

April 18, 2025

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
Office of Industrial Applications and Services
100 F Street, N.E.
Washington, D.C. 20549

Attention: Tracey Houser
Terence O'Brien
Juan Grana
Katherine Bagley

Re: Heartflow, Inc.
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted March 27, 2025
CIK No. 0001464521

To the addressees set forth above:

On behalf of our client, Heartflow, Inc., a Delaware corporation (the “**Company**”), we hereby submit to the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) this letter setting forth the Company’s responses to the comments contained in the Staff’s letter dated April 10, 2025, regarding the above-referenced Amendment No. 1 to Draft Registration Statement on Form S-1, as confidentially submitted via EDGAR to the Commission on March 27, 2025 (the “**Draft Registration Statement**”).

Concurrently with the submission of this letter, the Company is confidentially submitting its revised registration statement on Form S-1 (the “**Revised Registration Statement**”) and certain exhibits via EDGAR to the Commission for review. The changes reflected in the Revised Registration Statement include those made in response to the comments of the Staff set forth in the Staff’s letter of April 10, 2025.

For the Staff’s convenience, we have reproduced below the comments from the Staff in bold italics, in each case followed by the Company’s corresponding response. Where applicable, we have included references to pages in the Revised Registration Statement where the language addressing a particular comment appears. Capitalized terms used in this letter and not otherwise defined herein have the meanings ascribed to them in the Revised Registration Statement.

Prospectus Summary

Overview, page 1

- 1. We note your disclosure in response to comment 3, including that your Heartflow FFRct Analysis "calculates blood flow and pinpoints clinically significant CAD, which is CAD with a fractional flow reserve value of .80 or below." Please revise your disclosure to define and explain at first instance the significance of "fractional flow reserve" with respect to coronary artery disease.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 2, 82 and 99.

- 2. We note your response to comment 7, including that "all of the approximately 0.4 million patients with acute chest pain with NSTEMI...will be eligible for [y]our Heartflow Plaque Analysis." Please revise to briefly explain why you believe that all of these patients will be eligible for your Heartflow Plaque Analysis.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 3 and 100.

The Offering, page 13

- 3. We note your disclosure that \$98.4 million of convertible promissory notes will automatically convert with the initial public offering. We also note that \$23 million of outstanding indebtedness under the 2024 Credit Agreement was converted into 2025 Convertible Notes. Please revise your disclosure to include these additional 2025 Convertible Notes.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 16 and 90.

Risk Factors

If we are unable to design, implement and maintain effective internal control over financial reporting..., page 62

- 4. We note that you previously included a risk factor detailing identified material weaknesses in your internal control over financial reporting, the material adjustments to your fiscal year 2023 financial statements as a result of these material weaknesses, along with adjustments made to your fiscal years 2019 through 2022 financial statements, and the remediation steps that have been implemented to address the material weaknesses. Please expand your risk factor to discuss the previously identified material weaknesses, the remediation steps**

implemented for the identified material weaknesses, and the status of your testing of your remediation efforts.

Response: The Company respectfully advises the Staff that the material weaknesses in controls over financial reporting previously identified and disclosed in the Company's initial draft registration statement were remediated by the Company in connection with its preparation and issuance of its consolidated financial statements as of and for the year ended December 31, 2024. In response to the Staff's comment, the Company has revised the disclosure on page 62.

We face risks associated with a concentrated customer base, page 62

5. ***We note your revised disclosure in response to comment 13, including that for the year ended December 31, 2024, your top two largest customers collectively represented approximately 8% of your revenue, and that as you expand the adoption of the Heartflow Platform to new accounts, your customer concentration risk may increase. Please clarify why the addition of new accounts may increase your customer concentration, including whether you expect current customers to open new accounts, and if so, the impact of the same on your growth strategies. Please also explain how you determine an account is "new," given your disclosure that decision-making for accounts is concentrated in a relatively small number of customers.***

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 23 and 84.

Management's Discussion and Analysis of Financial Condition and Results of Operations Results of Operations, page 86

6. ***Please expand your discussion and analysis of revenue to quantify the impact of the change in utilization and pricing, including the impact of rebates and the change in mix of customer accounts. Also, provide an explanation for the changes in mix of customer accounts. Refer to Item 303(b)(2) of Regulation S-K for guidance.***

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 84 and 86-88.

7. ***Please expand your discussion and analysis of gross margin to quantify the impact of the increase in revenue versus the automation of manual components of the production teams' process. Refer to Item 303(b)(2) of Regulation S-K and***

Section 501.12 of the Financial Reporting Codification (i.e., Release 33-8350, Section III.B) for guidance.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 87.

Liquidity and capital resources

Sources of liquidity, page 88

8. ***We note that you no longer believe that there is substantial doubt about your ability to continue as a going concern as of December 31, 2024 due to the 2025 Convertible Notes offering during the first quarter of fiscal year 2025. We further note that as of December 31, 2024, your working capital has decreased, the degree to which total liabilities exceeds total assets has increased, total stockholders' deficit has increased, and you continue to recognize loss from operations and net loss that you expect will continue into the future. As such, please expand your disclosures to provide investors with a balanced outlook about the material factors that have impacted and will continue to impact your liquidity from a short-term and long-term perspective. Also provide a discussion about why the 2025 Convertible Notes issuances provide you with sufficient liquidity to meet all of your obligations within the next 12 months, including the amount of the net proceeds received from the issuances along with how the net proceeds were utilized. Refer to Item 303(b)(1) of Regulation S-K and Section 501.13 of the Financial Reporting Codification (i.e., Release 33-8350, Section IV) for guidance.***

Response: The Company respectfully advises the Staff that the receipt of additional convertible note proceeds of \$50 million in March 2025 resulted in the Company determining that there was not substantial doubt about the ability to continue as a going concern for at least 12 months from the issuance date of its December 31, 2024 consolidated financial statements. While we have not finalized our financial closing procedures as of and for the three month period ended March 31, 2025, we expect to report that we had between approximately \$109.0 million and \$111.0 million of cash and cash equivalents as of March 31, 2025, which includes the \$75.4 million in proceeds from our January and March 2025 convertible promissory notes offering. The Company expects to disclose its cash and cash equivalents for the three months ended March 31, 2025 in a future amended draft registration statement or filed registration statement. In response to the Staff's comment, the Company has revised the disclosure on pages 89, 90 and 92 to clarify.

BusinessOur Clinical Results and Economic Evidence, page 119

9. ***We note your response to comment 23, including the revised disclosures on pages 119 through 126. Please revise to disclose whether statistical significance was demonstrated, including supporting p-values, as appropriate, for all of the studies cited, specifically the PRECISE and PLATFORM studies. Please also expand upon the "usual care" pathways noted in the PRECISE trial, and explain how your PRECISE trial demonstrated that "NITs are inaccurate a majority of the time, and often result in either missed CAD diagnoses or unnecessary invasive procedures," as disclosed on page 125.***

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 107 and 121.

Certain Relationships and Related-Party Transactions, page 162

10. ***We note your response to comment 26, including your disclosure on page 166 that "[c]ertain of [y]our obligations under the BCLS Letter Agreement will remain in effect after the completion of this offering, including [y]our obligation to obtain the consent of Bain Capital prior to making certain public disclosures about Bain Capital or certain of its affiliates, certain indemnification obligations and certain pro rata lock-up release rights of Bain Capital." Please revise to further discuss these indemnification obligations and pro-rata lock-up release rights.***

Response: In response to the Staff's comment, the Company has revised the disclosure on page 166. The Company also respectfully advises the Staff that the Company's indemnification obligations under the BCLS Letter Agreement include the Company's agreement to be the indemnitor of first resort and cover certain expenses paid by the director elected by holders of the Company's Series F and Series F-1 redeemable convertible preferred stock (the "**Series F Director**"), currently Nicholas Downing. These indemnification obligations survive the termination of the BCLS Letter Agreement. However, since the Series F Director will no longer serve on the Company's board after the completion of this offering, these obligations will not apply going forward following this offering. Therefore, in the Revised Registration Statement, reference to these indemnification obligations has been removed from the disclosure regarding the Company's obligations under the BCLS Letter Agreement that will remain in effect after the completion of this offering.

18. Subsequent Events, page F-39

- 11. Please expand your disclosure for the 2025 Convertible Notes to disclose the net proceeds and effective interest rate.**

Response: The Company respectfully advises the Staff that it is currently analyzing the appropriate accounting treatment and financial statement impact related to the 2025 Convertible Notes on its consolidated financial statements. The Company expects to disclose the accounting impact of the convertible notes, including the effective interest rate, on its consolidated financial statements for the three months ended March 31, 2025 in a future amended draft registration statement or filed registration statement. In response to the Staff's comment, the Company has revised the disclosure on pages F-39 and F-40.

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We appreciate the Staff's comments and request that the Staff contact the undersigned at (415) 984-8943 or rcoombs@omm.com with any questions or comments regarding this letter and/or the Revised Registration Statement.

Sincerely,

/s/ Ryan Coombs

Ryan Coombs

O'Melveny & Myers LLP

cc: John C.M. Farquhar, Chief Executive Officer, Heartflow, Inc.
Vikram Verghese, Chief Financial Officer, Heartflow, Inc.
Angela Ahmad, Chief Legal and Compliance Officer, Heartflow, Inc.
Shelly Heyduk, O'Melveny & Myers LLP
Dave Peinsipp, Cooley LLP
Kristin VanderPas, Cooley LLP
Denny Won, Cooley LLP
Charles S. Kim, Cooley LLP