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

DIVISION OF
CORPORATION FINANCE

May 11, 2022

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

Re: Tempus Labs, Inc.
Amendment No. 3 to Draft Registration Statement on Form S-1
Submitted April 27, 2022
CIK No. 0001717115

Dear Mr. 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. 3 to Draft Registration Statement on Form S-1

Dilution, page 102

1. Please revise to more clearly disclose how you calculated historical net tangible book value per share as of December 31, 2021.

Management's Discussion and Analysis
Payor Coverage and Reimbursement, page 112

2. We note your disclosure here and on pages 33-36. Your disclosure on page 112 references only payments received for clinical oncology NGS tests performed from January 1, 2020 through June 30, 2021. Please revise to address the following:
   - Clarify if you continued performing the NGS oncology tests from July 1, 2021 to December 31, 2021.
   - If you continued performing these tests, please revise to also disclose payments received for those tests or explain why no payments have been received.
   - In your prior amendment, you disclosed that beginning in the second quarter of 2021, you estimated the reimbursement rate for tests performed as zero percent for these tests. You now disclose that you estimate a reimbursement rate that is "significantly reduced". Please revise to disclose how you accounted for this change and quantify the financial statement impact of this change on the periods presented. Please also refer to Item 303(b)(3) of Regulation S-K and revise disclosures on page 121 accordingly.

Comparison of the Years Ended December 31, 2020 and 2021
Revenue, page 115

3. Please revise your discussion of revenue and cost of revenue for both genomics and data and other so that the historical GAAP amounts are presented first, followed by any discussion of the results adjusted for the impact of COVID-19 PCR testing. To the extent that your revenue or cost of revenue trends were different on a GAAP basis as compared to adjusted for the impact of COVID-19 PCR testing, please ensure that your MD&A addresses those differences in trends and describes the extent to which they are expected to continue. For example, it appears that in 2020, genomics revenues from COVID testing exceeded cost of revenues while that does not seem to be the case for other genomics revenues.

Data and Other, page 116

4. Please revise your discussion of changes in data and other revenue to describe in greater detail the specific reasons for the $36 million (74%) increase from 2020 to 2021. For example, please provide greater context by quantifying the extent to which your business was impacted by new customers and quantifying the extent to which existing customers increased their adoption of products and services.

Quarterly Results of Operations, page 117

5. Your disclosures on page 118 indicate that revenue and costs associated with COVID-19 testing begin to impact results in the second quarter of 2020. However, the table on page 117 only quantifies the impacts of COVID-19 testing beginning with the third quarter of 2020. Please revise accordingly.

6. Please revise your discussion of quarterly costs and operating expense trends on page 118 to explain what caused the significant decline in genomics cost of revenue associated with COVID-19 testing relative to genomics revenue from COVID-19 testing during the last three quarters of fiscal 2021 compared to the previous three quarters.

Consolidated Financial Statements
2. Summary of Significant Accounting Policies
Revenue Recognition, page F-13

7. We note your discussion of the November 2021 Master Services Agreement with AstraZeneca on pages 110 and F-15. Please tell us if AstraZeneca will be required to pay any penalties to you if they do not meet the $200 minimum purchase commitment. Please also tell us how you considered if this agreement provides the customer with a material right. Please refer to ASC 606-10-55-41 through 55-45.

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 Corporation Finance
Office of Technology

cc: Nicole Brookshire