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January 22, 2016

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attention: Suzanne Hayes, Assistant Director
Alla Berenshteyn, Staff Attorney

Re: Celladon Corporation
Registration Statement on Form S-4
File No. 333-208521

Ladies and Gentlemen:

On behalf of our client, Celladon Corporation ("**Celladon**"), we provide the following information in response to the comments received from the staff (the "**Staff**") of the U.S. Securities and Exchange Commission (the "Commission") in its letter to Celladon dated January 13, 2016. The number of the responses and the headings set forth below correspond to the numbered comments and headings in the letter from the Staff.

In addition, we are concurrently sending to the Staff three marked copies of Amendment No. 1 ("**Amendment No. 1**") to Registration Statement on Form S-4 (the "**Registration Statement**") as filed with the Commission on January 22, 2016, marked against the Registration Statement initially filed with the Commission on December 14, 2015. All page number references contained in Celladon's responses below correspond to the page numbers in Amendment No. 1.

Prospectus Summary, page 7

1. *We note your disclosure that Lonafarnib and ubenimex for (PAH) have been granted orphan drug designation. However, on page 176 you state that you "expect" lonafarnib to be eligible for orphan drug designation and that you are "seeking" orphan drug designation for ubenimex for (PAH). Please revise the disclosure throughout your prospectus to address this apparent discrepancy and clearly disclose the current status for orphan drug designation for each of your product candidates.*

Response: Celladon acknowledges the Staff's comment and has provided additional disclosure on pages 158, 159, 182 and 183 with respect to orphan drug designation.

2. Please revise the discussion labeled "No Solicitation" to describe the limited exception.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 13 to describe the limited exceptions.

3. Please revise to quantify the cash bonuses that each remaining Celladon officers will receive in addition to the incentive milestone payments.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 16 to quantify the cash bonuses that each remaining Celladon officer will receive in addition to the incentive milestone payments.

Risk Factors

The exchange ratio is not adjustable based on the market price of Celladon common stock …, page 25

4. We note your statement that "the exchange ratio is only adjustable…if the outstanding stock of Eiger or the outstanding common stock of Celladon changes based upon certain events, including the proposed 1-for-15 reverse stock split." From this statement, it appears that the exchange ratio will change following the reverse stock split. If that is correct, please clarify throughout the document and disclose the exchange ratio following the reverse stock split.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 27 and throughout the document to clarify that the exchange ratio will be adjusted as a result of the reverse stock split and to disclose the exchange ratio following the reverse stock split.

If Celladon fails to continue to meet all applicable NASDAQ Global Market requirements…, page 30

5. Please revise to clarify that Eiger can terminate the merger agreement if Celladon fails to meet the NASDAQ listing requirements.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 32 to clarify that Eiger can terminate the merger agreement if Celladon fails to meet the NASDAQ listing requirements.

Background of the Merger, page 78

6. Please expand your discussion to describe the meetings between Celladon and Eiger where negotiations took place. Your discussions should identify the parties who were present, the issues discussed and the proposed merger terms at the time of the meeting. For example, at what time were proposed terms for a merger with Eiger first proposed and what were they? How did the proposed terms change during the course of the negotiations? What was the nature of Eiger's comments to Celladon's proposed terms that were conveyed on September 18, 2015? What provisions were discussed on November 7, 2015?

Response: In response to the Staff's comment, Celladon has revised the disclosure on pages 80 through 90 to expand the discussion of these meetings.

7. *We note that on May 28, 2015 you engaged Wedbush in connection with a potential merger, reorganization, or other business combination transaction or potential alternatives thereto, including a liquidation and dissolution of Celladon. Additionally, we note that in the discussion of "Celladon Reasons for the Merger" the Celladon Board reviewed the risks related to liquidation and continuing to operate on a stand-alone basis. However, you have not described these discussions. Please revise your disclosure to describe these discussions in greater detail.*

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 88 to describe these discussions in greater detail.

8. *We note Celladon considered potential transactions with Parties 1, 2, 3, 4, 5 and 6. For each party, please disclose the terms of any proposed transaction and the reasons(s) why these transactions were not pursued. For example, we note that on August 17 and 18, 2015 Mr. Cleveland provided the update that due to the absence of desired elements in a potential combination with Party 1, further discussions with Party 1 were terminated. What were the desired elements? If the proposed terms would have resulted in Celladon shareholders having an equity interest in the combined company resulting from a merger between Parties 1, 2, 3, 4, 5 or 6, please identify that party by name.*

Response*:* Celladon notes the Staff's comment and respectfully submits that the additional requested disclosure regarding preliminary transaction terms discussed with Parties 1, 2, 3, 4, 5 and 6, the reason each specific potential transaction was not pursued and the identities of these potential counterparties is immaterial and/or not relevant for several reasons, as further discussed below.

Importantly, each of Parties 1, 2, 3, 4, 5 and 6 discussed in the Background of the Merger section is not a publicly traded company and their stock is privately held. As a consequence, referencing the name of the potential counterparty would be immaterial and potentially misleading to investors since "public company" information is not available for such potential counterparties – and thus an investor would have no basis on which to compare what an alternative transaction might have looked like, even assuming the parties could have reached an agreement and assuming from Celladon's perspective that missing elements could have been remedied (neither of which assumptions came to pass). As a consequence, there is no opportunity for an "apples to apples" comparison between the transaction Celladon ultimately negotiated with Eiger and the preliminary discussions that Celladon had with the other potential counterparties.

Further, from Celladon's perspective, no viable potential alternative transaction with any of these potential counterparties ever existed or matured sufficiently to warrant disclosure of further description (i.e., no term sheets or agreements in principle were reached). Celladon believes that the disclosure on page 81 sufficiently describes in reasonable detail the desired elements – and the missing elements – of a transaction from Celladon's perspective and the reasons why a potential transaction was not pursued with the other potential counterparties. Celladon respectfully submits that it is not material or helpful for investors to know the specific one or several elements that were missing from each potential situation – particularly since the parties never achieved a mutual understanding of an acceptable transaction that could be pursued to potential closure. In response to the Staff's comment, Celladon has revised the disclosure on page 81 (reproduced below for convenient reference), to supplement the disclosure regarding the terms discussed with the other potential counterparties.

> "Beginning in May 2015 and continuing through November 2015, Celladon conducted a process of identifying and evaluating potential strategic combinations with biotechnology companies. In its review, Celladon focused on biotechnology companies possessing (i) a portfolio of product development candidates with the

potential for significant value appreciation, (ii) resources sufficient to achieve potentially meaningful development milestones within such portfolio, including resources to be obtained through financing activities consummated prior to the effectiveness of a combination with Celladon as well as the resources that would result from a combination with Celladon, (iii) an ability to enter into an agreement in the near-term for a combination with a public company (i.e., Celladon) and thereafter proceed in an orderly manner toward implementing the combination (necessitating, for example, the availability of the requisite financial statements to accompany a registration statement on Form S-4), and (iv) a management team with the breadth and skills to accomplish the foregoing. Working with Wedbush, Celladon identified and screened approximately 160 companies and set management calls and meetings with 29 companies. These activities resulted in ~~19~~ indications of interest in a potential combination with 19 biotechnology companies. In evaluating these indications of interest, including in certain cases through discussions and diligence activities with potential counterparties (see in this regard the discussion below with respect to Celladon's engagement with Parties 1, 2, 3, 4, 5 and 6), Celladon ultimately concluded ~~either~~ in each instance (except for Eiger) that (x) one or more desired elements were missing from a potential combination (for example, that the counterparty did not have sufficient resources to achieve potentially meaningful development milestones within its portfolio of product development candidates or an ability to enter into an agreement in the near-term for a combination with a public company), (y) the terms expected to be available to Celladon and its stockholders in a potential combination, including as represented by the potential share of the combined company that might be owned by the pre-combination Celladon stockholders immediately following a combination and any concurrent financing, would likely not be fair or appropriate to the pre-combination Celladon stockholders, and/or (z) Celladon should pursue a combination with Eiger to the exclusion of other possibilities. In the course of its process, Eiger is the only party with which Celladon ultimately reached a mutual understanding on deal terms, including the potential share of the combined company that would be owned by the pre-combination Celladon stockholders immediately following a combination~~, would not be fair or appropriate, or (z) Celladon should pursue a combination with Eiger to the exclusion of other possibilities. Celladon ultimately~~ and any concurrent financing, and moved forward with ~~providing a draft Merger Agreement to, and entering into the negotiation of such an~~ negotiating a definitive merger agreement ~~with, only Eiger~~."

Additionally, other than confidentiality agreements, no agreements – including term sheets or agreements in principle – were ever reached with any of these potential counterparties. Describing any proposed transaction with any of these potential counterparties would necessarily be a description of the transaction that Celladon was seeking (assuming all missing elements could be remedied) rather than a transaction to which any of these potential counterparties was interested in pursuing.

Finally, each of the potential counterparties, as a private company, should have an enhanced right to be protected by the confidentiality agreement between Celladon and the potential counterparty. Since any additional disclosure would be immaterial and potentially misleading (as noted above), Celladon respectfully submits that the confidentiality of the potential counterparties should be protected. As reflected above, in response to the Staff's comment, Celladon has identified on page 81 the type of companies with whom it pursued these discussions.

Opinion of the Celladon Financial Advisor

Public Company Market Valuation Analysis, page 95

9. We note that Wedbush reviewed the publicly available information relating to the publicly traded companies appearing on page 95. Were these companies the only publicly traded companies with a market capitalization under $1 billion in the biopharmaceutical industry with multiple candidates in Phase 2 and no candidates beyond Phase 2? If there were others, please identify the others and explain why they were not included in Wedbush's analysis. Please provide similar information with respect to the antivirals and the merger transaction analyses and initial public offering analyses.

Response: In response to the Staff's comment, Celladon respectfully informs the Staff that Wedbush has advised Celladon that, using publicly available information, Wedbush reviewed selected financial data of publicly traded companies with below $1 billion market capitalization in the biopharmaceutical industry and focused on companies, similar to Eiger, with multiple Phase 2 product candidates with no product candidates beyond Phase 2 or companies that have a therapeutic focus in antivirals. Celladon respectfully informs the Staff that Wedbush has advised Celladon that it included in its analyses all of the companies which it identified as satisfying such criteria.

In addition, Celladon respectfully informs the Staff that Wedbush has advised Celladon that, using publicly available information, Wedbush reviewed financial data of below $1 billion Merger and Acquisition transactions announced between January 2005 and November 2015 (based solely on upfront payments and excluding contingent value rights or other post-closing payments) where the target company either had multiple Phase 2 product candidates with no product candidates beyond Phase 2 or had a therapeutic focus in antivirals. Celladon respectfully informs the Staff that Wedbush has advised Celladon that it included in its analyses all of the transactions which it identified as satisfying such criteria.

Further, Celladon respectfully informs the Staff that Wedbush has advised Celladon that, using publicly available information, Wedbush reviewed financial data of prior initial public offering transactions between January 2011 and November 2015 involving companies with multiple Phase 2 product candidates with no product candidates beyond Phase 2 or companies that had a therapeutic focus in antivirals and similar to Eiger, which raised a minimum of $30 million. Celladon respectfully informs the Staff that Wedbush has advised Celladon that it included in its analyses all of the initial public offerings which it identified as satisfying such criteria.

Finally, in response to the Staff's comment, Celladon has revised the disclosure on page 102 to indicate the range of dates of the initial public offerings included in such analysis.

Merger and Acquisition Transaction Analysis – Eiger, page 97

10. Please revise to clarify if any of the Acquirors were in a position similar to Celladon's, in which they were winding down there operations.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 101 to explain that none of the acquirors in the selected transactions was winding down its operations at the time of the acquisition.

11. Additionally, clarify whether the target companies were publicly traded at the time of the acquisition.

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 101 to indicate whether the target companies were publicly traded at the times of the relevant acquisitions.

Tax Treatment of the Merger, page 108

12. We note your statement that the parties intend the merger to qualify as a tax free reorganization. Please file a tax opinion as required by Item 601(b)(8) of Regulation S-K. Additionally, revise the discussion of the tax consequences to clarify that the discussion is counsel's opinion.

Response: Celladon respectfully acknowledges the Staff's comment and has filed tax opinions pursuant to Item 601(b)(8) of Regulation S-K as exhibits to Amendment No. 1. In addition, in response to the Staff's comment, Celladon has revised the discussion of the tax consequences on pages 112 and 113 to clarify that the discussion is counsel's opinion.

The Merger Agreement

Exchange Ratio, page 116

13. If accurate, please clarify that the relative valuations were determined by Wedbush in its Public Company Markey Valuation Analysis.

Response: Celladon respectfully informs the Staff that the relative valuations were determined by negotiations directly between Celladon and Eiger rather than by Wedbush in its Public Company Market Valuation Analysis.

Eiger Business, page 153

14. In an appropriately titled subsection, please briefly describe the Phase 1 studies you are relying upon for your Phase 2 clinical trials for each of product candidates. Please disclose who conducted the trials and when and include a discussion of the trials' designs and the results observed.

Response*:* In response to the Staff's comment, Celladon has described the previously conducted Phase 1 studies that Eiger is relying on for its Phase 2 clinical trials on pages 157, 163, 164, 171, 176, 177 and 180.

Product Candidate Pipeline, page 153

15. Please clearly identify the current stage of development for each of product candidates. As currently presented, it is not clear whether phase 2 clinical trials have begun for Bestatin. Additionally, while you state that lonafarnib is your most advanced product candidate, the chart appears to indicate that Exendin has the same timeline for development.

Response: In response to the Staff's comment, Celladon has amended the Eiger pipeline chart on page 157.

16. *In a footnote or narrative disclosure to the pipeline chart on this page, you should disclose the identity of the entities that conducted Phase 1 clinical trials for your product candidates. Please additionally disclose, if true, that you expect to rely on data from these completed Phase 1 studies in order to file your INDs and launch directly into Phase 2.*

Response: In response to the Staff's comment, Celladon has revised the disclosure on page 157 to describe the entities that conducted the Phase 1 clinical trials of Eiger's product candidates and Eiger's reliance on the data from such Phase 1 clinical trials for its Phase 2 clinical trials.

LOWR HDV—1 (LOnafarnib With and without Ritonavir) Phase 2 Study, page 160

17. *Please disclose whether the results observed in the LOWR HDV-1 study were statistically significant.*

Response: In response to the Staff's comment, Celladon has provided additional disclosure regarding whether the results of the LOWR HDV-1 study were statistically significant on page 166.

18. *We note your discussion regarding the results observed in the LOWR HDV – 1 study as compared to the HIDIT-2 study. However we note that the HIDIT-2 study was conducted on 91 patients while only 3 patients received each treatment in the LOWR HDV-1 study. Please discuss how your results may differ given a larger sample size.*

Response: In response to the Staff's comment, Celladon has provided additional disclosure on page 168 to reflect that the results of the LOWR HDV-1 study may differ given a larger sample size.

19. *Please disclose whether an IND has been approved for Lonofarnib in the HDV indication and state where you conducted your phase 2 clinical trials.*

Response: In response to the Staff's comment, Celladon has provided additional disclosure on pages 162 and 163.

Eiger's Solution: Exendin (9-39), page 165

20. *Please revise to describe Exendin (9-39) in plain language so that your disclosure may be understood by a lay reader not acquainted with the relevant industry or scientific field.*

Response: In response to the Staff's comment, Celladon has amended the description of exendin (9-39) on page 170.

21. We note that Exendin (9-39), brand named Byetta, has been approved for the treatment of Type 2 diabetes. However, we also note your statement that Exendin (9-39), as a new molecular entity, has never been approved or commercialized for any indication. Please explain the difference between Byetta and Exendin (9-39) "as a new molecular entity" or revise this apparent discrepancy.

Response: Celladon acknowledges the Staff's comment and respectfully advises the Staff that exendin (9-39) has not been approved for any indication. Exenatide, which is brand named Byetta, is a different compound than exendin. Specifically, exendin (9-39) is a new molecular entity that is a 31 amino acid fragment of exenatide. In response to the Staff's comment, Celladon has clarified the description of exenatide, brand named Byetta, on page 171 to explain the difference between exendin (9-39) and exenatide.

Clinical Data to Date, page 166

22. Please disclose whether an IND has been approved for Exendin (9-39) in the hyperinsulinemic hypoglycemia indication.

Response: In response to the Staff's comment, Celladon has provided additional disclosure on page 171.

23. Please disclose whether the results observed in the clinical proof of concept studies were statistically significant.

Response: In response to the Staff's comment, Celladon has provided additional disclosure on page 172.

24. Please provide a discussion of the results observed in the second clinical proof of concept study of exendin (9-39).

Response: Celladon acknowledges the Staff's comment and respectively advises the Staff that the results from the second clinical proof of concept study of exendin (9-39) have not been published to date but has been submitted for publication and presentation at a disease conference, and in order to maintain the potential for such publication and presentation the data are required to remain confidential. Celladon has provided additional disclosure on page 172 to clarify that Eiger expects to publish results in the second quarter of 2016, which will be either through the publication and presentation at such conference, or otherwise through disclosure by Eiger.

Ubinemex for Pulmonary Arterial Hypertension, page 167

25. Please revise to describe Ubenimex and the results of the preclinical study in plain language so that your disclosure may be understood by a lay reader not acquainted with the relevant industry or scientific field.

Response: In response to the Staff's comment, Celladon has amended the description of ubenimex on page 173.

Patent protection for Eiger's Product Candidates, page 176

26. Please briefly explain the process for a PCT application and how that application can "mature" into a patent application in the US. Additionally, please discuss the potential consequences for you if you are unable to obtain additional patent protection for lonafarnib, your lead product candidate.

Response: In response to the Staff's comment, Celladon has provided additional disclosure on page 182.

In providing this response, Celladon acknowledges that:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve Celladon from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- Celladon may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Celladon respectfully requests the Staff's assistance in completing the review of Amendment No. 1 to the Registration Statement as soon as possible. Please let us know if we can provide any further information or assistance to facilitate your review. Please contact the undersigned at (858) 509-4033 or Mike Hird at (858) 509-4024.

Very truly yours,

/s/ Patty M. DeGaetano

Patty M. DeGaetano

cc: Celladon Corporation
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