

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



**Up to \$22,100,000 of Common Stock**

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This prospectus supplement (this "Prospectus Supplement") updates and amends certain information contained in the prospectus supplement dated February 11, 2020, as supplemented by the prospectus supplement dated March 17, 2020 (collectively, the "Original Supplements"), to the prospectus dated February 7, 2020 (the "Base Prospectus" and, together with the Original Supplements, the "Original 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 \$15.7 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 11, 2020, that we entered into with Wainwright.

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

Our common stock is listed on the NASDAQ Capital Market under the symbol "OPGN." On September 3, 2020, the last reported sale price of our common stock on the NASDAQ Capital Market was \$2.15 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 \$66,557,266, which was calculated based on 19,799,349 shares of common stock outstanding as of August 24, 2020, of which 19,749,931 shares were held by non-affiliates, and a price per share of \$3.37, which was the closing sale price of our common stock on the NASDAQ Capital Market on August 7, 2020. During the 12 calendar months prior to and including the date of this Prospectus Supplement, we have sold \$15,698,528 of securities pursuant to General Instruction I.B.6 of Form S-3.

We are filing this Prospectus Supplement to update and amend the Original 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 \$6,401,472 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 \$6,401,472 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. See "Risk Factors" beginning on page S-4 of this prospectus supplement, and under the same heading in the accompanying prospectus.**

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**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.**

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**H.C. Wainwright & Co.**

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**Prospectus supplement dated September 4, 2020**

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## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights information contained in greater detail elsewhere in this prospectus supplement, the Original 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 and the Original 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. Along with our subsidiaries, Curetis GmbH and Ares Genetics GmbH, we are developing and commercializing molecular microbiology solutions helping to guide clinicians with more rapid and actionable information about life threatening infections to improve patient outcomes, and decrease the spread of infections caused by multidrug-resistant microorganisms, or MDROs. Our current product portfolio includes Unyvero, QuickFISH, PNA FISH, Acuitas AMR Gene Panel, Acuitas® Lighthouse, and the ARES Technology Platform including ARESdb, using NGS technology and AI-powered bioinformatics solutions for antibiotic response prediction.

Our focus is on our combined broad portfolio of products, which include high impact rapid diagnostics and bioinformatics to interpret AMR genetic data. OpGen will continue to develop and seek FDA and other regulatory clearances or approvals, as applicable, for the Acuitas AMR Gene Panel (Urine) diagnostic test and the Acuitas Lighthouse Software products. We will continue to offer the Acuitas AMR Gene Panel (Isolates) and Acuitas Lighthouse Software as well as the Unyvero UTI Panel as research-use-only products to hospitals, public health departments, clinical laboratories, pharmaceutical companies and contract research organizations.

### **Company and Other Information**

OpGen, Inc. was incorporated in Delaware in 2001. On July 14, 2015, we 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 our business combination with Curetis GmbH, which closed on April 1, 2020. Our principal executive office is located at 708 Quince Orchard Road, Gaithersburg, Maryland, 20878, and our telephone number is (240) 813-1260. We also have operations in Germany and Austria. Our website address is [www.opgen.com](http://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 \$6.4 million.
Common stock outstanding after this offering:	20,670,676 shares, assuming a sales price of \$2.15 per share, which was the closing price of our common stock on the NASDAQ Capital Market on September 3, 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: (1) support research and development and regulatory activities in support of our anticipated FDA 510(k) submissions for the Acuitas AMR Gene Panel test and the Acuitas Lighthouse Software; (2) commercialize our products, with a focus on the Unyvero platform and diagnostic tests, and the Acuitas AMR Gene Panel tests; (3) support further development and commercialization of the Ares Genetics database and Acuitas Lighthouse Software; (4) fund directed efforts to the customers and collaborators relating to our products and services; (5) invest in manufacturing and operations infrastructure to support sales of products; and (6) the balance, if any, for general corporate purposes. See “Use of Proceeds” on page S-4 of this prospectus supplement.
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 accompanying 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 17,693,932 shares of our common stock outstanding as of June 30, 2020, and excludes:

- 143,288 shares of common stock issuable upon the exercise of outstanding options granted as of June 30, 2020, under our equity incentive plans at a weighted average exercise price of \$70.97 per share;
- 1,033,386 shares of common stock issuable upon the exercise of outstanding warrants issued as of June 30, 2020, at a weighted average exercise price of \$29.82 per share;

- 8,151 shares of common stock issuable upon vesting of outstanding restricted stock units granted as of June 30, 2020;
- 230,711 shares of common stock available for future issuance under our equity incentive plans as of June 30, 2020;
- 1,523,663 shares of common stock issued in an “at the market” equity offering under the Prospectus Supplements and Base Prospectus since June 30, 2020;
- 270,000 shares of common stock issued upon the exercise of common warrants issued since June 30, 2020;
- 750 shares of common stock issued upon the vesting of restricted stock units since June 30, 2020; and
- 311,003 shares of common stock issued upon the conversion of Convertible Notes since June 30, 2020;

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 grant of stock options to purchase an aggregate of 1,300,000 shares of our common stock to our executive officers and non-employee members of our board of directors, which such grant was approved outside of our existing equity incentive plans and remains subject to stockholder approval; and
- the expiration of stock options to purchase 226 shares of our common stock since June 30, 2020.

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 incorporated by reference herein, together with all of the other information in, or incorporated by reference in, this prospectus, including the Original 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.*

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$6.4 million from time to time. The amount of proceeds from this offering will depend upon the number of shares of common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the Sales Agreement with the Sales Agent.

The primary programs and activities to which we intend to devote the net proceeds of offerings under this prospectus are:

- support research and development and regulatory activities in support of our anticipated FDA 510(k) submissions for the Acuitas AMR Gene Panel test and the Acuitas Lighthouse Software;
- commercialize our products, with a focus on the Unyvero platform and diagnostic tests, and the Acuitas AMR Gene Panel tests;
- support further development and commercialization of the Ares Genetics database and Acuitas Lighthouse Software;
- fund directed efforts to the customers and collaborators relating to our products and services;
- invest in manufacturing and operations infrastructure to support sales of products; and
- the balance, if any, for general corporate purposes.

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. Our management will have broad discretion in the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not result in our being profitable or increase our market value.

## DILUTION

Our net tangible book value as of June 30, 2020 was approximately \$(4.5) million, or \$(0.25) 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 June 30, 2020. 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 2,976,744 shares of our common stock in this offering at an assumed offering price of \$2.15 per share, based on the last reported sale price of our common stock on the NASDAQ Capital Market on September 2, 2020, and after deducting estimated offering commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2020 would have been approximately \$1.7 million or \$0.08 per share. This represents an immediate increase in net tangible book value of \$0.33 per share to existing stockholders and immediate dilution of \$2.07 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		\$	2.15
Net tangible book value per share of as June 30, 2020	\$	(0.25)	
Increase in net tangible book value per share attributable to this offering	\$	0.33	
As adjusted net tangible book value per share as of June 30, 2020, after giving effect to this offering	\$	0.08	
Dilution per share to investors in this offering	\$	2.07	

The above table assumes for illustrative purposes that an aggregate of 2,976,744 shares of our common stock are sold during the term of the Sales Agreement with Wainwright at a price of \$2.15 per share, the last reported sale price of our common stock on the NASDAQ Capital Market on September 3, 2020, for aggregate gross proceeds of \$6.4 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 \$2.15 per share of common stock, assuming all of our common stock in the aggregate amount of \$6.4 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 \$0.004 per share, and the dilution per share to investors purchasing shares in this offering would be approximately \$3.07 per share, after deducting commissions and estimated aggregate offering expenses payable by us. Similarly, a \$1.00 decrease in the assumed offering price of \$2.15 per share of common stock, assuming all of our common stock in the aggregate amount of \$6.4 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 \$(0.01) per share, and the dilution per share to investors purchasing securities in this offering would be \$1.08 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 17,693,932 shares of our common stock outstanding as of June 30, 2020, and excludes:

- 143,288 shares of common stock issuable upon the exercise of outstanding options granted as of June 30, 2020, under our equity incentive plans at a weighted average exercise price of \$70.97 per share;
- 1,033,386 shares of common stock issuable upon the exercise of outstanding warrants issued as of June 30, 2020, at a weighted average exercise price of \$29.82 per share;
- 8,151 shares of common stock issuable upon vesting of outstanding restricted stock units granted as of June 30, 2020;

- 230,711 shares of common stock available for future issuance under our equity incentive plans as of June 30, 2020;
- 1,523,663 shares of common stock issued in an “at the market” equity offering under the Prospectus Supplements and Base Prospectus since June 30, 2020;
- 270,000 shares of common stock issued upon the exercise of common warrants issued since June 30, 2020;
- 750 shares of common stock issued upon the vesting of restricted stock units since June 30, 2020; and
- 311,003 shares of common stock issued upon the conversion of Convertible Notes since June 30, 2020;

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 grant of stock options to purchase an aggregate of 1,300,000 shares of our common stock to our executive officers and non-employee members of our board of directors, which such grant was approved outside of our existing equity incentive plans and remains subject to stockholder approval; and
- the expiration of stock options to purchase 226 shares of our common stock since June 30, 2020.

To the extent that options or warrants outstanding as of June 30, 2020 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](http://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](http://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, 2019](#), filed with the SEC on March 24, 2020;
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2020](#) and [June 30, 2020](#), filed with the SEC on May 8, 2020 and August 14, 2020, respectively;

- our Current Reports on Form 8-K filed with the SEC on [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 \(Items 8.01 and 9.01\)](#); [March 16, 2020 \(Items 8.01 and 9.01\)](#); [March 19, 2020 \(Items 8.01 and 9.01\)](#); [March 24, 2020 \(Items 8.01 and 9.01, but only exhibit 99.2 thereof\)](#); [March 30, 2020 \(Items 5.07, 8.01 and 9.01\)](#); [April 2, 2020 \(Items 2.01, 5.02, 8.01 and 9.01\)](#), as amended on [June 15, 2020](#); [April 16, 2020 \(Item 8.01\)](#); [April 28, 2020 \(Items 1.01, 2.03 and 9.01\)](#); [May 7, 2020 \(Item 5.02\)](#); [May 11, 2020 \(Items 8.01 and 9.01\)](#); [June 3, 2020 \(Items 8.01 and 9.01\)](#); [July 13, 2020 \(Items 1.01, 2.03, 8.01 and 9.01\)](#); [July 14, 2020 \(Items 8.01 and 9.01\)](#); [July 15, 2020 \(Items 8.01 and 9.01\)](#); [August 10, 2020 \(Items 8.01 and 9.01\)](#), as amended on [August 12, 2020](#); [August 11, 2020 \(Items 5.02, 5.03, 5.08 and 9.01\)](#); and [August 20, 2020 \(Items 8.01 and 9.01, but only exhibit 99.2 thereof\)](#);
- our [proxy statement for the Annual Meeting of Stockholders to be held on September 30, 2020](#), filed with the SEC on [August 20, 2020](#); 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

