

Prospectus Supplement
(To the Prospectus dated February 7, 2020)



Up to \$15,700,000 of Common Stock

This prospectus supplement (this “Prospectus Supplement”) updates and amends certain information contained in the prospectus supplement, dated February 11, 2020 (the “Original Supplement”), to the prospectus dated February 7, 2020 (the “Base Prospectus” and, together with the Original Supplement, the “February 2020 Prospectus”), relating to the offer and sale of shares of our common stock, par value \$0.01 per share, having an aggregate offering price of up to \$4.2 million from time to time through H.C. Wainwright & Co., LLC, or Wainwright, as sales agent, in “at-the-market” offerings (as defined in Rule 415 promulgated under the Securities Act of 1933, as amended) pursuant to the at-the-market common stock sales agreement (the “Sales Agreement”), dated February 7, 2020, that we entered into with Wainwright.

This Prospectus Supplement should be read in conjunction with the February 2020 Prospectus, and is qualified by reference to the February 2020 Prospectus, except to the extent that the information presented herein supersedes the information contained in the February 2020 Prospectus. This Prospectus Supplement is not complete without, and may only be delivered or used in connection with, the February 2020 Prospectus, including any amendments or supplements thereto.

Our common stock is listed on the NASDAQ Capital Market under the symbol “OPGN.” On March 16, 2020, the last reported sale price of our common stock on the NASDAQ Capital Market was \$4.04 per share.

The aggregate market value of our outstanding common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 was approximately \$47,426,182, which was calculated based on 11,790,236 shares of common stock outstanding, as of March 17, 2020, of which 11,739,154 shares were held by non-affiliates, and a price per share of \$4.04, which was the closing sale price of our common stock on the NASDAQ Capital Market on March 16, 2020. During the 12 calendar months prior to and including the date of this Prospectus Supplement, we have sold \$4,199,942 of securities pursuant to General Instruction I.B.6 of Form S-3.

We are filing this Prospectus Supplement to update and amend the February 2020 Prospectus to update the dollar amount of shares we may sell under General Instruction I.B.6 of Form S-3. We may currently offer and sell shares of our common stock having an aggregate offering price of up to \$11,608,785 from time to time under General Instruction I.B.6 of Form S-3. If our public float increases such that we may offer and sell more than \$11,608,785 under General Instruction I.B.6 of Form S-3, we will file another prospectus supplement prior to making sales in excess of such amount.

Investing in our securities involves a high degree of risk. Please read the information contained in or incorporated by reference under the heading “Risk Factors” in the Original Supplement and in the accompanying Base Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

H.C. Wainwright & Co.

Prospectus supplement dated March 17, 2020

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Prospectus Supplement

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus supplement and in our prospectus supplement, dated February 11, 2020, or the Original Supplement, to the accompanying prospectus, dated February 7, 2020, or the Base Prospectus, or in other documents incorporated by reference herein or therein. Generally, when we refer to this prospectus, we are referring to this prospectus supplement, the Original Supplement, and the Base Prospectus. This summary is not complete and does not contain all of the information you should consider in making your investment decision. You should read this entire prospectus carefully before making an investment in our securities. You should carefully consider, among other things, our financial statements and the related notes and the sections entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in, or incorporated by reference into, this prospectus.

Overview of OpGen

We are a precision medicine company harnessing the power of molecular diagnostics and informatics to help combat infectious disease. We are developing molecular information products and services for global healthcare settings, helping to guide clinicians with more rapid and actionable information about life threatening infections, improve patient outcomes, and decrease the spread of infections caused by multidrug-resistant microorganisms, or MDROs. Our proprietary DNA tests and informatics address the rising threat of antibiotic resistance by helping physicians and other healthcare providers optimize care decisions for patients with acute infections.

OpGen’s molecular diagnostics and informatics products, product candidates and services combine its Acuitas molecular diagnostics and Acuitas Lighthouse informatics platform for use with its proprietary, curated MDRO knowledgebase. OpGen is working to deliver products and services, some in development, to a global network of customers and partners.

Recent Developments

Special Meeting of OpGen Stockholders

We convened a special meeting of our stockholders at 10:00 a.m., Eastern time, on March 10, 2020 to consider matters related to our previously announced business combination with Curetis GmbH. On March 10, 2020, we announced the adjournment of the special meeting until 10:00 am, Eastern time, on March 30, 2020 in order to allow additional time for stockholders to vote on the proposals relating to the business combination.

Company and Other Information

OpGen, Inc. was incorporated in Delaware in 2001. On July 14, 2015, the Company acquired AdvanDx, Inc., a Delaware corporation, as a wholly-owned subsidiary in a merger transaction, or the AdvanDx Merger. On September 3, 2019, we formed Crystal GmbH for the sole purpose of completing the business combination transaction contemplated by the Implementation Agreement. Our principal executive office is located at 708 Quince Orchard Road, Gaithersburg, Maryland, 20878, and our telephone number is (240) 813-1260. The Company also has operations in Copenhagen, Denmark, and Bogota, Colombia. Our website address is www.opgen.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

THE OFFERING

| | |
|---|--|
| Common stock offered by us: | Shares of our common stock having an aggregate offering price of \$11,608,785. |
| Common stock outstanding after this offering: | 3,728,802 shares, assuming a sales price of \$4.04 per share, which was the closing price of our common stock on the NASDAQ Capital Market on March 16, 2020. The actual number of shares issued in this offering will vary depending on the price at which shares may be sold from time to time in this offering. |
| Manner of offering: | The Sales Agent may, according to the terms of the Sales Agreement, sell the shares of our common stock offered under this prospectus in an “at-the-market” offering. |
| Use of Proceeds: | We currently intend to use the net proceeds of this offering for the following purposes: prior to the closing of the transactions contemplated by the Implementation Agreement to (1) complete the business combination with Curetis; (2) for provision of short-term funding to Curetis under a subordinated loan facility, or the Interim Facility, to fund the Curetis Group’s operations, including the Unyvero LRT BAL regulatory clearance-related activities, Unyvero platform R&D activities, Ares Genetics-related R&D and business development activities with potential collaborators and distributors; and (3) support research and development and regulatory activities in support of the Company’s anticipated FDA 510(k) submissions for the Acuitas AMR Gene Panel test and the Acuitas Lighthouse Software; and, if any proceeds remain following the closing of the transactions under the Implementation Agreement, to: (4) commercialize Newco’s products, with a focus on the Unyvero platform and diagnostic tests, and the Acuitas AMR Gene Panel tests; (5) support further development and commercialization of the Ares Genetics database and Acuitas Lighthouse Software; (6) fund directed efforts to the customers and collaborators of each company to introduce the products and services of Newco; (7) invest in manufacturing and operations infrastructure to support sales of products; and (8) the balance, if any, for general corporate purposes. If the transactions under the Implementation Agreement do not close, to the extent any proceeds remain, we plan to use any remaining proceeds to support OpGen’s operations as far as possible into 2020. |
| Risk Factors: | Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement and under the similar heading in the Original Supplement and the Base Prospectus and the other information included or incorporated by reference herein or therein. |
| Nasdaq Capital Market symbol: | Our common stock is listed on the NASDAQ Capital Market under the symbol “OPGN.” |

Except as otherwise indicated, the information in this prospectus supplement assumes the sale of all of the shares offered hereby.

The number of shares of common stock to be outstanding immediately after this offering is based on 882,268 shares of our common stock outstanding as of September 30, 2019, and excludes:

- 9,936 shares of common stock issuable upon the exercise of outstanding options granted as of September 30, 2019, under our equity incentive plans at a weighted average exercise price of \$413.80 per share;
- 175,982 shares of common stock issuable upon the exercise of outstanding warrants issued as of September 30, 2019, at a weighted average exercise price of \$288.34 per share;

- 16,663 shares of common stock issuable upon vesting of outstanding restricted stock units granted as of September 30, 2019;
- 3,827 shares of common stock available for future issuance under our equity incentive plans as of September 30, 2019;
- 4,700,000 shares of common stock issued in an underwritten public offering conducted by the Company in October 2019, or the October 2019 Public Offering;
- 769,000 shares of common stock issuable upon the exercise of the common warrants issued to purchasers in the October 2019 Public Offering at an exercise price of \$2.00 per share;
- 3,931,000 shares of common stock issued upon the exercise of common warrants issued in the October 2019 Public Offering;
- 235,000 shares of common stock issuable upon the exercise of the common warrants issued to the underwriter of the October 2019 Public Offering at an exercise price of \$2.60 per share;
- 12 shares of common stock issuable upon the vesting of restricted stock units since September 30, 2019;
- 2,276,956 shares of common stock issued in an “at-the-market” offering under the Original Supplement and Base Prospectus; and
- up to 2,662,564 shares of common stock issuable pursuant to the terms of the Implementation Agreement.

The number of outstanding options, restricted stock units and shares of common stock available for future issuances under our equity incentive plans does not reflect the addition of 223,291 shares to the available shares under the 2015 Plan as of January 1, 2020 as a result of the evergreen provision of the 2015 Plan, the expiration of stock options to purchase 353 shares of our common stock, forfeitures of stock options to purchase 159 shares of our common stock or forfeitures of 1,675 shares of our common stock issuable upon vesting of restricted stock units since September 30, 2019.

Unless otherwise indicated, all information contained in this prospectus supplement assumes (i) no exercise of options issued under our equity incentive plans and (ii) no exercise of warrants.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described below, and incorporated by reference herein, together with all of the other information in, or incorporated by reference in, this prospectus, including the Original Supplement and Base Prospectus and our financial statements and related notes incorporated by reference herein, before making an investment decision. If any of these risks occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment.

Risks Related to our Business

The novel coronavirus outbreak could adversely impact our business, financial condition and results of operations.

In December 2019, a strain of novel coronavirus surfaced in Wuhan, China. In January 2020, the World Health Organization declared the novel coronavirus outbreak a “Public Health Emergency of International Concern” and the U.S. Department of State instructed travelers to avoid all nonessential travel to China. The coronavirus has since impacted the global economy and may impact our operations, including the potential interruption of our clinical trial activities and our supply chain. As a result of the outbreak, certain of our suppliers and contract manufacturing organizations may be affected and could experience closures and labor shortages, which could disrupt their activities. We could therefore face difficulty sourcing key components necessary to produce our product candidates, which may negatively affect our clinical development activities. Even if we are able to find alternate sources for some of these components, they may cost more, which could affect our results of operations and financial position. In addition, the coronavirus outbreak could delay enrollment in our clinical trials due to prioritization of hospital resources toward the outbreak, and some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services.

At this point in time, there is significant uncertainty relating to the potential effect of the novel coronavirus on our business. Infections may become more widespread, including in countries where we are conducting clinical trials, and manufacturing closures and travel restrictions may remain or worsen, all of which would have a negative impact on our business, financial condition and results of operations.

It is not possible to predict the future of the emerging COVID-19 global pandemic or the development of potential tests or treatments. No assurance can be given that our or, following the closing of the proposed business combination, Curetis’ products will aid in the testing or the treatment of this virus.

Curetis, the other party to the proposed business combination with us, has commenced offering products for the testing of SARS-CoV-2, the casual pathogen of COVID-19. OpGen and Curetis may offer other products for testing or treatment of SARS-CoV-2. There can be no assurance that any such tests or treatments will be effective or that any such tests or treatments will be broadly disseminated and adopted for use. OpGen and Curetis are among many companies that are trying to develop tests and treatments for the virus, most of whom have far greater resources than us. If one of these companies develops an effective test or treatment, our development of such tests and treatments for the virus will most likely be adversely affected.

We rely on a limited number of suppliers or, in some cases, sole suppliers, for some of our materials and may not be able to find replacements or immediately transition to alternative suppliers.

We rely on several sole suppliers and manufacturers, including Thermo Fisher Scientific and QIAGEN, for supplying certain reagents, raw materials, supplies and substances which we use to manufacture our products. An interruption in our operations could occur if we encounter delays or difficulties in securing these items or manufacturing our products, and if we cannot, then obtain an acceptable substitute. Any such interruption or damage to third party suppliers or manufacturers for any reason, such as fire or other events beyond our control, including as a result of natural disasters, terrorist attacks, or the occurrence of a contagious disease or illness, such as the novel coronavirus, could significantly affect our business, financial condition, results of operations and reputation.

DILUTION

Our net tangible book value as of September 30, 2019 was approximately \$(3.0) million, or \$(3.45) per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of September 30, 2019. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the assumed sale of 2,846,534 shares of our common stock in this offering at an assumed offering price of \$4.04 per share, based on the last reported sale price of our common stock on the NASDAQ Capital Market on March 16, 2020, and after deducting estimated offering commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2019 would have been approximately \$8.0 million, or \$2.15 per share. This represents an immediate increase in net tangible book value of \$5.60 per share to existing stockholders and immediate dilution of \$1.89 per share to purchasers purchasing our securities in this offering at the offering price. The following table illustrates this dilution on a per share basis:

| | | | |
|--|----|-------------|-------------|
| Assumed offering price per share of common stock | | \$ | 4.04 |
| Net tangible book value per share of as September 30, 2019 | \$ | (3.45) | |
| Increase in net tangible book value per share attributable to this offering | \$ | <u>5.60</u> | |
| As adjusted net tangible book value per share as of September 30, 2019, after giving effect to this offering | | \$ | <u>2.15</u> |
| Dilution per share to investors in this offering | | \$ | 1.89 |

The above table assumes for illustrative purposes that an aggregate of 2,846,534 shares of our common stock are sold during the term of the Sales Agreement with Wainwright at a price of \$4.04 per share, the last reported sale price of our common stock on the NASDAQ Capital Market on March 16, 2020, for aggregate gross proceeds of \$11.5 million. The shares subject to the Sales Agreement with Wainwright are being sold from time to time at various prices. A \$1.00 increase in the assumed offering price of \$4.04 per share of common stock, assuming all of our common stock in the aggregate amount of \$11.5 million during the term of the Sales Agreement with Wainwright is sold at that price, would increase our as adjusted net tangible book value after this offering by \$0.38 per share, and the dilution per share to investors purchasing shares in this offering would be approximately \$2.51 per share, after deducting commissions and estimated aggregate offering expenses payable by us. Similarly, a \$1.00 decrease in the assumed offering price of \$4.04 per share of common stock, assuming all of our common stock in the aggregate amount of \$11.5 million during the term of the Sales Agreement with Wainwright is sold at that price, would decrease our as adjusted net tangible book value after this offering by \$0.43 per share, and the dilution per share to investors purchasing securities in this offering would be \$1.32 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only and may differ based on the actual offering price and the actual number of shares offered.

The number of shares of common stock to be outstanding immediately after this offering is based on 882,268 shares of our common stock outstanding as of September 30, 2019, and excludes:

- 9,936 shares of common stock issuable upon the exercise of outstanding options granted as of September 30, 2019, under our equity incentive plans at a weighted average exercise price of \$413.80 per share;
- 175,982 shares of common stock issuable upon the exercise of outstanding warrants issued as of September 30, 2019, at a weighted average exercise price of \$288.34 per share;

- 16,663 shares of common stock issuable upon vesting of outstanding restricted stock units granted as of September 30, 2019;
- 3,827 shares of common stock available for future issuance under our equity incentive plans as of September 30, 2019;
- 4,700,000 shares of common stock issued in an underwritten public offering conducted by the Company in October 2019, or the October 2019 Public Offering;
- 769,000 shares of common stock issuable upon the exercise of the common warrants issued to purchasers in the October 2019 Public Offering at an exercise price of \$2.00 per share;
- 3,931,000 shares of common stock issued upon the exercise of common warrants issued in the October 2019 Public Offering;
- 235,000 shares of common stock issuable upon the exercise of the common warrants issued to the underwriter of the October 2019 Public Offering at an exercise price of \$2.60 per share;
- 12 shares of common stock issuable upon the vesting of restricted stock units since September 30, 2019;
- 2,276,956 shares of common stock issued in an “at the market” equity offering under the Original Supplement and Base Prospectus; and
- up to 2,662,564 shares of common stock issuable pursuant to the terms of the Implementation Agreement.

The number of outstanding options, restricted stock units and shares of common stock available for future issuances under our equity incentive plans does not reflect the addition of 223,291 shares to the available shares under the 2015 Plan as of January 1, 2020 as a result of the evergreen provision of the 2015 Plan, the expiration of stock options to purchase 353 shares of our common stock, forfeitures of stock options to purchase 159 shares of our common stock or forfeitures of 1,675 shares of our common stock issuable upon vesting of restricted stock units since September 30, 2019.

To the extent that options or warrants outstanding as of September 30, 2019 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We filed with the SEC a registration statement on Form S-3 under the Securities Act of 1933 for the shares of common stock in this offering. This prospectus does not contain all of the information in the registration statement and the exhibits and schedule that were filed with the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and the exhibits and schedule that were filed with the registration statement. Statements contained in this prospectus about the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding registrants that file electronically with the SEC. The address of the website is www.sec.gov.

We file periodic reports under the Securities Exchange Act of 1934, including annual, quarterly and special reports, and other information with the Securities and Exchange Commission. These periodic reports and other information are available for inspection and copying at the SEC regional offices, public reference facilities and on the website of the SEC referred to above.

We make available free of charge on or through our internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information found on our website, www.opgen.com, other than as specifically incorporated by reference in this prospectus, is not part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” in this prospectus the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents containing such information. This prospectus is a part of a registration statement we filed with the SEC. You should rely on the information incorporated by reference in this prospectus and the registration statement. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information and information contained in documents filed earlier with the SEC. We incorporate by reference the documents listed below and any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering; provided, that we are not incorporating by reference any documents or information deemed to have been furnished and not filed in accordance with SEC rules. The documents we are incorporating by reference are:

- our Annual Report on [Form 10-K for the year ended December 31, 2018, filed with the SEC on February 27, 2019](#);
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2019](#), [June 30, 2019](#), and [September 30, 2019](#), filed with the SEC on May 15, 2019, August 14, 2019, and November 14, 2019, respectively;
- our Current Reports on Form 8-K filed with the SEC on [February 25, 2019 \(Items 5.02 and 9.01\)](#), [March 26, 2019 \(Items 1.01, 8.01 and 9.01\)](#), [April 15, 2019 \(Item 5.02\)](#), [May 10, 2019 \(Item 3.01\)](#), [May 14, 2019 \(Items 8.01 and 9.01\)](#), [July 1, 2019 \(Item 5.02\)](#), [August 22, 2019 \(Item 5.07\)](#), [August 23, 2019 \(Item 3.01\)](#), [August 28, 2019 \(Items 5.03 and 9.01\)](#), [September 4, 2019 \(Items 1.01 and 9.01 \(except for Exhibit 99.2\)\)](#), [September 18, 2019 \(Item 8.01\)](#), [October 28, 2019 \(Items 1.01, 3.01 and 9.01\)](#), [October 31, 2019 \(Items 3.01 and 9.01\)](#), [January 23, 2020 \(Item 8.01\)](#), [January 30, 2020 \(Item 8.01 and 9.01\)](#), [February 12, 2020 \(Items 1.01 and 9.01\)](#); [February 12, 2020 \(Items 8.01 and 9.01\)](#); [February 20, 2020 \(Items 8.01 and 9.01\)](#); [February 28, 2020 \(Items 1.01 and 9.01\)](#); [March 10, 2020 \(Items 8.01 and 9.01\)](#); and [March 16, 2020 \(Items 8.01 and 9.01\)](#);
- our [proxy statement for the Annual Meeting of Stockholders held on August 22, 2019, filed with the SEC on July 12, 2019](#); and

the description of our common stock contained in the [Registration Statement on Form 8-A filed on April 30, 2015](#) and any amendments to such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

We will furnish to you, on written or oral request, a copy of any or all of the documents that have been incorporated by reference, including exhibits to these documents. You may request a copy of these filings at no cost by writing or telephoning our Secretary at the following address and telephone number:

OpGen, Inc.
Attention: Timothy C. Dec, Corporate Secretary
708 Quince Orchard Road, Suite 205
Gaithersburg, MD 20878
Telephone No.: (240) 813-1260

