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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4546

April 24, 2017

Scott Cormack
President and Chief Executive Officer
OncoGenex Pharmaceuticals, Inc.
19820 North Creek Parkway
Bothell, Washington 98011

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

Dear Mr. Cormack:

We have reviewed your 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

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.

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.

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.

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.

Risk Factors Related to the Merger, page 25

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

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.

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."

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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).

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Principal Stockholders of OncoGenex, page 246

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

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.

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.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Rolf Sundwall at (202) 551-3105 or Mark Brunhofer at (202) 551-3494 if you have questions regarding comments on the financial statements and related matters. Please contact Ada D. Sarmento at (202) 551-3798 or Erin Jaskot, Special Counsel, at (202) 551-3442 with any other questions.

Sincerely,

/s/ Erin K. Jaskot, *for*

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Robert Freedman
Fenwick & West LLP