

December 18, 2017

United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549
Attention: Kevin J. Kuhar

Re: LeMaitre Vascular, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2016
Filed March 9, 2017
Form 10-Q for the Quarterly Period Ended September 30, 2017
Filed November 3, 2017
File No. 001-33092

Ladies and Gentlemen:

On behalf of LeMaitre Vascular, Inc., this letter is being transmitted in response to comments received from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") by letter dated December 5, 2017 with respect to our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the "2016 10-K"), filed on March 9, 2017, as well as our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, filed on November 3, 2017. The numbering of the paragraphs below corresponds to the numbering of the comments, which for the Staff's convenience, have been incorporated into this response letter.

Form 10-K for the Fiscal Year Ended December 31, 2016

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 59

1. We note in the second paragraph of this section that you discuss management's evaluation and conclusion on the effectiveness of your internal control over financial reporting instead of disclosing the conclusion of the effectiveness of your disclosure controls and procedures. Please note that the requirement of Item 307 of Regulation S-K is separate from the requirement of Item 308 of Regulation S-K. Please amend the filing to disclose the conclusion of your principal executive and principal financial officers regarding the effectiveness of the company's disclosure controls and procedures as of the end of the period covered by the report.

In response to the Staff's comment, we respectfully provide below our planned amendment of Item 9A contained in the 2016 10-K to provide the disclosure required by Item 307 of Regulation S-K. We plan to file an abbreviated amendment to the 2016 10-K containing an explanatory note describing the reason for the amendment, the revised Item 9A, a signature page and the officer certifications on Exhibits 31 and 32.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation and supervision of our Chief Executive Officer and Chief Financial Officer, is responsible for our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified under SEC rules and forms. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to our principal executive officer and our principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on an evaluation of our disclosure controls and procedures as of December 31, 2016, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at reasonable assurance levels.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

Management assessed the effectiveness of our internal controls over financial reporting as of December 31, 2016. Management based its assessment on criteria established in the *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Management's assessment included evaluation of elements such as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. In November 2016, we acquired substantially all of the assets of the RestoreFlow allograft business from Restore Flow Allografts LLC. This acquired business, which during 2016 comprised 0.6% of our revenues and as of December 31, 2016 comprised 3.3% of our total assets, is excluded from our report on internal control over financial reporting.

Based on this assessment under the criteria set forth in the *Internal Control — Integrated Framework*, management has concluded that our internal control over financial reporting was effective as of December 31, 2016.

Our internal control over financial reporting as of December 31, 2016 has been audited by Grant Thornton LLP, an independent registered public accounting firm, as stated in their respective report which is included herein.

Remediation of Prior Year Material Weakness

The material weakness that was previously disclosed as of December 31, 2015 was remediated as of December 31, 2016. See Management's Report on Internal Control over Financial Reporting above. As disclosed in the quarterly reports on Form 10-Q for the first three quarters of 2016, the Company has implemented and executed the Company's remediation plans, and as of December 31, 2016, such remediation plans were successfully tested and the material weakness was deemed remediated.

Changes in Internal Control over Financial Reporting

Except for the acquisition of the RestoreFlow allograft business noted above under "Management's Report on Internal Control Over Financial Reporting", there was no change in our internal control over financial reporting that occurred during the fiscal quarter ended December 31, 2016, that has materially affected, or is reasonably likely to materially affect our internal control over financial reporting. Management is in the process of assessing the effectiveness of internal control over financial reporting for the acquired business.

Inherent Limitations of Internal Controls

Notwithstanding the foregoing, our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

2. We note the disclosure that you acquired Restore Flow Allografts, LLC for \$12 million in addition to contingent consideration of \$6 million. Please address the following:

- Explain to us how your accounting for the contingent consideration complies with paragraphs 25-5 and 25-6 of ASC 805-30 and ASC 805-30-35.
- Revise future filings to provide all of the disclosures required by ASC 805-30-50-1(c) when a business combination that includes contingent consideration occurs in the reporting period.
- Revise future filings to reconcile the opening and closing balance and disclose the valuation techniques and the quantitative information about the significant unobservable inputs underlying the level 3 fair value measurements for the contingent consideration, as required by ASC 820-10-50-2bbb and 50-2c for periods following the acquisition.

In response to the Staff's comment, we respectfully provide the following supplemental information. Regarding the first bullet point above, as discussed in Note 2 to the 2016 10-K, we may be required to make up to \$6 million of additional payments for the acquisition of assets from Restore Flow Allografts, LLC. There are three components to these additional payments. The first, a payment of \$2 million, is due not later than 15 days following the expiration of the 18 month period following the closing date, subject to reductions as specified in the agreement for each calendar month that certain retained employees are not employed by us due to resignation without good reason, or termination for cause, both as defined in the acquisition agreement, which was filed as Exhibit 2.8 to the 2016 10-K. Of this \$2 million, approximately \$0.9 million is being accounted for as post-combination compensation expense rather than purchase consideration because it has been identified as the portion that will be paid to the retained employees and is contingent on their continued employment. The remaining \$1.1 million is considered contingent purchase consideration. Additionally, there are two potential earn-out payments of \$2 million each, the payment of which is dependent on the achievement of certain revenue targets for the first two twelve-month periods following the closing date. These earn-out payments are also considered contingent consideration arrangements, bringing the total gross contingent consideration to \$5.1 million in the aggregate.

Under ASC 805-30-25-5, an acquirer shall recognize the acquisition-date fair value of contingent consideration as part of the consideration transferred in exchange for the acquiree. We recorded the first contingent arrangement, having a gross value of \$1.1 million, at an acquisition-date fair value of \$0.9 million. This was based on our assessment of the probability that the retained employees would continue to be employed by us for an eighteen-month period following the acquisition date as high, discounted at a rate of 6.1% to reflect risk to the probability estimate as well as the time value of money. The acquisition-date fair value that we assigned to the two \$2 million earn-outs was low (\$0.1 million on a combined basis), based on our assessment that the likelihood of achieving the required revenue targets for each was low, discounted at our weighted average cost of capital of 14.1%, to account for risk inherent in the estimates of future revenue as well as to reflect the time value of money between the acquisition date and the payment date. In total, the acquisition-date fair value of contingent consideration that we recorded for the acquisition was \$1.0 million.

Under ASC 805-30-25-6, an acquirer shall classify an obligation to pay contingent consideration as a liability or as equity in accordance with Subtopics 480-10 and 815-40 or other applicable generally accepted accounting principles (GAAP). We classified the contingent consideration arrangements of the acquisition as liabilities, as in each case they will be settled in cash upon the satisfaction of the contingency. There are no characteristics of equity, such as discussed in Subtopic 480-10 and 815-10, in the arrangements.

Under ASC 805-30-35, changes in the value of contingent consideration classified as liabilities that result from events after the acquisition date, such as meeting an earnings target or achieving a milestone, are not measurement period adjustments, and are accounted for as follows. Contingent consideration arrangements classified as liabilities are accounted for by remeasuring the liability to fair value at each reporting date until the contingency is resolved, with the changes in fair value recognized in earnings unless the arrangement is a hedging instrument, for which Topic 815 requires the changes to be initially recognized in other comprehensive income. Since the acquisition, we have remeasured this liability to fair value and recorded the adjustment in earnings. See Note 14 to the 2016 10-K on page F-31, as well as our planned revisions to the disclosures in Note 14 below.

Regarding the second bullet point and the first part of the third bullet point above, please see revised wording for this disclosure below, incorporating all of the disclosures required by ASC 805-30-50-1(c) and ASC 820-10-50-2bbb, which will be incorporated into future filings.

RestoreFlow Allografts

On November 10, 2016, we entered into an agreement to acquire the assets of Restore Flow Allografts, LLC, a provider of human vascular tissue processing and cryopreservation services, for an initial purchase price of \$12 million, with three additional payments of up to \$2 million each (\$6 million in total), depending upon the satisfaction of certain contingencies. The first payment of \$2 million is due not later than 15 days following the expiration of the 18 month period following the closing date, subject to reductions as specified in the agreement for each calendar month that certain retained employees are not employed by us due to resignation without good reason, or termination for cause, both as defined in the agreement. The portion of this payment that will be paid to retained employees and that is contingent on their continued employment, estimated at \$0.9 million, will be accounted for as post-combination compensation expense rather than purchase consideration. The remaining \$1.1 million that is payable to non-employee investors but that is also contingent on the continued employment of certain retained employees has been accounted for as contingent consideration, at an acquisition-date fair value of \$0.9 million. This valuation reflects management's assessment of the likelihood that the retained employees will remain employed by us, discounted at a rate of 6.1% to account risk inherent in the probability estimate as well as for the time value of money between acquisition date and the payment date.

There are also two potential earn-out payments under the agreement. The first earn-out is calculated at 50% of the amount by which net revenue in the first 12 months following the closing exceeds \$6 million, with such payout not to exceed \$2 million. The second earn-out is calculated at 50% of the amount by which net revenue in the second 12 months following the closing exceeds \$9 million, with such payout not to exceed \$2 million. These earn-outs have been accounted for as contingent consideration, at an acquisition-date fair value of \$0.1 million for the two earn-outs combined. This valuation was derived by utilizing an option pricing model technique incorporating, among other inputs, management's forecasts of future revenues, the expected volatility of revenues, and an estimated weighted average cost of capital 14.1% to account for the risk of achievement of the revenue forecasts as well as the time value of money between acquisition date and the payment date.

Regarding the second part of the third point above, please see below our revision of Note 14 to the 2016 10-K incorporating all disclosures required under ASC 820-10-50-2c, which will be incorporated into future filings.

14. Fair Value Measurements

The fair value accounting guidance requires that assets and liabilities carried at fair value be classified and disclosed in one of the following three categories:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Level 1 assets being measured at fair value on a recurring basis as of December 31, 2016 included our money market mutual fund account.

We had no Level 2 assets being measured at fair value on a recurring basis as of December 31, 2016.

As discussed in Notes 1 and 2, several measurements of acquisition-related assets, liabilities and impairments of intangible assets were measured using Level 3 techniques. During 2016, we recorded contingent liabilities associated with our acquisitions of the RestoreFlow allograft and ProCol biologic graft businesses. The following table provides a rollforward of the fair value of these liabilities, as determined by Level 3 unobservable inputs including management's forecast of future revenues for these acquired businesses, as well as, in the case of Restore Flow, management's estimate of the likelihood of continued employment of certain retained employees.

	Year ended December 31,		
	2016	2015	2014
	(in thousands)		
Beginning balance	\$ —	\$ —	\$ 99
Additions	1,301	—	—
Payments	(68)	—	(237)
Change in fair value included in earnings	87	—	138
Ending balance	<u>\$1,320</u>	<u>\$—</u>	<u>\$ —</u>

The change in fair value is included in general and administrative expenses in our consolidated statements of operations.

Note 3. Inventory and Other Deferred Costs, page F-25

3. We note that as of December 31, 2016 you have capitalized \$2.6 million of deferred costs which represent costs incurred for the preservation of human vascular tissues available for shipment, tissues currently in active processing, and tissues held in quarantine pending release to implantable status. Please explain to us how these deferred costs meet the criteria outlined in ASC 330-10-30 to be capitalized as inventory.

In response to the Staff's comment, we respectfully provide the following supplemental information. As we discussed in the fifth paragraph of Note 1 to of the 2016 10-K on page F-11, with the acquisition of the RestoreFlow allograft business, we now derive revenues from the processing and cryopreservation of human tissues for implantation in patients. These revenues are recognized when services have been provided and the tissue has been shipped to the customer, provided all other revenue recognition criteria have been met. As discussed in Note 3 to the 2016 10-K, by federal law, human tissues cannot be bought or sold; therefore, the tissues we preserve are not held as inventory per se; instead, the costs we incur to procure and process vascular tissues are accumulated and deferred. However, we believe that the deferral of these costs is consistent with the criteria outlined in ASC 330-10-30. We incur fixed and variable overhead costs associated with the cryopreservation process, including primarily direct labor costs, tissue recovery fees, inbound freight charges, indirect materials and facilities costs, and defer these costs until the associated revenue is recognized as described above. General and administrative expenses and selling expenses associated with the provision of these services are expensed as incurred. We do note that within Note 3, the lead-in sentence above the table as well as the caption on the table total referred only to "inventory", when in both places it should have read "Inventory and other deferred costs". We corrected this in our September 30, 2017 10-Q as shown below, and will do so in all future filings.

3. Inventories and Other Deferred Costs

Inventories and other deferred costs consist of the following:

	September 30, 2017	December 31, 2016
	(in thousands)	
Raw materials	\$ 3,657	\$ 2,810
Work-in-process	3,491	2,489
Finished products	11,944	11,662
Other deferred costs	2,003	2,617
Total inventory and other deferred costs	<u>\$ 21,095</u>	<u>\$ 19,578</u>

Form 10-Q for the Quarterly Period Ended September 30, 2017

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 30

4. Consistent with Item 4 of Form 10-Q and Item 307 of Regulation S-K, please amend the filing to disclose the conclusion of your principal executive and principal financial officers regarding the effectiveness of your disclosure controls and procedures as of the end of the period covered by the report—i.e., September 30, 2017. Please note that this comment also applies to your Forms 10-Q for the Quarterly Periods Ended March 31, 2017 and June 30, 2017.

In response to the Staff's comment, we respectfully provide below an example of our proposed amendment of Item 4 contained in our Forms 10-Q for the periods ended March 31, 2017, June 30, 2017 and September 30, 2017 to provide the disclosure required by Item 307 of Regulation S-K. We plan to file abbreviated amendments to the aforementioned Forms 10-Q containing an explanatory note describing the reason for the amendment, revised Item 4, a signature page and the officer certifications on Exhibits 31 and 32. The applicable quarter end date will be provided in each filing.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation and supervision of our Chief Executive Officer and Chief Financial Officer, is responsible for our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified under SEC rules and forms. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to our principal executive officer and our principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on an evaluation of our disclosure controls and procedures as of *[applicable quarter end date]*, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at reasonable assurance levels.

Changes in Internal Control

There have been no changes in our internal control over financial reporting for the [] months ended [applicable quarter end date] that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Our management, with the participation and supervision of our Chief Executive Officer and Chief Financial Officer, is in the process of assessing the effectiveness of internal control over financial reporting for the acquired RestoreFlow allograft business.

Inherent Limitations of Internal Controls

Notwithstanding the foregoing, our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any system will succeed in achieving its stated goals under all potential future conditions. Over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

5. We note your disclosure that you have conducted an evaluation of the effectiveness of internal control over financial reporting as of September 30, 2017. We note that Item 308 of Regulation S-K requires management to provide its report on internal control over financial reporting as of the most recent fiscal year end. Please confirm to us that you have performed an assessment of your internal control over financial reporting in the interim period, or remove the disclosures from the requested amendment to your Form 10-Q. Please note that this comment also applies to your Forms 10-Q for the Quarterly Periods Ended March 31, 2017 and June 30, 2017.

In response to the Staff's comment, we respectfully advise the Staff that we will remove the disclosures regarding our evaluation of internal controls over financial reporting from our amended filings of Forms 10-Q for the periods ended March 31, 2017, June 30, 2017 and September 30, 2017, as illustrated in our proposed Item 4 disclosure in the response to comment 4 above.

Please contact the undersigned at (781) 425-1691 with any questions regarding the above.

Sincerely,

LeMaitre Vascular Inc.

By: /s/ Joseph P. Pellegrino Jr.

Joseph P. Pellegrino Jr.

Chief Financial Officer and Director