



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4546

October 23, 2016

Christopher K. Mirabelli, Ph.D.
Chairman, President and Chief Executive Officer
Leap Therapeutics, Inc.
47 Thorndike Street, Suite B1-1
Cambridge, MA 02141

Re: Leap Therapeutics, Inc.
Registration Statement on Form S-4
Filed September 26, 2016
File No. 333-213794

Dear Dr. Mirabelli:

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.

General

1. Please prominently disclose in appropriate locations, including the prospectus cover page, that Macrocare shareholders will not know at the time of the vote the percentage of shares they will hold in the combined company.
2. Please prominently disclose in appropriate locations that entities affiliated with HealthCare Ventures will own 56.28% of Leap common stock after consummation of the merger.
3. We note that throughout the prospectus you provide the percentage allocation of the combined company (i) prior to giving effect to the approximately \$10 million equity investment and the adoption of Leap's 2016 Equity Incentive Plan, (ii) with only the \$10 million equity investment and (iii) with respect to the fairness analysis, with only the 2016 Equity Incentive Plan. Please revise your disclosure throughout to provide the

percentage allocation of the combined company giving effect to both the adoption of Leap's 2016 Equity Incentive Plan and the \$10 million equity investment. Alternatively, please tell us why this information has not been included. Please also clearly state that the percentage allocation is subject to downward adjustment based on Macrocare's net cash value.

Prospectus Cover Page

4. Please clearly explain the formula that will be used to determine the number of shares of Leap common stock that will be issued for each Macrocare share, including the approximate value of the consideration. Please also provide a range of number of shares of Leap common stock to be issued for each Macrocare share and indicate the factors that may result in adjustments to that range. Please provide similar information in the Q&A Section under "What will Macrocare shareholders receive if the merger is consummated?"
5. Please disclose the percentage of the combined company to be held by each of Leap and Macrocare shareholders following the merger. Please clearly state that Macrocare's equity ownership will be subject to a downward adjustment if Macrocare's net cash is less than \$22 million, and provide a range of ownership depending on net cash value. Please clearly state that Macrocare's ownership could be as low as 13%. Please also disclose that if Macrocare's net cash at the effective time of the merger is less than \$20 million, Leap may terminate the merger agreement.
6. Please expand your disclosure to provide, if true, that there is currently no established public trading market for your securities, but that you plan to list the common stock to be issued in the merger on the NASDAQ stock market under the symbol "LPTX." Please also disclose whether the NASDAQ listing is a condition to the offering. Refer to Item 501(b)(4) of Regulation S-K.
7. Please include the information required by Item 2(2) of Form S-4.
8. Please include a cross-reference to the risk factors section as required by Item 501(b)(5) of Regulation S-K.

Questions and Answers about the Merger and the Special Meeting

General

9. You currently repeat information in your Q&A and Summary sections and each of these sections is overly detailed and does not concisely present the issues related to the transaction. The Q&A should not repeat any information that appears in the Summary, and the Summary should not repeat information in the Q&A. For purposes of eliminating redundancies, please view your Q&A and Summary as one section.

Q: What are the conditions to the consummation of the merger?, page 3

10. Please clearly disclose in this section that it is a condition to closing that, among other things, Macrocare's net cash at closing is not less than \$20 million and Macrocare has received a Section 104H Tax Ruling from the Israeli Tax Authority. Please also disclose the termination fee that Macrocare must pay if Leap terminates the merger for failure to meet either condition. Please provide similar disclosure about the tax ruling in Conditions to Consummation of the Merger on page 15.

Q: What will Macrocare shareholders receive if the merger is consummated?, page 5

11. Please revise the last sentence of the first paragraph to clarify that a condition to consummating the merger is that Macrocare's net cash is not less than \$20 million.

Summary

Royalty Agreement, page 19

12. Please disclose the specific terms of the royalty rights that Leap holders will receive prior to the effective time of the merger, including that Leap holders will receive 5% of net sales for TRX518 and 2% of net sales for DKN-01 and that the royalty agreement is indefinite. Please also include disclosure about the ongoing cost of these royalty rights and any potential impact to the financial performance of the combined company.

Cautionary Statement Regarding Forward-Looking Statements, page 22

13. Please revise the first sentence in the third-to-last paragraph of this section to indicate that you will update or revise forward-looking statements to the extent required by applicable law.

Risk Factors

General

14. Please include a risk factor that discloses the exclusive forum clause in the New Leap Charter.

The amount of merger consideration is dependent on the amount of net cash . . . , page 24

15. Please clearly disclose the current level of net cash of Macrocare and whether the company has any anticipated expenses prior to closing that could cause the level of net cash to fall below \$22.0 million. Please also give examples of the percentage of ownership at net cash levels below \$22.0 million.

We have incurred significant losses since our inception..., page 27

16. Please expand your disclosure to explain that the report of your independent registered public accounting firm included an explanatory paragraph about the existence of substantial doubt about your ability to continue as a going concern.

Our granted European patent for TRX518 . . . , page 50

17. We note that your ability to collect royalties on European sales of your products may be limited if the decision of the Opposition Division stands in whole or in part. Please describe and quantify, to the extent material, the potential impact on your ability to collect royalties and the impact to the company if the decision stands.

The Merger

Background of the Merger, page 60

18. Please supplementally provide us with copies of all materials prepared by Raymond James 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.
19. For each meeting between Leap and Macrocare, please identify the details of the discussions and the parties present, including the legal and financial advisory firms, the members of each party's management and any other representatives of either party. For example, we note you state that on August 8, 2016, the Macrocare board of directors held a telephonic meeting in which representatives of Meitar and Skadden were present. However, it also appears that Mr. Mashiach and Mr. Stuart Barich of Raymond James were also present. Please account for each person who was present.
20. Please clearly explain why Leap determined to enter into the merger with Macrocare, including the strategic reasons and any alternatives considered.
21. We note your statement that while management continued to engage in discussions with third parties, no transaction was identified that was felt to be as attractive to Macrocare and its shareholders as the proposed transaction with Leap. Please expand your disclosure of the discussions you had with other potential targets by identifying how many parties you or Raymond James reached out to, the criteria that was used to identify such parties, the terms of any proposed transaction and the reasons why these transactions were not pursued. If there were any transaction terms negotiated with another party, please identify that party by name.
22. Please revise this section to provide details of the negotiations of material terms of the transaction. Your disclosure should include separate descriptions of any individual

meetings and the particular topics, views, and positions that were discussed at the meetings. Please ensure that your disclosure addresses each of the material aspects of the transaction, including how the exchange ratio was determined; the negotiation of, and reasons for, the minimum net cash value; the discussions of the voting agreements; the reasons for and the negotiations of the royalty right for Leap shareholders, including how this bridged the “divide between the parties,” negotiations of material terms of the merger agreement, including closing conditions, no-shop obligations and termination rights and fees; the structure of the board of directors and management; and discussions of potential financing, including the \$10 million investment by existing Leap shareholders.

23. We note the statement on page 63 that at the August 8, 2016 meeting Raymond James presented to the Macrocare board of directors a financial model based on certain assumptions and financial estimates. Please note that if a report, opinion or appraisal materially related to the transaction has been received from an outside party and referred to in the prospectus, your disclosure must provide the information required by Item 1015(b) of Regulation M-A with respect to such report, opinion or appraisal. In addition, any written materials contained or used in the report, opinion or appraisal, as well as the consent of the outside party, must be filed as exhibits to the Form S-4. Please refer to Items 4(b) and 21(c) of Form S-4. In the alternative, please tell us why you do not believe Items 4(b) and 21(c) apply.

Financial Stability of Surviving Company; Potential Upside from Leap’s Operations, page 66

24. Please revise the third bullet point to disclose the actual percentage of Leap common stock that Macrocare’s current equity holders will receive. Please also disclose the board’s consideration, if any, of the potential downward adjustment in percent ownership based on Macrocare’s net cash level.

Raymond James Opinion; Liquidity of Consideration and Related Matters, page 66

25. Please revise your disclosure to explain what is meant by the statement that the fully diluted shares to be received by Macrocare equity holders was “favorable” from a financial point of view.

Likelihood of Consummation, page 67

26. Please reconcile your statement that no regulatory or third party approvals are required as a condition to consummation of the transaction with your statement on the prospectus cover page that the merger agreement requires the approval of the Israeli Registrar of Companies. Please also revise the disclosure to discuss the condition that Macrocare obtain the Section 104H Tax Ruling from the Israel Tax Authority. Please include similar disclosure in the discussion of Regulatory Approvals on page 100.

Opinion of Macrocare's Financial Advisor, page 73

27. Please explain why Raymond James did not take into account the \$10 million equity investment in its fairness analysis.
28. We note the statement on page 75 that Raymond James does not, in any respect, assume any responsibility for the accuracy of the projections and the similar statement on page 82 with respect to Leap and Macrocare. While it may be appropriate to include qualifying language, it is inappropriate to disclaim responsibility for disclosure in the document. Please delete this disclaimer.
29. For the selected companies analysis, selected initial public offerings analysis and selected transaction analysis, please disclose the data underlying each of the analyses, such as the pre-money equity values, as well as the range of potential values used in each analyses. Please also disclose the specific criteria used to select the companies and transactions, including whether any companies or transactions that met such criteria were excluded from the analyses. Please provide information on the comparability of the companies and transactions selected, including the development stages of the companies, whether the companies had any commercial products or revenues, etc.
30. Please revise the presentation for each of the analyses to clarify that you are comparing the purchase price implied in the agreement to the numbers presented for the Leap Equity Values in the tables plus the \$23.8 million equity value of Macrocare.

Additional Considerations, page 80

31. We note that the description of the material relationships between Raymond James and Macrocare does not provide a quantitative description of the fees paid or to be paid to Raymond James by Macrocare. Please revise the registration statement to provide such disclosure. Refer to Item 4(b) of Form S-4 and Item 1015(b)(4) of Regulation M-A.

Notes to Unaudited Pro Forma Condensed Combined Financial Statements

2. Shares to be issued by Leap in exchange for outstanding ordinary shares of Macrocare, page 121

32. Please address the following to help us understand how you arrived at the number of common shares issuable as disclosed herein:
 - Tell us how the number of shares issuable upon conversion of the preferred stock reflects the conversion prices disclosed on page F-17; and
 - Tell us the terms under which your notes payable may be converted, including whether they are convertible only upon a contingent event, such as a merger.
33. Please tell us the consideration you gave to reflecting possible outcomes as a result of the different numbers of shares that may be issued such as from subsequent transactions

discussed in Note 3. on page 122 or otherwise due to uncertainties. In this regard, it would appear that pro forma information and equivalent data presented herein and/or on page 114 could be materially impacted by these possible outcomes. Please refer to rule 11-02(b)(8) of Regulation S-X.

Business of Leap
General, page 126

34. Please disclose all investigational new drug applications (“INDs”) that have been submitted to the FDA for each of your product candidates. For any active INDs related to your product candidates, please also disclose when each IND was submitted, the sponsor(s) of the IND and the specific indications listed therein. If you believe that no INDs are required for any of these products and/or indications at this time, please explain why in your disclosure.

Our Products, page 130

35. Please revise the description of your preclinical and clinical studies for DKN-01 and TRX518 to state the specific phase of for each study (ex: Phase 1/2, Phase 2/3, etc.).

DKN-01, page 130

36. We note your statement here and elsewhere in your prospectus that DKN-01 was found to be “safe and well tolerated.” Because FDA approval is dependent on the agency making a formal determination that a drug is safe, it is premature for you to describe your clinical stage products as safe, or that the results of any of your trials demonstrated or established safety. Please remove or revise these statements.
37. Please expand your disclosure to identify the difference between treatment-related adverse events and treatment-emergent adverse events.
38. Where first used, please define the abbreviation, “PD.”

Intellectual Property, page 138

39. Please expand your disclosure regarding the patents and patent applications relating to DKN-01 and TRX518 to disclose (i) the type of patent protection you have, such as composition of matter or use or process and (ii) the applicable jurisdictions in which you have filed such patents.
40. Please expand your disclosure regarding the Lilly license agreement to disclose the term and termination provisions, the royalty rate within a range of 10%, the royalty term and any other material provisions that have not already been disclosed.

41. We note that you have attached as Exhibit 10.5 a license agreement with Lonza Sales AG, from whom you appear to license intellectual property rights relating to DKN-01. To the extent this is a material contract, please provide disclosure about this license agreement, including:

- the nature and scope of intellectual property transferred if the agreement involves a license;
- each parties' rights and obligations;
- duration of agreement and royalty term;
- termination provisions;
- investment features or share purchases; and
- payment provisions, which may include the following:
 - up-front or execution payments received or paid;
 - aggregate amounts paid or received to date under the agreement;
 - aggregate future potential milestone payments to be paid or received;
 - royalty rates or a royalty range; and
 - profit or revenue sharing provisions.

In addition, to the extent that any of the patents that you have licensed under this agreement are material to your business, please provide a description of these patents under the caption "Patents" on page 138.

Exhibit Index

42. Please file copies of the Voting Agreements referenced on page 71 as exhibits to the registration statement.

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.

Christopher K. Mirabelli, Ph.D.
Leap Therapeutics, Inc.
October 23, 2016
Page 9

You may contact Keira Nakada at (202) 551-3659 or James Rosenberg, Senior Assistant Chief Accountant, at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Irene Paik at (202) 551-6553 or Erin Jaskot at (202) 551-3442 with any other questions.

Sincerely,

/s/ Erin K. Jaskot, *for*

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Julio E. Vega
Morgan, Lewis & Bockius LLP