

ANGIODYNAMICS®

November 12, 2009

Tim Buchmiller
Senior Attorney
Division of Corporate Finance
Securities and Exchange Commission
100 F. Street N.E.
Washington, D.C. 20549

Re: AngioDynamics, Inc. Form 10-K for the fiscal year ended May 31, 2009 (File # 0-50761)

Dear Mr. Buchmiller:

AngioDynamics, Inc. ("AngioDynamics") is submitting this letter in response to the written comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"), dated October 30, 2009 (the "Comment Letter"), with respect to AngioDynamics' Form 10-K for the fiscal year ended May 31, 2009, filed with the Commission on August 14, 2009 (SEC File No. 0-50761) (the "Form 10-K"). Set forth below are the headings and text of the comments raised in the Comment Letter, followed by our responses thereto.

Form 10-K for the fiscal year ended May 31, 2009

Item 9A. Controls and Procedures

Management's Report on Internal Control over Financial Reporting, page 62

1. **Comment**

In your future filings, please include a statement that the registered public accounting firm that audited the financial statements included in your annual report has issued an attestation report on your internal control over financial reporting. Refer to Item 308(a)(4) of Regulation S-K.

Response

In future filings we will include a statement that the registered public accounting firm that audited the financial statements included in our annual report has issued an attestation report on our internal control over financial reporting.

Item 11 Executive Compensation, page 63

2. **Comment**

We note from your disclosure under "Base Salaries" that you have incorporated by reference from page 13 of your proxy statement that you target total cash compensation for your named executive officers at the 50th percentile of your peer companies. Given that you target the cash elements of your compensation packages, please briefly discuss in your applicable future filings how each element of cash compensation you provide to the named executive officers relates to the data you have analyzed from the peer companies and include an analysis of where actual payments under each element of cash compensation actually fell within the targeted range. If any of your named executive officers are compensated at levels that are materially different from the targeted levels of compensation, please also provide discussion and analysis as to why.

Response

In future filings, as applicable, to the extent that our relevant future compensation packages target total cash compensation in relation to peer companies, we will discuss how the elements of cash compensation provided to the named executive officers relates to the appropriate data we analyzed and where the actual payments fell within the targeted range. In addition, to the extent that any of our named executive officers are compensated at levels that are materially different from the targeted levels of compensation, we will provide a discussion and analysis as to why.

3. **Comment**

We note from your disclosure under "Annual Cash Incentives" that you have incorporated by reference from page 14 of your proxy statement that you do not disclose the amount of the targets or goals in order for your named executive officers to receive their non-equity incentive plan compensation. In future filings, please provide such disclosure 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 goals, 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 at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>. In discussing how difficult or likely it will be to achieve the targets or goals, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

Response

In future filings, as applicable, we will disclose the amount of the targets or goals in order for our named executive officers to receive their non-equity incentive plan compensation, provided that we do not believe that such disclosure would result in competitive harm. To the extent that we believe that the 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, we will provide the Staff with a detailed explanation supporting such conclusion. In such event, we will provide the appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. In discussing how difficult or likely it

is to achieve the targets or goals, we will provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

4. Comment

It appears that the annual cash incentives paid to your named executive officers should have been disclosed under the caption “Non-Equity Incentive Plan Compensation” in your Summary Compensation Table pursuant to Item 402(c)(2)(vii) of Regulation S-K, and that the threshold, target and maximum amounts related to those awards should have been disclosed in your “Grants of Plan Based Awards” table pursuant to 402(d)(2)(iii) of Regulation S-K. Please provide such disclosure in your future filings, to the extent then applicable, or provide us with your analysis as to why such information should not have been included in the referenced tables in accordance with the referenced Item requirements.

Response

In future filings, as applicable, we will disclose annual cash incentives paid to our named executive officers under the caption “Non-Equity Incentive Plan Compensation” in the Summary Compensation Table. In addition, in future filings, as applicable, we will disclose the threshold target and maximum amounts related to those awards in the “Grants of Plan Based Awards” table.

5. Comment

We refer to your disclosure under the caption “Long-Term, Equity-Based Incentive Awards” on page 14 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 and performance share awards were determined. In your future filings, as applicable, please include substantive analysis and insight into how your Compensation Committee made its stock option grant and performance share award 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 awarded to your named executive officers and how and why those awards varied among the named executive officers.

Response

In our future filings, as applicable, we will include substantive analysis and insight into how our Compensation Committee made stock option grant and performance share award determinations with respect to each named executive officer including a discussion and analysis of how the committee determined the actual number of shares subject to awards granted to named executive officers and how and why such awards varied among named executive officers.

In connection with our responses to the Comment Letter, we acknowledge the following:

1. AngioDynamics is responsible for the adequacy and accuracy of the disclosure in the filing;
2. 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;
3. AngioDynamics 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.

If you have any questions regarding our responses please contact me at (518) 798-1215 x1608.

Very truly yours,

/s/ D. Joseph Gersuk

D. Joseph Gersuk
Executive Vice President and
Chief Financial Officer