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CERTAIN PORTIONS OF THIS LETTER HAVE BEEN OMITTED FROM THE VERSION FILED VIA EDGAR. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS. INFORMATION THAT WAS OMITTED IN THE EDGAR VERSION HAS BEEN NOTED IN THIS LETTER WITH A PLACEHOLDER IDENTIFIED BY THE MARK "[***]".

January 13, 2023

U.S. Securities and Exchange Commission Division of Corporation Finance Office of Technology 100 F Street, N.E. Washington, D.C. 20549

Attention: Jan Woo, Legal Branch Chief Kyle Wiley, Staff Attorney Robert Littlepage, Accounting Branch Chief Lisa Etheredge, Senior Staff Accountant

Re: Tempus Labs, Inc. Draft Registration Statement on Form S-1 Submitted October 19, 2022 CIK: 0001717115

Ladies and Gentlemen:

On behalf of Tempus Labs, Inc. (the "*Company*"), we are providing this letter in response to a comment (the "*Comment*") received from the staff of the U.S. Securities and Exchange Commission's Division of Corporation Finance (the "*Staff*") by letter dated October 27, 2022 with respect to the Company's Amendment No. 4 to the Draft Registration Statement on Form S-1, as confidentially submitted to the Staff on October 19, 2022 (as amended from time to time, the "*Draft Registration Statement*").

Set forth below are the Company's responses to the Comment. The numbering of the paragraphs below corresponds to the numbering of the Comment, which for your convenience we have incorporated into this response letter in italics.

Consolidated Financial Statements 9. Stock-Based Compensation, page F-29

1. We note your response to prior comment 5. Please provide us with a breakdown of the details of all stock-based compensation awards granted since August 1, 2021, including the fair value of the underlying stock used to value such awards. To the extent there were any significant fluctuations in the fair values, please describe for us the factors that contributed to such fluctuations, including any intervening events within the company or changes in your valuation assumptions or methodology.

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In response to the Staff's Comment, the Company has provided a summary of stock award grant activity since August 1, 2021 below:

Type of Award	Grant Date	Number of Awards	Fair Value	Valuation Methodology
Restricted Stock Unit	10/13/2021	[***]	[***]	Market Approach – PWERM
Restricted Stock Unit	1/3/2022	[***]	[***]	Market Approach – PWERM
Restricted Stock Unit	1/27/2022	[***]	[***]	Market Approach – PWERM
Restricted Stock Unit	4/27/2022	[***]	[***]	Market Approach – PWERM
Restricted Stock Unit	7/14/2022	[***]	[***]	Guideline Public Company Approach, Income Approach
				(Discounted Cash Flow / Option Pricing Model)
Restricted Stock Unit	10/18/2022	[***]	[***]	Guideline Public Company Approach, Income Approach
				(Discounted Cash Flow / Option Pricing Model)

The Company respectfully advises the Staff that the Company changed its valuation methodology from a probability-weighted expected return method to a market approach beginning in the second quarter of 2022. This change was primarily precipitated by the volatile market conditions that have stagnated the capital markets and caused uncertainty around the timing of a potential initial public offering.

The decline in fair values during 2022 was driven largely by market and economic factors, particularly increasing interest rates and declining market multiples of the Company's peer group.

* * *

Please contact me at (312) 881-6670 with any questions or further comments regarding our responses to the Staff's Comment.

Sincerely,

/s/ Christina T. Roupas Christina T. Roupas

cc: Eric Lefkofsky, *Tempus Labs, Inc.* Jim Rogers, *Tempus Labs, Inc.* Erik Phelps, *Tempus Labs, Inc.* Ryan Bartolucci, *Tempus Labs, Inc.* Eric Jensen, *Cooley LLP* Courtney Tygesson, *Cooley LLP*

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