



September 18, 2012

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street N.E.
Washington, D.C. 20549
Attn: Martin James

Re: AngioDynamics, Inc.
Form 10-K for the Fiscal Year Ended May 31, 2012
Filed August 14, 2012
File No. 000-50761
Form 8-K dated July 12, 2012
Filed July 12, 2012
File No. 000-50761

Dear Mr. James:

AngioDynamics, Inc. ("AngioDynamics" or the "Company") is submitting this letter in response to the written comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"), dated September 4, 2012 (the "Letter"), with respect to AngioDynamics' Form 10-K for the fiscal year ended May 31, 2012, filed with the Commission on August 14, 2012 (SEC File No. 000-50761) and AngioDynamics' Form 8-K filed with the Commission on July 12, 2012 (SEC File No. 000-50761). Set forth below are the headings and text of the comments raised in the Letter, followed by our responses thereto.

Form 10-K for the fiscal year ended May 31, 2012

Item 8. Financial Statements and Supplementary Data

Note C. Acquisitions, Acquisition of Navilyst, page 83

1. Comment

You disclose that you valued the 9.5 million common shares issued as consideration for the acquisition of Navilyst using the closing price of your common stock the day prior to the date you completed the acquisition. Please tell us how you applied ASC 805-10-25-6 through 7 and ASC 805-30-30-7 which states that consideration issued for a business combination should be valued at its acquisition-date fair value.

14 Plaza Drive, Latham, NY 12110, USA > tel: +1 800-772-6446 or +1 518-795-1400 > fax: +1 518-795-1401

Company Response

AngioDynamics acquired Navilyst Medical effective 12:01 a.m. on May 22, 2012. Accordingly, we believe the most relevant stock price to value the approximately 9.5 million common shares issued as consideration for the acquisition is the closing stock price on May 21, 2012, the date closest to the consummation of the acquisition. The closing stock price on May 21, 2012 was \$12.44, and the consideration shares were valued at that price. For informational purposes, the closing stock price on May 22, 2012 was \$12.42.

Form 8-K dated July 12, 2012

Exhibit 99.1

2. Comment

In future filings, please revise to reconcile EBITDA to net income (loss) rather than operating income (loss). Note that operating income (loss) would not be considered the most directly comparable GAAP financial measure because EBITDA makes adjustments for items that are not included in operating income. Refer to Question 103.02 of the Compliance & Disclosure Interpretations on Non-GAAP measures located at <http://sec.gov/divisions/corpfin/guidance/nongaapinterp.htm>.

Company Response

In future filings, we will reconcile EBITDA to net income (loss) rather than operating income (loss).

In connection with our responses to the Letter, the Company acknowledges that:

- The Company is responsible for the adequacy and accuracy of the disclosure in the filings;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

Please feel free to contact the undersigned at 518-795-1608 if you would like to discuss any of these issues.

Sincerely,

/s/ D. Joseph Gersuk

D. Joseph Gersuk
Executive Vice President and Chief Financial Officer