

May 22, 2006

Mail Stop 6010

George W. LeMaitre
Chairman, Chief Executive Officer and President
LeMaitre Vascular, Inc.
63 Second Avenue
Burlington, Massachusetts 01803

**Re: LeMaitre Vascular, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed May 2, 2006
File No. 333-133532**

Dear Mr. LeMaitre:

We have the following comments to your filing. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus Cover Page

1. Please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a *bona fide* estimate of the public offering within that range. Also note that we may have additional comments after you include this information.

Prospectus Summary, page 1

2. We note your products cover areas “outside of the heart.” Please distinguish peripheral vascular disease from coronary artery disease, and explain that the FDA has not approved your products to treat coronary artery disease.
3. Please provide us independent, objective support for the statements regarding your leadership and market standing. For example, you indicate in the summary and in other parts of your prospectus that you are “a leading global provider of

innovative medical devices,” that you have a “diversified product portfolio...of well know brand name products” and that several of your products are “the world’s most widely used.”

4. Please provide objective, independent support for the data and trends that you cite in the prospectus, including without limitation, your statements in the second and third paragraphs of the summary and on pages 57 and 62, clearly marking the relevant sections of those reports. Also, with regard to the data you cite in this section, please tell us:
 - how you confirmed that the data reflects the most recent available information,
 - whether the data is publicly available,
 - whether you paid for the compilation of the data,
 - whether the data was prepared for use in the registration statement, and
 - whether the authors of the data consented to your use of it in the registration statement.

If you were affiliated with the preparation of the data, please ensure that your disclosure clearly indicates the nature of all such affiliations.

5. The disclosure in the summary should be a balanced presentation of your business. Please balance the description of your net sales with an equally prominent description of your losses.
6. We note that 72% of your sales have come from acquisitions please balance that disclosure to discuss risks associated with reliance on such acquisitions.

Risk Factors, page 7

If we fail to expand our sales force..., page 7

7. It appears that your non-U.S. sales are concentrated in the UK, Germany, Switzerland and Japan. Please clarify with more specificity what markets you seek to enter so that investors can more precisely evaluate the risks of foreign operations. We note your Chinese Clinical Study describe on page 64.

If we fail to convert additional countries from distributor sales..., page 8

8. Please identify whether your distribution contracts as described on page 65 would inhibit you from ending relationships with your distributors.

Some of our devices have been recently introduced..., page 9

9. You state your AnastoClip Vessel Closure system “would be negatively affected.” Yet it appears to have been on the market for a few years. Please explain whether

you have experienced negative effects of adoption of this product, or when you anticipate such an impact could occur.

From time to time we may become subject to tax audits..., page 16

10. Please explain if the scope of the February 2006 IRS audit is limited in any way.
11. We note you state you mistakenly believed your customers to be exempt from California state sales tax. Was that mistaken belief based upon the premise that you believed you did not have a physical presence or substantial nexus as you describe, or are there other risks relating to state tax liability to be identified?

Ownership of our common stock by our vascular surgeons..., page 16

12. We note your discussion of risks associated with physicians who are your shareholders. Please expand if you believe this could apply to members of your scientific advisory board.

If we fail to observe the terms of our agreements..., page 25

13. Please explain whether you believe this offering will trigger any provisions in your material agreements such as the provision in the Bard agreement restricting sale of over 30% of your stock.

Future sales of our common stock, page 28

14. Please clarify whether the lockup will cover all of your current shareholders, or just some percentage of shareholders.

Use of Proceeds, page 32

15. Please state the approximate amount intended to be used for each of the purposes you identify.
16. If you are discharging your indebtedness, set forth the interest rate and maturity of such indebtedness. If such indebtedness was incurred within one year, describe the use of the proceeds of such indebtedness.

Capitalization, page 33

17. Please revise to reflect a separate column for the conversion of your preferred stock. That is, this event should not be included with the effect of the sale of the common shares by you in the offering. Please similarly revise your pro forma presentation on page 6.
18. Please remove the cash and cash equivalent caption from this table.

Selected Consolidated Financial Data, page 36

19. Please remove the caption “unaudited” from the tables on pages 36 and 37 to avoid giving the impression that the other columns are audited.

Management’s Discussion and Analysis, page 38

20. Please revise the overview to provide a balanced, executive-level discussion that identifies the most important themes or other significant matters with which management is concerned primarily in evaluating the company’s financial condition and operating results. For example, discuss material business opportunities, challenges and risks, such as those presented by known material trends and uncertainties, on which the company’s executives are most focused, and the actions they are taking in response to them. Delete repetitive disclosure, such as the first two paragraphs that also appear in the summary. For further guidance on the content and purpose of the “Overview,” see Interpretive Release No. 33-8350 on our website.

Results of Operations, page 40

21. We note that your financial statements reflect higher revenues due to “increased unit sales,” “higher average selling prices,” and acquisitions. Under SAB Topic 13.B, “[c]hanges in revenue should not be evaluated solely in terms of volume and price changes, but should also include an analysis of the reasons and factors contributing to the increase or decrease.” Also, under FRC 501.04, you should include a discussion and quantification of the contribution of two or more factors identified as the causes for material changes “where identification and quantification of the extent of contribution of each of two or more factors is necessary to an understanding of a material change, or where there are material increases or decreases in net sales or revenue.” As such, your MD&A should not only identify and quantify to the extent practicable the increase in sales prices and volume, but also analyze those and any other significant reasons underlying the increases (including underlying offsetting decreases) when the reasons are also material and determinable.

Contractual Cash Obligations, page 48

22. Please revise to provide tabular disclosure of all of your known contractual obligations as specified in the table following paragraph (a)(5)(i) of Item 303 of Regulation S-K, as apposed to disclosing only your cash obligations. Please make sure that you provide the required information for each category specified, including “Other Long-Term Liabilities Reflected on the Registrant’s Balance Sheet under GAAP.”

Critical Accounting Policies and Estimates, page 49

Stock-Based Compensation, page 50

23. We believe that the following disclosures would be helpful to an investor since changes in your methodologies and assumptions used to value the stock options could have a material impact upon your financial statements:
- The aggregate intrinsic value of all outstanding options based on the midpoint of the estimated IPO price range.
 - Discuss each significant factor contributing to the difference between the fair value as of the date of grant and the estimated IPO price for options granted during the twelve months prior to the date of the most recent balance sheet.

Valuation of Goodwill, Other Intangibles, page 52

24. If true, please revise the third sentence in the first paragraph to state that you test goodwill for impairment annually. Refer to paragraph 26 of SFAS 142.
25. We note from your discussion on page 52 that other intangible assets include in-process research and development and purchased developed technology. We also note that your intangible assets are amortized over five to eight years. We did not see a discussion regarding these assets in the footnote on page F-13. In addition, the footnote on page F-13 refers to amortization periods of five to 17 years. Please reconcile and tell us the nature of and accounting for your in-process research and development. Please refer to paragraphs 39 and 42 of SFAS 141 and paragraph 5 of FIN 4.

Business, page 57

26. You disclose that you have substantially completed the integration of your various acquisitions. To the extent material, please supplement your disclosure to describe what remains to be done to complete such integration.

Intellectual Property, page 68

27. Please disclose the dates that your owned and licensed patents expire.

Legal Proceedings, page 77

28. Please include a discussion of Boston Scientific's opposition proceeding in the European Patent Office

Principal Stockholders, page 93

29. Please identify the individuals who have or share voting and/or investment control over the shares held by Housatonic Partners.
30. Please confirm that the amounts held by the LeMaitre Family LLC are included in George LeMaitre's individual holdings. Also, please clarify whether Cornelia W. LeMaitre's holds any power to vote or dispose of the shares held by the LeMaitre Family LLC.

Market and Industry Data, page 105

31. You may not disclaim responsibility for your disclosure. Statements such as "cannot assure you of its accuracy or completeness" are not appropriate. Please remove such limiting language.

Financial Statements, page F-1

Note 1. Significant Accounting Policies and Related Matters, page F-10

Revenue Recognition, page F-11

32. We see from your disclosure that "the company assesses whether the fee is fixed or determinable based on the terms of the agreement associated with the transaction." Please tell us and disclose more about your determination of when the fee is fixed and determinable for your agreements. Please include a discussion of any contingencies such as conditions of acceptance, warranties, price protection, etc. Please disclose when you recognize revenue for consignment transactions.

Goodwill, page F-12

33. Given the significance of goodwill to your balance sheet, please expand this note to explain how you assess goodwill for impairment. We note that you provided similar disclosure for your discussion of the impairment of long-lived assets. Refer to paragraphs 19 -22 of SFAS 142. Please also note that goodwill should be allocated to and assessed for impairment based upon reporting units, which is not necessarily the same as your segments. See paragraphs 30 – 36 of SFAS 142.

Stock-Based Compensation, page F-13

34. It appears that as a nonpublic entity you used the minimum value method for pro forma disclosure purposes under SFAS 123. Please remove this disclosure for outstanding awards accounted for under the intrinsic value method of APB 25. Refer to paragraph 85 of SFAS 123R.

Commitments and Contingencies, page F-14

35. We noted on page 20 that you initiated three voluntary product recalls in 2005. We noted no discussion of this recall in the notes to your financial statements or MD&A. With a view towards disclosure, please tell us about the nature of the product recall, your accounting for the recall, and its significance to your financial statements.

Net Income (Loss) per Share, page F-15

36. On page F-15, we note that you used the two-class method to compute EPS. Please respond to the following comments:
- Please tell us why there was no amount allocated for the redemption value of the common stock for the three months ended March 31, 2006.
 - Please clarify in the table whether the “participating stockholders” are only the preferred stockholders.
 - Please provide us with your analysis in determining that the preferred stock should participate in undistributed earnings. We note that the dividend rights of the preferred stock only apply in the event of your liquidation. Refer to example B of paragraph 16 of EITF 03-6.
 - Please provide us with your analysis in determining that only the redemption amount applicable to the common shares subject to repurchase and not the options subject to repurchase should be included in the allocation of net income. Refer to paragraph 9 and 22 of EITF 03-6 and EITF 04-12.
 - Please explain why you deducted the redemption value of the common stock in determining “net income (loss) applicable to common stockholders.” That is, address how your calculation considered paragraph 19 of EITF Topic D-98.
37. Please respond to the following comments:
- On page F-16, please reconcile the net income applicable to common stockholders on a diluted basis for the three months ended March 31, 2006 in the first table with the similar amount in the second table.
 - On page F-16, please reconcile the shares used in computing diluted net income (loss) per common share in the first table with the similar amounts in the second table.

- On page F-17, please reconcile the number of common stock equivalents excluded from diluted net income (loss) per share in the table with the similar amounts in the first and second tables on page F-16.
38. On page F-16, you disclose that you included the estimated number of shares issuable in the future in connection with certain business acquisitions in weighted-average shares. Please respond to the following comments:
- Please tell us and disclose for which periods the shares are included and whether the shares are included in both basic and diluted shares.
 - Please include the individual share amount effect of the shares issuable in future periods in your reconciliations. See paragraph 40(a) of SFAS 128 and Illustration 3 in Appendix C.
 - Please tell us why you included the shares issuable in a future periods in your EPS calculation. Refer to paragraphs 10, 30 – 35, 91, and 116 - 121 of SFAS 128.
 - Please tell us and disclose the terms and amount of these shares issuable in the future and any other material contingent payments, options, or commitments specified in your acquisition agreements and the accounting treatment that you will follow should any such contingency occur. See paragraph 51(f) of SFAS 141.

Note 2. Acquisitions, page F-18

39. We see that you purchased Endomed, Inc. on February 2, 2005 for total consideration of \$4.1 million and provided financial statements for Endomed, Inc. for the most recent fiscal year and the subsequent interim period up through the date of acquisition. Please show us how you determined the periods to be presented for the acquired business under Rule 3-05(b)(2) and Rule 1-02(w) of Regulation S-X.
40. Please revise to expand your disclosure regarding the primary reasons for the acquisition to include a description of the factors that contributed to a purchase price that resulted in the recognition of goodwill. See paragraph 51(b) of SFAS 141. In addition, please revise to expand your discussion of the intangible assets identified, including the amount assigned to any major intangible asset class and the weighted-average amortization period by major intangible asset class. See paragraph 52(a) of SFAS 141.

Note 9. Stockholders' Equity, page F-25

Series A Convertible Preferred Stock, page F-25

41. We note that in the event of a liquidation, including a merger, consolidation or reorganization in which the stockholders of the company prior to such event, do not hold a majority of the outstanding common stock of the surviving entity, that the preferred shareholders are entitled to \$2.35 per share plus an 8% dividend, compounded annually from the original date of issuance. Please provide us with your analysis regarding the classification of these shares as permanent equity. Please refer to paragraph 8 of EITF Topic D-98.

Stock Option Plans, page F-26

42. We note that you awarded options to purchase 386,272 shares of common stock and an award for the purchase of 252,852 shares of common stock to two key executives in 1997. These instruments are puttable by the employee and were callable by the company until December 2003, under certain conditions. The redemption amount under the put feature is formula-based. All of the events under which the put may be exercised are not solely within the control of the issuer. Please respond to the following comments:

We note that you account for the common stock and stock options subject to repurchase rights under fixed plan accounting based upon the likelihood of the employee exercising the repurchase right. Please tell us how you analyzed the terms of the shares and options in determining the appropriate accounting for them. Explain how you applied APB 25 and related interpretations based on your facts and circumstances, including the fact that the redemption amount was formula-based and not all of the events under which redemption could occur were within control of the issuer.

Please tell us how the adoption of SFAS 123R and FSP FAS123R-4 impacted your classification of these instruments and why. Address your consideration of why the instruments should be classified as equity at January 1, 2006, when you adopted SFAS 123R.

Please tell us how the filing of the registration statement impacted your accounting for these instruments. Address your consideration of why the filing of your Form S-1 resulted in the classification of the instruments as liabilities using the modified-prospective method under SFAS 123R. Discuss how you applied that literature to your facts and circumstances.

Please tell us and disclose how the completion of a public offering will impact your classification of and accounting for these instruments.

Please tell us and disclose the valuation method and significant assumptions used to determine the fair value each of the common shares and the stock options.

Please tell us and disclose why you are using the fair value of the instruments as of December 31, 2005, instead of the fair value as of the date of filing (April 25, 2006).

Since you classified these awards in equity, please tell us how you considered ASR 268, EITF Topic D-98 and SAB 107 in your classification.

- Please tell us whether you will classify the liability as current or non-current and why.
- Please disclose the amount of redemption requirements as required by paragraph 8 of SFAS 129.

43. Please tell us and disclose the valuation method and significant assumptions used to determine the fair value each of the stock options issued to non-employees of \$45,000, \$41,000 and \$31,000 in 2003, 2004 and 2005, respectively.
44. Please provide the estimated IPO price or range when available. If the difference between the IPO price and the fair value used to value stock, options and warrants granted or issued during the 12 months prior to the date of the most recent balance sheet is significant please provide us with details of the significant factors contributing to the difference. Please note that we will defer our final evaluation of stock compensation recognized until you provide the estimated offering price and we may have further comments in this regard when the amendment containing that information is filed.

Endomed Financial Statements, page F-33

Statements of Cash Flows of Business Acquired, page F-36

45. Please reconcile the amount of proceeds from advance from LeMaitre Vascular with the amount shown in your balance sheet and notes to the financial statements. Please also tell us why you show a line for proceeds from long-term debt.

Note 1. Significant Accounting Policies and Related Matters, page F-37

Acquisition of Endomed by LeMaitre Vascular, Inc, page F-37

46. We note that you refer to the financial statements as those of "Endomed." We also note that the financial statements appear to represent less than the full audited financial statements of Endomed. As you appear to have acquired substantially all of Endomed's key operating assets, please explain how you have complied

with the requirements of Rule 3-05 of Regulation S-X which requires you to include complete audited financial statements of Endomed. Please note that any waiver requests for substitutions of abbreviated financial information in lieu of full financial statements should be addressed to the Division of Corporation Finance's Chief Accountant's Office.

Revenue Recognition, page F-37

47. Please tell us and clarify when you record revenues under consignment arrangements. That is, tell us at what point "the customer accepts title to the consigned products."

Research and Development Costs, page F-38

48. Please reconcile the royalties included in R&D expenses of \$20,902 million for the period from January 1, 2005 to February 2, 2005 with your statement of operations.

Note 5. Income Taxes, page F-41

49. Please provide all of the disclosures required by SFAS 109.

Issuances of Capital Stock in Connection with Acquisitions, page II-3

50. Please state the facts relied upon to make an exemption available for each transaction described in this section. For example, what number of investors was involved in each transaction? How did you determine whether they were accredited investors?

Exhibits

51. Please provide us all required exhibits with your next submission. We note you have not filed your debt agreements as described on page 47, your agreement with Endomed, or your distributor agreements describe on page 65 as exhibits.
52. We note your reference to an application for confidential treatment. We will review and provide any comments related to your request separately. Comments must be resolved and your application must be complete before we may accelerate the effective date of your registration statement.

Undertakings, page II-2

53. Please include the undertakings required by Regulation S-K Items 512(a)(5)(ii) and 512(a)(6). See Rule 430C(d) and Rule 424(b)(3).

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to

expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

George W. LeMaitre
Chairman, Chief Executive Officer and President
May 22, 2006
Page 13

You may contact Julie Sherman at (202) 551-3640 or in her absence, Kaitlin Tillan at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3444 with any other questions.

Sincerely,

Perry Hindin
Special Counsel

cc: Mitchell S. Bloom, Esq.
Michael H. Bison, Esq.