

Mail Stop 6010

June 30, 2006

Stefan M. Lemperle, M.D.
Chief Executive Officer
Artes Medical, Inc.
5870 Pacific Center Boulevard
San Diego, California 92121

**Re: Artes Medical, Inc.
Amendment No. 1 to Registration Statement on Form S-1, filed June 19, 2006
File No. 333-134086**

Dear Dr. Lemperle:

We have reviewed your filing and have the following comments. 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.

Graphics

1. We note your response to our prior comment 5 and reissue that comment in part. Please revise the plain English explanation for “purified bovine collagen” to explain that it is collagen derived from calf hides. Please also explain the picture labeled “human histology.” In addition, the footnotes and legends as provided are not legible due to their size. Please revise the footnotes and legends to present them in a legible font in all your graphics.

2. We note your response to our prior comment 6 and reissue that comment in part. Please move the information on page two of the graphics regarding the results of your clinical trials to the business section where investors will have more context of the information provided.
3. We note your response to our prior comment 7. Please delete the words “The First to Last” as you have yet to receive final approval from the FDA.

Risk Factors, page 8-29

General

4. We note that you have licensed some intellectual property to your competitor BioForm. Please consider adding a risk factor to discuss any material negative implications to your business of these licenses.

Because we have operated as a private company, we have no experience complying with public company obligations, pages 19-20

5. We note your response to our prior comment 33 and reissue that comment. Your risk factor as currently written still could apply to any initial public offering. Please revise it so that it addresses your situation more specifically or delete the risk factor. See Item 503(c) of Regulation S-K.

We are recording non-cash compensation expense, page 20

6. As June 23, 2006 has passed, you should be able to quantify the warrant modification expense. To the extent material, please disclose this expense in this risk factor.

Changes in, or interpretations of, accounting rules and regulations, pages 20-21

7. We note your response to our prior comment 34 and reissue that comment in part. To the extent practicable, please quantify your expected impact of this change in accounting policy for the 2006 fiscal year.

We will have broad discretion, page 28

8. Please revise your disclosure in this risk factor regarding the anticipated use of proceeds so that it is consistent with your revised use of proceeds disclosure on page 31.

Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 38

Results of Operations, page 43

9. In your response to prior comment 42, you said that you had disclosed, on page F-34, the intrinsic value, based on the estimated price of the initial public offering, of outstanding vested and unvested options exercisable into common stock as of the most recent balance sheet date presented. As we did not see this disclosure, please: (a) clarify for us where you had included it, (b) include it, or (c) confirm that you will include it in the first amendment that includes your estimate of the initial public offering price.

Business, pages 50-70

General

10. We note your response to our prior comment 44 and reissue that comment in part. It appears that your description of the following agreements may not be complete.
- Licenses to BioForm should disclose obligations/rights to defend and termination provisions;
 - Acquisition agreement with FormMed Biomedicals AG should disclose any continuing material obligations, and
 - Material terms of the MediPlant acquisition settlement agreement,

Government Regulation, pages 62-66

11. We note your response to our prior comment 49 and reissue that comment. Please expand this discussion to address the regulatory requirements of marketing and selling your product in Taiwan if this is still a target market.

Clinical History, pages 66-68

12. Please revise the graphic on page 67 so that a reader can easily determine which line applies to ArteFill and which line applies to the control.

Consolidated Financial Statements, page F-1

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm, page F-2

13. So long as Ernst & Young opines on the period from inception through December 31, 2005 and so long as that opinion is based on the report of other auditors, please include the report of the other auditors and their consent to include it. As this period is no longer provided, it appears that Ernst & Young may no longer need to opine on it.

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As appropriate, please amend your filing 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 file your cover letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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.

Stefan M. Lemperle, M.D.
Artes Medical, Inc.
June 30, 2006
Page 5

You may contact Vanessa Robertson at (202) 551-3649 or Oscar Young at (202) 551-3622 if you have questions regarding comments on the financial statements and related matters. Please contact Sonia Barros at (202) 551-3655 or John Krug at (202) 551-3862 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Craig S. Andrews
Jeffrey C. Thacker
Heller Ehrman LLP
4350 La Jolla Village Drive, Seventh Floor
San Diego, California 92122