Kegistration No. 555-	Registration	No.	333-
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

AngioDynamics, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

11-3146460

(State or Other Jurisdiction of Incorporation or Organization)

(I.R.S. Employer Identification No.)

14 Plaza Drive Latham, New York 12110

(Address of Principal Executive Offices) (Zip Code)

AngioDynamics, Inc. 2004 Stock and Incentive Award Plan (as amended)
AngioDynamics, Inc. Employee Stock Purchase Plan (as amended)
(Full Title of the Plan)

Stephen A. Trowbridge, Esq. Senior Vice President and General Counsel AngioDynamics, Inc. 14 Plaza Drive

Latham, New York 12110 (518) 795-1400

(Name, Address and Telephone Number, including Area Code, of Agent for Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of $\hat{a} \in \text{celerated filer}$, $\hat{a} \in \text{cel$

Large accelerated filer a T Non-accelerated filer a T

Accelerated filer â~'
Smaller reporting company â~[]
Emerging growth company â~[]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \hat{a}

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(2)
Common Stock, par value \$0.01 per share	2,500,000 shares(3)	\$23.32	\$58,300,000	\$7,065.96

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Actâ€□), this Registration Statement also covers an indeterminate number of additional shares of common stock, par value \$0.01 per share, of AngioDynamics, Inc. ("Common Stockâ€□) that may become issuable under the AngioDynamics, Inc. 2004 Stock and Incentive Award Plan, as amended, and the AngioDynamics, Inc. Employee Stock Purchase Plan, as amended, by reason of any stock dividend, stock split, recapitalization or any other similar transaction.
- (2) Pursuant to Rule 457 under the Securities Act, the proposed maximum aggregate offering price and the registration fee are estimated based upon the average of the high and low sale prices of the Common Stock as reported on The Nasdaq Global Select Market on Febrary 15, 2019.
- (3) This number consists of (i) 1,000,000 shares of Common Stock available for issuance under the AngioDynamics, Inc. 2004 Stock and Incentive Award Plan, as amended, and (ii) 1,500,000 shares of Common Stock available for issuance under the AngioDynamics, Inc. Employee Stock Purchase Plan, as amended.

EXPLANATORY NOTE

This Registration Statement on Form S-8 (this $\hat{a}\in \mathbb{C}$ Registration Statement $\hat{a}\in \mathbb{C}$) is filed with the Securities and Exchange Commission (the $\hat{a}\in \mathbb{C}$ EC $\hat{a}\in \mathbb{C}$) by AngioDynamics, Inc., a Delaware corporation (the $\hat{a}\in \mathbb{C}$ Registrant $\hat{a}\in \mathbb{C}$), in order to register (i) an additional 1,000,000 shares of the Registrant $\hat{a}\in \mathbb{C}$ Ms common stock, par value \$0.01 per share ($\hat{a}\in \mathbb{C}$ Common Stock $\hat{a}\in \mathbb{C}$), available for issuance under the AngioDynamics, Inc. 2004 Stock and Incentive Award Plan, as amended (the $\hat{a}\in \mathbb{C}$ 2004 Plan $\hat{a}\in \mathbb{C}$), and (ii) an additional 1,500,000 shares of Common Stock available for issuance under the AngioDynamics, Inc. Employee Stock Purchase Plan, as amended (the $\hat{a}\in \mathbb{C}$ Purchase Plan $\hat{a}\in \mathbb{C}$).

On October 28, 2004, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-120057) to register 1,000,000 shares of Common Stock issuable under the Purchase Plan (the "2004 Registration Statementâ€□). On November 6, 2006, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-138456) to register an additional 1,000,000 shares of Common Stock issuable under the 2004 Plan (the "2006 Registration Statementâ€□). On August 14, 2009, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-161355) to register an additional 1,000,000 shares of Common Stock issuable under the 2004 Plan and an additional 200,000 shares of Common Stock issuable under the Purchase Plan (the "August 2009 Registration Statementâ€□). On November 3, 2009, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-162844) to register an additional 750,000 shares of Common Stock issuable under the 2004 Plan (the "November 2009 Registration Statementâ€□). On November 16, 2010, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-170619) to register an additional 300,000 shares of Common Stock issuable under the Purchase Plan (the "2010 Registration Statementâ€□). On August 15, 2013, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-190640) to register an additional 2,000,000 shares of Common Stock issuable under the Purchase Plan (the "2013 Registration Statementâ€□). On April 16, 2015, the Registrant filed with the SEC a Registration Statement on Form S-8 (File No. 333-203441) to register an additional 1,000,000 shares of Common Stock issuable under the Purchase Plan (the "2015 Registration Statementâ€□).

On October 25, 2016, the stockholders of the Registrant approved (i) an amendment to the 2004 Plan to increase the number of shares of Common Stock issuable under the 2004 Plan from 6,750,000 to 7,000,000 shares and (ii) an amendment to the Purchase Plan to increase the number of shares of Common Stock issuable under the Purchase Plan from 2,000,000 to 2,500,000 shares (collectively, the "2016 Share Increasesâ€□). On October 10, 2018, the stockholders of the Registrant approved (i) an amendment to the 2004 Plan to increase the number of shares of Common Stock issuable under the 2004 Plan from 7,000,000 to 7,750,000 shares and (ii) an amendment to the Purchase Plan to increase the number of shares of Common Stock issuable under the Purchase Plan from 2,500,000 to 3,500,000 shares (collectively, the "2018 Share Increasesâ€□). This Registration Statement is being filed to register the additional 1,000,000 shares of Common Stock issuable under the Purchase Plan as approved by the stockholders of the Registrant pursuant to the 2016 Share Increases and the 2018 Share Increases.

Pursuant to General Instruction E to Form S-8, this Registration Statement incorporates by reference the contents of the 2004 Registration Statement, the 2006 Registration Statement, the August 2009 Registration Statement, the November 2009 Registration Statement, the 2010 Registration Statement, the 2013 Registration Statement and the 2015 Registration Statement, including, with respect to each registration statement, each of the documents filed by the Registrant with the SEC and incorporated or deemed to be incorporated by reference therein and including each of the documents filed as exhibits to such registration statement, except as otherwise updated or modified in this Registration Statement.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Registrant with the SEC pursuant to Section 13 of the Securities Exchange Act of 1934, as amended (the "Exchange Actâ€[]) (File No. 000-50761), are incorporated herein by reference: (i) the Annual Report on Form 10-K (including the portions of the Registrant's Proxy Statement incorporated by reference therein) for the fiscal year ended May 31, 2018, filed with the SEC on July 23, 2018; (ii) the Quarterly Reports on Form 10-Q for the fiscal periods ended August 31, 2018 and November 30, 2018, filed with the SEC on October 1, 2018 and January 7, 2019, respectively; (iii) the Current Report on Form 8-K filed with the SEC on October 12, 2018; and (iv) the description of the Common Stock contained in the Registrant's registration statement on Form 8-A (Registration No. 000-50761), filed by the Registrant with the SEC under Section 12(b) of the Exchange Act on May 13, 2004, including any amendments or reports filed for the purpose of updating such description. All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment indicating that all securities offered hereby have been sold or deregistering all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents.

Item 5. Interests of Named Experts and Counsel.

Stephen A. Trowbridge, who is providing an opinion on the validity of the issuance of the shares of Common Stock being registered hereby, is Senior Vice President and General Counsel of the Registrant. As an employee of the Registrant, Mr. Trowbridge participates in equity compensation plans of the Registrant on the same basis as other similarly eligible employees, pursuant to which Mr. Trowbridge owns or has options or rights to acquire an aggregate of less than 1% of the Registrant's outstanding Common Stock. Mr. Trowbridge is eligible to participate in the Plans.

Item 8. Exhibits.

Filed herewith.

EXHIBIT

NUMBE	R DESCRIPTION
3.1.1	Amended and Restated Certificate of Incorporation of the Registrant.*
3.1.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant.**
3.2	Second Amended and Restated Bylaws of the Registrant, effective October 16, 2015.***
4.2	Form of Specimen Certificate for the Registrant's Common Stock.****
5.1	Opinion of Stephen A. Trowbridge, Senior Vice President and General Counsel of the Registrant.+
10.1	AngioDynamics, Inc. 2004 Stock and Incentive Award Plan, as amended.****
10.2	AngioDynamics, Inc. Employee Stock Purchase Plan, as amended.*****
23.1	Consent of Stephen A. Trowbridge, Esq., Senior Vice President and General Counsel of the Registrant (included in Exhibit 5.1).+
23.2	Consent of Deloitte & Touche LLP.+
23.3	Consent of PricewaterhouseCoopers LLP.+
24.1	Power of Attorney (included on signature page to this Registration Statement).+
*	
**	Incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on October 7, 2005.
***	Incorporated by reference to Exhibit 3.1.2 to the Registrant's Annual Report on Form 10-K filed with the SEC on August 10, 2015.
***	Incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 21, 2015.
***	Incorporated by reference to Exhibit 4.2 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 filed with the SEC on May 5, 2004.
****	Incorporated by reference to Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed with the SEC on August 30, 2018.
*****	Incorporated by reference to Appendix B to the Registrant's Definitive Proxy Statement on Schedule 14A filed with the SEC on August 30, 2018.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Latham, State of New York, on February 22, 2019.

ANGIODYNAMICS, INC.

By: /s/ James C. Clemmer

Name: James C. Clemmer

Title: President and Chief Executive Officer

Title

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James C. Clemmer and Michael C. Greiner, and each or either of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for each of them and in each of their names, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each or either of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as each of them might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, and each or either of them, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on February 22, 2019.

Signaturo

Signature	Title
/s/ Howard W. Donnelly	Chairman of the Board, Director
Howard W. Donnelly	
/s/ James C. Clemmer	President and Chief Executive Officer and Director
James C. Clemmer	(Principal Executive Officer)
/s/ Michael C. Greiner	Executive Vice President and Chief Financial Officer
Michael C. Greiner	(Principal Financial Officer and
	Principal Accounting Officer)
/s/ Eileen O. Auen	Director
Eileen Auen	
/s/ Jeffrey G. Gold	Director
Jeffrey G. Gold	
/s/ Kevin J. Gould	Director
Kevin J. Gould	
/s/ Wesley E. Johnson, Jr.	Director
Wesley E. Johnson, Jr.	
/s/ Dennis S. Meteny	Director
Dennis S. Meteny	
/s/ Jan Stern Reed	Director
Jan Stern Reed	

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[Letterhead]

February 22, 2019

AngioDynamics, Inc. 14 Plaza Drive Latham, New York 12110

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

I have acted as counsel to AngioDynamics, Inc., a Delaware corporation (the \hat{a} € α Company \hat{a} € \square), in connection with the Company \hat{a} € \square Ms registration statement on Form S-8 (the \hat{a} € α Registration Statement \hat{a} € \square), under the Securities Act of 1933, as amended (the \hat{a} € α Securities Act \hat{a} € \square), in connection with the registration by the Company of an aggregate of 2,500,000 shares (the \hat{a} € α Shares α \$ \square 0) of common stock, par value \$0.01 per share, of which (i) 1,000,000 Shares are available for issuance pursuant to the AngioDynamics, Inc. 2004 Stock and Incentive Award Plan, as amended, and (ii) 1,500,000 Shares are available for issuance pursuant to the AngioDynamics, Inc. Employee Stock Purchase Plan, as amended (together, the \hat{a} € α Plans \hat{a} € α Plans \hat{a} 0).

In rendering the opinions set forth below, I have examined and relied upon the originals, copies or specimens, certified or otherwise identified to my satisfaction, of the Registration Statement, the Plans and such certificates, corporate and public records, agreements and instruments and other documents as I have deemed appropriate as a basis for the opinions expressed below. In making my examination, I have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to me as originals and the conformity to the originals of all documents submitted to me as photostatic or conformed copies.

Based upon the foregoing and subject to the limitations, qualifications and assumptions set forth herein, I am of the opinion that the Shares have been duly authorized and, when issued in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

I express no opinion as to any matter which may be, or which purports to be, governed by the laws of any jurisdiction other than the General Corporation Law of the State of Delaware and the federal laws of the United States of America, in each case as in effect on the date of this letter.

I hereby consent to the filing of this letter as an exhibit to the Registration Statement. In giving this consent, I do not hereby admit that I am in the category of persons whose consent is required under Section 7 of the Securities Act. This opinion is expressed as of the date of effectiveness of the Registration Statement unless otherwise expressly stated, and I disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws after that date.

Very truly yours,

/s/ Stephen A. Trowbridge

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our reports relating to the financial statements and financial statement schedule of AngioDynamics, Inc. and the effectiveness of AngioDynamics Inc. $\hat{a}\in^{TM}$ s internal control over financial reporting dated July 23, 2018, appearing in the Annual Report on Form 10-K of AngioDynamics, Inc. for the year ended May 31, 2018.

/s/ Deloitte & Touche LLP

Boston, Massachusetts February 22, 2019

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated August 1, 2016, relating to the financial statements and financial statement schedule of AngioDynamics, Inc., which appears in AngioDynamics, Inc.'s Annual Report on Form 10-K for the year ended May 31, 2018.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts February 22, 2019