

May 5, 2023

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

Re: Tempus Labs, Inc.
Amendment No. 6 to

Draft Registration Statement on Form S-1
2023

Submitted April 28,
CIK No. 0001717115

Dear Eric Lefkofsky:

We have reviewed your amended draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 6 to Draft Registration Statement Submitted April 28, 2023

Prospectus Summary, page 1

1. You state that you have established data partnerships with approximately 90% of the largest public pharmaceutical companies based on 2022 revenue. Please discuss the material terms of your data partnerships, including the financial terms of any agreements.

Eric Lefkofsky
FirstName LastNameEric Lefkofsky
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May 5, 2023NameTempus Labs, Inc.
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FirstName LastName
Management, page 195

2. We note that your COO is now also the interim CEO for Pathos AI, Inc. We also note your disclosure that you are highly dependent on members of your senior management team. Please revise your risk factor on page 79 to disclose the percentage of time that your COO devotes to the business of the company given his other responsibilities as the interim CEO of Pathos. Additionally, please revise your discussion of your agreements with Pathos on page 216 to include Mr. Fukushima's new role at Pathos.

Financial Statements
Note 16. Subsequent Events, page F-43

3. We note that the amended Credit Agreement with Ares on April 25, 2023 included an

increase in the interest rate. Please expand the disclosure to include the interest rate in the amended agreement. Please expand the discussion of the Term Loan Facility in MD&A accordingly.

You may contact Claire DeLabar, Senior Staff Accountant, at (202) 551-3349 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