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May 3, 2017

VIA EDGAR AND OVERNIGHT DELIVERY

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

Attention: Suzanne Hayes
Ada D. Sarmento
Erin Jaskot
Rolf Sundwall
Mark Brunhofer

Re: OncoGenex Pharmaceuticals, Inc.
Registration Statement on Form S-4
Filed March 27, 2017
File No. 333-216961

Ladies and Gentlemen:

We are submitting this letter on behalf of OncoGenex Pharmaceuticals, Inc. (the "***Company***") in response to comments from the staff (the "***Staff***") of the Securities and Exchange Commission (the "***Commission***") received by electronic mail dated April 24, 2017 relating to the Company's Registration Statement on Form S-4 (File No. 333-216961) filed with the Commission on March 27, 2017 (the "***Registration Statement***"). The numbered paragraph below corresponds to the numbered comment in the Staff's letter and the Staff's comment is presented in bold italics. We have also enclosed with the copy of this letter that is being transmitted via overnight delivery five copies of Amendment No. 1 to the Registration Statement ("***Amendment No. 1***") in paper format, which have been marked to show changes from the Registration Statement as filed on March 27, 2017.

Prospectus Summary
Merger Consideration, page 11

1. ***Please disclose the market value of the OncoGenex shares that will be issued for each share of Achieve common stock as of the latest practicable date.***

In response to the Staff's comment, the Company has revised the disclosure on page 13 of Amendment No. 1.

Contingent Value Rights, page 13

2. ***Please clearly state here, and elsewhere as appropriate, that you have not identified a third party for the development and/or commercialization of apatorsen and you have not set any milestones at this time and it is uncertain whether you will do so. Please also clearly state that OncoGenex shareholders will not be able to determine the value of the CVRs, if any, prior to voting in the merger since a portion of the consideration will be contingent upon the occurrence of future events.***

   In response to the Staff's comment, the Company has revised the disclosure on pages 4, 15, 144, 145, 158, 189 and 210 of Amendment No. 1.

Questions and Answers About the Merger
Why are the two companies proposing to merge?, page 2

3. ***We note your statements here and elsewhere, including in the Business section, that certain third-party trials have demonstrated "good efficacy" and a "favorable comparative safety profile" as well as "promising efficacy and safety results" for cytisine. Please remove statements suggesting that cytisine is safe and effective as approval by the FDA and other regulatory agencies is dependent on such agencies making this determination. It is premature to suggest that a non-approved product is safe or effective. Please also make clear in this section and elsewhere as appropriate that you have not yet submitted an IND to the FDA for cytisine or started clinical trials for cytisine with any other regulatory agency.***

   In response to the Staff's comment, the Company has revised the disclosure on pages 2, 10, 175 and 206 of Amendment No. 1.

4. ***Where you discuss the positive Phase 2 results for apatorsen, please balance your disclosure to reflect that all but one of the Phase 2 clinical trials failed to meet their clinical endpoints.***

   In response to the Staff's comment, the Company has revised the disclosure on pages 2 and 10 of Amendment No. 1.

Risk Factors Related to the Merger, page 25

5. ***Please add a risk factor regarding the uncertainty of the tax treatment of the CVRs.***

   In response to the Staff's comment, the Company has revised the disclosure on page 29 of Amendment No. 1.

Apatorsen may cause undesirable and potentially serious side effects…, page 37

6. ***Please revise your risk factor to disclose that serious adverse events were reported for half of patients in the phase 1 clinical trial for solid tumors.***

In response to the Staff's comment, the Company has revised the disclosure on page 38 of Amendment No. 1.

The illegal distribution and sale by third parties…, page 65

7. ***Please revise your disclosure to explain the meaning and significance of Cytisine being labeled a "New Chemical Entity."***

In response to the Staff's comment, the Company has revised the disclosure on page 67 of Amendment No. 1. Cytisine's status as a "New Chemical Entity" means that no active moiety contained in cytisine has been previously approved by the U.S. Food and Drug Administration ("FDA"). This means that cytisine is potentially eligible for market exclusivity upon approval and also means that until cytisine is approved by the FDA, it is illegal to sell cytisine in the United States. To avoid potential confusion related to the term, the Company has removed references to cytisine's status as a "New Chemical Entity."

Third-party claims of intellectual property infringement…, page 68

8. ***We note that you are aware of U.S. and foreign patents and pending patent applications owned by third parties that cover therapeutic uses of cytisine. We also note that you may challenge the validity of these patents and patent applications and may also seek to negotiate a license of rights to technology covered by such patents. Please explain whether your ability to manufacture or market your product candidates is dependent upon your ability to challenge the validity of these patents and/or obtain a license to the technology covered by the patents.***

In response to the Staff's comment, the Company has revised the disclosure on pages 69 and 70 of Amendment No. 1.

Background of the Merger, page 79

9. ***Please supplementally provide us with copies of all materials prepared by MTS Health Partners or MTS Securities and shared with your board of directors and their representatives, including copies of all board books and all transcripts and summaries, that were material to the board's decision to approve the merger agreement and the transactions contemplated thereby.***

In response to the Staff's comment, the Company has provided to the Staff on a supplemental basis under separate cover copies of all materials prepared by MTS Health Partners or MTS Securities that were shared with the Company's board of directors and their representatives.

10. ***Please identify who Ms. Griffin is the first time that she is mentioned in this section and disclose what role she played in the process.***

In response to the Staff's comment, the Company has revised the disclosure on page 81 of Amendment No. 1.

11. ***We note your disclosure on page 87 that the board of directors considered the proposed terms offered by each of Achieve, Company A and Company D before deciding to inform Company D that it would no longer be part of the process. Please describe the material differences in the proposed terms by each of Achieve, Company A and Company D at that time.***

In response to the Staff's comment, the Company has revised the disclosure on page 89 of Amendment No. 1.

12. ***We note on page 88 that Achieve and Sopharma were willing to enter into an amended and restated supply agreement to clarify certain "ambiguities." Please disclose the material ambiguities. We further note the disclosure on page 91 that the parties have agreed to a letter agreement outlining the key terms of the amended and restated supply agreement, and that this agreement will be signed by Achieve and Sopharma prior to closing of the transaction. Please revise your disclosure here and in your description of the Sopharma supply agreement to disclose the key terms of the amended and restated supply agreement. Please also tell us whether you intend to file a copy of the agreement as an exhibit to the registration statement.***

In response to the Staff's comment, the Company has revised the disclosure on pages 90, 184 and 208 of Amendment No. 1. The Company advises the Staff that Achieve Life Science, Inc. does not intend to enter into the amended and restated supply agreement with Sopharma until shortly before the completion of the merger, but the Company has filed the letter agreement describing the agreed upon terms for the amended and restated supply agreement as Exhibit 10.28 to Amendment No. 1.

13. ***We note your disclosure on page 89 that Company B decided to withdraw from the process. Please revise to disclose the reasons why Company B was no longer interested in a transaction.***

The Company advises the Staff that Company B did not provide to the Company any reasons for withdrawing from consideration in the transaction.

14. ***We note your disclosure on pages 90 and 92 regarding various discussions with Achieve regarding the transaction terms. Please disclose in greater detail any material developments in such discussions with respect to the amount or form of consideration, the determination of the exchange ratio, the size of the termination and reverse termination fees or other materials terms of the merger agreement.***

In response to the Staff's comment, the Company has revised the disclosure on pages 92, 94 and 95 of Amendment No. 1.

Opinion of the Financial Advisor to OncoGenex's Board of Directors, page 100

15. ***We note your disclosure that MTS Securities received certain financial projections prepared by OncoGenex relating to OncoGenex's and Achieve's business and that such projections were utilized per OncoGenex's instruction in the OncoGenex valuation analysis and the Achieve valuation analysis. Please disclose the projections used by the financial advisor for the relevant analyses.***

In response to the Staff's comment, the Company has revised the disclosure beginning on page 102 of Amendment No. 1.

Public Trading Comparable Companies Analysis, page 106

16. ***Please disclose the relevant selection criteria for each of the companies used in the public trading comparable companies analysis, including the underlying data for the companies such as the number of products, the pipeline, and the clinical stage of products. Please also disclose whether any of these companies have products in commercial stage. Finally, please disclose whether any companies that met the selection criteria were excluded from the analysis and why.***

In response to the Staff's comment, the Company has revised the disclosure on page 113 of Amendment No. 1.

General Overview of Analyses; Other Considerations, page 107

17. ***Please revise the disclaimer stating that MTS securities has not assumed any responsibility for the form or content of this proxy statement/prospectus/information statement to clarify that MTS is not disclaiming responsibility for the description of the MTS Opinion contained in the proxy statement/prospectus/information statement.***

In response to the Staff's comment, the Company has revised the disclosure on page 114 of Amendment No. 1.

Tax Treatment of the Merger, page 113

18. ***We note your statements here and elsewhere in the prospectus that the parties intend the first and second merger, taken together, to qualify as a reorganization with the result that Achieve stockholders will not recognize taxable gain or loss for U.S. federal income tax purposes. Please provide a firm conclusion regarding the material federal income tax consequences to investors and 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 and revise the related disclosure elsewhere in the prospectus, such as in the "Questions and Answers About the Merger", to provide a firm conclusion. Please also delete the word "certain" in the phrase "certain material U.S. Federal State tax consequences of the Merger" from the heading in this section.***

In response to the Staff's comment, the Company has revised the disclosure on pages 120, 121, 122 and 123 of Amendment No. 1.

Directors and Executive Officers of OncoGenex Following the Merger, page 123

19. ***We note that certain officers and directors of both OncoGenex and Achieve will become directors and executive officers of the combined company. Please disclosure whether you have entered into employment agreements with any of these individuals and disclosure the material agreements of those agreements. Please also file the agreements as exhibits to your Form S-4, as applicable.***

The Company advises the Staff that the Company has entered into employment agreements with existing OncoGenex executive officers, including John Bencich and Cindy Jacobs, each of whom will also serve as an executive officer of the combined company. These employment agreements are described on pages 236 through 239 of Amendment No. 1. The Company has not entered into employment agreements with the existing directors of Achieve who will serve as executive officers of the combined company. The Company anticipates that it will negotiate and enter into a new form of employment agreement with all of the executive officers of the combined company after the consummation of the merger, and after receiving input from the combined company's compensation committee and board of directors, as described on pages 117 and 118 of Amendment No. 1. If and when such employment agreements are approved by the combined company's board of directors, the combined company intends to file an 8-K disclosing the material terms. The Company does not intend to enter into any employment agreements with the directors of the combined company, other than directors who also serve as executive officers of the combined company.

Tax Treatment of CVRs, page 138

20. ***We note your statement that the issuance and distribution of CVRs could be treated in a variety of ways, including as a taxable dividend, a non-taxable return on capital, or as a distribution of equity in which case holders should not recognize gain or loss. Please tell us your consideration as to whether the issuance and distribution of the CVRs as part of the consideration in the transaction involves material tax consequences that should be opined upon. To the extent you do not believe an opinion is required, please tell us why. If you do provide an opinion, please expand the disclosure under this caption to describe counsel's opinion and the assumptions upon which the opinion is based, or, if counsel is unable to opine on this issue, please so state and explain why it is not able to opine and the possible outcomes and risks to investors. For reference see Staff Legal Bulletin No. 19 (2011).***

In response to the Staff's comment, the Company has revised the disclosure on pages 145, 146 and 147 of Amendment No. 1.

Summary of Completed Apatorsen Clinical Trials
Summary of Borealis-1 Results—The Randomized Phase 2 Clinical Trial in Patients with Metastatic Bladder Cancer, page 154

21. ***We note your disclosure regarding increased adverse events at 1000mg dosage of apatorsen in this trial. Please expand your disclosure to list all serious adverse events reported to date and the number of patients who have reported such events.***

In response to the Staff's comment, the Company has revised the disclosure on page 163 of Amendment No. 1.

Summary of Results of Apatorsen Phase 1 Clinical Trial in Patients with Solid Tumors, page 157

22. ***We note your disclosure regarding certain adverse and serious adverse events reported. Please expand your disclosure to list all such adverse and serious adverse events and the number of patients who have reported such events to the extent not already disclosed.***

In response to the Staff's comment, the Company has revised the disclosure on page 166 of Amendment No. 1.

License and Collaboration Agreements, page 158

23. ***Please expand your disclosure regarding the Ionis and UBC collaboration and license agreement for apatorsen to disclose the royalty term and the amount of milestone payments that the company is obligated to pay for each of the development, regulatory and commercial milestones.***

In response to the Staff's comment, the Company has revised the disclosure on pages 167 and 168 of Amendment No. 1. The Company respectfully advises the Staff that it has been granted confidential treatment for each of the milestones and the related milestone payments, as well as the specific royalty rates under the Ionis and UBC collaboration and license agreements, as the Company believes that disclose of such specific terms would result in competitive harm. The Company's existing disclosure describes the royalty rates owed to Ionis and UBC within a range of ten percent, and the Company has revised the disclosure to include the aggregate milestone payments potentially payable to each of Ionis and UBC.

Achieve Business
The Global Smoking Cessation Market, page 167

24. ***Please provide the basis for your statements that Chantix and Zyban are associated with side effects, including abnormal dreams, insomnia and nausea, and that NRTs have been shown to be less effective than prescription drugs. Please also supplementally provide us with copies of the studies showing that there is no apparent difference in efficacy between cytisine and Chantix.***

In response to the Staff's comment, the Company has revised the disclosure on page 176 of Amendment No. 1. The Company has also provided to the Staff on a supplemental basis under separate cover copies of the Cochrane Group independent database review showing that there is no apparent difference in efficacy between cytisine and Chantix. The review shows overlapping risk ratios for cytisine and varenicline, which indicates similar efficacy.

Cystisine Clinical Trials, page 168

25. ***We note your disclosure regarding certain adverse events reported. Please expand your disclosure to list all such adverse events and the number of patients who have reported such events.***

In response to the Staff's comment, the Company has revised the disclosure on pages 178 and 179 of Amendment No. 1.

Achieve's License and Supply Agreements, page 173

26. ***Please expand your disclosure regarding the Sopharma and University of Bristol license agreement to explain the significance of the licensed patent under each agreement, including the technology or product to which the patents relate and the patent expiration dates. Please also disclose the royalty term, the amount paid under each of the agreements to date, and the amount of milestones payable under the University of Bristol agreement for each of the clinical development and commercial milestones.***

In response to the Staff's comment, the Company has revised the disclosure on pages 183, 184, 207 and 208 of Amendment No. 1.

Management Following the Merger
2016 Achieve Executive Compensation, page 212

27. ***For each person who will serve as an executive officer or director of the combined company, please include the information required by Item 18(a)(7) of Form S-4.***

In response to the Staff's comment, the Company has revised the disclosure on pages 224 and 225 of Amendment No. 1.

Certain Relationships and Related Party Transactions
Achieve Related-Party Transactions, page 228

28. ***We note that Achieve agreed to pay Ricanto Limited $41,666 per month for services in 2015 and 2016, but Achieve has not made such payments. Please tell us whether Ricanto Limited has forgiven the amounts owed to him under this agreement and whether the agreement is still in effect.***

In response to the Staff's comment, the Company has revised the disclosure on page 241 of Amendment No. 1.

Description of OncoGenex Capital Stock, page 238

29. ***We note your statement that the description of capital stock is subject to and qualified in its entirety by OncoGenex's certificate of incorporation. It is not appropriate to qualify your disclosure by reference to information that is not included in the prospectus or filed as an exhibit to the registration statement. Please revise accordingly.***

In response to the Staff's comment, the Company has revised the disclosure on page 250 of Amendment No. 1.

Comparison of Rights of Holders of OncoGenex Stock and Achieve Stock, page 242

30. ***We note your statement that this discussion is qualified in its entirety by reference to the DGCL and the various documents of OncoGenex and Achieve that are referred to in the summaries. It is not appropriate to qualify your disclosure by reference to information that is not included in the prospectus or filed as an exhibit to the registration statement. Please revise accordingly.***

In response to the Staff's comment, the Company has revised the disclosure on page 254 of Amendment No. 1.

Principal Stockholders of OncoGenex, page 246

31. ***Please provide this information as of the most recent practicable date prior to filing.***

In response to the Staff's comment, the Company has revised the disclosure on pages 258 and 259 of Amendment No. 1.

Achieve Life Science, Inc.
Notes to Consolidated Financial Statements
8. Commitments and Contingencies, page F-55

32. ***Please expand your disclosure regarding the University of Bristol license agreement to disclose the amount of the license fees tied to specific clinical development and commercialization milestones.***

In response to the Staff's comment, the Company has revised the disclosure on pages F-55 and F-56 of Amendment No. 1.

Exhibit 99.2

33. ***We note that MTS Securities disclaims that is comes within the category of persons whose consent is required under Section 7 of the Securities Act of 1933. Please have MTS Securities revise the consent to remove this disclaimer.***

In response to the Staff's comment, MTS Securities has revised its consent to remove the disclaimer.

***

Should the Staff have additional questions or comments regarding the foregoing, please do not hesitate to contact the undersigned at (650) 335-7292.

Sincerely,

/s/ Robert Freedman

Robert Freedman

cc:

Scott Cormack, Chief Executive Officer
John Bencich, Chief Financial Officer
OncoGenex Pharmaceuticals, Inc.

Alan Smith, Esq.
Kee Kim, Esq.
Amanda Rose, Esq.
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Robert Carlson, Esq.
Nicholas DeAngelis, Esq.
Paul Hastings LLP