



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 17, 2009

John T. Kilcoyne
Chairman and Chief Executive Officer
Micrus Endovascular Corporation
821 Fox Lane
San Jose, California 94131

Re: Micrus Endovascular Corporation
Form 10-K for Fiscal Year Ended March 31, 2008
Filed June 12, 2008
File 000-51323

Dear Mr. Kilcoyne:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or revised disclosure is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Item 11. Executive Compensation, page 98

1. We note from your discussion under "Cash-Based Incentive Compensation" on page 24 of the proxy statement that you have incorporated by reference into your Form 10-K that you have not disclosed the specific corporate goals to be achieved in order for your named executive officers to earn their respective annual cash incentive payments under the Employee Cash Bonus Plan. Please provide such disclosure in your future filings, as applicable. To the extent you believe that disclosure of such information, on a historical basis, would result in competitive

harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with a detailed explanation supporting your conclusion. To the extent that it is appropriate to omit specific targets or performance objectives, you are required to provide appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Refer also to Question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available on our website. In discussing how difficult or likely it will be to achieve the target levels or other factors, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

2. We refer to your disclosure under the caption "Long-Term Incentive Compensation" on page 25 of the proxy statement that you have incorporated by reference into your Form 10-K. We note minimal, if any, discussion and analysis as to how the annual stock option grants were determined. In your future filings, as applicable, please include substantive analysis and insight into how your compensation committee made its stock option grant determinations with respect to each named executive officer. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, please discuss and analyze how the compensation committee determined the actual number of shares underlying the stock options that were granted to your named executive officers and how and why those awards varied among the named executive officers.

Form 10-Q for the quarterly period ended December 31, 2008

Item 4. Controls and Procedures, page 29

3. We note your disclosure that your management "concluded that [y]our disclosure controls and procedures as of December 31, 2008 were effective in providing reasonable assurance that material information relating to[y]our company is made known to management on a timely basis during the period when [y]our periodic reports are being prepared (emphasis added)." Please note that the emphasized disclosure following your effectiveness conclusion does not sufficiently track the definition of "disclosure controls and procedures" as set forth in Exchange Act Rule 13a-15(e). In your future filings, please revise to clarify, if true, that your officers concluded that your disclosure controls and procedures are designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons

performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Alternatively, if true, you could simply disclose, as you have done in your annual report on Form 10-K for the fiscal year ended March 31, 2008, that your disclosure controls and procedures, as defined in Exchange Act Rule 13a-15(e), were effective.

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments 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 our review of your filing or in response to our comments on your filing.

John T. Kilcoyne
Micrus Endovascular Corporation
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Please contact Ruairi Regan at (202) 551-3269 or me at (202) 551-3635, if you have any questions.

Sincerely,

Tim Buchmiller
Senior Attorney