the election results. An incumbent director who tenders his or her resignation may not participate in such decisions of the committee or the Board of Directors.

SECTION 7. Proxies and Voting. Each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the capital stock held of record by such stockholder, but no proxy shall be voted on after three years from its date, unless said proxy provides for a longer period. Persons holding stock in a fiduciary capacity shall be entitled to vote the shares so held, and persons whose stock is pledged shall be entitled to vote, unless in the transfer by the pledgor on the books of the Corporation the pledgee shall have been expressly empowered to vote thereon, in which case only the pledgee or the pledgee's proxy may represent said stock and vote thereon. Shares of the capital stock of the Corporation belonging to the Corporation or to another corporation, a majority of whose shares entitled to vote in the election of directors is owned by the Corporation, shall not be entitled to vote nor counted for quorum purposes.

SECTION 8. Conduct of Meeting. Meetings of the stockholders shall be presided over by one of the following officers in the order of seniority and in present and acting: the Chairman of the Board, if any, the Vice-Chairman of the Board, if any, the President, a Vice-President, or, if none of the foregoing is in office and present and acting, a chairman to be chosen by the stockholders. The Secretary of the Corporation, if present, or an Assistant Secretary, shall act as secretary of every meeting, but if neither the Secretary nor an Assistant Secretary is present the chairman of the meeting shall appoint a secretary of the meeting.

SECTION 9. Action Without Meeting. Any action required or permitted to be taken at any annual or special meeting of stockholders of the Corporation may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, is signed by the holders or by proxy for the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such action were present and voted. Prompt notice of the taking of corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

SECTION 10. Notice of Stockholder Business and Nominations Outside of Proxy Access.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors and the proposal of other business to be considered by the stockholders may be brought before an annual meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who (A) was a stockholder of record at the time of giving of notice provided for in Section 10 or Section 11 of this Article I, (B) is entitled to vote at the meeting, (C) is present (in person or by proxy) at the meeting, and (D) complies with the notice procedures set forth in Section 10 or Section 11 of this Article I as to such nomination or business. For the avoidance of doubt, the foregoing clause (ii) shall be the exclusive means for a stockholder to bring nominations or business properly before an annual meeting (other than matters properly brought under Rule 14a-8 (or any successor rule) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), and such stockholder must comply with the notice and other procedures set forth in Article I, Section 10(a)(2) and (3) or Article I, Section 11 of this by-law to bring such nominations or business properly before an annual meeting. In addition to the other requirements set forth in this by-law, for any proposal of business to be considered at an annual meeting, it must be a proper subject for action by stockholders of the Corporation under Delaware law.

(2) For nominations (other than nominations pursuant to Article I, Section 11) or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (ii) of Article I, Section 10(a)(1) of this by-law, the stockholder must (i) have given Timely Notice (as defined below) thereof in writing to the Secretary of the Corporation, and (ii) together with the beneficial owner(s), if any, on whose behalf the nomination or business proposal is made, have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by this by-law. To be timely, a stockholder's written notice shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the sixtieth (60th) day nor earlier than the close of business on the ninetieth (90th) day prior to the one-year anniversary of the preceding year's annual meeting; provided, however, that in the event the annual meeting is first convened more than thirty (30) days before or more than sixty (60) days after such anniversary date, or if no annual meeting were held in the preceding year, notice by the stockholder to be timely must be received by the Secretary of the Corporation not later than the close of business on the later of the ninetieth (90th) day prior to the scheduled date of such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods shall be referred to as "Timely Notice"). Such stockholder's Timely 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 in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under 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 each Proposing Person (as defined below);

(C)(i) the name and address of the stockholder giving the notice, as they appear on the Corporation's books, and the names and addresses of the other Proposing Persons (if any) and (ii) as to each Proposing Person, the following information: (a) the class or series and number of all shares of capital stock of the Corporation which are, directly or indirectly, owned beneficially or of record by such Proposing Person or any of its affiliates or associates (as such terms are defined in Rule 12b-2 promulgated under the Exchange Act), including any shares of any class or series of capital stock of the Corporation as to which such Proposing Person or any of its affiliates or associates has a right to acquire beneficial ownership at any time in the future, (b) all Synthetic Equity Interests (as defined below) in which such Proposing Person or any of its affiliates or associates, directly or indirectly, holds an interest including a description of the material terms of each such Synthetic Equity Interest, including without limitation, identification of the counterparty to each such Synthetic Equity Interest and disclosure, for each such Synthetic Equity Interest, as to (x) whether or not such Synthetic Equity Interest conveys any voting rights, directly or indirectly, in such shares to such Proposing Person, (y) whether or not such Synthetic Equity Interest is required to be, or is capable of being, settled through delivery of such shares and (z) whether or not such Proposing Person and/or, to the extent known, the counterparty to such Synthetic Equity Interest has entered into other transactions that hedge or mitigate the economic effect of such Synthetic Equity Interest, (c) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (d) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, and (e) any performance-related fees (other than an asset based fee) that such Proposing Person, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Synthetic Equity Interests (the disclosures to be made pursuant to the foregoing clauses (a) through (e) are referred to, collectively, as "Material Ownership Interests") and (iii) a description of the material terms of all agreements, arrangements or understandings (whether or not in writing) entered into by any Proposing Person or any of its affiliates or associates with any other person for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Corporation;

(D)(i) a description of all agreements, arrangements or understandings by and among any of the Proposing Persons, or by and among any Proposing Persons and any other person (including with any proposed nominee(s)), pertaining to the nomination(s) or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), and (ii) identification of the names and addresses of other stockholders (including beneficial owners) known by any of the Proposing Persons to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s); and

(E) a statement whether or not the stockholder giving the notice and/or the other Proposing Person(s), if any, will deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to approve the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by such Proposing Person to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder (such statement, the "Solicitation Statement").

For purposes of this Article I of these by-laws, the term "Proposing Person" shall mean the following persons: (i) the stockholder of record providing the notice of nominations or business proposed to be brought before a stockholders' meeting, and (ii) the beneficial owner(s), if different, on whose behalf the nominations or business proposed to be brought before a stockholders' meeting is made. For purposes of this Section 10 of Article I of these by-laws, the term "Synthetic Equity Interest" shall mean any transaction, agreement or arrangement (or series of transactions, agreements or arrangements), including, without limitation, any derivative, swap, hedge, repurchase or so-called "stock borrowing" agreement or arrangement, the purpose or effect of which is to, directly or indirectly: (a) give a person or entity economic benefit and/or risk similar to ownership of shares of any class or series of capital stock of the Corporation, in whole or in part, including due to the fact that such transaction, agreement or arrangement provides, directly or indirectly, the opportunity to profit or avoid a loss from any increase or decrease in the value of any shares of any class or series of capital stock of the Corporation, (b) mitigate loss to, reduce the economic risk of or manage the risk of share price changes for, any person or entity with respect to any shares of any class or series of capital stock of the Corporation, (c) otherwise provide in any manner the opportunity to profit or avoid a loss from any decrease in the value of any shares of any class or series of capital stock of the Corporation, or (d) increase or decrease the voting power of any person or entity with respect to any shares of any class or series of capital stock of the Corporation.

(3) Notwithstanding anything in the second sentence of Article I, Section 10(a)(2) of this by-law to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the Corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with the second sentence of Article I, Section 10(a)(2), a stockholder's notice required by this by-law shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary 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) General.

(1) Only such persons who are nominated in accordance with the provisions of Section 10 or Section 11 of this Article I shall be eligible for election and to serve as directors and only such business shall be conducted at an annual meeting as shall have been brought before the meeting in accordance with the provisions of Section 10 or Section 11 of this Article I or in accordance with Rule 14a-8 under the Exchange Act. The Board of Directors or a designated committee thereof shall have the power to determine whether a nomination or any business proposed to be brought before the meeting was made in accordance with the provisions of this by-law. If the Board of Directors or a designated committee thereof determinates that any stockholder proposal or nomination was not made in accordance with the provisions of this by-law, such proposal or nomination shall be disregarded and shall not be presented for action at the annual meeting.

(2) Except as otherwise required by law or Article I, Section 11 of these by-laws, nothing in this Article I, Section 10 shall obligate the Corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the Corporation or the Board of Directors information with respect to any nominee for director or any other matter of business submitted by a stockholder.

(3) Notwithstanding the foregoing provisions of this Article I, Section 10, if the nominating or proposing stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting to present a nomination or any business, such nomination or business shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Article I, Section 10, to be considered a qualified representative of the proposing stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, to the presiding officer at the meeting of stockholders.

(4) For purposes of this by-law, “public announcement” shall mean disclosure in a press release reported by the Dow Jones Newswire, Bloomberg, GlobeNewswire, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(5) Notwithstanding the foregoing provisions of this by-law, 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 in this by-law. Nothing in this by-law shall be deemed to affect any rights of stockholders to have proposals included in the Corporation’s proxy statement pursuant to Rule 14a-8 (or any successor rule), as applicable, under the Exchange Act and, to the extent required by such rule, have such proposals considered and voted on at an annual meeting.

SECTION 11. Proxy Access Rights.

(a) Proxy Access Nomination.

(1) Whenever the Board of Directors solicits proxies with respect to the election of directors at an annual meeting of stockholders, nominations of individuals for election to the Board of Directors at such annual meeting may be made by (A) a stockholder or (B) a group of no more than 20 stockholders that satisfy the requirements of this Section 11 (as further qualified by the provisions of this Section 11, any such individual or group, including as the context requires each member thereof, being hereinafter referred to as an “Eligible Stockholder”). The nomination provisions set forth in this Section 11 are separate from, and in addition to, the nomination provisions set forth in Article I, Section 10. Subject to the provisions of this Section 11 and to the extent permitted by applicable law, the Corporation shall include in its proxy materials for such annual meeting, in addition to any persons nominated for election by, or at the direction of, a majority of the Board of Directors, the name, together with the Required Information (as defined below), of any person nominated for election (each such person being hereinafter referred to as a “Stockholder Nominee”) to the Board of Directors by an Eligible Stockholder pursuant to this Section 11.

(2) For purposes of this Section 11, the “Required Information” that the Corporation will include in its proxy materials is (A) the information concerning the Stockholder Nominee and the Eligible Stockholder that is required to be disclosed in the Corporation’s proxy statement by the rules and regulations promulgated under the Exchange Act, by these by-laws, by the certificate of incorporation and/or by the listing standards of each principal United States exchange upon which the common stock of the Corporation is listed and (B) the written statement, if any, consisting of five hundred (500) words or less delivered by the Eligible Stockholder pursuant to procedures set forth in Section 11(d)(4), in support of the Stockholder Nominee’s candidacy that is clearly and specifically identified as the written statement that the Eligible Stockholder requests the Corporation to include in its proxy materials and does not include any references to any other statements or written materials in support of the Stockholder Nominee’s candidacy or any website or other locations where any such statements or written materials may be found (the “Statement”). If the Eligible Stockholder has not provided to the Secretary a Statement within the time period specified in this Section 11 for delivering the Notice of Proxy Access Nomination, the Eligible Stockholder will be deemed to have not provided the Statement and the Required Information will not include the Statement. Notwithstanding anything to the contrary contained in this Section 11, the Corporation may omit from its proxy materials any information or Statement (or portion thereof) if the Corporation believes that (A) such information is not true in all material respects or omits a material statement necessary to make the statements made not misleading; (B) such information directly or indirectly impugns the character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any person; or (C) the inclusion of such information in the proxy statement would otherwise violate the Securities and Exchange Commission’s proxy rules or any other applicable law, rule or regulation.

(b) Notice Requirements.

(1) In order to nominate a Stockholder Nominee pursuant to this Section 11, an Eligible Stockholder must, in addition to satisfying the other requirements of Section 11, provide to the Secretary a written notice expressly nominating its Stockholder Nominee(s) and electing to have its Stockholder Nominee(s) included in the Corporation's proxy materials pursuant to this Section 11 that complies with the requirements set forth in this Section 11 (a "Notice of Proxy Access Nomination") within the time period set forth below. In order for an Eligible Stockholder to nominate a Stockholder Nominee pursuant to this Section 11, the Eligible Stockholder's Notice of Proxy Access Nomination must be received by the Secretary at the principal executive office of the Corporation not later than 5:00 p.m., Eastern Time, on the one hundred twentieth (120th) calendar day prior to the first anniversary of the date of the proxy statement for the preceding year's annual meeting of stockholders and not earlier than the one hundred fiftieth (150th) calendar day prior to the first anniversary of the date of the proxy statement for the preceding year's annual meeting of stockholders; *provided, however*, that in the event that the date of the annual meeting of stockholders is advanced or delayed by more than thirty (30) calendar days from the first (1st) anniversary of the date of the preceding year's annual meeting of stockholders, the Notice of Proxy Access Nomination to be timely must be delivered not earlier than the one hundred fiftieth (150th) calendar day prior to the date of such annual meeting of stockholders and not later than 5:00 p m., Eastern Time, on the later of the one hundred twentieth (120th) calendar day prior to the date of such annual meeting or the tenth (10th) calendar day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment, postponement or rescheduling of any previously scheduled meeting of stockholders, or the public announcement thereof, commence a new time period for the giving of a Notice of Proxy Access Nomination under this Section 11.

(2) In order to nominate a Stockholder Nominee pursuant to this Section 11, an Eligible Stockholder providing the Required Information within the time period specified in Section 11(b)(1) for delivering the Notice of Proxy Access Nomination must further update and supplement such Required Information, if necessary, so that all such information provided or required to be provided shall be true and correct as of the close of business on the record date for purposes of determining the stockholders entitled to vote at such annual meeting and as of the date that is ten (10) business days prior to such annual meeting, and such update and supplement (or a written notice stating that there is no such update or supplement) must be delivered in writing to the Secretary at the principal executive office of the Corporation not later than 5:00 p.m., Eastern Time, on the fifth (5th) business day after the record date for purposes of determining the stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of the record date), and not later than 5:00 p m., Eastern Time, on the fifth (5th) business day prior to the date for the meeting (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting).

(3) In the event that any of the information or communications provided by the Eligible Stockholder or the Stockholder Nominee to the Corporation or its stockholders ceases to be true and correct in all material respects or omits a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, each Eligible Stockholder or Stockholder Nominee, as the case may be, shall promptly notify the Secretary of any defect in such previously provided information or communications and of the information that is required to correct any such defect.

(c) Maximum Number of Stockholder Nominees.

(1) The maximum number of Stockholder Nominees nominated by all Eligible Stockholders that will be included in the Corporation's proxy materials with respect to an annual meeting shall not exceed twenty percent (20%) of the number of directors in office as of the last day on which a Notice of Proxy Access Nomination may be timely delivered pursuant to and in accordance with this Section 11 (the "Final Proxy Access Nomination Date"), rounded down to the nearest whole number; *provided that* the maximum number of Stockholder Nominees that will be included in the Corporation's proxy materials with respect to an annual meeting will be reduced by (A) each Stockholder Nominee whose nomination is withdrawn by the Eligible Stockholder nominating such Stockholder Nominee or who becomes unwilling to serve on the Board of Directors, (B) each Stockholder Nominee who ceases to satisfy, or each Stockholder Nominee of an Eligible Stockholder that ceases to satisfy, the eligibility requirements in this Section 11, as determined by the Board of Directors, (C) each Stockholder Nominee whose name is submitted for inclusion in the Corporation's proxy materials pursuant to this Section 11 but who the Board of Directors has nominated as a Board nominee, and (D) the number of incumbent directors who had been Stockholder Nominees at either of the preceding two (2) annual meetings of stockholders and whose reelection at the upcoming annual meeting of stockholders is being recommended by the Board of Directors.

(2) Any Eligible Stockholder submitting more than one Stockholder Nominee for inclusion in the Corporation's proxy materials pursuant to this Section 11 shall rank such Stockholder Nominees based on the order that the Eligible Stockholder desires such Stockholder Nominees to be selected for inclusion in the Corporation's proxy statement in the event that the total number of Stockholder Nominees submitted by Eligible Stockholders pursuant to this Section 11 exceeds the maximum number of Stockholder Nominees provided for in Section 11(c)(1) (including by operation of Section 11(c)(3)). In the event that the number of Stockholder Nominees submitted by Eligible Stockholders pursuant to this Section 11 for an annual meeting exceeds the maximum number of Stockholder Nominees provided for in Section 11(c)(1) (including by operation of Section 11(c)(3)), the highest ranking Stockholder Nominee who meets the requirements of this Section 11 from each Eligible Stockholder (with such determination and the determination of whether a stockholder or group of stockholders constitutes an Eligible Stockholder to be based on compliance with the provisions of this Section 11 as of the Final Proxy Access Nomination Date) will be selected for inclusion in the Corporation's proxy materials until the maximum number is reached, going in order from the largest to the smallest of such Eligible Stockholders based on the number of shares of common stock of the Corporation each Eligible Stockholder disclosed as owned by such Eligible Stockholder in the Notice of Proxy Access Nomination submitted to the Corporation hereunder. If the maximum number of Stockholder Nominees provided for in this Section 11 is not reached after the highest ranking Stockholder Nominee who meets the requirements of this Section 11 from each Eligible Stockholder determined in the manner set forth above has been selected, this selection process will continue as many times as necessary, following the same order each time, until the maximum number of Stockholder Nominees provided for in this Section 11 is reached. The Stockholder Nominees initially selected in accordance with this Section 11(c)(2) will be the only Stockholder Nominees eligible to be nominated or included in the Corporation's proxy materials pursuant to this Section 11. The Notices of Proxy Access Nomination and nominations of all of the remaining Stockholder Nominees not initially selected pursuant to this Section 11(c)(2) will be deemed to have been withdrawn by each of the applicable stockholders as of the Final Proxy Access Nomination Date, and, following such initial selection, if any one or more of the Stockholder Nominees so selected are (A) nominated by the Board of Directors or (B) not included in the Corporation's proxy materials or are not submitted for election for any reason, including, without limitation, a subsequent failure to comply with this Section 11 by the Eligible Stockholder or the Eligible Stockholder's withdrawal of the nomination, then, in each case, no additional Stockholder Nominees will be included in the Corporation's proxy materials or otherwise submitted for stockholder election pursuant to this Section 11.

(3) In the event that one or more vacancies for any reason occurs on the Board of Directors after the Final Proxy Access Nomination Date but before the date of the applicable annual meeting of stockholders and the Board of Directors reduces the size of the Board of Directors in connection therewith, the maximum number of Stockholder Nominees eligible to be nominated or included in the Corporation's proxy materials pursuant to this Section 11 shall be calculated based on the number of directors in office as so reduced. The Notices of Proxy Access Nomination and nominations of any Stockholder Nominees who cease to be eligible to be nominated or included in the Corporation's proxy materials pursuant to this Section 11 as a result of the operation of this Section 11(c)(3) will be deemed to have been withdrawn by each of the applicable Eligible Stockholders as of the Final Proxy Access Nomination Date.

(d) Stockholder Eligibility.

(1) For purposes of this Section 11, an Eligible Stockholder shall be deemed to "own" only those outstanding shares of common stock of the Corporation as to which the Eligible Stockholder possesses both (A) the entire voting and investment rights pertaining to the shares and (B) the entire economic interest in (including the opportunity for profit from and risk of loss on) such shares; *provided that* the number of shares calculated in accordance with clauses (A) and (B) (x) shall not include any shares (1) borrowed by such Eligible Stockholder for any purposes or purchased by such Eligible Stockholder pursuant to an agreement to resell, (2) sold by such Eligible Stockholder or any of its affiliates in any transaction that has not been settled or closed or (3) subject to any option, warrant, forward contract, swap, contract of sale, other derivative or similar agreement entered into by such Eligible Stockholder or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of shares of outstanding common stock of the Corporation, in any such case which instrument or agreement has, or is intended to have, the purpose or effect of (I) reducing in any manner, to any extent or at any time in the future, such Eligible Stockholder's or its affiliates' full right to vote or direct the voting of any such shares by such Eligible Stockholder or any of its affiliates and/or (II) hedging, offsetting or altering to any degree any gain or loss realized or realizable from maintaining the entire economic ownership of such shares by such Eligible Stockholder or affiliate, and (y) shall be reduced by the notional amount of shares of common stock of the Corporation subject to any option, warrant, forward contract, swap, contract of sale, other derivative or similar agreement entered into by such Eligible Stockholder or any of its affiliates, whether or not any such instrument is to be settled with shares or with cash, to the extent the number of shares owned by the Eligible Stockholder was not already reduced by such amount pursuant to clause (x)(3) above, and a number of shares of common stock of the Corporation equal to the net "short" position in the common stock of the Corporation held by such Eligible Stockholder's affiliates, whether through short sales, options, warrants, forward contracts, swaps, contracts of sale, other derivatives or similar agreements or any other agreement or arrangement. An Eligible Stockholder shall "own" shares held in the name of a nominee or other intermediary so long as the Eligible Stockholder retains the right to instruct how the shares are voted with respect to the election of directors and possesses the entire economic interest in the shares. An Eligible Stockholder's ownership of shares shall be deemed to continue during any period in which the Eligible Stockholder (a) has delegated any voting power by means of a proxy, power of attorney or other instrument or arrangement which is unconditionally revocable at any time by the Eligible Stockholder and (b) has loaned the shares if the Eligible Stockholder has the power to recall such loan on three (3) business days' notice and has in fact recalled such loaned shares as of the time of the Notice of Proxy Access Nomination is provided and through and including the date of the Annual Meeting of Eligible Stockholders. The terms "owned," "owning" and other variations of the word "own" shall have correlative meanings. Whether outstanding shares of common stock of the Corporation are "owned" for these purposes shall be determined by the Board of Directors or any committee thereof. For purposes of this Section 11, the term "affiliate" or "affiliates" shall have the meaning ascribed thereto under the General Rules and Regulations of the Exchange Act.

(2) In order to make a nomination pursuant to this Section 11, an Eligible Stockholder must have owned the Required Ownership Percentage (as defined below) of the Corporation's outstanding common stock (the "Required Shares") continuously for the Minimum Holding Period (as defined below) or longer as of both the Final Proxy Access Nomination Date and the close of business on the record date for determining stockholders entitled to vote at the applicable annual meeting, and must continue to own the Required Shares through the applicable annual meeting date (and any postponement or adjournment thereof); *provided that,* up to, but not more than, twenty (20) individual stockholders who otherwise meet all of the requirements to be an Eligible Stockholder may aggregate their stockholdings in order to meet the Required Ownership Percentage of the Required Shares; provided, however, that each member of such group must have owned such Required Shares continuously for the Minimum Holding Period or longer as of the Final Proxy Access Nomination Date, and must continue to own its portion of the Required Shares through the applicable annual meeting date (and any postponement or adjournment thereof). For purposes of this Section 11, the "Required Ownership Percentage" is three percent (3%) or more of the Corporation's issued and outstanding common stock, and the "Minimum Holding Period" is the three- (3-) year period prior to the submission of the Notice of Proxy Access Nomination.

(3) Whenever the Eligible Stockholder consists of a group of more than one stockholder, each provision in this Section 11 that requires the Eligible Stockholder to provide any written statements, representations, undertakings, agreements or other instruments or to meet any other conditions shall be deemed to require each stockholder that is a member of such group to provide such statements, representations, undertakings, agreements or other instruments and to meet such other conditions. When an Eligible Stockholder is comprised of a group, a violation of any provision of these by-laws by any member of the group shall be deemed a violation by the entire Eligible Stockholder group. No stockholder may be a member of more than one group of persons constituting an Eligible Stockholder with respect to any annual meeting of stockholders.

(4) In addition to providing the Notice of Proxy Access Nomination in accordance with Section 11(b)(1) above, in order to nominate a Stockholder Nominee pursuant to this Section 11, an Eligible Stockholder or the Stockholder Nominee, as applicable, must provide the following information in writing to the Secretary within the time period specified in this Section 11 for delivering the Notice of Proxy Access Nomination:

(A) one or more written statements from the record holders of the Required Shares or from the intermediaries through which the shares are or have been held during the Minimum Holding Period verifying that, as of a date within seven (7) business days prior to the date the Notice of Proxy Access Nomination is received by the Secretary, the Eligible Stockholder owns, and has owned continuously for the Minimum Holding Period, the Required Shares, and the Eligible Stockholder's agreement to provide the updates and supplements (or written notices stating that there are no such updates or supplements) described in Section 11(b)(2) within the time periods set forth therein;

(B) a copy of the Schedule 14N filed or to be filed with the Securities and Exchange Commission in accordance with Rule 14a-18 of the Exchange Act (and, if not included in such Schedule 14N, the details of any relationship that existed within the past three years and that would have been described pursuant to Item 6(e) of Schedule 14N (or any successor item) if it existed on the date of submission of the Schedule 14N);

(C) the Required Information (with the Statement, if any, clearly and specifically identified as such) and all other information, representations and agreements that are required to be set forth in a stockholder's notice of nomination, or provided to the Corporation in order to nominate a Proposed Nominee, pursuant to Section 11;

(D) the written consent of each Stockholder Nominee to being named in the proxy statement as a nominee and to serving as a director if elected;

(E) in the case of a Notice of Proxy Access Nomination that is submitted by an Eligible Stockholder that is comprised of a group of stockholders, the designation by all of such stockholders of one of such stockholders that is authorized to act on behalf of all of such stockholders with respect to all matters relating to the nomination or inclusion in the Corporation's proxy materials of the Stockholder Nominee(s) nominated by such Eligible Stockholder (the "Eligible Stockholder Designee"), including, without limitation, the withdrawal of such nomination;

(F) an agreement by each Stockholder Nominee, upon such Stockholder Nominee's election, to make such acknowledgements, enter into such agreements and provide such information as the Board of Directors requires of all directors at such time, including without limitation, agreeing to be bound by the Corporation's code of ethics, insider trading policies and procedures and other similar policies and procedures;

(G) an irrevocable resignation of the Stockholder Nominee, which shall become effective upon a determination in good faith by the Board of Directors or any committee thereof that the information provided to the Corporation by such individual pursuant to this Section 11 was untrue in any material respect or omitted to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading;

(H) a representation (in the form provided by the Secretary upon written request) that the Eligible Stockholder (i) acquired the Required Shares in the ordinary course of business and not with the intent to change or influence control at the Corporation, and that the Eligible Stockholder does not presently have such intent, (ii) has not nominated and will not nominate for election to the Board of Directors at the annual meeting (or any postponement or adjournment thereof) any person other than the Stockholder Nominee(s) being nominated pursuant to this Section 11, (iii) has not engaged and will not engage in, and has not and will not be a "participant" in, another person's "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act in support of the election of any individual as a director at the annual meeting other than its Stockholder Nominee(s) or a nominee of the Board of Directors, (iv) will not distribute to any stockholder any form of proxy for the annual meeting other than the form of proxy distributed by the Corporation, (v) agrees to comply with all other laws and regulations applicable to any solicitation in connection with the annual meeting, including, without limitation, Rule 14a-9 promulgated under the Exchange Act, (vi) meets the requirements set forth in this Section 11, and (vii) has provided and will continue to provide facts, statements and other information in all communications with the Corporation and its stockholders in connection with the nomination hereunder that is or will be true and correct in all material respects and does not and will not omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; and

(I) a written undertaking (in the form provided by the Secretary upon written request) that the Eligible Stockholder agrees to (i) assume all liability stemming from any legal or regulatory violation arising out of the communications with stockholders of the Corporation by the Eligible Stockholder, its affiliates and associates, or their respective agents or representatives, either before or after the furnishing of the Notice of Proxy Access Nomination, or out of the facts, statements or information that the Eligible Stockholder or its Stockholder Nominee(s) has provided or will provide to the Corporation or filed with the Securities and Exchange Commission, (ii) indemnify and hold harmless the Corporation and each of its directors, officers, agents, employees, affiliates, control persons or other persons acting on behalf of the Corporation individually against any liability, loss or damages in connection with any threatened or pending action, suit or proceeding, whether legal, administrative or investigative, against the Corporation or any of its directors, officers, agents, employees, affiliates, control persons or other persons acting on behalf of the Corporation arising out of any nomination of a Stockholder Nominee submitted by the Eligible Stockholder pursuant to this Section 11, and (iii) promptly provide to the Corporation such additional information as requested pursuant to this Section 11.

(J) in connection with Section 11(d)(4)(A) above, if any intermediary which verifies the Eligible Stockholder's ownership of the Required Shares for the Minimum Holding Period is not the record holder of such shares, a Depository Trust Company ("DTC") participant or an affiliate of a DTC participant, then the Eligible Stockholder will also need to provide a written statement as required by Section 11(d)(4)(A) from the record holder of such shares, a DTC participant or an affiliate of a DTC participant that can verify the holdings of such intermediary.

(e) Stockholder Nominee Requirements.

(1) Notwithstanding anything in these by-laws to the contrary, the Corporation shall not be required to include, pursuant to this Section 11, any Stockholder Nominee in its proxy materials (and no such Stockholder Nominee may be nominated pursuant to this Section 11) for any annual meeting of stockholders (A) for which the Secretary receives a notice that the Eligible Stockholder or any other stockholder of the Corporation has nominated one or more persons for election to the Board of Directors pursuant to the advance notice requirements for Stockholder Nominees set forth in Article I, Section 10, (B) if the Eligible Stockholder who has nominated such Stockholder Nominee has engaged in or is currently engaged in, or has been or is a "participant" in another person's "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act, in support of the election of any individual as a director at the annual meeting other than its Stockholder Nominee(s) or a nominee of the Board of Directors, (C) if such Stockholder Nominee is or becomes a party to any compensatory, payment or other financial agreement, arrangement or understanding with any person or entity other than the Corporation, or is receiving or will receive any such compensation or other payment from any person or entity other than the Corporation, in each case, in connection with service as a director of the Corporation, (D) who is not independent under the listing standards of each principal United States exchange upon which the common stock of the Corporation is listed, any applicable rules of the Securities and Exchange Commission and any publicly disclosed standards used by the Board of Directors in determining and disclosing independence of the Corporation's directors, in each case, as determined by the Board of Directors or any committee thereof, (E) who does not meet the audit committee and compensation committee independence requirements under the rules of the primary stock exchange on which the common stock of the Corporation is listed, (F) who does not meet the director qualifications set forth in the Corporation's Corporate Governance Guidelines and any other standards established by the Corporation, (G) whose election as a member of the Board of Directors would cause the Corporation to be in violation of these by-laws, the certificate of incorporation, the rules and listing standards of the principal United States exchanges upon which the common stock of the Corporation is listed or over-the-counter market on which any securities of the Corporation are traded, or any applicable state or federal law, rule or regulation, (H) who provides any information to the Corporation or its stockholders required or requested pursuant to any provision of these by-laws that is not accurate, truthful and complete in all material respects, or that otherwise contravenes any of the agreements, representations or undertakings made by the Stockholder Nominee in connection with the nomination, (I) who is or has been, within the past three years, an officer or director of a competitor, as defined in Section 8 of the Clayton Antitrust Act of 1914, (J) who is a defendant in or named subject of a pending criminal proceeding (excluding traffic violations) or has been convicted or has pleaded *nolo contendere* in such a criminal proceeding within the past ten (10) years, (K) is subject to any order of the type specified in Rule 506(d) of Regulation D promulgated under the Securities Act of 1933, as amended, (L) if such Stockholder Nominee or the applicable Eligible Stockholder shall have provided information to the Corporation in respect of such nomination that was untrue in any material respect or omitted to state a material fact necessary in order to make the statement made, in light of the circumstances under which they were made, not misleading, as determined by the Board of Directors or any committee thereof, or (M) the Eligible Stockholder or applicable Stockholder Nominee fails to comply with its obligations pursuant to this Section 11.

(2) Any Stockholder Nominee who is included in the Corporation's proxy materials for a particular annual meeting of stockholders but either (A) withdraws from or becomes ineligible or unavailable for election to the Board of Directors at such annual meeting, or (B) does not receive a number of "for" votes equal to at least twenty five percent (25%) of the number of shares present and entitled to vote for the election of directors, will be ineligible for nomination or inclusion in the Corporation's proxy materials as a Stockholder Nominee pursuant to this Section 11 for the following two (2) annual meetings of stockholders.

(3) Notwithstanding anything to the contrary set forth herein, if the Board of Directors or a designated committee thereof determines that any stockholder nomination was not made in accordance with the terms of this Section 11 or that the information provided in a Notice of Proxy Access Nomination does not satisfy the informational requirements of this Section 11 in any material respect, then such nomination shall not be considered at the applicable annual meeting of stockholders. Additionally, such nomination will not be considered at the annual meeting in question if the Eligible Stockholder (or a qualified representative thereof) or, in the case of an Eligible Stockholder that is comprised of a group of stockholders, the Eligible Stockholder Designee (or a qualified representative thereof) does not appear at the applicable annual meeting to present any nomination of the Stockholder Nominee(s) included in the Corporation's proxy materials pursuant to this Section 11. For purposes of this Section 11, to be considered a qualified representative of a stockholder, a person must be duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as its proxy at the annual meeting and such person must produce such writing or electronic transmission, or a reliable reproduction thereof, at such annual meeting.

(4) For purposes of this Section 11, any determination to be made by the Board of Directors may be made by the Board of Directors, any committee thereof or any officer of the Corporation designated by the Board of Directors or a committee thereof, and any such determination shall be final and binding on any Eligible Stockholder, any Stockholder Nominee and any other person for purposes of this Section 11 so long as made in good faith (without any further requirements). If any intervening events, facts or circumstances arise subsequent to any such determination, the presiding officer of any annual meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall have the power and duty to determine whether a Stockholder Nominee has been nominated in accordance with the requirements of this Section 11 and, if not so nominated, shall direct and declare at the meeting that such Stockholder Nominee shall not be considered.

(f) This Section 11 provides the exclusive method for stockholders to include nominees for director in the Corporation's proxy materials. A stockholder's compliance with the procedures set forth in this Section 11 will not also be deemed to constitute compliance with the procedures set forth in, or notice of nomination pursuant to, Article I, Section 10.

(g) For the avoidance of doubt, the Corporation may solicit against, and include in the proxy statement its own statement relating to, any Stockholder Nominee.

ARTICLE II
DIRECTORS

SECTION 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 which are not by law required to be exercised by the stockholders. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board until the vacancy is filled.

SECTION 2. Number; Election; Tenure and Qualification. The initial Board of Directors shall consist of three persons and shall be elected by the incorporator. Thereafter, the number of directors which shall constitute the whole Board shall be fixed by resolution of the stockholders or the Board of Directors, but in no event shall be less than one. Each director shall be elected by the stockholders at the annual meeting and all directors shall hold office until the next annual meeting and until their successors are elected and qualified, or until their earlier death, resignation or removal. The number of directors may be increased or decreased by action of the stockholders or the Board of Directors. Directors need not be stockholders of the corporation.

SECTION 3. Enlargement of the Board. The number of the Board of Directors may be increased at any time, such increase to be effective immediately, by resolution of the stockholders or the Board of Directors.

SECTION 4. Vacancies. Any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board and an unfilled vacancy resulting from an enlargement of the Board and an unfilled vacancy resulting from the removal of any director for cause or without cause, may be filled by resolution of the Board. A director elected to fill a vacancy shall hold office until the next annual meeting of stockholders and until his or her successor is elected and qualified or until his or her earlier death, resignation or removal. When one or more directors shall resign from the Board, effective at a future date, the Board, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective. If at any time there are no directors in office, then an election of directors may be held in accordance with the General Corporation Law of the State of Delaware.

SECTION 5. Resignation. Any director may resign at any time upon written notice to the corporation. Such resignation shall take effect at the time specified therein, or if no time is specified, at the time of its receipt by the President or Secretary.

SECTION 6. Removal. Except as may otherwise be provided by the General Corporation Law, any director or the entire Board of Directors may be removed, with or without cause, at an annual meeting or at a special meeting called for that purpose, by the holders of a majority of the shares then entitled to vote at an election of directors. The vacancy or vacancies thus created may be filled by the stockholders at the meeting held for the purpose of removal.

SECTION 7. Committees. The Board of Directors may, by resolution or resolutions passed by a majority of the whole Board of Directors, designate one or more committees, each committee to consist of two or more 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 the committee. In the absence or disqualification of any member of such committee or committees, the member or members thereof 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 the meeting in the place of such absent or disqualified member.

A majority of all the members of any such committee may fix its rules of procedure, determine its action and fix the time and place, whether within or without the State of Delaware, of its meetings and specify what notice thereof, if any, shall be given, unless the Board of Directors shall otherwise by resolution provide. The Board of Directors shall have the power to change the members of any such committee at any time, to fill vacancies therein and to discharge any such committee, either with or without cause, at any time.

Any such committee, unless otherwise provided in the resolution of the Board of Directors, or in these by-laws, 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; but no such committee shall have such power or authority in reference to amending the certificate of incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, recommending a dissolution of the corporation or a revocation of a dissolution, or amending the by-laws of the corporation, and, unless the resolution or these by-laws expressly so provide, no such committee shall have the power or the authority to declare a dividend or to authorize the issuance of stock.

Each committee shall keep regular minutes of its meetings and make such reports as the Board of Directors may from time to time request.

SECTION 8. Meetings of the Board of Directors. Regular meetings of the Board of Directors may be held without call or formal notice at such places either within or without the State of Delaware and at such times as the Board may by vote from time to time determine. A regular meeting of the Board of Directors may be held without call or formal notice immediately after and at the same place as the annual meeting of the stockholders, or any special meeting of the stockholders at which a Board of Directors is elected.

Special meetings of the Board of Directors may be held at any place either within or without the State of Delaware at any time when called by the Chairman of the Board of Directors, the President, Treasurer, Secretary, or two or more directors. Reasonable notice of the time and place of a special meeting shall be given to each director unless such notice is waived by attendance or by written waiver in the manner provided in these by-laws for waiver of notice of stockholders. No notice of any adjourned meeting of the Board of Directors shall be required. In any case it shall be deemed sufficient notice to a director to send notice by mail at least seventy-two hours, or by telegram at least forty-eight hours, before the meeting, addressed to such director at his or her usual or last known business or home address.

Directors or members of any committee designated by the directors may participate in a meeting of the Board of Directors or such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

SECTION 9. Quorum and Voting. A majority of the total number of directors shall constitute a quorum, except that when a vacancy or vacancies exist in the Board, a majority of the directors then in office (but not less than one-third of the total number of the directors) shall constitute a quorum, and except that a lesser number of directors consisting of a majority of the directors then in office who are not officers (but not less than one-third of the total number of directors) may constitute a quorum for the purpose of acting on any matter relating to the compensation (including fringe benefits) of an officer of the corporation. A majority of the directors present, whether or not a quorum is present, may adjourn any meeting from time to time. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board of Directors, except where a different vote is required or permitted by law, by the certificate of incorporation, or by these by-laws.

SECTION 10. Compensation. The Board of Directors may fix fees for their services and for their membership on committees, and expenses of attendance may be allowed for attendance at each meeting. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent or otherwise, and receiving compensation therefor.

SECTION 11. Action Without Meeting. Any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting, and without notice, if a written consent thereto is signed by all members of the Board of Directors, or of such committee, as the case may be, and such written consent is filed with the minutes of proceedings of the Board of Directors or such committee.

ARTICLE III
OFFICERS

SECTION 1. Titles. 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 without limitation a Chairman of the Board, a Vice-Chairman of the Board, and one or more Vice-Presidents, Assistant Treasurers, or Assistant Secretaries.

SECTION 2. Election and Term of Office. The officers of the corporation shall be elected annually by the Board of Directors at its first meeting following the annual meeting of the stockholders. Each officer shall hold office until his or her successor is elected and qualified, unless a different term is specified in the vote electing such officer, or until his or her earlier death, resignation or removal.

SECTION 3. Qualification. Unless otherwise provided by resolution of the Board of Directors, no officer, other than the Chairman or Vice-Chairman of the Board, need be a director. No officer need be a stockholder. Any number of offices may be held by the same person, as the directors shall determine, but no person may hold the offices of President and Secretary simultaneously.

SECTION 4. Removal. Any officer may be removed, with or without cause, at any time, by resolution adopted by the Board of Directors.

SECTION 5. Resignation. Any officer may resign by delivering a written resignation to the corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt or at such later time as shall be specified therein.

SECTION 6. Vacancies. The Board of Directors may at any time fill any vacancy occurring in any office for the unexpired portion of the term and may leave unfilled for such period as it may determine any office other than those of President, Treasurer and Secretary.

SECTION 7. Powers and Duties. The officers of the corporation shall have such powers and perform such duties as are specified herein and as may be conferred upon or assigned to them by the Board of Directors, and shall have such additional powers and duties as are incident to their office except to the extent that resolutions of the Board of Directors are inconsistent therewith.

SECTION 8. President and Vice-Presidents. The President shall be the chief executive officer of the corporation, shall preside at all meetings of the stockholders and the Board of Directors unless a Chairman or Vice-Chairman of the Board is elected by the Board, empowered to preside, and present at such meeting, shall have general and active management of the business of the corporation and general supervision of its officers, agents and employees, and shall see that all orders and resolutions of the Board of Directors are carried into effect.

In the absence of the President or in the event of his or her inability or refusal to act, the Vice-President if any (or in the event there be more than one Vice-President, the Vice-Presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and when so acting, 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.

SECTION 9. Secretary and Assistant Secretaries. The Secretary shall attend all meetings of the Board of Directors and of the stockholders and record all the proceedings of such meetings in a book to be kept for that purpose, shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, shall maintain a stock ledger and prepare lists of stockholders and their addresses as required and shall have custody of the corporate seal which the Secretary or any Assistant Secretary shall have authority to affix to any instrument requiring it and attest by any of their signatures. The Board of Directors may give general authority to any other officer to affix and attest the seal of the corporation.

The Assistant Secretary if any (or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors of if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of the Secretary's inability or refusal to act, perform the duties and exercise the powers of the Secretary.

SECTION 10. Treasurer and Assistant Treasurers. The Treasurer shall have the custody of the corporate funds and securities, shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the corporation as may be ordered by the Board of Directors or the President, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or whenever they may require it, an account of all transactions and of the financial condition of the corporation.

The Assistant Treasurer if any (or if there be more than one, the Assistant Treasurers in the order determined by the Board of Directors or if there be no such determination, then in the order of their election) shall, in the absence of the Treasurer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Treasurer.

SECTION 11. Bonded Officers. The Board of Directors may require any officer to give the corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors upon such terms and conditions as the Board of Directors may specify, including without limitation a bond for the faithful performance of the duties of such officer and for the restoration to the corporation of all property in his or her possession or control belonging to the corporation.

SECTION 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.

ARTICLE IV
STOCK

SECTION 1. Certificates of Stock. One or more certificates of stock, signed by the Chairman or Vice-Chairman of the Board of Directors or by the President or Vice-President and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary, shall be issued to each stockholder certifying, in the aggregate, the number of shares owned by the stockholder in the corporation. Any or all signatures on any such certificate may be facsimile. In case any officer who shall have signed or whose facsimile signature shall have been placed upon a certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer at the date of issue.

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 the certificate either the full text of the restriction or a statement of the existence of such restriction.

SECTION 2. Transfer of Share of Stock. Subject to the restrictions, if any, stated or noted on the stock certificates, 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. 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 that stock, regardless of any transfer, pledge or other disposition of that stock, until the shares have been transferred on the books of the corporation in accordance with the requirements of these by-laws.

SECTION 3. Lost Certificates. A new certificate of stock may be issued in the place of any certificate theretofore issued by the corporation and alleged to have been lost, stolen, destroyed, or mutilated, upon such terms in conformity with law as the Board of Directors shall prescribe. The directors may, in their discretion, require the owner of the lost, stolen, destroyed or mutilated certificate, or the owner's legal representatives, to give the corporation a bond, in such sum as they may direct, to indemnify the corporation against any claim that may be made against it on account of the alleged loss, theft, destruction or mutilation of any such certificate, or the issuance of any such new certificate.

SECTION 4. Record Date. The Board of Directors may fix in advance a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or to express consent to corporate action in writing without a meeting, 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 entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is expressed. 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.

SECTION 5. Fractional Share Interests. The corporation may, but shall not be required to, issue fractions of a share. If the corporation does not issue fractions of a share, it shall (1) arrange for the disposition of fractional interests by those entitled thereto, (2) pay in cash the fair value of fractions are determined, or (3) issue scrip or warrants in registered or bearer form which shall entitle the holder to receive a certificate for a full share upon the surrender of such scrip or warrants aggregating a full share. A certificate for a fractional share shall, but scrip or warrants shall not unless otherwise provided therein, entitle the holder to exercise voting rights, to receive dividends thereon, and to participate in any of the assets of the corporation in the event of liquidation. The Board of Directors may cause scrip or warrants to be issued subject to the conditions that they shall become void if not exchanged for certificates representing full shares before a specified date, or subject to the conditions that the shares for which scrip or warrants are exchangeable may be sold by the corporation and the proceeds thereof distributed to the holders of scrip or warrants, or subject to any other conditions which the Board of Directors may impose.

SECTION 6. Dividends. Subject to the provisions of the certificate of incorporation, the Board of Directors may, out of funds legally available therefor, at any regular or special meeting, declare dividends upon the common stock of the corporation as and when they deem expedient.

ARTICLE V
INDEMNIFICATION AND INSURANCE

SECTION 1. Indemnification. The corporation shall, to the full extent permitted by the General Corporation Law of the State of Delaware, as amended from time to time, and the certificate of incorporation, indemnify each person whom it may indemnify pursuant thereto.

SECTION 2. Insurance. The corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of the General Corporation Law of the State of Delaware.

ARTICLE VI
GENERAL PROVISIONS

SECTION 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 January and end on the last day of December.

SECTION 2. Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors. The Secretary shall be the custodian of the seal. The Board of Directors may authorize a duplicate seal to be kept and used by any other officer.

SECTION 3. 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 in effect from time to time.

SECTION 4. Execution of Instruments. The President, any Vice-President, or the Treasurer shall have power to execute and deliver on behalf and in the name of the corporation any instrument requiring the signature of an officer of the corporation, including deeds, contracts, mortgages, bonds, notes, debentures, checks, drafts, and other orders for the payment of money. In addition, the Board of Directors may expressly delegate such powers to any other officer or agent of the corporation.

SECTION 5. Voting of Securities. Except as the directors may otherwise designate, the President or Treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at any meeting of stockholders or shareholders of any other corporation or organization the securities of which may be held by this corporation.

SECTION 6. 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 that action.

SECTION 7. 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 that reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because the vote of any such director is counted for such purpose, if:

(1) The material facts as to the 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 votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(2) The material facts as to the relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote therein, and the contract or transaction is approved by 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.

SECTION 8. Books and Records. The books and records of the corporation shall be kept at such places within or without the State of Delaware as the Board of Directors may from time to time determine.

ARTICLE VII
AMENDMENTS

SECTION 1. By the Stockholders or the Board of Directors. These by-laws may be altered, amended or repealed by the affirmative vote of the holders of a majority of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at any regular meeting of stockholders, or at any special meeting of stockholders provided notice of such alteration, amendment, repeal or adoption of new by-laws shall have been stated in the notice of such special meeting. These by-laws also may be altered, amended or repealed by a vote of the majority of the Board of Directors; provided, however, that the Board of Directors shall not have power to alter, amend or repeal the provisions of Section 6 of Article I, Section 1 of Article V or this Article VII of the by-Laws and provided, further, that the Board of Directors may not alter, amend or repeal any amendment to these by-laws adopted by the stockholders after May 18, 2017.

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Washington, DC 20036

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+1 202 346 4000

February 1, 2023

Via Email (shareholderproposals@sec.gov)

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Chief Counsel
100 F Street, N.E.
Washington, D.C. 20549

Re: Repligen Corporation – 2023 Annual Meeting of Stockholders – Supplement to Letter dated December 30, 2022 Relating to Shareholder Proposal Submitted by Ms. Myra K. Young (with John Chevedden as proxy)

Ladies and Gentlemen:

We refer to our letter dated December 30, 2022 (the "No-Action Request") submitted on behalf of our client, Repligen Corporation (the "Company"), pursuant to which we requested that the Staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") concur with the Company's view that the shareholder proposal submitted by Myra K. Young (the "Proponent"), with John Chevedden designated as proxy (the "Proposal"), may be excluded from the Company's proxy materials for its 2023 annual meeting of shareholders (the "2023 Proxy Materials").

On January 28, 2023, James McRitchie submitted a letter to the Staff (the "McRitchie Letter"), in which Mr. McRitchie argues that the Staff should require the Company to include the Proposal with its 2023 Proxy Materials. This letter is in response to the McRitchie Letter and supplements the No-Action Request. In accordance with Rule 14a-8(j), a copy of this letter is also being sent to the Proponent.

The Board Cannot Implement The Proposal Without Violating State Law

As discussed in detail in the No-Action Request and the legal opinion by Delaware counsel provided therein (the "Delaware Law Opinion"), as a Delaware corporation, the Company is subject to the provisions of the General Corporation Law of the State of Delaware, as amended (the "DGCL"), including Section 109, the principal provision governing the adoption, amendment, and repeal of a corporation's bylaws. As explained by Delaware counsel in the Delaware Law Opinion, "under Section 109(a), after a corporation has received payment for its stock, the stockholders generally have the power, by statutory default, to adopt, amend, or repeal bylaws, but the power of directors to amend, alter or repeal the bylaws may only be exercised if such power has been conferred upon them in the certificate of incorporation."

The Company's Certificate of Incorporation, as amended (the "Charter"), does not provide the Board of Directors of the Company (the "Board") with the power to amend the Company's By-laws (the "By-laws"). As a result, the power to amend the By-laws is vested in the Company's stockholders entitled to vote. If the Board were to amend the By-laws to provide for the provisions specified in the Proposal, the resulting amendment would be void and in violation of Delaware law. Therefore, the Board cannot implement the Proposal without violating state law.

Amendments; Remedial Action

The Company acknowledges that, at the 2017 annual meeting of stockholders, the Company in good faith put forth a proposal to stockholders to vote to approve an amendment to the Company's By-laws to permit the Board to amend the By-laws. It was the Board's intention for stockholders to vote on providing the Board authority to amend the By-laws. On May 18, 2017, the stockholders approved this proposal. However, because the stockholders approved a By-law amendment rather than a Charter amendment, the stockholder vote did not have the intended legal effect of providing the Board authority to amend the By-laws. Consequently, the Board's approval on January 7, 2021 of amendments and a restatement to the By-laws (the "2021 Bylaw Amendment"), which included stockholder proxy access provisions, was not validly accomplished in accordance with the DGCL.

As stated above, in order to provide the Board the authority to amend the By-laws, the Board must approve an amendment to the Charter providing the Board such authority, and such amendment must subsequently be adopted by an affirmative vote of stockholders having requisite voting power and filed with the Delaware Secretary of State. Because the stockholders approved a By-law amendment on May 18, 2017, but no corresponding amendment to the Charter was adopted or became effective, the stockholder vote did not have the intended legal effect of providing the Board authority to amend the By-laws. As the Charter does not provide the Board authority to amend the By-laws, the Board does not have that authority.

The Company plans to take remedial action at the Company's 2023 annual meeting of stockholders to remedy issues arising out of the 2021 Bylaw Amendment, including by seeking stockholder ratification of the 2021 Bylaw Amendment.

Rule 14a-8(i)(2) allows the exclusion of a proposal if implementation of the proposal would "cause the company to violate any state, federal, or foreign law to which it is subject." As discussed above, in the No-Action Request, and the Delaware Law Opinion, the Board does not have legal authority to amend the Company's By-laws unilaterally in that any amendments to the By-laws must be approved by the Company's stockholders. The Proponent's argument that the Company should be estopped from asserting that it does not have the power to implement the Proposal does not change the fact that implementing the Proposal would violate Delaware law, nor does it change the standard for exclusion under Rule 14a-8(i)(2).

Conclusion

Accordingly, the Company believes that the Proposal may be excluded under Rule 14a-8(i)(2), because implementing the Proposal would cause the Company to violate Delaware law, and Rule 14a-8(i)(6) because the Company lacks the power or authority to implement the Proposal. As discussed in the No-Action Request, the Company also believes that the Proposal may be excluded under Rule 14a-8(i)(10), because the Proposal's essential objective, to provide shareholder approval for certain advance notice bylaw amendments, has been substantially implemented, and under Rule 14a-8(i)(3) on the basis that the Proposal is materially false and misleading in violation of Rule 14a-9.

For the reasons discussed above and in the No-Action Request, the Company respectfully requests that the Staff concur with its view that the Proposal may be properly omitted from the Company's 2023 Proxy Materials and that the Staff not recommend any enforcement action to the Commission if the Company omits the Proposal from its 2023 Proxy Materials.

Please do not hesitate to contact the undersigned at (202) 346-4207.

Respectfully submitted,

/s/ Sean M. Donahue

Sean M. Donahue

Enclosure

cc: Myra K. Young
John Chevedden
James McRitchie
Karen A. Dawes, Chairperson, *Repligen Corporation*
Tony J. Hunt, President and Chief Executive Officer, *Repligen Corporation*
Kimberly Cornwell, Senior Vice President, General Counsel, *Repligen Corporation*
Jacqueline Mercier, *Goodwin Procter LLP*

Corporate Governance
CorpGov.net: improving accountability through democratic corporate governance since 1995

VIA EMAIL: shareholderproposals@sec.gov
Office of Chief Counsel
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549
cc: KCornwell@Repligen.com, SChehames@repligen.com, SDonahue@goodwinlaw.com, SNewman@repligen.com, sanfordlewis@strategiccounsel.net, brittany@rhiaventures.org

February 9, 2023

Re: Response to February 1, 2023, Supplement to No-action Request by Repligen Corporation (RGEN)

To Division of Corporate Finance Staff Assigned:

This letter is in response to the February 1, 2023, Supplement to the no-action request by Sean M. Donahue, acting as an agent of Repligen Corporation (the "Company" or “Repligen”).

In the Company’s Supplemental Letter, the Company makes the remarkable admission that, in fact, the Bylaw amendments attempted in 2017 and 2021 are invalid.

This is new information to me, as I relied on the Company’s corporate documents as filed with the SEC in drafting my proposal and my response to the Company’s No-Action Letter. In addition, the current Bylaws showed that the Board has the power to amend the bylaws. In my opinion, this necessitated filing my proposal, which would specifically require shareholder approval for advance notice bylaw amendments.

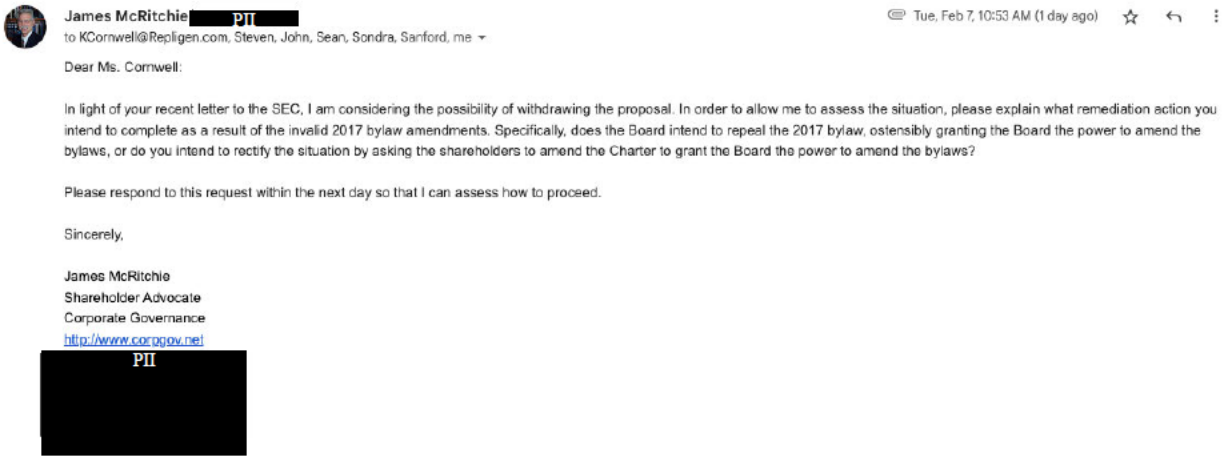
The Company did not admit to its invalid bylaw amendments in its No-Action Letter and instead waited until I called attention to their hypocritical argument that the Board could not amend the bylaws, despite the bylaw amendments the Board unilaterally enacted in 2021. I also note that the Delaware Law Opinion, which the Company continues to cite in its Supplemental Letter, is inapplicable because it was based on incorrect facts. The Opinion does not reference the bylaw amendment completed by the Board in 2021[1]. It does not address the fact that shareholders approved the 2017 bylaw amendment granting the Board the power to amend the bylaws

[1] The Delaware Law Opinion states that it reviewed “the Third Amended and Restated Bylaws of the Company, as adopted by the Company’s stockholders on May 18, 2017.” However, the Third Amended Bylaws were approved only by the Board, not the shareholders, on January 27, 2021. It is unclear whether the law firm either actually read the Second Amended Bylaws or whether they misstated the date and the fact that the Third Amended Bylaws were not approved by the shareholders.

without the necessary charter amendment. Therefore, it cannot be relied upon to determine that my proposal would violate state law as required by Rule 14a-8(j)(2)(iii).

Now, the Company continues to maintain that it cannot implement the proposal because the Board does not have the power to amend the bylaws. This argument is disingenuous, however, because the Company intends to take action at the next shareholder meeting to amend the Charter to give them this power.

On February 7, 2023, I asked the Company to please explain what remediation action it intended to complete, as referenced in the Supplemental Letter.



James McRitchie [redacted]
to KCornwell@Repligen.com, Steven, John, Sean, Sondra, Sanford, me

Tue, Feb 7, 10:53 AM (1 day ago)

Dear Ms. Cornwell:

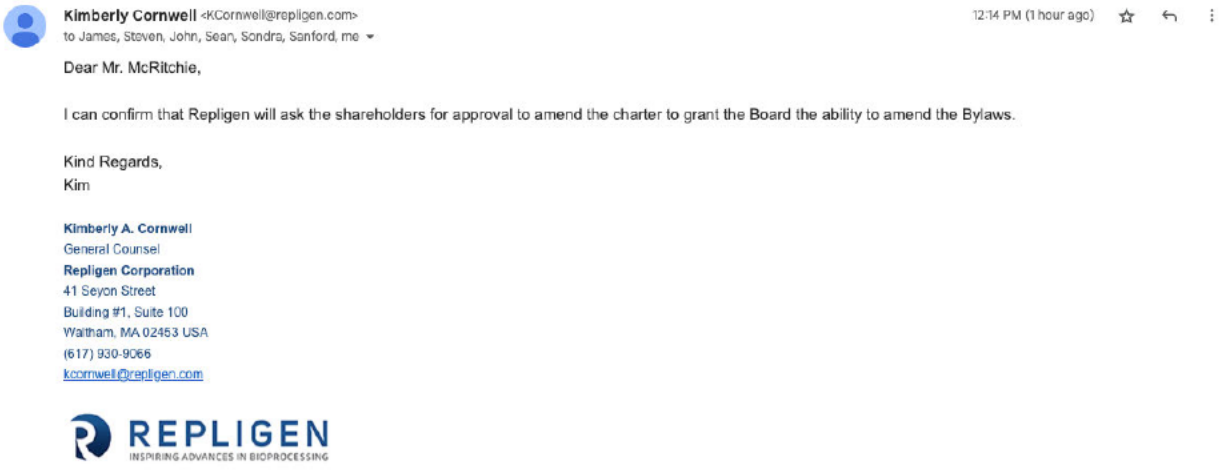
In light of your recent letter to the SEC, I am considering the possibility of withdrawing the proposal. In order to allow me to assess the situation, please explain what remediation action you intend to complete as a result of the invalid 2017 bylaw amendments. Specifically, does the Board intend to repeal the 2017 bylaw, ostensibly granting the Board the power to amend the bylaws, or do you intend to rectify the situation by asking the shareholders to amend the Charter to grant the Board the power to amend the bylaws?

Please respond to this request within the next day so that I can assess how to proceed.

Sincerely,

James McRitchie
Shareholder Advocate
Corporate Governance
http://www.corpgov.net
PII
[redacted]

A representative from Repligen responded to me the next day, stating the following:



Kimberly Cornwell <KCornwell@repligen.com>
to James, Steven, John, Sean, Sondra, Sanford, me

12:14 PM (1 hour ago)

Dear Mr. McRitchie,

I can confirm that Repligen will ask the shareholders for approval to amend the charter to grant the Board the ability to amend the Bylaws.

Kind Regards,
Kim

Kimberly A. Cornwell
General Counsel
Repligen Corporation
41 Seyon Street
Building #1, Suite 100
Waltham, MA 02453 USA
(617) 930-9066
kcornwell@repligen.com

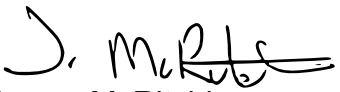
REPLIGEN
INSPIRING ADVANCES IN BIOPROCESSING

It would be wholly inequitable and unfair to exclude my proposal from the proxy statement. First, the Company argues that because it violated Delaware law at least twice over the past five to six years and then failed to vacate the illegally adopted language, its failure now precludes the

inclusion of my proposal. Second, the Company's stated concern about violating Delaware law by adopting my proposal is completely contradicted by its own admission that it intends to "ask the shareholders for approval to amend the charter to grant the Board the ability to amend the Bylaws." Once this amendment occurs, my proposal is clearly not illegal and is, in fact, even more important. Excluding my proposal would have the paradoxical effect of limiting my right to file a proposal which protects shareholders' ability to seek board representation *because of the Company's own violation of Delaware law.*

Accordingly, staff must deny the no-action request. We would be pleased to respond to Staff questions or negotiate with Repligen on mutually agreeable terms for withdrawing the Proposal. If Staff concurs with the Company's position, we would appreciate an opportunity to confer with Staff concerning this matter prior to the final determination. You can reach James McRitchie by emailing jm@corpgov.net.

Sincerely,



James McRitchie
Shareholder Advocate

cc: Sanford Lewis and Brittany Blanchard Goad

GOODWIN

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210

goodwinlaw.com
+1 617 570 1000

February 17, 2023

Via Email (shareholderproposals@sec.gov)

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Chief Counsel
100 F Street, N.E.
Washington, D.C. 20549

Re: Repligen Corporation – Withdrawal of No-Action Request dated December 30, 2022

Ladies and Gentlemen:

We refer to our letter, dated December 30, 2022 (the "No-Action Request"), pursuant to which we requested, on behalf of our client Repligen Corporation, a Delaware corporation (the "Company"), and pursuant to Rule 14a-8(j) under the Securities Exchange Act of 1934, as amended, that the Staff of the Division of Corporation Finance of the Securities and Exchange Commission concur with our view that the Company may exclude the shareholder proposal (the "Proposal") submitted by Myra K. Young, with John Chevedden designated as proxy (the "Proponents"), from the Company's proxy statement and form of proxy for its annual meeting of shareholders.

Attached hereto as Exhibit A is an email correspondence, dated February 15, 2023, on behalf of the Proponents withdrawing the Proposal (the "Withdrawal Email"). In reliance on the Withdrawal Email, we hereby withdraw the No-Action Request on behalf of the Company.

If you have any questions with respect to this matter, please do not hesitate to contact the undersigned by phone at (617) 570-3953 or by email at chetrick@goodwinlaw.com.

Respectfully submitted,

Courtney M. Hetrick, Esq.
Goodwin Procter LLP

Enclosure

cc: Myra K. Young
John Chevedden
Tony J. Hunt, President and Chief Executive Officer, *Repligen Corporation*
Kimberly A. Cornwell, Esq., General Counsel, *Repligen Corporation*
Jacqueline Mercier, Esq. *Goodwin Procter LLP*

Exhibit A

(see attached)

From: James McRitchie
To: Hetrick, Courtney
Cc: Donahue, Sean M; mky
Subject: Re: Repligen Corporation
Date: Wednesday, February 15, 2023 5:35:59 PM

EXTERNAL
This is to withdraw Myra K. Young's proposal to Repligen on Fair Elections contingent on the Board of Directors adopting Corporate Governance Guidelines that include the following language, with explicit notice of that adoption in a widely circulated SEC document, such as an 8-K:

> The Company recognizes the importance of a stockholder's ability to nominate directors to the Company's Board. As part of the Company's commitment to providing a director nomination process that is fair and equitable to all nominating stockholders, the Board will not, without shareholder consent, adopt any amendments to the Bylaws of the Company that would require a nominating stockholder to (i) deliver director nominations more than 90 days prior to the first anniversary of the prior year's annual meeting; (ii) disclose to the Company such stockholder's plans to nominate candidates to the board of directors of other public companies, or disclose prior proposals or director nominations that such stockholder privately submitted to other public companies; or (iii) disclose information to the Company about a nominating stockholder's limited partners or business associates.

James McRitchie
Shareholder Advocate
Corporate Governance
http://www.corpgov.net
PII
[redacted]