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

DIVISION OF
CORPORATION FINANCE

December 19, 2014

Mr. C. Eric Winzer
Senior Vice President and Chief Financial Officer
OpGen, Inc.
708 Quince Orchard Road, Suite 201
Gaithersburg, MD 20878

Re: OpGen, Inc.
Draft Registration Statement on Form S-1
Submitted November 24, 2014
CIK No. 0001293818

Dear Mr. Winzer:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

Prospectus Summary

2. We note references on page 1 and elsewhere to your "first-mover advantage." Please revise to clarify the basis for this statement in light of any similar diagnostic tests provided by competitors, including those identified in the first risk factor on page 17. In this regard, it is unclear if non-culture based tests similar to yours are currently available and can provide results in 24-72 hours or less. Similarly, please revise to clarify the basis

for the statement that Acuitas "is the first CLIA lab-based test to provide a comprehensive profile of MDRO resistance genes." For example, it is unclear if other tests exist but you believe they are less comprehensive. If so, your revised disclosure should clarify the principal reasons why you believe any such existing tests are not comprehensive.

3. Please revise page 1 and where appropriate to clarify the approximate amount or percentage of revenues associated with (1) your "lead product" test, which provides a "comprehensive profile of MDRO resistance genes" and (2) other tests and services, including Whole Genome Mapping, collaborative arrangements and laboratory services. Based on disclosure at the bottom of page 44, it appears that your lead product generated no or de minimis revenues in the 9 months ended September 30, 2014.

4. Please revise the first full paragraph on page 2 to clarify the nature and parties involved in the "recent comparison" and "recent pilot study."

5. Please revise to clarify the extent to which your principal products generate revenues or are intended to generate revenues in the future. We note, for example, that your lead product is "in clinical evaluations or in the implementation process." We also note the statement on page 7 that you need to "further develop and successfully commercialize" your Acuitas MDRO Gene Test. Your revised disclosure should clarify the milestones and approximate timelines for achieving them.

6. Please revise to explain or minimize the use of highly technical industry terms, such as "bioinformatics platform," "DNA probe analysis, DNA sequencing and advanced bioinformatics," "state-of-the-art Fluidigm microfluidic-based production genomics technology" and "companion informatics and microbiology offerings." It is also unclear if "prominent healthcare systems" and "healthcare facility partners" are hospitals. Please revise accordingly.

7. Please revise the risk factors on page 7 to quantify your losses, accumulated deficit and lack of liquidity. Please quantify your lack of liquidity by disclosing, for example, your monthly cash burn rate or the approximate amount of time your current cash is expected to support the current level of operations. Please also minimize discussion of generic risks, such as the fifth and sixth bullet points.

Capitalization, page 37

8. Please revise to include the current portion of long-term debt of approximately $108,000 within the total capitalization as of September 30, 2014.

9. Please tell us whether the number of shares of common stock in the capitalization table include or exclude the 130,640 shares of common stock issuable upon vesting of the

March 2014 restricted stock grant to your CEO (page F-40), and revise your disclosure accordingly.

10. You disclose here that there will be 5,862,400 common shares issued and outstanding, pro forma. On page 93 you disclose as of September 30, 2014, 5,993,041 shares of common stock (including shares to be acquired on the conversion of outstanding shares of Series A Preferred Stock and the conversion of Convertible Notes), were outstanding. It appears that the difference may relate to the restricted common stock the Company granted to its CEO in March of 2014 (page F-40). Please reconcile the share difference for us and revise your Form S-1 disclosure so that it is consistent.

Selected Financial Data, page 40

11. Where a comment under this heading may also apply to the summary financial data presented on page 10, please revise the information there accordingly.

12. Please revise here and elsewhere in the filing, as necessary, to state that convertible preferred stock is also redeemable. To the extent applicable also revise and present the net and comprehensive loss for the periods presented.

13. We note under your Summary Financial Data disclosure (page 11) that you give pro forma effect to the automatic conversion of all outstanding shares of your convertible preferred stock and convertible notes into an aggregate of 5,499,854 shares of common stock upon the closing of the offering. Please revise your Selected Financial Data to include pro forma presentation for the effects of the automatic conversions. The pro forma presentation should be based on the latest historical balance sheet, and that latest fiscal year and interim period income statements included in the filing. Also include footnote disclosure on the pro forma adjustments for the balance sheet and income statement.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 42

Overview, page 42

14. Please expand the overview and/or recent development sections to discuss the following matters or tell us why you do not view these to be significant matters that require disclosure:

    - The activities and costs incurred in connection with the February and April 2013 restructurings;

    - Your evaluation of and strategic repositioning from the Argus System and into the clinical diagnostics market which appears to have resulted in the fiscal 2013

charge-off of $203,858 in software costs (page F-11) and $950,000 in inventory costs (page F-5); and change in the estimated lives for all Argus System technology (page F-12); and

- Your future plans with respect to your current Argus System operations.

To the extent that there are any known trends or uncertainties with respect to the future operations of your Argus System business that you reasonably expect to have a material favorable or unfavorable impact, also clearly describe these known trends and uncertainties and the expected impact on liquidity, capital resources and results of operations. Refer to Item 303 of Regulation S-K.

Results of Operations, page 42

15. Please revise to provide additional analysis of material changes in line item disclosure. Your narrative MD&A disclosure should identify and analyze material trends as seen through the eyes of management. For example, it is unclear why Whole Genome Mapping and laboratory services have experienced significant reductions in recent periods.

16. Please revise to identify the product or category of products referenced as "all other product sales" in the third to last bullet point on page 44.

Critical Accounting Estimates, page 47

Stock-Based Compensation, page 48

17. Please revise to provide a discussion of your common stock valuation methodology for purposes of estimating stock-based compensation on your share-based payments. At a minimum, we believe the following disclosures should be provided:

    - The methods that management used to determine the fair value of the Company's shares and the nature of the material assumptions involved.

    - The extent to which the estimates are considered highly complex and subjective.

    - That estimates will not be necessary to determine the fair value of new awards once the underlying shares begin trading.

    To the extent that this or other material information relevant to share-based compensation is provided elsewhere in the prospectus, you may cross-reference to it under this heading.

Business, page 50

18. Please revise page 58 and the Summary to state as of the most recent practicable date whether any of the "approximately ten healthcare systems and long term care facilities" have become customers.

19. Please revise to address your dependence on one or a few major customers. We note the disclosure in the last paragraph on page F-10.

20. We note the statement on page 14 that your customer base "is primarily composed of inpatient hospitals that use our products to diagnosis the presence of MDROs in patients." Please revise to reconcile with the references on your website and on page 5 and elsewhere in the prospectus to customers being federal agencies, universities and other entities without patients. In this regard, it is unclear if your "lead product" is currently or expected to be the source of your primary customer base.

Certain Relationships, page 89

21. Please revise to provide all Item 404(a) information, including the approximate dollar value of the amount involved in the transaction, for the agreement with Fluidigm.

Principal Stockholders, page 91

22. For the entities in the table, please revise to disclose the natural persons with voting and/or dispositive control. For guidance, please refer to Question 140.02 of the Regulation S-K Compliance and Disclosure Interpretations.

Underwriting, page 103

23. We note the disclosure on page 104 that the underwriters and their respective affiliates "have provided, and may in the future provide" a variety of services. Please advise us of any underwriters with which you have a material relationship and state the nature of such relationship. Please see Item 508(a) of Regulation S-K for guidance.

Experts, page 107

24. We note that Ernst & Young LLP audited your 2012 financial statements, and CohnReznick LLP audited your 2013 financial statements. Please identify your principal accountant and tell us whether during your two most recent fiscal years or any subsequent interim period, an independent accountant who was previously engaged as the principal accountant to audit your financial statements has resigned (or indicated it has declined to stand for re-election after the completion of the current audit) or was dismissed. If so, please provide the information required by Item 304 of Regulation S-K.

25. We remind you to provide the consents from the two independent registered accounting firms in a subsequent publicly filed amendment to the registration statement.

OpGen, Inc. Index to Audited Financial Statements Years Ended December 31, 2013 and 2012, page F-1

26. We note under your Summary Financial Data disclosure (page 11) that you give pro forma effect to the automatic conversion of all outstanding shares of your convertible preferred stock and convertible notes into an aggregate of 5,499,854 shares of common stock upon the closing of the offering. Please tell us why you do not include a pro forma balance sheet based on the latest historical balance sheet included in the filing (excluding effects of offering proceeds) presented alongside the historical balance sheet giving effect to the change in capitalization. Also tell us why you do not include pro forma EPS (excluding the effects of offering) for the latest fiscal year and interim period giving effect to the conversion.

27. We note that the Ernst & Young audit report (page F-3) refers to the Company's statement of comprehensive income (loss), while the CohnRezhick audit report (page F-2) does not refer to this financial statement. Please tell us why you do not include a statement of comprehensive income in your Form S-1.

Statements of Operations for the Years Ended December 31, 2013 and 2012, page F-5

28. We note that you separately present the $950,881 Argus Whole Genome inventory write-down in operating expenses. Please tell us why you did not include this charge within cost of sales. Refer to ASC 420-10-S99-3.

Condensed Balance Sheet (Unaudited) as of September 30, 2014, page F-28

29. Please revise to also include a comparative balance sheet as of the end of the preceding fiscal year.

Notes to Unaudited Condensed Financial Statements, page F-31

30. Based on your balance sheets at page F-4 and F28, it appears that your authorized capital stock increased during 2014 from 2.5 million shares (December 31, 2013) to 6.0 million shares (September 30, 2014) of preferred stock; and from 3.5 million shares (December 31, 2013) to 7.5 million shares (September 30, 2014) of common stock. Please revise to include footnote disclosure of the 2014 increase in authorized capital stock.

Item 15, page II-2

31. Please revise to disclose all relevant transactions. We note the references on page F-41 to sales in October and November 2014.

You may contact Brian McAllister at (202) 551-3341 or John Archfield at (202) 551-3315 if you have questions regarding comments on the financial statements and related matters. Please contact Hillary Daniels at (202) 551-3959 or James Lopez at (202) 551-3536 with any other questions.

Sincerely,

/s/ James Lopez (for)

John Reynolds
Assistant Director

cc: Mary J. Mullany, Esq.
Ballard Spahr LLP