

Rockville, MD 20850

SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON SEPTEMBER 8, 2023

July 31, 2023

Dear Stockholders of OpGen, Inc.:

You are cordially invited to a Special Meeting of Stockholders (the "Special Meeting") of OpGen, Inc. (the "Company") to be held at the Company's offices located at 9717 Key West Ave, Suite 100, Rockville, MD 20850, on September 8, 2023, beginning at 10:00 am, local time.

The Special Meeting has been called by the Board of Directors to submit to stockholders for approval the following matters:

- 1. The approval, pursuant to Nasdaq listing rules, of the issuance of up to 10,892,728 shares of our common stock upon the exercise of our common stock purchase warrants issued to an institutional investor in and in connection with our best efforts public offering that closed on May 4, 2023 that may be equal to or exceed 20% of our common stock outstanding before such offering (the "Warrant Exercise Proposal");
- 2. The approval of an amendment to our Amended and Restated Certificate of Incorporation, as amended, to increase the number of authorized shares of preferred stock from 10 million to 20 million shares (the "Authorized Preferred Stock Proposal"); and
- 3. The approval of a proposal to adjourn the Special Meeting to a later date, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the Warrant Exercise Proposal or the Authorized Preferred Stock Proposal.

A Proxy Statement describing these matters to be acted upon at the Special Meeting is attached. No other matters will be considered at the Special Meeting.

Your vote is important. The close of business on July 31, 2023 has been fixed as the record date for the determination of stockholders of the Company entitled to notice of, and to vote at, the Special Meeting. Only stockholders of record at the close of business on July 31, 2023 are entitled to notice of, and to vote at, the Special Meeting and any adjournment or postponement thereof.

Enclosed is a proxy that will entitle you to vote your shares on the matters presented at the Special Meeting, even if you are unable to attend in person. Please mark the proxy to indicate your vote, date and sign the proxy and return it in the enclosed envelope as soon as possible for receipt prior to the Special Meeting, or follow the instructions in the accompanying proxy materials to vote via the internet. Regardless of the number of shares you own, please be sure you are represented at the Special Meeting either by attending in person or by returning your proxy or voting on the internet as soon as possible.

On behalf of OpGen, Inc., I thank you for your ongoing interest and investment in our company.

Sincerely,

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William E. Rhodes, III Chairman of the Board of Directors



9717 Key West Ave, Suite 100 Rockville, MD 20850

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON SEPTEMBER 8, 2023

July 31, 2023

Dear Stockholders of OpGen, Inc.:

The Board of Directors (the "Board") of OpGen, Inc., a Delaware corporation (the "Company") has called for a Special Meeting of stockholders (the "Special Meeting"), to be held at the Company's offices located at 9717 Key West Ave, Suite 100, Rockville, MD 20850 on September 8, 2023, beginning at 10:00 am local time, for the following purposes:

- 1. **Warrant Exercise**. Stockholder approval of the issuance of up to 10,892,728 shares of our common stock upon the exercise of our common stock purchase warrants issued to an institutional investor in and in connection with our best efforts public offering that closed on May 4, 2023 that may be equal to or exceed 20% of our common stock outstanding before such offering (the "Warrant Exercise Proposal");
- 2. Increase of Authorized Shares of Preferred Stock. Stockholder approval of an amendment to the Company's Amended and Restated Certificate of Incorporation, as amended (the "Charter"), to increase the authorized number of shares of preferred stock from 10 million to 20 million shares (the "Authorized Preferred Stock Proposal"); and
- 3. Adjournment Proposal. Stockholder approval of a proposal to adjourn the Special Meeting to a later date, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the Warrant Exercise Proposal or the Authorized Preferred Stock Proposal.

No other matters will be considered at the Special Meeting.

Pursuant to the Company's Amended and Restated Bylaws, as amended (the "Bylaws"), the Board has fixed the close of business on July 31, 2023 as the record date for determination of the stockholders entitled to vote at the Special Meeting and any adjournments or postponements thereof. Please complete, sign and submit your proxy, which is solicited by the Board of Directors, as soon as possible so that your shares can be voted at the Special Meeting in accordance with your instructions. You can ensure that your shares are voted at the Special Meeting by voting via the internet or by completing, signing and returning the enclosed proxy. If you do attend the Special Meeting, you may then withdraw your proxy and vote your shares in person. In any event, you may revoke your proxy prior to its exercise. Shares represented by proxies that are returned properly signed but unmarked will be voted in favor of proposals made by us.

This Notice of Special Meeting of Stockholders, Proxy Statement and the proxy card are available online at: https://annualgeneralmeetings.com/opgensp2023.

BY ORDER OF THE BOARD OF DIRECTORS,

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Oliver Schacht, Ph.D. Chief Executive Officer

SPECIAL MEETING OF STOCKHOLDERS

PROXY STATEMENT

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Rockville, MD 20850

SPECIAL MEETING PROXY STATEMENT

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON SEPTEMBER 8, 2023

The Notice of Special Meeting, Proxy Statement and Proxy are available at: https://annualgeneralmeetings.com/opgensp2023

We are making these proxy materials available to you in connection with the solicitation of proxies by the Board of Directors (the "Board") of OpGen, Inc. (the "Company") for a Special Meeting of Stockholders (the "Special Meeting") and for any adjournment or postponement of the Special Meeting. The mailing of the notice of internet availability of these proxy materials will commence on July 31, 2023.

The Special Meeting will be held at the Company's offices located at 9717 Key West Ave, Suite 100, Rockville, MD 20850 on September 8, 2023, beginning at 10:00 am, local time. In this Proxy Statement, "we," "us," "our," "OpGen" and the "Company" refer to OpGen, Inc.

This Proxy Statement is being made available to you because you own shares of our common stock, par value \$0.01 per share, as of the record date, which entitles you to vote at the Special Meeting. By use of a proxy, you can vote whether or not you attend the Special Meeting. This Proxy Statement describes the matters we would like you to vote on and provides information on those matters.

QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING

Q: What is the purpose of the Special Meeting?

- A: The purposes of the Special Meeting are to hold a stockholder vote on the following matters:
 - 1. Warrant Exercise. The approval of the issuance of up to 10,892,728 shares of our common stock upon the exercise of our common stock purchase warrants issued to an institutional investor in and in connection with our best efforts public offering that closed on May 4, 2023 that may be equal to or exceed 20% of our common stock outstanding before such offering (the "Warrant Exercise Proposal");
 - 2. **Increase of Authorized Shares of Preferred Stock.** The approval of an amendment to the Company's Amended and Restated Certificate of Incorporation, as amended (the "Charter"), to increase the authorized number of shares of preferred stock from 10 million to 20 million shares (the "Authorized Preferred Stock Proposal"); and
 - 3. Adjournment Proposal. The approval of a proposal to adjourn the annual or special meeting to a later date, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the Warrant Exercise Proposal or the Authorized Preferred Stock Proposal.

Other than these proposals, no other proposals will be presented for a vote at the Special Meeting.

Q: Who is entitled to vote at the Special Meeting?

A: Holders of record of our common stock as of the close of business on July 31, 2023, the record date for the Special Meeting, or the Record Date, will be entitled to notice of and to vote at the Special Meeting and at any adjournments or postponements thereof. Holders of record of shares of common stock are entitled to vote on all matters brought before the Special Meeting.

As of the Record Date, there were 7,622,524 shares of common stock outstanding and entitled to vote. Holders are entitled to one vote for each share of common stock outstanding as of the Record Date.

You do not need to attend the Special Meeting to vote your shares. Instead, you may vote your shares by marking, signing, dating and returning the enclosed proxy card or voting through the internet.

Q: How do I vote?

A: You may vote in person at the Special Meeting, vote by proxy through the internet or vote by proxy using the enclosed proxy card. To vote through the internet, go to https://annualgeneralmeetings.com/opgensp2023 and complete an electronic proxy card. You will be asked for a Control Number, which has been provided with the Notice of Internet Availability.

Whether you plan to attend the Special Meeting or not, we urge you to vote by proxy to ensure your vote is counted. Voting by proxy will not affect your right to attend the Special Meeting and vote. If you vote via the internet or properly complete your proxy card and submit it to us in time, the "proxy" (one of the individuals named on the proxy card) will vote your shares as you have directed. If you sign the proxy card but do not make specific choices, the proxy will vote your shares as recommended by the Board and, as to any other matters properly brought before the Special Meeting, in the sole discretion of the proxy.

Q: What shares may I vote?

A: You may vote all shares of common stock of the Company that you owned as of the close of business on the Record Date. These shares include:

- 1. those held directly in your name as the *stockholder of record;* and
- 2. those held for you as the *beneficial owner* through a bank, broker or other financial intermediary at the close of business on the record date.

Q: What is the difference between holding shares as a stockholder of record and as a beneficial owner?

A: Most stockholders hold their shares through a bank, broker or other financial intermediary rather than directly in their own name. As summarized below, there are some distinctions between shares held of record and shares held beneficially.

Stockholder of Record: If your shares are registered directly in your name with OpGen's transfer agent, Pacific Stock Transfer Company, or the Transfer Agent, you are considered, with respect to those shares, the stockholder of record. As the stockholder of record, you have the right to grant your proxy directly to OpGen or to vote your shares in person at the Special Meeting.

Beneficial Owner: If you hold shares in a stock brokerage account or through a bank or other financial intermediary, you are considered the *beneficial owner* of shares held *in street name*. Your bank, broker or other financial intermediary is considered, with respect to those shares, the stockholder of record. As the beneficial owner, you have the right to direct your bank, broker or other financial intermediary on how to vote your shares, but because you are not the stockholder of record, you may not vote these shares in person at the Special Meeting unless you obtain a signed proxy from the stockholder of record giving you the right to vote the shares. As a beneficial owner, you are, however, welcome to attend the Special Meeting.

Q: What are the recommendations of the Board?

A The Board recommends that you vote:

- 1. **"FOR"** the Warrant Exercise Proposal; and
- 2. **"FOR**" the Authorized Preferred Stock Proposal; and
- 3. **"FOR**" the proposal to adjourn the Special Meeting if the Warrant Exercise Proposal or Authorized Preferred Stock Proposal is not approved by the requisite vote.

No other matters may be brought before the Special Meeting.

Q: What constitutes a quorum at the Special Meeting?

A. The presence in person or by proxy of the holders of thirty-four percent (34%) of the votes represented by the outstanding common stock is necessary to constitute a quorum at the Special Meeting. As of the Record Date, there were 7,622,524 shares of our common stock outstanding, entitled to one vote per share. The presence of the holders of at least 2,591,659 of the votes entitled to be cast at the meeting will be required to establish a quorum. Both abstentions and broker non-votes, if any, are counted as present for determining the presence of a quorum.

Q: What vote is required to approve each proposal?

A: Each proposal has its own vote requirement as follows:

Proposal No. One: Approval of the Warrant Exercise Proposal. The Warrant Exercise Proposal requires the affirmative vote of a majority of the votes cast by all stockholders present in person or represented by proxy at the Special Meeting and entitled to vote on the proposal.

Proposal No. Two: Approval of the Authorized Preferred Stock Proposal. The Authorized Preferred Stock Proposal requires the affirmative vote of at least a majority of the voting power of outstanding shares of capital stock of the Company.

Proposal No. Three: Adjournment. The approval of the adjournment proposal requires the affirmative vote of a majority of the votes cast by all stockholders present in person or represented by proxy at the Special Meeting and entitled to vote on the proposal.

The holders of common stock have the right to cast one (1) vote per share of common stock on the proposals.

Q: What is the effect of abstentions and broker non-votes?

A: An "abstention" occurs when a stockholder sends in a proxy with explicit instructions to decline to vote regarding a particular matter or attends the Special Meeting and elects not to vote or fails to cast a ballot. Abstentions are treated as shares present in person or by proxy and entitled to vote, so abstaining has the same effect as a negative vote for purposes of determining whether our stockholders approved the proposals presented.

A "broker non-vote" occurs when a broker has not received voting instructions from the beneficial owner and the broker does not have discretionary authority to vote the shares because the proposal is non-routine. We believe that the Warrant Exercise Proposal will be considered a non-routine matter under applicable rules, while the Authorized Preferred Stock Proposal and the adjournment proposal will be considered routine. Accordingly, brokers that do not receive instructions from the beneficial owner will be entitled to vote such owner's shares in its discretion solely on the Authorized Preferred Stock Proposal and adjournment proposal. Broker non-votes will have no effect on the outcome of the Warrant Exercise Proposal.

Q: May I change my vote?

A. Yes. You may change your proxy instructions or revoke your proxy at any time prior to the vote at the Special Meeting. For shares held directly in your name, you may accomplish this by: (a) delivering a written notice of revocation to the Secretary of the Company or the Secretary's designated agent bearing a later date than the proxy being revoked, (b) signing and delivering a later dated written proxy relating to the same shares, or (c) attending the Special Meeting and voting in person (although attendance at the Special Meeting will not in and of itself constitute a revocation of a proxy). For shares held in street name, you may change your vote by submitting new voting instructions to your broker, trustee or nominee.

Q: Who is paying for this proxy solicitation?

A. We are paying for this proxy solicitation. Our officers and other regular employees may solicit proxies by mail, in person or by telephone or telecopy. These officers and other regular employees will not receive additional compensation. The Company may retain a third party proxy solicitor for the Special Meeting, whose costs, if retained, we estimate would be approximately \$10,000. We will reimburse banks, brokers, nominees, custodians and fiduciaries for their reasonable out-of-pocket expenses incurred in sending the proxy materials to beneficial owners of the shares.

Q: How can I find out the results of the voting at the Special Meeting?

A: Preliminary voting results will be announced at the Special Meeting. In addition, final voting results will be published in a Current Report on Form 8-K that we expect to file within four business days after the completion of the Special Meeting.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The number of shares of the Company's common stock outstanding at the close of business on June 30, 2023 was 6,967,699 shares. The following table sets forth the beneficial ownership of the Company's common stock, as of June 30, 2023, by each Company director and executive officer, and by all directors and executive officers as a group. Beneficial ownership is determined in accordance with Rule 13d-3 under the Exchange Act. In computing the number of shares beneficially owned by a person or a group and the percentage ownership of that person or group, shares of our common stock subject to options and warrants currently exercisable or exercisable within 60 days after June 30, 2023 are deemed outstanding, but are not deemed outstanding for the purpose of computing the percentage ownership of any other person. To the knowledge of the directors and executive officers of the Company, as of June 30, 2023, there are no persons and/or companies who or which beneficially own, directly or indirectly, shares representing more than 5% of the voting rights attached to all outstanding shares of the Company, other than as set forth below. Unless otherwise indicated, the address of each beneficial owner listed below is c/o OpGen, Inc., 9717 Key West Ave, Suite 100, Rockville, MD 20850.

Name and Address of Beneficial Owner	Number of Shares of common stock	Percentage Beneficially Owned	
Directors and Named Executive Officers			
Johannes Bacher (1)	23,822	*	
Mario Crovetto (2)	4,165	*	
R. Donald Elsey (3)	4,075	*	
Prabhavathi Fernandes, Ph.D. (4)	4,165	*	
William E. Rhodes, III (5)	4,165	*	
Yvonne Schlaeppi		*	
Oliver Schacht, Ph.D. (6)	48,134	*	
Albert Weber (7)	3,937	*	
All current Directors and Executive Officers as a group (7 individuals) (8)	92,463	1.33%	

* Constitutes less than 1% of our outstanding common stock.

- (1) Consists of (i) 12,684 shares of common stock and (ii) stock options to purchase 11,138 shares of common stock that are currently vested or that will become vested within 60 days.
- (2) Consists of (i) 1,500 shares of common stock and (ii) stock options to purchase 2,665 shares of common stock that are currently vested or that will become vested within 60 days.
- (3) Consists of (i) 1,575 shares of common stock and (ii) stock options to purchase 2,500 shares of common stock that are currently vested or that will become vested within 60 days.
- (4) Consists of (i) 1,500 shares of common stock and (ii) stock options to purchase 2,665 shares of common stock that are currently vested or that will become vested within 60 days.
- (5) Consists of (i) 1,500 shares of common stock and (ii) stock options to purchase 2,665 shares of common stock that are currently vested or that will become vested within 60 days.
- (6) Consists of (i) 19,719 shares of common stock, (ii) 250 shares of common stock owned by Mr. Schacht's child, and (iii) stock options to purchase 28,165 shares of common stock that are currently vested or that will become vested within 60 days.
- (7) Consists of stock options to purchase 3,937 shares of common stock that are currently vested or that will become vested within 60 days.
- (8) See the beneficial ownership described in footnotes (1) through (7).

PROPOSALS TO BE ACTED UPON AT THE SPECIAL MEETING

<u>PROPOSAL NO. ONE – APPROVAL OF THE ISSUANCE OF UP TO 10,892,728 SHARES OF COMMON STOCK UPON</u> <u>THE EXERCISE OF WARRANTS.</u>

General

We are seeking stockholder approval for the issuance of up to 10,892,728 shares of our common stock upon the exercise of common stock purchase warrants that were issued in and in connection with our best efforts public offering that closed on May 4, 2023 (the "Offering") as contemplated by Nasdaq Listing Rules.

On May 1, 2023, we entered into a securities purchase agreement with an institutional investor (the "Investor"), pursuant to which we sold (i) 605,000 shares of the Company's common stock, par value \$0.01 per share, (ii) pre-funded warrants to purchase up to an aggregate of 3,890,825 shares of common stock (the "Pre-funded Warrants"), and (iii) common warrants to purchase up to an aggregate of 4,495,825 shares of common stock (the "New Common Warrants"). Each share of common stock and accompanying New Common Warrant was sold at a price of \$0.7785 per share and accompanying New Common Warrant, and each Pre-funded Warrant and accompanying New Common Warrant was sold at an offering price of \$0.7685 per share underlying such Pre-funded Warrant and accompanying New Common Warrant.

In connection with the Offering, the Company also entered into a warrant amendment agreement (the "Warrant Amendment Agreement") with the Investor. Under the Warrant Amendment Agreement, the Company agreed to amend certain existing warrants to purchase up to 6,396,903 shares of common stock that were previously issued in 2018, 2021, 2022 and 2023 to the Investor, with exercise prices ranging from \$2.65 to \$7.54 per share (the "Existing Warrants" and together with the New Common Warrants, the "Common Warrants"), in consideration for their purchase of the securities in the Offering, as follows: (i) lower the exercise price of the Existing Warrants to \$0.7785 per share, (ii) provide that the Existing Warrants, as amended, will not be exercisable until the receipt of stockholder approval for the exercisability of the New Common Warrants in the Offering, and (iii) extend the original expiration date of the Existing Warrants by five years following the receipt of such stockholder approval.

The Offering closed on May 4, 2023. The gross proceeds received by us from the Offering were approximately \$3.5 million before deducting the placement agent's fees and the offering expenses. The Company intends to use the net proceeds from the Offering to: (i) support continued commercialization of its FDA-cleared Acuitas AMR Gene Panel test for isolates in the U.S.; (ii) commercialize its products with a focus on the Unyvero Platform and diagnostic tests; (iii) support continued research and development, clinical trials and regulatory submissions for its Unyvero products; (iv) support further development and commercialization of the Ares Genetics database and service offerings; (v) support directed sales and marketing efforts to the customers and collaborators for our products and services; (vi) invest in manufacturing and operations infrastructure to support sales of products; and (vii) repay certain outstanding indebtedness of the Company and its subsidiaries. The Company intends to use the remaining net proceeds for working capital and other general corporate purposes.

Description of Common Warrants

Pursuant to Nasdaq Stock Market Rule 5635(d), the Common Warrants are not exercisable until our stockholders approve the issuance of shares of common stock issuable upon exercise of the Common Warrants ("Warrant Approval"). We have agreed with the Investor that if we do not obtain Warrant Approval at any special meeting of our stockholders, we will a call additional shareholder meeting every 70 days thereafter until the earlier of the date we obtain such approval or the warrants are no longer outstanding. Each Common Warrant will expire on the five-year anniversary of the receipt of Warrant Approval.

The Common Warrants each have an initial exercise price of \$0.7785 per share, and are exercisable beginning on the date the Warrant Approval is obtained, if at all. Each Common Warrant may be exercised, in cash or by a cashless exercise at the election of the holder at any time beginning on the effective date of Warrant Approval and from time to time thereafter through and including the five year anniversary of the effective date of Warrant Approval.

No Fractional Shares

No fractional shares or scrip representing fractional shares will be issued upon the exercise of the Common Warrants. As to any fraction of a share which the holder would otherwise be entitled to purchase upon such exercise, the number of shares of common stock to be issued will be rounded up to the nearest whole number.

Failure to Timely Deliver Shares

If we fail to deliver to the holder a certificate representing shares issuable upon exercise of a Common Warrant or to credit the holder's balance account with Depository Trust Company for such number of shares of common stock to which the holder is entitled upon the holder's exercise of the Common Warrant, in each case, by the delivery date set forth in the Common Warrant, and if after such date the holder is required by its broker to purchase (in an open market transaction or otherwise) or the holder's brokerage firm otherwise purchases, shares of common stock to deliver in satisfaction of a sale by the holder of the warrant shares which the holder anticipated receiving upon such exercise, or a Buy-In, then we shall (A) pay in cash to the holder the amount, if any, by which (x) the holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of warrant shares that we were required to deliver to the holder in connection with the exercise at issue, times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the holder, either reinstate the portion of the applicable warrant and equivalent number of warrant shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the holder the number of shares of common stock that would have been issued had we timely complied with our exercise and delivery obligations. In addition, if we fail to deliver to the holder any common stock pursuant to a validly-exercised Common Warrant, we will be required to pay liquidated damages in the amount of \$10 per trading day for each \$1,000 of the shares of common stock exercised but not delivered (and rising to \$20 per trading day beginning the third trading day after the warrant share delivery date) until such time the shares of common stock are delivered or the holder rescinds such exercise.

Exercise Limitation

In general, a holder of the Common Warrants does not have the right to exercise any portion of a Common Warrant if the holder (together with its Attribution Parties (as defined in the Common Warrant)) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrant. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon notice to us, provided that any increase in this limitation will not be effective until 61 days after such notice from the holder to us and such increase or decrease will apply only to the holder providing such notice.

Cashless Exercise

If, at the time a holder exercises its Common Warrants, a registration statement registering the issuance of the shares of common stock underlying the Common Warrants under the Securities Act of 1933, as amended, is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the warrant.

Adjustment for Stock Splits

The exercise price and the number of shares of common stock purchasable upon the exercise of the Common Warrants are subject to adjustment upon the occurrence of specific events, including sales of additional shares of common stock, stock dividends, stock splits, and combinations of our common stock.

Dividends or Distributions

If we declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of our common stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) at any time after the issuance of the common warrants, then, in each such case, the holders of the Common Warrants shall be entitled to participate in such distribution to the same extent that the holders would have participated therein if the holders had held the number of shares of common stock acquirable upon complete exercise of the Common Warrants.

Purchase Rights

If we grant, issue or sell any shares of our common stock or securities exercisable for, exchangeable for or convertible into our common stock, or rights to purchase stock, common warrants, securities or other property pro rata to the record holders of any class of shares of our common stock, referred to as Purchase Rights, then each holder of the Common Warrants will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the holder could have acquired if the holder had

held the number of shares of common stock acquirable upon complete exercise of the Common Warrants immediately before the record date, or, if no such record is taken, the date as of which the record holders of shares of common stock are to be determined, for the grant, issue or sale of such Purchase Rights.

Fundamental Transaction

If a Fundamental Transaction (as defined below) occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Common Warrants with the same effect as if such successor entity had been named in the common warrant itself. Additionally, upon consummation of a Fundamental Transaction pursuant to which holders of shares of our common stock are entitled to receive securities or other assets with respect to or in exchange for shares of our common stock, we will make appropriate provision to ensure that the holder will thereafter have the right to receive upon an exercise of the Common Warrants at any time after the consummation of the Fundamental Transaction but prior to the applicable expiration date of the common warrants, in lieu of shares of our common stock (or other securities, cash, assets or other property) purchasable upon the exercise of the Common Warrant prior to such Fundamental Transaction, at the option of each holder (without regard to any limitation in the common warrant on the exercise of the Common Warrants), the number of shares of common stock of the successor or acquiring corporation or of us, if we are the surviving corporation, and any additional consideration which the holder would have been entitled to receive upon the happening of such Fundamental Transaction had the Common Warrants been exercised immediately prior to such Fundamental Transaction had the Common Warrants been

If holders of our common stock are given a choice as to the securities, cash or property to be received in a Fundamental Transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Common Warrants, following such Fundamental Transaction. These provisions apply similarly and equally to successive Fundamental Transactions and other corporate events described in the Common Warrants and will be applied without regard to any limitations on the exercise of the Common Warrants.

In the event of a Fundamental Transaction, at the request of the holder, we or the successor entity shall purchase the unexercised portion of the Common Warrants from the holder by paying to the holder, on or prior to the second trading day after such request (or, if later, on the effective date of the Fundamental Transaction), cash in an amount equal to the Black-Scholes Value (as defined below) of the remaining unexercised portion of the common warrants on the date of such Fundamental Transaction.

A "Fundamental Transaction" is defined in the Common Warrants to mean (i) we, directly or indirectly, in one or more related transactions effect any merger or consolidation with or into another person, (ii) we or any subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of our assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by us or another Person) is completed pursuant to which holders of common stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding common stock or 50% or more of the voting power of the common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property, or (v) we, directly or indirectly, or (v) we, directly or indirectly, in one or more related transactions consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of our common stock or 50% or more of the voting power of the common equity.

Transferability

Subject to applicable laws, the Common Warrants may be offered for sale, sold, transferred or assigned. There is currently no trading market for the Common Warrants and a trading market is not expected to develop.

Rights as a Stockholder

Except as otherwise provided in the common warrants or by virtue of a holder's ownership of shares of our common stock, the holders of the Common Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, unless and until they exercise their Common Warrants.

Amendments

The Common Warrants may be amended with the written consent of the holder of such Common Warrant and us.

Listing

There is no established public trading market for the Common Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Common Warrants on any national securities exchange.

Reasons for the Warrant Exercise Proposal

Our common stock is listed on The Nasdaq Capital Stock Market ("Nasdaq") and trades under the ticker symbol "OPGN." Nasdaq Listing Rule 5635(d) requires stockholder approval of transactions other than public offerings of greater than 20% of the outstanding common stock or voting power of the issuer prior to the Offering. In determining whether an offering qualifies as a public offering, Nasdaq considers all relevant factors, including the extent of any discount to market price. In determining discount, Nasdaq generally attributes a value of \$0.125 for each warrant offered with a share of common stock, which value is generally deemed to be a discount. In order to ensure that the Offering qualified as a public offering under Rule 5635 due to the value attributable to the Common Warrants, the Common Warrants provide that they may not be exercised, and therefore have no value, until stockholder approval of their exercise is obtained.

Potential Consequences if Proposal No. 1 is Not Approved

The Board is not seeking the approval of our stockholders to authorize our entry into or consummation of the transactions contemplated by the securities purchase agreement, as the Offering has already been completed and the Common Warrants have already been issued. We are only asking for approval to issue the shares underlying the Common Warrants upon exercise thereof.

The failure of our stockholders to approve this Proposal No. 1 will mean that: (i) we cannot permit the exercise of the Common Warrants and (ii) may incur substantial additional costs and expenses.

Each Common Warrant has an initial exercise price of \$0.7785 per share. Accordingly, we would realize an aggregate of up to approximately \$8.5 million in gross proceeds if all the Common Warrants were exercised based on such value. If the Common Warrants cannot be exercised, we will not receive any such proceeds, which could adversely impact our ability to fund our operations.

In addition, in connection with the Offering and the issuance of Common Warrants, we agreed to seek stockholder approval every 70 days until our stockholders approve the issuance of the shares underlying the Common Warrants. We are required to seek such approval until such time as none of the Common Warrants are outstanding which could result in us seeking such approval every 70 days for five years. The costs and expenses associated with seeking such approval could materially adversely impact our ability to fund our operations and advance the clinical trials, regulatory approvals for, and commercialization of our products and product candidates.

Potential Adverse Effects of the Approval of Proposal No. 1

If this Proposal No. 1 is approved, existing stockholders will suffer dilution in their ownership interests in the future upon the issuance of shares of common stock upon exercise of the Common Warrants. Assuming the full exercise of the Common Warrants, an aggregate of 10,892,728 additional shares of common stock will be outstanding, and the ownership interest of our existing stockholders would be correspondingly reduced. In addition, the sale into the public market of these shares also could materially and adversely affect the market price of our common stock.

No Appraisal Rights

No appraisal rights are available under the General Corporation Law of the State of Delaware or under our Certificate, or our Amended and Restated Bylaws, as amended, with respect to the Warrant Exercise Proposal.

Required Vote

The affirmative vote of a majority of the votes cast by all stockholders present in person or represented by proxy at the Special Meeting and entitled to vote is required for approval of this proposal. Abstentions will have the same effect as votes against this proposal. As noted above, we believe that this proposal will be considered "non-routine" and therefore broker non-votes will have no effect on the outcome of this proposal.

Recommendation of the Board of Directors

The Board unanimously recommends that you vote "FOR" Proposal No. One to approve the Warrant Exercise Proposal.

<u>PROPOSAL NO. TWO– APPROVAL OF AN AMENDMENT TO THE CHARTER TO INCREASE THE AUTHORIZED</u> <u>NUMBER OF SHARES OF PREFERRED STOCK FROM 10 TO 20 MILLION SHARES.</u>

The Company's Charter currently authorizes the Company to issue a total of 110,000,000 shares of capital stock, consisting of 100,000,000 shares of common stock and 10,000,000 shares of preferred stock. The Board is requesting stockholder approval of an amendment to the Charter to increase the authorized number of shares of capital stock from 110,000,000 to 120,000,000 and shares of preferred stock from 10,000,000 shares to 20,000,000 shares (the "Charter Amendment"). The Company is not seeking any change to the number of shares of authorized common stock.

If the stockholders approve the Charter Amendment, the Company will file a Certificate of Amendment to the Charter to amend and replace the first sentence of Article FOURTH, in its entirety, to read as follows:

"The aggregate number of shares of all classes of capital stock which the Corporation shall have authority to issue is 120,000,000 shares of capital stock, consisting of 100,000,000 shares designated as Common Stock, \$0.01 par value per share, and 20,000,000 shares of Preferred Stock, \$0.01 par value per share."

Only the number of shares of preferred stock that the Company is authorized to issue will be affected by the Charter Amendment. Except for this change to the first sentence of Article FOURTH, all of the remaining provisions in the Charter will remain in full force and effect without change. This description is qualified by the full text of the Charter Amendment, which is attached as Appendix A to this Proxy Statement. Our Board adopted a resolution approving the Charter Amendment and directing that the Charter Amendment be submitted to the Company's stockholders for approval at this meeting. If this Authorized Preferred Stock Proposal is approved, we will file the Charter Amendment, in substantially the form attached as Appendix B, with the Secretary of State of the State of Delaware.

No specific shares of preferred stock are being designated at this time, and we do not currently have any plans to issue shares of preferred stock. The terms of any preferred stock that is to be issued, including dividend and interest rights, conversion prices, voting rights, redemption prices, maturity dates, and similar matters, will be determined by our Board if and when the Board designates a specific series of preferred stock in accordance with the Charter, as amended by the Charter Amendment.

Purpose and Reasons for the Charter Amendment

As of July 31, 2023, no shares of the Company's preferred stock are outstanding, and the Company is authorized to issue up to 10,000,000 shares of preferred stock. Our Board's objective in approving the Charter Amendment to increase the number of authorized shares of our preferred stock is to provide maximum flexibility with respect to future financing transactions. Preferred stock is commonly authorized by publicly traded companies and is sometimes used as a preferred means of raising capital. In some circumstances, companies, including us, have been required to utilize senior classes of securities to raise capital, with the terms of those securities being negotiated and tailored to meet the needs of both investors and issuing companies. Such senior securities often include liquidation preferences and dividend rights, conversion privileges and other rights not found in common stock.

The increase of our authorized shares of preferred stock will not have any immediate effect on the rights of existing stockholders. If the Charter Amendment is adopted, and our Charter is amended, our Board would be able to issue the additional shares of authorized preferred stock with such designations, preferences and relative, participating, optional, conversion or other special rights (if any) of such series and the qualifications, limitations or restrictions (if any) thereof, as the Board may in the future establish by resolution or resolutions and by filing a certificate pursuant to the Delaware General Corporation Law (a "Preferred Stock Designation"), from time to time providing for the issuance of such preferred stock. No vote of the holders of our common stock or preferred stock, unless otherwise expressly provided in the Charter or in a Preferred Stock Designation creating any series of preferred stock or to the extent we choose to comply with any limiting rules of any securities exchange or quotation system on which shares of our common or preferred stock are then listed or traded, will be a prerequisite to the issuance of any shares of any series of the preferred stock authorized by and complying with the conditions of the Charter, as amended. The Charter Amendment will not otherwise alter or modify the rights, preferences, privileges or restrictions of outstanding shares of our common stock or any of our authorized preferred stock.

If our stockholders adopt and approve this Proposal Two, the Charter Amendment will become effective on the date that it is filed with the Secretary of State of the State of Delaware. If Proposal Two is not adopted and approved by the stockholders or is subsequently abandoned by the Board, the Charter Amendment will not be filed with the Secretary of State of the State of Delaware and our authorized number of shares of preferred stock will remain at 10 million. Further, if the Board subsequently determines not to proceed with the filing of the Charter Amendment, it will not be filed with the Secretary of State of the State of Delaware even if it is approved by stockholders.

Although, at present, the Board has no plans to issue the additional shares of preferred stock, it desires to have the shares available to provide additional flexibility to use its capital stock for business and financial purposes in the future. The additional shares may be used for various purposes without further stockholder approval. These purposes may include, but are not limited to, raising capital; providing equity incentives to employees, officers or directors; establishing strategic relationships with other companies; expanding our business or product lines through the acquisition of other businesses or products; and other purposes. Such issuances would occur without further action or approval of our stockholders and would be subject to and limited by any rules or listing requirements of The Nasdaq Capital Market or of any other applicable rules or regulations. We do not currently have any plans, agreements, commitments or understandings with respect to the issuance of the additional shares, or the currently authorized but unissued shares, of preferred stock.

Reservation of Right to Abandon Preferred Increase Amendment

Our Board reserves the right to not proceed with the Charter Amendment and to abandon the Charter Amendment without further action by our stockholders at any time before the effectiveness of the filing of the Charter Amendment with the Secretary of State of the State of Delaware, even if Proposal Two is adopted and approved by our stockholders at the Special Meeting. By voting in favor of Proposal Two, you are expressly also authorizing our Board to delay, not proceed with, and abandon, the Charter Amendment if it should so decide, in its sole discretion, that such action is in the best interests of our company and its stockholders. If the Board elects to abandon the Charter Amendment, the number of authorized shares of preferred stock will remain at 10 million.

Anti-Takeover Effects

Although the Charter Amendment is not motivated by anti-takeover concerns and is not considered by the Board to be an anti-takeover measure, the availability of additional authorized shares of preferred stock could enable the Board to issue shares defensively in response to a takeover attempt or to make an attempt to gain control of our company more difficult or time-consuming. For example, shares of preferred stock could be issued to purchasers who might side with management in opposing a takeover bid which the Board determines is not in the best interests of the Company and our stockholders, thus diluting the ownership and voting rights of the person seeking to obtain control of the Company. In certain circumstances, issuance of shares of preferred stock without further action by the stockholders may have the effect of delaying or preventing a change of control of the Company, may discourage bids for our common stock at a premium over the market price of the common stock, and may adversely affect the market price of the common stock. Thus, increasing the authorized number of shares of the preferred stock could render more difficult and less likely a hostile merger, tender offer or proxy contest, assumption of control by a holder of a large block of our common stock, and the possible removal of our incumbent management. We are not aware of any proposed attempt to take over our Company or of any attempt to acquire a large block of our common stock.

No Appraisal Rights

Under the Delaware General Corporation Law, our stockholders are not entitled to appraisal rights with respect to the Charter Amendment.

Vote Required

The affirmative vote of holders of at least a majority of the voting power of outstanding shares of capital stock of the Company is required to approve this proposal.

Recommendation of the Board of Directors

The Board of Directors unanimously recommends that you vote "FOR" Proposal No. Two to approve the Charter Amendment.

<u>PROPOSAL NO. THREE – APPROVAL OF THE ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY, TO</u> <u>SOLICIT ADDITIONAL PROXIES IF THERE ARE INSUFFICIENT VOTES AT THE TIME OF THE SPECIAL MEETING</u> <u>TO APPROVE PROPOSAL NO. ONE (WARRANT EXERCISE PROPOSAL) OR PROPOSAL NO. TWO (AUTHORIZED</u> <u>PREFERRED STOCK PROPOSAL).</u>

Background of and Rationale for the Proposal

The Board believes that if the number of shares of the Company's common stock outstanding and entitled to vote at the Special Meeting is insufficient to approve Proposal No. One (the Warrant Exercise Proposal) or Proposal No. Two (the Authorized Preferred Stock Proposal), it is in the best interests of the stockholders to enable the Board to continue to seek to obtain a sufficient number of additional votes to approve the Warrant Exercise Proposal or Authorized Preferred Stock Proposal (the "Adjournment Proposal").

In the Adjournment Proposal, we are asking stockholders to authorize the holder of any proxy solicited by the Board to vote in favor of adjourning or postponing the Special Meeting or any adjournment or postponement thereof. If our stockholders approve this proposal, we could adjourn or postpone the Special Meeting, and any adjourned session of the Special Meeting, to use the additional time to solicit additional proxies in favor of the Warrant Exercise Proposal or Authorized Preferred Stock Proposal.

Additionally, approval of the Adjournment Proposal could mean that, in the event we receive proxies indicating that a majority of the number of outstanding shares of our common stock will vote against the Warrant Exercise Proposal or Authorized Preferred Stock Proposal, we could adjourn or postpone the Special Meeting without a vote on the proposal and use the additional time to solicit the holders of those shares to change their vote in favor of the Warrant Exercise Proposal or Authorized Preferred Stock Proposal.

If it is necessary or appropriate (as determined in good faith by the Board) to adjourn the Special Meeting, no notice of the adjourned meeting is required to be given to our stockholders, other than an announcement at the Special Meeting of the time and place to which the Special Meeting is adjourned, so long as the meeting is adjourned for 30 days or less and no new record date is fixed for the adjourned meeting. At the adjourned meeting, we may transact any business which might have been transacted at the original meeting.

Required Vote

The affirmative vote of a majority of the votes cast at the Special Meeting will be required to approve the Adjournment Proposal.

Recommendation of the Board of Directors

The Board unanimously recommends that you vote "FOR" Proposal No. Three to approve the Adjournment Proposal.

OTHER MATTERS

Management and the Board of the Company know of no matters to be brought before the Special Meeting other than as set forth herein.

DELIVERY OF DOCUMENTS TO STOCKHOLDERS SHARING AN ADDRESS

Only one Notice of Internet Availability of Proxy Materials is being delivered to stockholders sharing an address unless we have received contrary instructions from one or more of the stockholders. Upon the written or oral request of a stockholder, we will deliver promptly a separate copy of the Notice of Internet Availability of Proxy Materials to a stockholder at a shared address to which a single copy was delivered. Stockholders desiring to receive a separate copy now or in the future may contact us at our corporate offices located at 9717 Key West Ave, Suite 100, Rockville, MD 20850, or by telephone: (301) 869-9683.

Stockholders who share an address but are receiving multiple copies of the Notice of Internet Availability of Proxy Materials may contact us through our corporate offices at 9717 Key West Ave, Suite 100, Rockville, MD 20850, or by telephone: (301) 869-9683 to request that a single copy be delivered.

STOCKHOLDER PROPOSALS

Proposals from stockholders intended to be presented at the next annual meeting of stockholders should be addressed to OpGen, Inc., Attention: Corporate Secretary, 9717 Key West Ave, Suite 100, Rockville, MD 20850. We must receive the proposals by no earlier than 120 days and no later than 90 days prior to the first anniversary of the date on which this Proxy Statement was first made available to our stockholders in connection with the 2023 Annual Meeting, or no earlier than December 28, 2023 and no later than January 27, 2024. If we change the date of the next annual meeting by more than 30 days from the anniversary of this year's annual meeting of stockholders, stockholder proposals must be received a reasonable time before we begin to print and mail the proxy materials for the next annual meeting and not later than 10 days following the announcement or public disclosure of such meeting date in order to be considered for inclusion in the proxy materials. Upon receipt of any such proposal, we shall determine whether or not to include any such proposal in the proxy statement and proxy for next year's annual meeting in accordance with applicable law. It is suggested that stockholders forward such proposals by Certified Mail—Return Receipt Requested. Any nominations for director positions will be accepted in accordance with the procedures described in the Company's proxy statement for its 2023 annual meeting of stockholders under the heading "Procedures for Nominating a Director Candidate."

INCORPORATION BY REFERENCE

We hereby incorporate by reference the following items into this Proxy Statement: Items 7, 7A, 8 and 9 of Part II of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, which was filed with the Securities and Exchange Commission on March 30, 2023. Representatives of our auditors for the current year, UHY LLP, are expected to be present at our Special Meeting to respond to appropriate questions and to make a statement if they so desire.

Appendix A

CERTIFICATE OF AMENDMENT OF THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF OPGEN, INC.

OpGen, Inc., a corporation duly organized and validly existing under and by virtue of the General Corporation Law of the State of Delaware (the "DGCL");

DOES HEREBY CERTIFY AS FOLLOWS:

FIRST: The name of the corporation (the "Corporation") is: OpGen, Inc.

SECOND: The Amended and Restated Certificate of Incorporation of the Corporation was filed with the office of the Secretary of State of Delaware on May 7, 2015 (the "Restated Certificate"), a Certificate of Correction of the Restated Certificate was filed with the office of the Secretary of State of Delaware on June 6, 2016 (the "Certificate of Correction"), a Certificate of Amendment of the Restated Certificate of Amendment of the Restated Certificate of Amendment"), a Certificate of Amendment of the Restated Certificate of Amendment"), a Certificate of Amendment of the Restated Certificate was filed with the office of the Secretary of State of Delaware on August 28, 2019 (the "2019 Amendment"), a Certificate of Amendment of the Restated Certificate was filed with the office of the Secretary of State of Delaware on December 8, 2021 (the "First 2021 Amendment"), a Certificate of Amendment of the Restated Certificate was filed with the office of the Secretary of State of Delaware on December 9, 2021 (the "Second 2021 Amendment"), and a Certificate of Amendment of the Restated Certificate was filed with the office of Delaware on January 4, 2023 (the "2023 Amendment," and together with the Restated Certificate, the Certificate of Correction, the 2018 Amendment, the 2019 Amendment, the First 2021 Amendment, and the Second 2021 Amendment, the "Charter").

THIRD: The Charter is hereby amended as follows:

(a) Article FOURTH of the Charter is hereby amended by changing the first sentence so that it shall read as follows:

"The aggregate number of shares of all classes of capital stock which the Corporation shall have authority to issue is 120,000,000 shares of capital stock, consisting of 100,000,000 shares designated as Common Stock, \$0.01 par value per share, and 20,000,000 shares of Preferred Stock, \$0.01 par value per share."

FOURTH: The foregoing amendment was duly adopted in accordance with the provisions of Section 242 of the DGCL.

FIFTH: This Certificate of Amendment shall be deemed effective upon its filing with the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, the undersigned has duly executed this Certificate of Amendment on this _____ day of , 2023.

OPGEN, INC.

By:			
Name:			

Title: