



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

March 2, 2017

Via E-Mail

Paul Kinnon
President and Chief Executive Officer
Transgenomic, Inc.
12325 Emmet Street
Omaha, NE 68164

**Re: Transgenomic, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed February 3, 2017
File No. 001-36439**

Dear Mr. Kinnon:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Proxy Statement Cover Page

1. Please provide us with an analysis as to the legal and factual basis for exemption from registration for each offering of securities in connection with the merger, the debt exchange, the private placement and the offering of the shares of common stock underlying the warrants issued by Transgenomic in 2016. Cite any authority on which you rely. Also provide us the information required by the last Instruction to Schedule 14A Item 10.
2. We note your disclosure on page 20 regarding an adjustment to the number of shares to be issued in the merger. We also note your disclosure on page 1 regarding the "approximate" number of shares to be issued in other transactions. In an appropriate section of your proxy statement, please disclose a sensitivity analysis demonstrating the effect on the merger consideration of a reasonable range of potential values for each variable that will determine such consideration, as well as the variables that will determine the actual number of shares to be issued in the other disclosed transactions.

Ensure that your disclosed sensitivity analysis presents intervals within the reasonable range of potential values that provide investors adequate information regarding the reasonable outcomes. Include in your disclosure an explanation of how you determined that the range selected for each variable is reasonable. On your proxy statement cover, disclose the reasonable range of the number of shares to be issued in each transaction, and the resulting percentage of the company that current common stockholders would own after the transactions. Also include on the cover (1) a representation that, if the actual amounts falls outside the disclosed range, you will resolicit shareholder votes, and (2) if true, disclosure that the your shareholders will not know at the time of the vote the number of shares you will issue in the transactions

Summary, page 7

3. We note your statement in the first paragraph that the disclosure does not reflect a potential reverse split. Please clarify how the split would affect the transactions. For example, if you completed the split before the merger, would the merger consideration for each of the proposed transactions be adjusted to the same extent as the holdings of your current common stockholders?

The Issuance of Common Stock, page 10

4. Please tell us with which of your periodic reports you have filed a complete copy of your Certificate of Incorporation reflecting that you are authorized to issue the number of shares mentioned in this bullet point. In this regard, note that Regulation S-K Item 601(b)(3) requires that your next Securities Act registration statement or periodic report after a charter amendment include a complete copy of your Certificate of Incorporation, as amended, without requiring investors to piece together your charter from multiple other filings.

Cautionary Statement, page 23

5. Because the safe harbor that you cite in the last sentence of this section is not available to penny stock issuers, please provide us your analysis of how the safe harbor is available to you.

Proposal No. 1, page 24

6. The approval sought in Proposal 1 regarding the merger issuance, debt conversion, and private placement appears to involve three separate matters. Please present each matter as a separate proposal as required by Exchange Act Rule 14a-4(a)(3).

Background of the Transaction, page 29

7. Please enhance the disclosure in this section to provide your shareholders with a clear understanding of how, when and why the material terms of the merger evolved over the

course of the negotiations, including the percentage of New Precipio, or number of shares, that the Transgenomic and Precipio shareholders would own upon completion of the merger, the terms of the preferred stock to be issued by New Precipio, the terms of the debt exchange and the terms of the private placement.

8. Please tell us the date and terms of your transaction with LifeLabs. Also tell us the effect is has on your analysis of the terms of the merger and whether the fairness opinion regarding the merger consideration continues to be relevant given this development.

Opinion of Craig-Hallum Capital Group LLC, page 38

9. Please provide us with copies of any written materials prepared by Craig-Hallum and provided to the issuer in connection with the fairness opinion. Include, for example, any "board books," drafts of fairness opinions provided to Transgenomic's board, and any summaries of presentations made to Transgenomic's board.
10. Your disclosure in the first paragraph on page 48 appears to suggest that the financial advisor's opinion does not reflect the effect of the 2017 amendments to the merger agreement. If so, please tell us why you believe it is appropriate to present in your proxy statement disclosure of opinion without equally prominent and clear disclosure that it does not reflect these amendments, and an explanation of the extent to which the amendments affect the relevant analyses underlying the opinion. Also, please tell us the effect on the advisor's analyses of the assumed "Liabilities" mentioned in the last paragraph on page 47 and the extent that the assumed amounts differ from actual amounts.
11. We note your reference to common stock and warrant ownership in the first full paragraph on page 49. Please quantify the amount of securities owned and the exercise price of the warrants. Also clarify whether the warrants are the subject of proposal 2.

Summary of Financial Analyses, page 39

12. For each financial analysis presented in this section, provide more detailed disclosure as to how each analysis supported the opinion that the exchange ratio is fair, from a financial point of view, to the holders of Transgenomic common stock. Include in your revisions clarification of how the information in the last table on page 46 ties to the numbers in the previous tables, why the analysis in that table on page 46 was based on the 25th percentile for one company and the 75th percentile for the other company, and why the "Exchange Ratio" in that table is presented at the 75th percentile.

Comparable Public Company Analysis of Transgenomic, page 41

13. Please disclose why your financial advisor used a different list of comparable public companies for this analysis as compared to the list of companies used on page 40 for the historical trading analyses.

Certain Financial Information, page 49

14. Please disclose the information mentioned in the fifth bullet point on page 39.

Interests, page 51

15. We note the table on page 52 regarding payments to Mr. Kinnon. Please provide us your analysis of whether Regulation S-K Item 402(t) requires disclosure of payments to officers of Precipio.

The Merger Agreement, page 63

16. Please provide us a copy of the schedules and exhibits to the merger agreement.
17. We note the statement on page F-40 that the representations, warranties and covenants in the merger agreement are made only for the merger agreement and are solely for the benefit of the parties. Please remove any potential implication that the referenced merger agreement does not constitute public disclosure under the federal securities laws.
18. We note the statement on page 63 that subsequently developed or new information “may” have been included in this proxy statement” and the statement on page F-40 that subsequent information “may or may not be fully reflected in public disclosures.” We also note the statement on page F-40 that representations, warranties and covenants in the merger agreement may be subject to qualifications and limitations agreed upon by the parties, including by confidential disclosures. Please be advised that, notwithstanding the inclusion of general disclaimers, you are responsible for considering whether additional specific disclosures of material information regarding material contractual provisions are required to make the statements included in the proxy statement not misleading.

Fees and Expenses, page 75

19. Please quantify the fees and expenses and the monthly consulting and break-up fee that New Precipio may be required to pay to BV Advisory Partners, LLC. Please also disclose what services BV Advisory will be providing in exchange for the monthly consulting fees.

General, page 76

20. Please tell us (1) which “certain significant Transgenomic security holders” signed the voting agreements relating to 31.84% of your voting interests and (2) how those votes were solicited. We note your disclosure on page 27 that directors and executive officers own approximately 1.6% of your voting interests.

Lock-up Agreements, page 79

21. Please disclose the number of securities subject to the lock-up. Also clarify the obligations under the transfer restrictions and standstill restrictions mentioned on page 75, and the number of securities subject to those restrictions.

Proposal 2, page 81

22. Please show us how you reconcile the number of shares mentioned in the “Placement Warrants” and “Amended Warrant” sections of this proposal with (1) the numbers mentioned in the “Crede Warrants and “Third Security Investors Warrant” sections of this proposal, and (2) the 3,000,000 shares subject to this proposal. Ensure that your disclosure clearly includes the date the warrants were issued, the exercise price, and a description of the transaction in which you issued the warrants, including the consideration you received for each relevant warrant.
23. Please disclose the amount of cash that you would be obligated to issue if you do not receive the required approval. Also tell us (1) what is the current “Exchange Price” and the amount required to be paid under the “0.50” cash payment provisions of the warrants, and (2) which exhibits to which of your filings include the warrants.

Summary Compensation Table, page 90

24. We note the 2016 option amendment mentioned on page 92. Please include in your Summary Compensation Table the information required by Instruction 2 to Regulation S-K Item 402(n)(2)(v) and (n)(2)(vi). Also, please provide us your analysis of the authority supporting your omission from the first table on page 96 the information mentioned in note (1) to that table.

Precipio Business Description, page 99

25. Please clarify the nature of Precipio’s platform. For example, does the platform include software or hardware? What does the platform do? Has it received FDA clearance? How is the intellectual property protected? Are the Yale School of Medicine “academic experts” your employees? What activities occur at the international locations mentioned on the Precipio website?
26. Please provide us support for your statement on page 99 that Precipio can provide “the highest level of diagnostic accuracy” and for the statement on page 101 regarding industry leadership.

Precipio Management's Discussion and Analysis of Financial Condition and Results of Operations, page 100

27. Please revise to include your management's discussion and analysis of financial condition and results of operations for your fiscal years ended December 31, 2015 and December 31, 2014. Refer to Item 303(a) of Regulation S-X and Instruction 1 thereto.
28. On page 101 you disclose that revenues increased in the nine months ended September 30, 2016 due to the number of cases processed. It appears that revenues may be impacted by both volume and price changes. To the extent that you have material increases in net revenues, please provide a narrative discussion of the extent to which such increases are attributable to increases in prices or to increases in the volume of the amount of services being sold. Refer to Item 303(a)(3)(iii) of Regulation S-K.
29. Please discuss the underlying reasons for the material changes in your account titled 'allowance for doubtful accounts' which is deducted from your net revenues in the statements of operations. Refer to Instruction 4 to Item 303(a) of Regulation S-K.

Liquidity and Capital Resources, page 102

30. Please discuss the reasons for the defaults mentioned on page F-14.

Unaudited Pro Forma Condensed Combined Financial Information of Transgenomic, Inc., page 104

31. In the second paragraph on page 104 you state that the pro forma adjustments related to the merger are preliminary because the debt and preferred stock agreements are not final. Please tell us how you determined the pro forma adjustments are factually supportable and summarize in your disclosure the significant terms of the agreements.

Note 2. Estimated Purchase Consideration, page 108

32. Please disclose the assumptions made and methods used to arrive at the fair value of the equity components of Transgenomic that make up the total estimated purchase consideration. Please disclose the date at which the stock price was determined and include a sensitivity analysis for the range of possible outcomes based upon percentage increases and decreases in the recent stock price. See Rule 8-05 and 11-02 of Reg. S-X and ASC 805-40-30-2 for guidance.
33. We note that you allocated approximately \$29 million of the purchase price to intangible assets. Please identify the nature and amount of each significant intangible asset being acquired such as customer lists, contracts acquired, trademarks and patents, and in-process research and development. Also disclose the methods used and assumptions made in valuing them.

34. Please clarify whether the existing intangible assets of Transgenomic are being disposed of or whether they are part of the “newly acquired intangibles” and have been revalued.

Note 3. Pro Forma Adjustments, page 109

35. Refer to balance sheet pro forma adjustments (e), (g), (h), (i), and (l) on page 109. Please tell us why the adjustments are factually supportable.
36. Disclose the historical and pro forma number of shares of common and preferred stock authorized and outstanding. Include disclosure showing how you determined the pro forma amounts.

Note 4. Preliminary Estimate of New Precipio Common Shares and Preferred Shares, page 110

37. Please show us how you determined the number of shares shown in the table. Explain why you assume the conversion of warrants, preferred stock, and debt. Refer to ASC 805-40-45-4.

Security Ownership, page 116

38. Please show the effect of the merger and related transactions on the information presented in this section. For example, will you have additional beneficial owners of more than 5% of your common equity after the transactions? Will directors and officers own a different percentage of the registrant?

Information Incorporated by Reference, page 120

39. Please provide us your analysis supporting your conclusions regarding whether the information required by Schedule 14A Item 14(c)(1) is material to an informed voting decision, and if so, whether you are eligible to incorporate that information by reference.

Precipio Diagnostics, LLC Financial Statements

Independent Auditors' Report

40. We note that your auditor signed the report as Marcum from Hartford, Connecticut. Please tell us whether or not your auditor is the same as the one registered with the PCAOB as Marcum LLP. If Marcum LLP is your auditor, please have them provide an audit report signed using that name.

Statements of Operations, page F-5

41. In the statements of operations, you deduct your ‘allowance for doubtful accounts’ from your revenues. Please tell us the nature of this amount and why you deduct it from your

revenues. Also, tell us why you titled the account ‘allowance for doubtful accounts’, which is typically a contra balance sheet account.

42. Please tell us why you do not present earnings per common unit. Refer to ASC 260-10-45-2 and ASC 260-10-45-11.

Statements of Changes in Members’ Deficit, page F-6

43. Please tell us why you present a single account for Members’ Deficit. In Note 10, you disclose that Precipio Diagnostics, LLC has outstanding issued common and preferred units. Refer to ASC 505-10-50-2 and 50-3.

Note 1. Nature of Business and Significant Accounting Policies, page F-9

44. Please disclose your accounting policy for accounting for the impairment of long-lived assets. Refer to ASC 360-10-35.
45. Please disclose your accounting policy for research and development expenses and the amount of your research and development expenses for each period. Refer to ASC 730-10-50-1.

Nature of Business, page F-9

46. Please summarize in your disclosure the significant terms of your collaboration agreements with academic institutions.

Note 3. Accounts Receivable, page F-15

47. Please explain to us why your bad debt expense increased from 6% of total revenues in 2015 to 18% of total revenues in 2015 and 18% of total revenues in the nine months ended September 30, 2016. Please show us an aging of your receivables as of September 30, 2016. Explain to us why your allowance is 49% and 62% of your gross accounts receivable at December 31, 2015 and September 30, 2016 given that the majority of your accounts receivable are from third party payers. Tell us how your revenue recognition policy considers whether or not collectability is reasonably assured prior to recognizing revenue.

Note 6. Convertible Bridge Notes Payable, page F-17

48. Please summarize in your disclosure the significant terms of the convertible bridge notes. Refer to ASC 505-10-50-3.

Note 10. Members' Deficit, page F-20

49. Please disclose the conversion price and the number of common units into which your preferred units are convertible as of December 31, 2015. Please refer to ASC 505-10-50-6(b).
50. On page F-16 you disclose that the Series A preferred warrants and related Series A preferred units have a put feature. Please summarize for us the significant terms of the put feature, how you valued the instruments, and how you are accounting for that feature, citing the accounting literature you relied upon. Refer to ASC 480-10-25-10 and ASC 505-10-50-3.

Balance Sheets, page F-24

51. We note the changes in your members' deficit. Please disclose the changes in the separate accounts comprising members' deficit and the changes in the number of units during the period from December 31, 2015 through September 30, 2016 in a separate statement or in the notes. Refer to ASC 505-10-50-2.

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.

You may contact Dennis Hult, at (202) 551-3618 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief
Office of Electronics and Machinery

cc: John Owen Gwathmey, Esq.
Troutman Sanders LLP