

August 3, 2022

Eric Lefkofsky
Chief Executive Officer
Tempus Labs, Inc.
600 West Chicago Avenue, Suite 510
Chicago, Illinois 60654

Re: Tempus Labs, Inc.
Response Letter No.

3 to Draft Registration Statement on Form S-1
2022

Submitted April 27,
Response Letter

dated July 22, 2022

CIK No. 0001717115

Dear Mr. Lefkofsky:

We have reviewed your response letter 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 providing the requested information and either submitting an amended draft offering statement or publicly filing your offering statement on EDGAR. 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 draft offering statement or filed offering statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our May 11, 2022 letter.

Draft Registration Statement on Form S-1 submitted April 27, 2022

Dilution, page 102

1. We note in your response to prior comment 1 that historical net tangible book value "represents the amount of our total tangible assets less our total liabilities and the carrying value of our redeemable convertible preferred stock." Please provide us your calculation, referencing the amounts reported on your balance sheet, to support a historical net tangible book value of \$33.7 million as of December 31, 2021.

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Page 2 3, 2022 Page 2
FirstName LastName
Management's Discussion and Analysis of Financial Condition and Results of Operations, page 106

2. You state that through December 2021, the 12-month retention rate for oncologists ordering more than 5 tests were 92%. Disclose the number of oncologists used to measure the retention rate. Discuss how the retention rate was measured and the time period. To the extent material, disclose the total number of customers for all periods presented in each of your three product lines.

3. We note your response to prior comment 3. Please revise to also address the reasons for changes in cost of revenues, genomics. For example, it is unclear what caused the \$15.6 million increase in material and service costs and the inventory write-downs of \$1.8 million. Similarly, it is unclear why you experienced a \$10.8 million decrease in cost of revenues, genomics associated with COVID-19 PCR testing despite a \$5 million increase in PCR testing revenues over the same period.
Data and Other, page 116

4. We note your response to prior comment 4. Please revise to provide greater context to investors by quantifying the increase in the number of new customers that adopted your data and other products during 2021 as compared to 2020.
Consolidated Financial Statements
9. Stock-Based Compensation, page F-29

5. To the extent there have been any recent developments, please provide us with an update to your October 28, 2021 response to comment 31 regarding stock based compensation awards.
You may contact Lisa Etheredge, Senior Staff Accountant, at 202-551-3424 or Robert Littlepage, Accounting Branch Chief, at 202-551-3361 if you have questions regarding comments on the financial statements and related matters. Please contact Kyle Wiley, Staff Attorney, at 202-344-5791 or Jan Woo, Legal Branch Chief, at 202-551-3453 with any other questions.

Sincerely,

Division of

Office of

Corporation Finance

Technology

cc: Courtney Tygesson