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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended November 30, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ________ to ________
Commission file number 0-50761

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 and zip code)

(518) 795-1400
Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
Common stock, par value $.01	ANGO	NASDAQ Global Select Market
Preferred Stock Purchase Rights		NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act:

None
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of “large accelerated filer”, “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Indicate the number of shares outstanding of each of the Issuer’s classes of common stock, as of the latest practicable date.

Class	Outstanding as of January 7, 2020
Common Stock, par value $.01	**37,625,690**

AngioDynamics, Inc. and Subsidiaries

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PART 1. FINANCIAL INFORMATION

Item 1. Financial Statements.

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)
(in thousands of dollars, except per share data)

	Three Months Ended		Six Months Ended	
	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Net sales	$ 70,003	$ 69,985	$ 136,045	$ 133,928
Cost of sales (exclusive of intangible amortization)	28,459	29,433	56,284	57,423
Gross profit	41,544	40,552	79,761	76,505
Operating expenses:				
Research and development	7,764	7,076	14,055	14,450
Sales and marketing	20,113	19,263	39,493	37,669
General and administrative	10,994	9,262	19,448	17,697
Amortization of intangibles	4,530	4,506	8,398	7,939
Change in fair value of contingent consideration	145	244	(303)	256
Acquisition, restructuring and other items, net	1,421	2,728	2,921	7,150
Total operating expenses	44,967	43,079	84,012	85,161
Operating loss	(3,423)	(2,527)	(4,251)	(8,656)
Other (expenses) income:				
Interest expense, net	(41)	(1,330)	(506)	(2,247)
Other income (expense), net	162	80	64	194
Total other income (expense), net	121	(1,250)	(442)	(2,053)
Loss from continuing operations before income tax benefit	(3,302)	(3,777)	(4,693)	(10,709)
Income tax benefit	(566)	(190)	(682)	(1,418)
Net loss from continuing operations	(2,736)	(3,587)	(4,011)	(9,291)
Income from discontinued operations, net of income tax	—	5,727	—	10,962
Net income (loss)	$ (2,736)	$ 2,140	$ (4,011)	$ 1,671
Loss per share - continuing operations				
Basic	$ (0.07)	$ (0.10)	$ (0.11)	$ (0.25)
Diluted	$ (0.07)	$ (0.10)	$ (0.11)	$ (0.25)
Income per share - discontinued operations				
Basic	$ 0.00	$ 0.15	$ 0.00	$ 0.29
Diluted	$ 0.00	$ 0.15	$ 0.00	$ 0.29
Income (loss) per share				
Basic	$ (0.07)	$ 0.06	$ (0.11)	$ 0.04
Diluted	$ (0.07)	$ 0.06	$ (0.11)	$ 0.04
Weighted average shares outstanding				
Basic	37,992	37,500	37,887	37,411
Diluted	37,992	37,500	37,887	37,411

The accompanying notes are an integral part of these consolidated financial statements.

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(unaudited)
(in thousands of dollars)

	Three Months Ended		Six Months Ended	
	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Net income (loss)	$ (2,736)	$ 2,140	$ (4,011)	$ 1,671
Other comprehensive income (loss), before tax:				
Unrealized gain on marketable securities	—	—		33
Foreign currency translation	231	(206)	80	(331)
Other comprehensive income (loss), before tax	231	(206)	80	(298)
Income tax expense related to items of other comprehensive income	—	—	—	—
Other comprehensive income (loss), net of tax	231	(206)	80	(298)
Total comprehensive income (loss), net of tax	$ (2,505)	$ 1,934	$ (3,931)	$ 1,373

The accompanying notes are an integral part of these consolidated financial statements.

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED BALANCE SHEETS
(unaudited)
(in thousands of dollars, except share data)

	Nov 30, 2019	May 31, 2019
Assets		
Current assets		
Cash and cash equivalents	$ 41,247	$ 227,641
Accounts receivable, net of allowances of $2,068 and $1,906 respectively	33,994	43,577
Inventories	50,239	40,071
Prepaid expenses and other	6,496	4,003
Total current assets	131,976	315,292
Property, plant and equipment, net	27,508	24,258
Other assets	8,976	3,835
Intangible assets, net	196,325	145,387
Goodwill	360,094	347,666
Total assets	$ 724,879	$ 836,438
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	$ 17,968	$ 22,829
Accrued liabilities	28,478	38,338
Current portion of long-term debt	—	7,500
Current portion of contingent consideration	889	4,635
Other current liabilities	9,670	—
Total current liabilities	57,005	73,302
Long-term debt, net of current portion	—	124,407
Contingent consideration, net of current portion	25,986	8,851
Deferred income taxes	24,586	14,542
Other long-term liabilities	3,492	521
Total liabilities	111,069	221,623
Commitments and contingencies (Note 15)		
Stockholders' equity		
Preferred stock, par value $.01 per share, 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, par value $.01 per share, 75,000,000 shares authorized; 38,363,926 and 37,984,382 shares issued and 37,993,926 and 37,614,382 shares outstanding at November 30, 2019 and May 31, 2019, respectively	373	372
Additional paid-in capital	557,965	555,040
Retained earnings	62,458	66,469
Treasury stock, 370,000 shares at November 30, 2019 and May 31, 2019, respectively	(5,714)	(5,714)
Accumulated other comprehensive loss	(1,272)	(1,352)
Total Stockholders’ Equity	613,810	614,815
Total Liabilities and Stockholders' Equity	$ 724,879	$ 836,438

The accompanying notes are an integral part of these consolidated financial statements.

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands of dollars)

	Six Months Ended	
	Nov 30, 2019	Nov 30, 2018
Cash flows from operating activities:		
Net income (loss)	$ (4,011)	$ 1,671
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	11,110	12,291
Non-cash lease expense	904	—
Stock based compensation	4,226	4,741
Change in fair value of contingent consideration	(303)	256
Deferred income taxes	(734)	495
Change in accounts receivable allowances	199	(75)
Fixed and intangible asset impairments and disposals	369	12
Write-off of other assets	593	—
Other	(27)	(17)
Changes in operating assets and liabilities:		
Accounts receivable	9,464	(3,068)
Inventories	(10,009)	(955)
Prepaid expenses and other	(3,544)	(1,183)
Accounts payable, accrued and other liabilities	(8,834)	(10,082)
Net cash provided by (used in) operating activities	(597)	4,086
Cash flows from investing activities:		
Additions to property, plant and equipment	(4,014)	(1,416)
Acquisition of intangibles	(350)	—
Cash paid for acquisitions	(45,760)	(84,920)
Net cash used in investing activities	(50,124)	(86,336)
Cash flows from financing activities:		
Proceeds from issuance of and borrowings on long-term debt	—	55,000
Repayment of long-term debt	(132,500)	(2,500)
Deferred financing costs on long-term debt	(741)	—
Payment of acquisition related contingent consideration	(1,208)	(2,100)
Proceeds (outlays) from exercise of stock options and employee stock purchase plan	(1,300)	854
Net cash provided by (used in) financing activities	(135,749)	51,254
Effect of exchange rate changes on cash and cash equivalents	76	(280)
Decrease in cash and cash equivalents	(186,394)	(31,276)
Cash and cash equivalents at beginning of period	227,641	74,096
Cash and cash equivalents at end of period	$ 41,247	$ 42,820
Supplemental disclosure of non-cash investing and financing activities:		
Accrual for capital expenditures incurred during the period	$ 444	$ (19)
Fair value of contingent consideration for acquisitions	14,900	25,100
Fair value of acquisition consideration included in other long-term liabilities	—	4,863

The accompanying notes are an integral part of these consolidated financial statements.

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(unaudited)
(in thousands of dollars, except share data)

	Common Stock		Additional paid in capital	Retained earnings	Accumulated other comprehensive loss	Treasury Stock		Total
	Shares	Amount				Shares	Amount	
Balance at May 31, 2019	37,984,382	$ 372	$ 555,040	$ 66,469	$ (1,352)	(370,000)	$ (5,714)	$ 614,815
Net loss				(1,275)				(1,275)
Exercise of stock options	48,136	1	530					531
Issuance/Cancellation of restricted stock units	287,087		(2,459)					(2,459)
Purchases of common stock under ESPP	40,270		628					628
Stock-based compensation			1,984					1,984
Other comprehensive loss, net of tax					(151)			(151)
Balance at August 31, 2019	38,359,875	$ 373	$ 555,723	$ 65,194	$ (1,503)	(370,000)	$ (5,714)	$ 614,073
Net loss				(2,736)				(2,736)
Issuance/Cancellation of restricted stock units	4,051							—
Stock-based compensation			2,242					2,242
Other comprehensive loss, net of tax					231			231
Balance at November 30, 2019	38,363,926	$ 373	$ 557,965	$ 62,458	$ (1,272)	(370,000)	$ (5,714)	$ 613,810

AngioDynamics, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY - continued
(unaudited)
(in thousands of dollars, except share data)

	Common Stock		Additional paid in capital	Retained earnings	Accumulated other comprehensive loss	Treasury Stock		Total
	Shares	Amount				Shares	Amount	
Balance at May 31, 2018	37,594,493	$ 370	$ 543,762	$ 5,129	$ (952)	(370,000)	$ (5,714)	$ 542,595
Net loss				(469)				(469)
Exercise of stock options	71,336	1	607					608
Issuance/Cancellation of restricted stock units	149,446		(460)					(460)
Issuance/Cancellation of performance share units	5,235							—
Purchases of common stock under ESPP	40,547	1	556					557
Stock-based compensation			2,150					2,150
Other comprehensive loss, net of tax					(92)			(92)
Balance at August 31, 2018	37,861,057	$ 372	$ 546,615	$ 4,660	$ (1,044)	(370,000)	$ (5,714)	$ 544,889
Net income				2,140				2,140
Exercise of stock options	10,571		149					149
Issuance/Cancellation of restricted stock units	3,901							—
Stock-based compensation			2,591					2,591
Other comprehensive loss, net of tax					(206)			(206)
Balance at November 30, 2018	37,875,529	$ 372	$ 549,355	$ 6,800	$ (1,250)	(370,000)	$ (5,714)	$ 549,563

The accompanying notes are an integral part of these consolidated financial statements.

AngioDynamics, Inc. and Subsidiaries

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. CONSOLIDATED FINANCIAL STATEMENTS

The Consolidated Balance Sheet as of November 30, 2019, the Consolidated Statements of Operations and the Consolidated Statements of Comprehensive Income (Loss) for the three and six months ended November 30, 2019 and 2018, the Consolidated Statements of Stockholders’ Equity for the three months ended November 30, 2019 and 2018 and the Consolidated Statements of Cash Flows for the six months ended November 30, 2019 and 2018 have been prepared by us and are unaudited. The Consolidated Balance Sheet as of May 31, 2019 was derived from audited consolidated financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America. In the opinion of management, all adjustments (consisting of normal recurring adjustments) necessary to state fairly the financial position, changes in stockholders’ equity and comprehensive income, results of operations and cash flows as of and for the period ended November 30, 2019 (and for all periods presented) have been made.

The unaudited interim consolidated financial statements for the three and six months ended November 30, 2019 and 2018 include the accounts of AngioDynamics, Inc. and its wholly owned subsidiaries, collectively, the “Company”. All intercompany balances and transactions have been eliminated.

On May 31, 2019, the Company completed the sale of the Fluid Management business and all of the assets used primarily in connection with the Fluid Management business (Note 3). As the disposal of this business represents a strategic shift with a major effect on the Company's operations, for all periods presented in our Consolidated Statements of Operations and Comprehensive Loss, all sales, costs, expenses, gains and income taxes attributable to Fluid Management have been reported under the captions, “Income from Discontinued Operations, Net of Income Tax.” Cash flows used in or provided by Fluid Management have been reported in the Consolidated Statements of Cash Flows under operating and investing activities.

2. ACQUISITIONS

Eximo Acquisition

On October 2, 2019, the Company entered into a share purchase agreement to acquire Eximo Medical, Ltd., a pre-commercial stage medical device company and its proprietary 355nm B Laser Atherectomy technology. The aggregate purchase price of $60.7 million included an upfront payment of $45.8 million and contingent consideration with an estimated fair value of $14.9 million. This acquisition expands and complements the Company’s Vascular Interventions and Therapies product portfolio by adding the 355nm B Laser Atherectomy technology which treats Peripheral Artery Disease.

The Company accounted for the Eximo acquisition under the acquisition method of accounting for business combinations. Accordingly, the cost to acquire the assets was allocated to the underlying net assets in proportion to estimates of their respective fair values. The excess of the purchase price over the estimated fair value of the net assets acquired was recorded as goodwill. Goodwill is non-deductible for income tax purposes.

The Company has not disclosed the amount of revenue and earnings for sales of Eximo products since acquisition, nor proforma information, because these amounts are not significant to the Company's financial statements. Acquisition-related costs associated with the Eximo acquisition, which are included in "acquisition, restructuring and other items, net" in the accompanying Consolidated Statements of Operations, were approximately $0.6 million in fiscal year 2020. The following table summarizes the preliminary aggregate purchase price allocated to the net assets acquired:

(in thousands)		Oct 2, 2019
Accounts receivable	$	50
Inventory		150
Prepaid and other current assets		54
Long-term deposits		51
Property, plant and equipment		397
Intangible assets:		
Product technology		59,000
Goodwill		12,428
Total assets acquired	$	72,130
Liabilities assumed		
Accounts payable	$	84
Other current liabilities		615
Deferred tax liabilities		10,771
Total liabilities assumed	$	11,470
Net assets acquired	$	60,660

The allocation of the purchase price to the assets acquired and liabilities assumed, including the amount allocated to goodwill, is subject to change within the measurement period (up to one year from the acquisition date) as additional information that existed at the date of the acquisition related to the values of assets acquired and liabilities assumed is obtained.

The value assigned to the product technology was derived using the multi-period excess earnings method under the income approach. This approach estimates the excess earnings generated over the lives of the customers that existed as of the acquisition date and discounts such earnings to present value. The product technology is deemed to have a useful life of fifteen years and will be amortized on a straight-line basis over the useful life.

The goodwill arising from the acquisition consists largely of synergies and economies of scale the Company hopes to achieve from combining the acquired assets with the Company's current operations.

RadiaDyne Acquisition

On September 21, 2018, the Company acquired RadiaDyne, a privately held medical diagnostic and device company that designs and develops patient dose monitoring technology to improve cancer treatment outcomes. The aggregate purchase price of $75.0 million included an upfront payment of $47.9 million, contingent consideration with an estimated fair value of $22.3 million, an indemnification holdback of $4.6 million and a purchase price holdback of $0.2 million. The fair value of $22.3 million in contingent consideration is comprised of $16.5 million for the revenue milestones and $5.8 million for the technical milestones. The $4.6 million indemnification holdback is recorded in accrued liabilities at November 30, 2019 and the $0.2 million purchase price holdback was initially recorded in accrued liabilities, and was paid during the third quarter of fiscal year 2019.

This acquisition expands the Company’s growing Oncology business by adding RadiaDyne’s early-stage, proprietary OARtrac® real-time radiation dose monitoring platform and other market-leading oncology solutions, including the IsoLoc®/ImmobiLoc® and Alatus® balloon stabilizing technologies.

The Company accounted for the RadiaDyne acquisition under the acquisition method of accounting for business combinations. Accordingly, the cost to acquire the assets was allocated to the underlying net assets in proportion to estimates of their respective fair values. The excess of the purchase price over the estimated fair value of the net assets acquired was recorded as goodwill. Goodwill is deductible for income tax purposes.

The Company has not disclosed the amount of revenue and earnings for sales of RadiaDyne products since acquisition, nor proforma information, because these amounts are not significant to the Company's financial statements. Acquisition-related costs associated with the RadiaDyne acquisition, which are included in "acquisition, restructuring and other items, net" in the accompanying Consolidated Statements of Operations, were approximately $1.6 million in fiscal year 2019. The following table summarizes the preliminary and final aggregate purchase price allocated to the net assets acquired:

(in thousands)		Final allocation
Accounts receivable	$	900
Inventory		732
Prepaid and other current assets		98
Property, plant and equipment		133
Intangible assets:		
RadiaDyne trademark		400
OARtrac trademark		200
RadiaDyne legacy product technology		1,500
OARtrac product technology		18,900
RadiaDyne customer relationships		4,600
Goodwill		47,982
Total assets acquired	$	75,445
Liabilities assumed		
Accounts payable	$	352
Accrued expenses		106
Total liabilities assumed	$	458
Net assets acquired	$	74,987

The Company finalized the allocation of the purchase price to the assets acquired and liabilities assumed in the fourth quarter of FY19.

The values assigned to the RadiaDyne and OARtrac trademark and product technologies were derived using the relief-from-royalties method under the income approach. This approach is used to estimate the cost savings that accrue for the owner of an intangible asset who would otherwise have to pay royalties or licensing fees on revenues earned through the use of the asset if they had not owned the rights to use the assets. The net after-tax royalty savings are calculated for each year in the remaining economic life of the intangible asset and discounted to present value. The trademarks are deemed to have a useful life of five to seven years and the product technologies are deemed to have a useful life of seven to ten years. Both are amortized on a straight-line basis over their useful life.

The value assigned to customer relationships was derived using the multi-period excess earnings method under the income approach. This approach estimates the excess earnings generated over the lives of the customers that existed as of the acquisition date and discounts such earnings to present value. Customer relationships are amortized on a straight-line basis over fifteen years.

The goodwill arising from the acquisition consists largely of synergies and economies of scale the Company hopes to achieve from combining the acquired assets with the Company's current operations.

BioSentry Acquisition

On August 14, 2018, the Company acquired the BioSentry product from Surgical Specialties, LLC (“SSC”), for an aggregate purchase price of $39.8 million of which $37.0 million was paid on August 14, 2018 and $2.8 million was recorded as contingent consideration. The contingent consideration liability was recorded at fair value and was paid in the fourth quarter of fiscal year 2019 upon fulfillment of hydrogel orders by SSC.

The Company accounted for the BioSentry acquisition under the acquisition method of accounting for business combinations. Accordingly, the cost to acquire the assets was allocated to the underlying net assets in proportion to estimates of their respective fair values. The excess of the purchase price over the estimated fair value of the net assets acquired was recorded as goodwill. Goodwill is deductible for income tax purposes.

The Company has not disclosed the amount of revenue and earnings for sales of BioSentry products since acquisition, nor proforma information, because these amounts are not significant to the Company's financial statements. Acquisition-related costs associated with the BioSentry acquisition, which are included in "acquisition, restructuring and other items, net" in the accompanying Consolidated Statements of Operations, were approximately $1.0 million in fiscal year 2019. The following table summarizes the preliminary and revised final purchase price allocated to the net assets acquired:

(in thousands)	Final allocation
Inventory	$ 50
Property, plant and equipment	10
Intangible assets:	
BioSentry trademark	2,500
BioSentry product technology	20,900
Customer relationships	2,600
Goodwill	13,740
Net assets acquired	$ 39,800

The Company finalized the allocation of the purchase price to the assets acquired and liabilities assumed in the fourth quarter of FY19.

The values assigned to the BioSentry trademark and product technologies were derived using the relief-from-royalties method under the income approach. This approach is used to estimate the cost savings that accrue for the owner of an intangible asset who would otherwise have to pay royalties or licensing fees on revenues earned through the use of the asset if they had not owned the rights to use the assets. The net after-tax royalty savings are calculated for each year in the remaining economic life of the intangible asset and discounted to present value. The trademark and product technologies are deemed to have a fifteen year useful life and are amortized on a straight-line basis over their useful life.

The value assigned to customer relationships was derived using the multi-period excess earnings method under the income approach. This approach estimates the excess earnings generated over the lives of the customers that existed as of the acquisition date and discounts such earnings to present value. Customer relationships are amortized on a straight-line basis over ten years.

The goodwill arising from the acquisition consists largely of synergies and economies of scale the Company hopes to achieve from combining the acquired assets with the Company's current operations.

3. DIVESTITURES

Fluid Management

On May 31, 2019, the Company completed the sale of the NAMIC Fluid Management business (the “Divestiture”) and all of the assets used primarily in connection with the Fluid Management business to Medline Industries, Inc. (“Medline”) pursuant to an asset purchase agreement dated April 17, 2019 (the “Asset Purchase Agreement”). Total consideration received by the Company for the Divestiture in the fourth quarter of fiscal year 2019 was $169.2 million in cash and resulted in a gain of $46.6 million after working capital adjustments of $0.6 million. The gain was recorded in discontinued operations. On June 3, 2019, a portion of the net proceeds were used to retire the outstanding balance on the Term Loan and Revolving Facility and the remaining net proceeds will continue to be invested in the business.

Pursuant to a transition services agreement entered into and effective on the closing of the transaction, the Company will supply certain services to Medline. Medline will receive certain legal, human resource, tax, accounting and information technology services from the Company for a period generally not to exceed 24 months.

As a result of the Divestiture, the results of operations from the Fluid Management business are reported in the accompanying Consolidated Statements of Operations as “Income from discontinued operations, net of income tax” for the three months and six months ended November 30, 2018. The following table summarizes the financial results of our discontinued operations:

(in thousands)	Three Months Ended Nov 30, 2018	Six Months Ended Nov 30, 2018
Net sales	$ 21,518	$ 42,915
Cost of sales (exclusive of amortization)	12,962	25,844
Gross profit	8,556	17,071
Operating expenses		
Research and development	287	575
Sales and marketing	1,005	2,033
General and administrative	73	135
Amortization of intangibles	683	1,365
Total operating expenses	2,048	4,108
Operating income	6,508	12,963
Income from discontinued operations before income taxes	6,508	12,963
Income tax expense	781	2,001
Income from discontinued operations	$ 5,727	$ 10,962

In accordance with accounting principles generally accepted in the United States (“GAAP”), only expenses specifically identifiable and related to a business to be disposed may be allocated to discontinued operations. As such, the selling and marketing, research and development and general and administrative expenses recorded in discontinued operations include corporate costs incurred directly in support of the Fluid Management portfolio.

Total operating and investing cash flows of discontinued operations for the six months ended November 30, 2018 is comprised of the following, which excludes the effect of income taxes:

(in thousands)	Six Months Ended Nov 30, 2018
Net cash provided by operating activities	$ 516
Net cash provided by investing activities	446

4. REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue Recognition

Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

The Company has one primary revenue stream which is the sales of its products.

Disaggregation of Revenue

The following tables summarize net product revenue by Global Business Unit ("GBU") and geography for the three and six months ended November 30, 2019 and 2018:

(in thousands)	Three months ended Nov 30, 2019 United States	International	Total	Three months Ended Nov 30, 2018 United States	International	Total
Net sales						
Vascular Interventions & Therapies	$ 27,601	$ 3,549	$ 31,150	$ 27,243	$ 3,733	$ 30,976
Vascular Access	18,563	4,221	22,784	20,081	3,642	$ 23,723
Oncology	9,391	6,678	16,069	8,976	6,310	$ 15,286
Total	$ 55,555	$ 14,448	$ 70,003	$ 56,300	$ 13,685	$ 69,985

(in thousands)	Six months ended Nov 30, 2019 United States	International	Total	Six months Ended Nov 30, 2018 United States	International	Total
Net sales						
Vascular Interventions & Therapies	$ 53,277	$ 6,786	$ 60,063	$ 53,093	$ 6,480	$ 59,573
Vascular Access	37,847	8,096	45,943	40,528	6,985	47,513
Oncology	17,368	12,671	30,039	14,175	12,667	26,842
Total	$ 108,492	$ 27,553	$ 136,045	$ 107,796	$ 26,132	$ 133,928

Net Product Revenue

The Company's products consist of a wide range of medical, surgical and diagnostic devices used by professional healthcare providers for vascular access, for the treatment of peripheral vascular disease and for use in oncology and surgical settings. The Company's devices are generally used in minimally invasive, image-guided procedures. Most of the Company's products are intended to be used once and then discarded, or they may be implanted for short or long term use. The Company sells its products to its distribution partners and to end users, such as interventional radiologists, interventional cardiologists, vascular surgeons, urologists, interventional and surgical oncologists and critical care nurses.

Contracts and Performance Obligations

The Company contracts with its customers based on customer purchase orders, which in many cases are governed by master purchasing agreements. The Company’s contracts with customers are generally for product only, and do not include other performance obligations such as services or other material rights. As part of its assessment of each contract, the Company evaluates certain factors including the customer’s ability to pay (or credit risk). For each contract, the Company considers the promise to transfer products, each of which is distinct, to be the identified performance obligations.

Transaction Price and Allocation to Performance Obligations

Transaction prices of products are typically based on contracted rates. Product revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products to a customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing the expected value method. As such, revenue is recorded net of rebates, returns and other deductions.

If a contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price based on the estimated relative standalone selling prices of the promised products underlying each performance obligation. The Company has standard pricing for its products and determines standalone selling prices based on the price at which the performance obligation is sold separately.

Revenue Recognition

Revenue is recognized when control of the product is transferred to the customer (i.e., when the Company’s performance obligation is satisfied), which occurs at a point in time, and may be upon shipment from the Company’s manufacturing site or delivery to the customer’s named location, based on the contractual shipping terms of a contract.

In determining whether control has transferred, the Company considers if there is a present right to payment from the customer and when physical possession, legal title and risks and rewards of ownership have transferred to the customer.

The Company typically invoices customers upon satisfaction of identified performance obligations. As the Company’s standard payment terms are 30 to 90 days from invoicing, the Company does not provide any significant financing to its customers.

Sales, value add, and other taxes collected on behalf of third parties are excluded from revenue.

Variable Consideration

Revenues from product sales are recorded at the net sales price (transaction price), which includes estimates of variable consideration for which reserves are established for discounts, returns, rebates and allowances that are offered within contracts between the Company and its customers. These reserves are based on the amounts earned or to be claimed on the related sales and are classified as a current liability.

Rebates and Allowances: The Company provides certain customers with rebates and allowances that are explicitly stated in the Company's contracts and are recorded as a reduction of revenue in the period the related product revenue is recognized. The Company establishes a liability for such amounts, which is included in accrued expenses in the accompanying Consolidated Balance Sheets. These rebates and allowances result from performance-based offers that are primarily based on attaining contractually specified sales volumes and administrative fees the Company is required to pay to group purchasing organizations.

Product Returns: The Company generally offers customers a limited right of return. Product returns after 30 days must be pre-approved by the Company and customers may be subject to a 20% restocking charge. To be accepted, a returned product must be unadulterated, undamaged and have at least twelve months remaining prior to its expiration date. The Company estimates the amount of its product sales that may be returned by its customers and records this estimate as a reduction of revenue in the period the related product revenue is recognized. The Company currently estimates product return liabilities using its historical product return information and considers other factors that it believes could significantly impact its expected returns, including product recalls. During the six months ended November 30, 2019, such product returns were not material.

Contract Balances with Customers

A receivable is recognized in the period the Company ships the product. Payment terms on invoiced amounts are based on contractual terms with each customer and generally coincide with revenue recognition. Accordingly, the Company does not have any contract assets associated with the future right to invoice its customers. In some cases, if control of the product has not yet transferred to the customer or the timing of the payments made by the customer precedes the Company's fulfillment of the performance obligation, the Company recognizes a contract liability that is included in deferred revenue in the accompanying Consolidated Balance Sheets.

The following table presents changes in the Company's receivables, contract assets and contract liabilities with customers:

(in thousands)	Nov 30, 2019	May 31, 2019
Receivables	$ 33,994	$ 43,577
Contract assets	$ —	$ —
Contract liabilities	$ 465	$ 681

During the six months ended November 30, 2019, the Company recognized $0.6 million in revenue that was included in contract liabilities as of the beginning of the period. This was offset by additions to contract liabilities of $0.3 million.

Costs to Obtain or Fulfill a Customer Contract

Under ASC 606, the Company recognizes an asset for incremental costs of obtaining a contract with a customer if it expects to recover those costs. The Company's sales incentive compensation plans qualify for capitalization since these plans are directly related to sales achieved during a period of time. However, the Company has elected the practical expedient under ASC 340-40-25-4 to expense the costs as they are incurred within selling and marketing expenses since the amortization period is less than one year.

The Company accounts for shipping and handling activities related to contracts with customers as costs to fulfill the promise to transfer the associated products. Shipping and handling costs, associated with the distribution of finished products to customers, are recorded in costs of goods sold and are recognized when the related finished product is shipped to the customer. Amounts charged to customers for shipping are recorded in net sales.

5. INVENTORIES

Inventories are stated at lower of cost and net realizable value (using the first-in, first-out method). Inventories consisted of the following:

(in thousands)	Nov 30, 2019	May 31, 2019
Raw materials	$ 19,092	$ 16,045
Work in process	10,541	6,786
Finished goods	20,606	17,240
Inventories	$ 50,239	$ 40,071

The Company periodically reviews for both obsolescence and loss of value. The Company makes assumptions about the future demand for and market value of the inventory. Based on these assumptions, the Company estimates the amount of obsolete, expiring and slow moving inventory. The total inventory reserve at November 30, 2019 and May 31, 2019 was $4.0 million and $4.2 million, respectively. Of the $4.0 million reserve as of November 30, 2019 and the $4.2 million reserve as of May 31, 2019, $0.3 million and $0.4 million, respectively, relates to the inventory reserve for Acculis inventory as a result of the recall announced in the fourth quarter of fiscal year 2017 and $0.7 million relates to a specific reserve related to the termination of an agreement with a Japanese distributor in the second quarter of fiscal year 2018.

6. GOODWILL AND INTANGIBLE ASSETS

Intangible assets other than goodwill are amortized over their estimated useful lives on either a straight-line basis or proportionately to the benefit being realized. Useful lives range from two to eighteen years. The Company periodically reviews the estimated useful lives of its intangible assets and reviews such assets or asset groups for impairment whenever events or changes in circumstances indicate that the carrying value of the assets or asset groups may not be recoverable. If an intangible asset or asset group is considered to be impaired, the amount of the impairment will equal the excess of the carrying value over the fair value of the asset.

Goodwill is not amortized, but rather, is tested for impairment annually or more frequently if impairment indicators arise. Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination.

The Company's annual testing for impairment of goodwill was completed as of December 31, 2018. The Company operates as a single operating segment with one reporting unit and consequently evaluates goodwill for impairment based on an evaluation of the fair value of the Company as a whole. The Company determines the fair value of the reporting unit based on the market valuation approach and concluded that it was not more-likely-than-not that the fair value of the Company's reporting unit was less than its carrying value.

Even though the Company determined that there was no goodwill impairment as of December 31, 2018, the future occurrence of a potential indicator of impairment, such as a significant adverse change in legal, regulatory, business or economic conditions or a more-likely-than-not expectation that the reporting unit or a significant portion of the reporting unit will be sold or disposed of, would require an interim assessment for the reporting unit prior to the next required annual assessment as of December 31, 2019.

The changes in the carrying amount of goodwill for the six months ended November 30, 2019 were as follows:

(in thousands)	
Goodwill balance at May 31, 2019	$ 347,666
Additions for Eximo acquisition (Note 2)	12,428
Goodwill balance at November 30, 2019	$ 360,094

Intangible assets consisted of the following:

	Nov 30, 2019		
(in thousands)	Gross carrying value	Accumulated amortization	Net carrying value
Product technologies	$ 241,973	$ (81,314)	$ 160,659
Customer relationships	60,148	(28,000)	32,148
Trademarks	9,300	(6,536)	2,764
Licenses	6,087	(5,333)	754
	$ 317,508	$ (121,183)	$ 196,325

	May 31, 2019		
(in thousands)	Gross carrying value	Accumulated amortization	Net carrying value
Product technologies	$ 182,971	$ (75,412)	$ 107,559
Customer relationships	60,166	(25,950)	34,216
Trademarks	9,300	(6,404)	2,896
Licenses	5,752	(5,036)	716
	$ 258,189	$ (112,802)	$ 145,387

Amortization expense for the three months ended November 30, 2019 and 2018 was $4.5 million and $4.5 million, respectively. Amortization expense for the six months ended November 30, 2019 and 2018 was $8.4 million and $7.9 million, respectively.

Expected future amortization expense related to the intangible assets is as follows:

(in thousands)	
Remainder of 2020	$ 9,510
2021	17,963
2022	17,347
2023	17,309
2024	15,755
2025 and thereafter	118,441
	$ 196,325

7. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

(in thousands)	Nov 30, 2019	May 31, 2019
Payroll and related expenses	$ 11,829	$ 14,987
Royalties	1,977	2,088
Accrued severance	597	504
Sales and franchise taxes	1,502	807
Outside services	2,084	3,514
Litigation matters	—	2,700
Indemnification holdback	4,926	4,807
Other	5,563	8,931
	$ 28,478	$ 38,338

8. LONG TERM DEBT

On June 3, 2019 and in connection with the completion of the Fluid Management divestiture, the Company repaid all amounts outstanding under its existing Credit Agreement and entered into a new Credit Agreement with the lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Bank of America, N.A. and KeyBank National Association, as co-syndication agents.

The Credit Agreement provides for a $125.0 million secured revolving credit facility (the “Revolving Facility”), which includes an uncommitted expansion feature that allows the Company to increase the total revolving commitments and/or add new tranches of term loans in an aggregate amount not to exceed $75.0 million. The proceeds may be used to refinance certain existing indebtedness of the Company and its subsidiaries, to finance the working capital needs, and for general corporate purposes (including permitted acquisitions), of the Company and its subsidiaries.

The Credit Agreement has a five year maturity. Interest on the facility will be based, at the Company’s option, on a base rate of LIBOR plus an applicable margin tied to the Company’s total leverage ratio and having ranges between 0.25% and 0.75% for base rate loans and between 1.25% and 1.75% for LIBOR loans. After default, the interest rate may be increased by 2.0%. The facility will also carry a commitment fee of 0.20% to 0.25% per annum on the unused portion.

The Company's obligations under the Revolving Facility are unconditionally guaranteed, jointly and severally, by the Company's material direct and indirect domestic subsidiaries (the “Guarantors”). All obligations of the Company and the Guarantors under the Revolving Facility are secured by first priority security interests in substantially all of the assets of the Company and the Guarantors.

The Credit Agreement includes customary representations, warranties and covenants, and acceleration, indemnity and events of default provisions, including, among other things, two quarterly financial covenants as follows:

- maximum leverage ratio of consolidated total indebtedness* to consolidated EBITDA* of not greater than 3.00 to 1.00 (during certain periods following material acquisitions the ratio shall be increased to 3.50 to 1.00).

- fixed charge coverage ratio of consolidated EBITDA minus consolidated capital expenditures to consolidated interest expense paid or payable in cash plus scheduled principal payments in respect of indebtedness under the Credit Agreement of not less than 1.25 to 1.00.

* The definitions of consolidated total indebtedness and consolidated EBITDA are maintained in the credit agreement included as an exhibit to Form 8-k filed on June 6, 2019.

The Company was in compliance with the Credit Agreement covenants as of November 30, 2019.

As of November 30, 2019, there was no outstanding balance on the Revolving Facility. As of May 31, 2019, the carrying value of long-term debt approximated its fair market value.

9. INCOME TAXES

The Company provides for income taxes at the end of each interim period based on the estimated effective tax rate for the full fiscal year adjusted for any discrete events, which are recorded in the period that they occur. The estimated annual effective tax rate prior to discrete items was 13.2% in the second quarter of fiscal 2020, as compared to 13.2% for the same period in fiscal 2019. In fiscal 2020, the Company’s effective tax rate differs from the U.S. statutory rate primarily due to the impact of the valuation allowance, foreign taxes, and other non-deductible permanent items (such as non-deductible meals and entertainment, Section 162(m) excess compensation and non-deductible stock based compensation).

The Company regularly assesses its ability to realize its deferred tax assets. Assessing the realization of deferred tax assets requires significant management judgment. In determining whether its deferred tax assets are more likely than not realizable, the Company evaluated all available positive and negative evidence, and weighted the evidence based on its objectivity. Evidence that the Company considered included its history of net operating losses, which resulted in the Company recording a full valuation allowance for its deferred tax assets in fiscal 2016, except the naked credit deferred tax liability.

Based on the review of all available evidence, the Company determined that it has not yet attained a sustained level of profitability and the objectively verifiable negative evidence outweighed the positive evidence. Therefore, the Company has provided a valuation allowance on its federal and state net operating loss carryforwards, federal and state R&D credit carryforwards and other net deferred tax assets that have a limited life and are not supportable by the naked credit deferred tax liability sourced income as of November 30, 2019. The Company will continue to assess the level of the valuation allowance required. If sufficient positive evidence exists in future periods to support a release of some or all of the valuation allowance, such a release would likely have a material impact on the Company’s results of operations.

10. SHARE-BASED COMPENSATION

The Company has two stock-based compensation plans that provide for the issuance of up to approximately 11.3 million shares of common stock. The 2004 Stock and Incentive Award Plan (the "2004 Plan") provides for the grant of incentive options to the Company's employees and for the grant of non-statutory stock options, restricted stock, stock appreciation rights, performance units, performance shares and other incentive awards to the Company's employees, directors and other service providers. The Company also has an employee stock purchase plan.

For the three months ended November 30, 2019 and 2018, share-based compensation expense was $2.2 million and $2.6 million, respectively. For the six months ended November 30, 2019 and 2018, share-based compensation expense was $4.2 million and $4.7 million, respectively.

During the six months ended November 30, 2019 and 2018, the Company granted stock options and restricted stock units under the 2004 Plan to certain employees and members of the Board of Directors. Stock option awards are valued using the Black-Scholes option-pricing model and then amortized on a straight-line basis over the requisite service period of the award. Restricted stock unit awards are valued based on the closing trading value of the Company's shares on the date of grant and then amortized on a straight-line basis over the requisite service period of the award.

During the six months ended November 30, 2019 and 2018, the Company granted performance share units under the 2004 Plan to certain employees. The awards may be earned by achieving relative performance levels over the three year requisite service period. The performance criteria are based on achieving certain performance targets and the total shareholder return ("TSR") of the Company's common stock relative to the TSR of the common stock of a pre-defined industry peer-group. The fair value of these awards are based on the closing trading value of the Company's shares on the date of grant and use a Monte Carlo simulation model.

As of November 30, 2019, there was $16.3 million of unrecognized compensation expense related to share-based payment arrangements. These costs are expected to be recognized over a weighted-average period of approximately four years. The Company has sufficient shares to satisfy expected share-based payment arrangements.

11. EARNINGS PER SHARE

Basic earnings per share is based on the weighted average number of common shares outstanding without consideration of potential common stock. Diluted earnings per share includes the dilutive effect of potential common stock consisting of stock options, restricted stock units and performance stock units, provided that the inclusion of such securities is not anti-dilutive. In periods with a net loss, stock options and restricted stock units are not included in the computation of diluted loss per share as the impact would be anti-dilutive.

The following table reconciles basic to diluted weighted-average shares outstanding for the three and six months ended November 30, 2019 and 2018 (in thousands):

	Three Months Ended		Six Months Ended	
(in thousands)	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Basic	37,992	37,500	37,887	37,411
Effect of dilutive securities	—	—	—	—
Diluted	37,992	37,500	37,887	37,411
Securities excluded as their inclusion would be anti-dilutive	2,694	2,384	2,689	2,354

12. SEGMENT AND GEOGRAPHIC INFORMATION

The Company considers the business to be a single operating segment engaged in the development, manufacture and sale of medical devices for vascular access, peripheral vascular disease and oncology on a global basis. The Company's chief operating decision maker, the President and Chief Executive Officer (CEO), evaluates the various global product portfolios on a net sales basis. Executives reporting to the CEO include those responsible for commercial operations, manufacturing operations, regulatory and quality and certain corporate functions. The CEO evaluates profitability, investment and cash flow metrics on a consolidated worldwide basis due to shared infrastructure and resources.

The table below summarizes net sales by Global Business Unit:

	Three Months Ended		Six months ended	
(in thousands)	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Net sales				
Vascular Interventions & Therapies	$ 31,150	$ 30,976	$ 60,063	$ 59,573
Vascular Access	22,784	23,723	45,943	47,513
Oncology	16,069	15,286	30,039	26,842
Total	$ 70,003	$ 69,985	$ 136,045	$ 133,928

The table below presents net sales by geographic area based on external customer location:

	Three Months Ended		Six months ended	
(in thousands)	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Net sales				
United States	$ 55,555	$ 56,300	$ 108,492	$ 107,796
International	14,448	13,685	27,553	26,132
Total	$ 70,003	$ 69,985	$ 136,045	$ 133,928

13. FAIR VALUE

On a recurring basis, the Company measures certain financial assets and financial liabilities at fair value based upon quoted market prices, where available. Where quoted market prices or other observable inputs are not available, the Company applies valuation techniques to estimate fair value. FASB ASC Topic 820, *Fair Value Measurements and Disclosures*, establishes a three-level valuation hierarchy for disclosure of fair value measurements. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the measurement of fair value. The three levels of the hierarchy are defined as follows:

- Level 1 - Inputs to the valuation methodology are quoted market prices for identical assets or liabilities.
- Level 2 - Inputs to the valuation methodology are other observable inputs, including quoted market prices for similar assets or liabilities and market-corroborated inputs.
- Level 3 - Inputs to the valuation methodology are unobservable inputs based on management's best estimate of inputs market participants would use in pricing the asset or liability at the measurement date, including assumptions about risk.

The Company's financial instruments include cash and cash equivalents, accounts receivable, accounts payable and contingent consideration. The carrying amount of cash and cash equivalents, accounts receivable, and accounts payable approximates fair value due to the immediate or short-term maturities. The Company's recurring fair value measurements using significant unobservable inputs (Level 3) relate to contingent consideration liabilities.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis as of November 30, 2019 and May 31, 2019:

	Fair Value Measurements using inputs considered as:			Fair Value at Nov 30, 2019
(in thousands)	Level 1	Level 2	Level 3	
Financial Liabilities				
Contingent consideration for acquisition earn outs	$ —	$ —	$ 26,875	$ 26,875
Total Financial Liabilities	$ —	$ —	$ 26,875	$ 26,875

	Fair Value Measurements using inputs considered as:			Fair Value at May 31, 2019
(in thousands)	Level 1	Level 2	Level 3	
Financial Liabilities				
Contingent consideration for acquisition earn outs	$ —	$ —	$ 13,486	$ 13,486
Total Financial Liabilities	$ —	$ —	$ 13,486	$ 13,486

There were no transfers between Level 1, 2 and 3 for the three and six months ended November 30, 2019.

The table below presents the changes in fair value components of Level 3 instruments in the three and six months ended November 30, 2019:

	Three Months Ended Nov 30, 2019
(in thousands)	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Balance, August 31, 2019	$ 11,830
Total gains or losses (realized/unrealized):	
Contingent consideration liability recorded as the result of the acquisitions (Note 2)	14,900
Change in present value of contingent consideration (1)	145
Balance, November 30, 2019	$ 26,875

	Six Months Ended Nov 30, 2019
(in thousands)	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Balance, May 31, 2019	$ 13,486
Total gains or losses (realized/unrealized):	
Contingent consideration liability recorded as the result of the acquisitions (Note 2)	14,900
Change in present value of contingent consideration (1)	(303)
Contingent consideration payments	(1,208)
Balance, November 30, 2019	$ 26,875

(1) Change in the fair value of contingent consideration is included in earnings and comprised of changes in estimated earn out payments based on projections of Company performance and amortization of the present value discount.

Contingent Consideration for Acquisition Earn Outs

Some of the Company's business combinations involve the potential for the payment of future contingent consideration upon the achievement of certain product development milestones or various other performance conditions. Payment of the additional consideration is generally contingent on the acquired company reaching certain performance milestones, including attaining specified revenue levels or product development targets. Contingent consideration is recorded at the estimated fair value of the contingent payments on the acquisition date. The fair value of the contingent consideration is remeasured at the estimated fair value at each reporting period with the change in fair value recognized as income or expense within change in fair value of contingent consideration in the Consolidated Statements of Operations.

The Company measures the initial liability and remeasures the liability on a recurring basis using Level 3 inputs as defined under authoritative guidance for fair value measurements. The fair value is determined using a discounted cash flow model applied to projected net sales, using probabilities of achieving projected net sales and projected payment dates. Projected net sales are based on the Company's internal projections and extensive analysis of the target market and the sales potential. Increases or decreases in any valuation inputs in isolation may result in a significantly lower or higher fair value measurement in the future.

The recurring Level 3 fair value measurements of the contingent consideration liabilities include the following significant unobservable inputs as of November 30, 2019:

(in thousands)	Fair Value	Valuation Technique	Unobservable Input	Range
Revenue based payments	$ 23,537	Discounted cash flow	Discount rate	4% - 5%
			Probability of payment	66% - 100%
			Projected fiscal year of payment	2023 - 2029
Technical milestones	$ 3,338	Estimated probability	Estimated probability	90%
			Projected year of payment	2020 - 2022
Total	$ 26,875			

At November 30, 2019, the range of estimated potential undiscounted future contingent consideration that the Company expects to pay as a result of all completed acquisitions is $34.0 million to $54.0 million. The milestones, including revenue projections and technical milestones, associated with the contingent consideration must be reached in future periods ranging from fiscal years 2020 to 2029 in order for the associated consideration to be paid.

14. LEASES

Adoption of ASU No. 2016-02, *Leases* (Topic 842)

On June 1, 2019, the Company adopted ASU No. 2016-02 using the modified retrospective approach. This ASU increases transparency and comparability among organizations by recognizing lease assets and liabilities on the balance sheet and disclosing key information about leasing arrangements. Comparative periods prior to adoption have not been retrospectively adjusted.

The Company elected the three practical expedients that permit an entity to a) not reassess whether expired or existing contracts contain leases, b) not reassess lease classification for existing or expired leases, and c) not consider whether previously capitalized initial direct costs would be appropriate under the new standard. Further, the Company has elected to not recognize leases with terms of 12 months or less on the balance sheet, and elected to account for lease and non-lease components as a single component for certain classes of assets.

The adoption of this standard resulted in the recording of an additional lease asset and lease liability of approximately $5.6 million. The standard did not have a material impact on the Company's Consolidated Statement of Operations, Stockholders Equity or Cash Flows.

Leases

The Company determines if an arrangement is a lease at inception of the contract. The Company has operating leases for buildings, primarily for office space, R&D, manufacturing and warehousing.

Operating lease right-of-use (“ROU”) assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. Many of the lease agreements contain renewal or termination clauses that are factored into the determination of the lease term if it is reasonably certain that these options would be exercised. The Company recognizes lease expense for these leases on a straight-line basis over the lease term.

The following table presents supplemental balance sheet information related to our leases:

(in thousands)	Balance Sheet Location	Nov 30, 2019
Assets		
Operating lease ROU asset	Other assets	$ 4,603
Liabilities		
Current operating lease liabilities	Other current liabilities	1,393
Non-current operating lease liabilities	Other long-term liabilities	3,191
Total lease liabilities		$ 4,584

The interest rate implicit in lease agreements is typically not readily determinable, and as such the Company used the incremental borrowing rate based on the information available at commencement date in determining the present value of future payments. The incremental borrowing rate is defined as the interest the Company would pay to borrow on a collateralized basis, considering factors such as length of lease term. The following table presents the weighted average remaining lease term and discount rate:

	Nov 30, 2019
Weighted average remaining term (in years)	3.6
Weighted average discount rate	4.5%

The following table presents the maturities of the lease liabilities:

(in thousands)	Nov 30, 2019
Remainder of 2020	$ 736
2021	1,251
2022	1,118
2023	1,138
2024	576
2025 and thereafter	—
Total lease payments	$ 4,819
Less: Imputed Interest	235
Total lease obligations	$ 4,584
Less: Current portion of lease obligations	1,393
Long-term lease obligations	$ 3,191

During the three and six months ended November 30, 2019, the Company recognized $0.9 million and $1.5 million of operating lease expense, respectively, which includes immaterial short-term leases. As of November 30, 2019, the expenses on the Consolidated Statement of Operations were classified as follows:

(in thousands)	Three Months Ended	Six Months Ended
Cost of sales	$ 289	$ 559
Research and development	203	196
Sales and marketing	100	198
General and administrative	312	591
	$ 904	$ 1,544

In addition to the total lease obligations presented in the table above, the Company has a 7-year building operating lease with undiscounted payment obligations of $6.5 million and a 2-year building operating lease with undiscounted payment obligations of $0.4 million that are expected to commence during fiscal year 2020.

Future annual payments under non-cancelable operating leases in the aggregate at May 31, 2019, are summarized as follows:

(in thousands)		May 31, 2019
2020	$	2,920
2021		2,338
2022		2,133
2023		2,131
2024 and thereafter		3,227
Total lease payments	$	12,749

The following table presents supplemental cash flow and other information related to our leases for the six months ended:

(in thousands)		Nov 30, 2019
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$	563
ROU assets obtained in exchange for lease liabilities		
Operating leases		—

15. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

The Company is involved in various legal proceedings, including commercial, intellectual property, product liability, and regulatory matters of a nature considered normal for its business. The Company accrues for amounts related to these matters if it is probable that a liability has been incurred, and an amount can be reasonably estimated. The Company discloses such matters when there is at least a reasonable possibility that a material loss may have been incurred. However, the Company cannot predict the outcome of any litigation or the potential for future litigation.

C.R. Bard, Inc. v. AngioDynamics, Inc.

On January 11, 2012, C.R. Bard, Inc. (“Bard”) filed a suit in the United States District Court of Utah claiming certain of the Company's implantable port products infringe on three U.S. patents held by Bard (the "Utah Action"). Bard’s complaint sought unspecified damages and other relief. The Company filed petitions for reexamination in the US Patent and Trademark Office ("USPTO") seeking to invalidate all three patents asserted by Bard in the litigation. The Company's petitions were granted and 40 of Bard's 41 patent claims were rejected and, following further proceedings, the Patent Office issued a Final Rejection of all 40 claims subject to reexamination. Thereafter, Bard filed appeals to the USPTO Board of Appeals and Interferences for all three reexaminations which were decided as follows: For US Patent No. 7,785,302), the rejections of six of the ten claims under reexamination were affirmed, but were reversed on four of the ten claims. For U.S. Patent No. 7,959,615 the rejections of eight of the ten claims under reexamination were affirmed but the rejections of the other two of the ten claims were reversed. In the third (issued on March 29 for U.S. Patent No. 7,947,022) the rejections of all twenty claims under reexamination were affirmed. Thereafter, Bard sought Rehearing in all three appeals and the Company sought Rehearing in the ‘302 and ‘615 appeals. The PTO denied all three Rehearing Requests, but modified its characterization of one prior art reference for the ‘302 and ‘022 decisions.

Bard filed appeals to the Federal Circuit Court of Appeals in all three reexams and the Company Cross-Appealed for the ‘302 and the ‘615 reexams. Medcomp also filed an Amicus Brief in support of the Company on November 22, 2017. Meanwhile, on July 12, 2017 Bard assigned the asserted patents to Bard Peripheral Vascular, Inc. (“BPV”) which was added as co-Appellant before the Federal Circuit and as a co-Plaintiff in the Utah action. An oral hearing was held on September 5, 2018 and the Court rendered its decision on September 28, 2018, affirming that claims 1-5 and 10 of the ‘615 patent were invalid, but that claims 6-7 of the 615 patent and 1-4 of the 302 patent were valid over the prior art references considered in the Reexamination proceedings. The Federal Circuit also reversed the PTAB’s claim construction ruling and remanded for consideration of obviousness for the remaining claims under the new claim construction ruling and for further findings with respect to whether one of the asserted references qualified as a printed publication. On January 28, 2019, on remand, the USPTO reversed the rejections of the ‘302 claims 1-10, ‘022 claims 1-20 and ‘615 claims 8-9. The USPTO has since issued Inter Partes Reexamination Certificates for the ‘302 Patent for the ‘022 patent and for the ‘615 patent. The Company thereafter filed a Motion to Unstay the Utah Case and that motion was granted. On November 4, 2019 the Court held a joint Status

Conference among the Company’s Utah Action and two other cases filed by Bard on the same patents against Medcomp and Smiths. The Court set a schedule for Motions to Dismiss or Transfer. The Company filed its motion on November 25, 2019; and Bard filed a responsive brief and a motion for venue discovery on December 9, 2019. The Company filed a responsive brief on December 16, 2019 and Bard filed a reply on December 23, 2019. The Company believes these claims are without merit and intends to defend them vigorously. The Company has not recorded an expense related to the outcome of this litigation because it is not yet possible to determine if a potential loss is probable nor reasonably estimable.

On March 10, 2015, Bard and BPV filed suit in the United States District Court for the District of Delaware (the “Delaware Action") claiming certain of the Company's implantable port products infringe on three other U.S. patents held by Bard, which are different from those asserted in the Utah action. Bard's complaint seeks unspecified damages and other relief. On June 1, 2015, the Company filed two motions in response to Bard’s Complaint - one sought transfer to the District of Utah where the Utah Action is currently pending, and the other sought dismissal of the entire complaint on grounds that none of the claims in the asserted patents is directed to patent eligible subject matter under Section 101 of the Patent Statute and in light of recent authority from the U. S. Supreme Court.

On January 12, 2016, the Court issued a decision denying both motions. A Markman hearing was held on March 10, 2017 and the Court issued its Claim Construction Order on May 19, 2017. On May 19, 2017, Bard served its Final Infringement Contentions and on June 2, 2017, the Company served its Final Invalidity Contentions.

On October 20, 2017, the scheduling order for the case was amended to, among other things, set a trial date commencing July 23, 2018. The parties completed Expert Discovery in January 2018 and completed briefing on their respective case dispositive motions on April 27, 2018. On June 26, 2018, the Court denied all case dispositive motions, ruling that issues of material fact remained in dispute. On July 9, 2018, the Court continued the trial until March 2019. On January 9, 2019 the Court held a further claim construction hearing to resolve two outstanding claim construction issues prior to trial. A Report and Recommendation (by Magistrate-Judge Fallon) was issued on February 11, 2019 and entered by the Court on February 28, 2019. Jury selection was held on Friday March 1, 2019 and trial began on March 4, 2019. On day four of the jury trial, at the close of C.R. Bard’s case, the Court granted the Company's oral motion for judgment as a matter of law under rule 50(a) as well as its motions for summary judgement on the grounds that the asserted patents are invalid, ineligible, not infringed and not willfully infringed. On April 5, 2019, Bard filed a precautionary Notice of Appeal to the Federal Circuit. On April 26, 2019, the District Court issued a Memorandum and Order confirming the grant of judgment in the Company’s favor of patent ineligibility, non-infringement, patent invalidity and no willful infringement. Meanwhile, on May 10, 2019, the Company filed a Motion for Attorney fees and non-taxable expenses under 35 USC Sec. 285. On May 21, 2019, the Court issued a Memorandum and Order which, inter alia, stayed proceedings on the Company’s fee Motion and the Company’s equitable claims pending appeal; and entered Final Judgment on May 21, 2019 as well. Bard filed a second Notice of Appeal on May 23, 2019. Both appeals have since been consolidated and Bard’s opening brief was served on September 27, 2019 and the Company's answering brief is currently due on January 15, 2020. The Company maintains its belief that Bard’s claims are without merit. The Company has not recorded an expense related to the outcome of this litigation because it is not yet possible to determine if a potential loss is probable nor reasonably estimable.

AngioDynamics, Inc. v. C.R. Bard, Inc.

On May 30, 2017, the Company commenced an action in the United States District Court for the Northern District of New York entitled AngioDynamics, Inc. v. C.R. Bard, Inc. and Bard Access Systems, Inc. (“Bard”). In this action, the Company alleges that Bard has illegally tied the sales of its tip location systems to the sales of its PICCs. The Company alleges that this practice violates the federal antitrust laws and has had, and continues to have, an anti-competitive effect in the market for PICCs. The Company seeks both monetary damages and injunctive relief. Bard moved to dismiss on September 8, 2017. On August 6, 2018 the court denied Bard’s motion in its entirety. The parties are currently engaged in discovery, which is set to close in March 2020.

Merz North America Settlement

On May 16, 2019, Merz North America, Inc. (“Merz”) commenced an action in the United States District Court for the Southern District of New York entitled Merz North America, Inc. v. AngioDynamics, Inc. In this action, Merz alleged breach of contract against AngioDynamics based on a March 1, 2016 Distribution Agreement. On June 28, 2019, AngioDynamics reached a settlement with Merz. AngioDynamics made a lump-sum payment of $2.5 million to Merz in return for dismissal of the case with prejudice during the first quarter. Merz filed a stipulation of dismissal with the Court on July 23, 2019.

16. ACQUISITION, RESTRUCTURING, AND OTHER ITEMS, NET

Acquisition, Restructuring and Other Items

For the three and six months ended November 30, 2019 and 2018 acquisition, restructuring and other items, net consisted of:

	Three months ended		Six months ended	
(in thousands)	Nov 30, 2019	Nov 30, 2018	Nov 30, 2019	Nov 30, 2018
Legal (1)	$ 684	$ 867	$ 1,353	$ 3,747
Mergers and acquisitions (2)	382	1,543	628	2,862
Transition service agreement (3)	(597)	—	(1,334)	—
Divestiture (4)	701	—	1,459	—
Restructuring	—	128	26	258
Other	251	190	789	283
Total	$ 1,421	$ 2,728	$ 2,921	$ 7,150

(1) Legal expenses related to litigation that is outside the normal course of business.
(2) Mergers and acquisitions expenses related to investment banking, legal and due diligence.
(3) Transition services agreement that was entered into as a result of the sale of the Fluid Management business.
(4) Divestiture expenses incurred to transition manufacturing from Glens Falls, NY to Queensbury, NY.

Included in the $1.4 million in legal for the six months ended November 30, 2019 is a $0.4 million settlement received for the Biolitec bankruptcy litigation. The settlement received offsets legal expenses paid related to the settlement proceedings.

Restructuring

The Company evaluates its performance and looks for opportunities to improve the overall operations of the Company on an ongoing basis. As a result of this evaluation, certain restructuring initiatives are taken to enhance the Company's overall operations.

Operational Consolidation

On February 1, 2017, the Company announced to employees an operational consolidation plan (the "plan") to consolidate its manufacturing facilities in Manchester, GA and Denmead, UK into the Glens Falls and Queensbury, NY facilities. This plan will streamline and optimize the manufacturing functions into one centralized location increasing the utilization of the Glens Falls and Queensbury facilities, optimizing inventory and reducing cost of goods sold through savings in overhead expenses and direct labor. The restructuring activities associated with the plan were completed in the fourth quarter of fiscal year 2018 with immaterial regulatory filing costs incurred through August 31, 2019.

17. ACCUMULATED OTHER COMPREHENSIVE LOSS

Changes in each component of accumulated other comprehensive loss, net of tax, are as follows for the three and six months ended November 30, 2019:

	Three months ended Nov 30, 2019
(in thousands)	Foreign currency translation loss
Balance at August 31, 2019	$ (1,503)
Other comprehensive income before reclassifications, net of tax	231
Amounts reclassified from accumulated other comprehensive loss	—
Net other comprehensive loss	$ 231
Balance at November 30, 2019	$ (1,272)

(in thousands)	Six months ended Nov 30, 2019 Foreign currency translation loss
Balance at May 31, 2019	$ (1,352)
Other comprehensive income before reclassifications, net of tax	80
Amounts reclassified from accumulated other comprehensive loss	—
Net other comprehensive loss	$ 80
Balance at November 30, 2019	$ (1,272)

18. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

The following table provides a description of recent accounting pronouncements that may have a material effect on the Company's consolidated financial statements:

Recently Issued Accounting Pronouncements - Adopted

Standard	Description	Date Adopted	Effect on the Consolidated Financial Statements
ASU 2016-02, *Leases (Topic 842)*	This ASU increases transparency and comparability among organizations by recognizing lease assets and liabilities on the balance sheet and disclosing key information about leasing arrangements. For leases with a term of twelve months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and liabilities.	June 1, 2019	Refer to Note 14, Leases, for the required disclosures related to adopting this standard.

Recently Issued Accounting Pronouncements - Not Yet Applicable or Adopted

Standard	Description	Effective Date	Effect on the Consolidated Financial Statements
ASU 2018-13, *Fair Value Measurement (Topic 820)*	This ASU removes, modifies and adds various disclosure requirements related to fair value disclosures. Disclosures related to transfers between fair value hierarchy levels will be removed and further detail around changes in unrealized gains and losses for the period and unobservable inputs used in determining level 3 fair value measurements will be added, among other changes.	June 1, 2020	The Company is currently assessing the impact of this standard on the consolidated financial statements.
ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*	This ASU replaces the current incurred loss impairment methodology for financial assets measured at amortized cost with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information, including forecasted information, to develop credit loss estimates.	June 1, 2020	The Company is currently assessing the impact of this standard on the consolidated financial statements.

19. SUBSEQUENT EVENTS

On December 17, 2019, the Company acquired the C3 Wave tip location asset from Medical Components Inc. for an aggregate purchase price of $10.0 million with $5.0 million of potential future contingent consideration related to technical milestones. This acquisition fills a gap in the Vascular Access portfolio and supports the Company's strategic plan.

In conjunction with the acquisition of the C3 Wave tip location asset from Medical Components Inc, on December 17, 2019, the Company made a $15.0 million draw on the revolving credit facility.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following information should be read together with the consolidated financial statements and the notes thereto and other information included elsewhere in this quarterly report on Form 10-Q.

Forward-Looking Statements

This quarterly report on Form 10-Q, including the sections entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements regarding AngioDynamics’ expected future financial position, results of operations, cash flows, business strategy, budgets, projected costs, capital expenditures, products, competitive positions, growth opportunities, plans and objectives of management for future operations, as well as statements that include the words such as “expects,” “reaffirms,” “intends,” “anticipates,” “plans,” “believes,” “seeks,” “estimates,” or variations of such words and similar expressions, are forward-looking statements. These forward looking statements are not guarantees of future performance and are subject to risks and uncertainties. Investors are cautioned that actual events or results may differ from our expectations. Factors that may affect our actual results achieved include, without limitation, our ability to develop existing and new products, future actions by FDA or other regulatory agencies, results of pending or future clinical trials, the results of ongoing litigation, overall economic conditions, general market conditions, market acceptance, foreign currency exchange rate fluctuations, the effects on pricing from group purchasing organizations and competition, as well as our ability to integrate purchased businesses. Other risks and uncertainties include, but are not limited to, the factors described from time to time in our reports filed with the SEC.

Although we believe that the assumptions underlying the forward-looking statements contained herein are reasonable, any of the assumptions could be inaccurate and, therefore, there can be no assurance that the forward-looking statements included in this quarterly report on Form 10-Q will prove to be accurate. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion of such information should not be regarded as a representation by us or any other person that our objectives and plans will be achieved. Any forward-looking statements are made pursuant to the Private Securities Litigation Reform Act of 1995 and, as such, speak only as of the date made. AngioDynamics disclaims any obligation to update the forward-looking statements. Investors are cautioned not to place undue reliance on these forward-looking statements which speak only as of the date stated, or if no date is stated, as of the date of this document.

EXECUTIVE OVERVIEW

Company and Market

We design, manufacture and sell a wide range of medical, surgical and diagnostic devices used by professional healthcare providers for vascular access, for the treatment of peripheral vascular disease and for use in oncology and surgical settings. Our devices are generally used in minimally invasive, image-guided procedures. Many of our products are intended to be used once and then discarded, or they may be temporarily implanted for short- or longer-term use.

Our business operations cross a variety of markets. Our financial performance is impacted by changing market dynamics, which have included an emergence of value-based purchasing by healthcare providers, consolidation of healthcare providers, the increased role of the consumer in health care decision-making and an aging population, among others. In addition, our growth is impacted by changes within our sector, such as the merging of competitors to gain scale and influence; changes in the regulatory environment for medical device; and fluctuations in the global economy.

Our sales and profitability growth also depends, in part, on the introduction of new and innovative products, together with ongoing enhancements to our existing products. Expansions to our product offerings are created through internal product development, technology licensing and strategic alliances. We recognize the importance of, and intend to continue to make investments in research and development activities and business development opportunities and feel confident that our existing capital structure and free cash flow generation will allow us to properly fund those activities.

We sell our products in the United States primarily through a direct sales force, and outside the U.S. through a combination of a direct sales and distributor relationships. We expect our businesses to grow in both sales and profitability through geographic expansion, market penetration, new product introductions and increasing our direct presence internationally.

On October 2, 2019, the Company entered into a share purchase agreement to acquire Eximo Medical, Ltd., a pre-commercial stage medical device company and its proprietary 355nm B Laser Atherectomy technology. The aggregate purchase price of $60.7 million included an upfront payment of $45.8 million and contingent consideration with an estimated fair value of $14.9 million. This acquisition expands and complements the Company's Vascular Interventions and Therapies product portfolio by adding the 355nm B Laser Atherectomy technology which treats Peripheral Artery Disease.

On May 31, 2019, the Company completed the sale of the NAMIC Fluid Management business (the "Divestiture") and all of the assets used primarily in connection with the Fluid Management business to Medline Industries, Inc. ("Medline") pursuant to an asset purchase agreement dated April 17, 2019 (the "Asset Purchase Agreement"). Total consideration received by the Company for the Divestiture in the fourth quarter of fiscal year 2019 was $169.2 million in cash and resulted in a gain of $46.6 million after working capital adjustments of $0.6 million. A portion of the net proceeds were used on June 3, 2019 to retire the outstanding balance on the Term Loan and Revolving Facility and the remaining net proceeds will continue to be invested in the business.

In evaluating the operating performance of our business, management focuses on revenue, gross margin, operating income, earnings per share and cash flow from operations. A summary of these key financial metrics for the three and six months ended November 30, 2019 compared to the three and six months ended November 30, 2018 follows:

Three months ended November 30, 2019:

- Revenue was consistent with the prior year quarter to date
- Gross margin increased 140 bps to 59.3%
- Operating loss increased by $0.9 million to $3.4 million
- Loss per share from continuing operations improved by $0.03 to a loss of $0.07

Six months ended November 30, 2019:

- Revenue increased by 1.6% to $136.0 million
- Gross margin increased 150 bps to 58.6%
- Operating loss decreased by $4.4 million to $4.3 million
- Loss per share from continuing operations improved by $0.14 to a loss of $0.11

New Accounting Pronouncements

Information regarding new accounting pronouncements is included in Note 18 to our consolidated financial statements in this Quarterly Report on Form 10-Q.

Results of Operations for the Three Months Ended November 30, 2019 and 2018

For the three months ended November 30, 2019, the Company reported net loss of $2.7 million, or $0.07 per diluted share, on net sales of $70.0 million, compared with net loss of $3.6 million, or $0.10 loss per diluted share, on net sales of $70.0 million during the same quarter of the prior year.

Net Sales

Net sales - Net sales are derived from the sale of products and related freight charges, less discounts and returns.

Net sales for the three months ended November 30, 2019 and 2018:

(in thousands)	Three months ended Nov 30, 2019	Nov 30, 2018	% Growth
Net Sales by Global Business Unit			
Vascular Interventions & Therapies	$ 31,150	$ 30,976	0.6%
Vascular Access	22,784	23,723	(4.0)%
Oncology	16,069	15,286	5.1%
Total	$ 70,003	$ 69,985	0.0%
Net Sales by Geography			
United States	$ 55,555	$ 56,300	(1.3)%
International	14,448	13,685	5.6%
Total	$ 70,003	$ 69,985	0.0%

For the three months ended November 30, 2019, net sales were consistent with the same period in the prior year.

Vascular Interventions & Therapies

- Total Vascular Interventions & Therapies sales increased $0.2 million primarily attributable to strong performance in the AngioVac business which grew $1.7 million and in Core Peripheral products which grew $0.4 million year over year. The Company continues to see strong case volumes in AngioVac, which increased 31% from the prior year due to increased adoption of the Company's unique technology and the launch of the next generation of the AngioVac product. These increases were partially offset by the termination of the Asclera distribution agreement, which contributed $1.7 million of revenue in the prior year.
- U.S. Vascular Interventions & Therapies sales increased $0.4 million due to increased case volume in AngioVac and increased Core Peripheral product sales which was partially offset by the termination of the Asclera distribution agreement, which contributed $1.7 million of revenue in the prior year.
- International Vascular Interventions & Therapies sales decreased $0.2 million.

Vascular Access

- Total Vascular Access sales decreased $0.9 million due to decreases in PICCs and Ports partially offset by growth in the Dialysis business of $0.1 million. BioFlo product lines comprise 52% of overall Vascular Access sales compared to 50% a year ago.
- U.S. Vascular Access sales decreased by $1.5 million due to competitive pressures in the PICC product lines and lower Port sales. This was partially offset by growth in Dialysis products which continue to gain traction in the marketplace.
- International Vascular Access sales increased by $0.6 million as the Company continues to expand its global reach of its Vascular Access product offerings.

Oncology

- Total Oncology sales increased $0.8 million year over year primarily due to increased NanoKnife capital sales of $1.9 million and $0.3 million in increased sales of balloons. This was partially offset by decreased sales of Radiofrequency Ablation and NanoKnife disposable sales.
- U.S. Oncology sales increased by $0.3 million, driven by NanoKnife capital sales of $1.6 million and balloons of $1.6 million. This was partially offset by a decrease in RadioFrequency Ablation and NanoKnife disposable sales.
- International Oncology sales increased by $0.5 million year over year as a result of increased NanoKnife capital sales of $0.9 million. This was partially offset by decreased NanoKnife disposable and RadioFrequency and Microwave Ablation product sales.

Gross Profit, Operating expenses, and Other income (expense)

	Three months ended		
(in thousands)	Nov 30, 2019	Nov 30, 2018	% Change
Gross profit	$ 41,544	$ 40,552	2.4%
Gross profit % of sales	59.3%	57.9%	
Research and development	$ 7,764	$ 7,076	9.7%
% of sales	11.1%	10.1%	
Selling and marketing	$ 20,113	$ 19,263	4.4%
% of sales	28.7%	27.5%	
General and administrative	$ 10,994	$ 9,262	18.7%
% of sales	15.7%	13.2%	

Gross profit - Gross profit consists of net sales less the cost of goods sold, which includes the costs of materials, products purchased from third parties and sold by us, manufacturing personnel, royalties, freight, business insurance, depreciation of property and equipment and other manufacturing overhead, exclusive of intangible amortization.

Gross profit increased by $1.0 million compared to the prior year. The increase is primarily attributable to the following:

- Sales volume and mix driven by AngioVac and NanoKnife capital sales positively contributed $1.5 million year over year.
- Net productivity contributed $0.4 million of favorability driven by purchase price variances.
- Favorable freight expense contributed $0.3 million.
- Currency and pricing headwinds negatively impacted gross margin by $0.1 million year over year, primarily driven by pricing.
- The termination of the Asclera distribution agreement negatively impacted gross margin by $1.0 million.

Research and development expenses - Research and development (“R&D”) expenses include internal and external costs to develop new products, enhance existing products, validate new and enhanced products, and manage clinical, regulatory and medical affairs.

R&D expense increased $0.7 million compared to the prior year. The increase is primarily attributable to the following:

- Compensation and benefits increased approximately $0.5 million due to increased variable compensation along with increased headcount as a result of the Eximo acquisition.
- Increased project spend contributed $0.3 million of additional expense.

Sales and marketing expenses - Sales and marketing (“S&M”) expenses consist primarily of salaries, commissions, travel and related business expenses, attendance at medical society meetings, product promotions and marketing activities.

S&M expense increased $0.9 million compared to the prior year. The increase is primarily attributable to the following:

- Compensation and benefits increase of approximately $0.8 million which is primarily attributed to increased variable compensation and increased commissions as a result of NanoKnife capital sales during the second quarter.
- Other sales and marketing expenses increased $0.2 million to support company-wide initiatives.
- Outside service fees decreased $0.2 million.

General and administrative expenses - General and administrative (“G&A”) expenses include executive management, finance, information technology, human resources, business development, legal, and the administrative and professional costs associated with those activities.

G&A expense increased $1.7 million compared to the prior year. The increase is primarily attributable to the following:

- Legal and professional fees relating to ongoing litigation that is within the normal course of business increased $1.5 million.

- Outside consultant spend increased $0.2 million.
- Compensation and benefits decreased approximately $0.2 million primarily as a result of the timing of fully vested stock based compensation awards and lower high cost benefit claims.

	Three months ended		
(in thousands)	Nov 30, 2019	Nov 30, 2018	$ Change
Amortization of intangibles	$ 4,530	$ 4,506	$ 24
Change in fair value of contingent consideration	$ 145	$ 244	$ (99)
Acquisition, restructuring and other items, net	$ 1,421	$ 2,728	$ (1,307)
Other expense	$ 121	$ (1,250)	$ 1,371

Amortization of intangibles - Represents the amount of amortization expense that was taken on intangibles assets held by the Company.

- Amortization expense remained consistent with the prior year. The addition of the Eximo product technology intangible asset increased intangible assets by $59.0 million and resulted in additional amortization expense of $0.7 million. This was partially offset by the write-off of the Merz intangible in the fourth quarter of fiscal year 2019 and other intangibles that became fully amortized.

Change in fair value of contingent consideration - Represents changes in contingent consideration driven by changes to estimated future payments on earn-out liabilities created through acquisitions and amortization of present value discounts on long-term contingent consideration.

- The change from the prior year is due to decreased amortization on the RadiaDyne contingent consideration as a result of the gain of $8.4 million that was recorded in the fourth quarter of fiscal year 2019 and the gain of $0.6 million that was recorded in the first quarter of fiscal year 2020. The Eximo contingent consideration was recorded for $14.9 million in the second quarter of fiscal year 2020. In addition, the final minimum payment of $1.2 million was paid for the Microsulis contingent consideration during the first quarter of fiscal 2020.

Acquisition, restructuring and other items, net - Represents costs associated with mergers and acquisitions, restructuring expenses, legal costs that are related to litigation that is not in the ordinary course of business, legal settlements and other one-time items.

Acquisition, restructuring and other items, net decreased by $1.3 million compared to the prior year. The decrease is primarily attributable to the following:

- M&A expense of $0.4 million was incurred in the second quarter of fiscal year 2020 compared to $1.5 million in the prior year.
- Legal expense, related to litigation that is outside of the normal course of business, of $0.7 million was recorded in the second quarter of fiscal year 2020 compared to $0.9 million in the prior year.
- In the second quarter of fiscal year 2020, the Company incurred $0.7 million of expense to move manufacturing facilities as a result of the sale of the Fluid Management business.
- As part of the sale of the Fluid Management business, the Company entered into a transition services agreement with Medline for certain legal, human resource, tax, accounting and information technology services from the Company for a period not to exceed 24 months. As a result of the transition services agreement, the Company invoiced Medline $0.6 million in the second quarter of fiscal year 2020.
- Other expenses of $0.3 million in the second quarter of fiscal year 2020 consists of expenses to move the manufacturing of BioSentry products and severance associated with the sale of the Fluid Management business.

Other expenses, net - Other expenses include interest expense, foreign currency impacts, bank fees, and amortization of deferred financing costs.

- The decrease in other expenses from the prior year of $1.4 million is due to decreased interest expense of $1.2 million as the Credit Facility was paid down in full at the beginning of the first quarter of fiscal year 2020. In addition to the decrease in interest expense, interest income increased $0.1 million from the prior year as a result of increased cash due to proceeds from the sale of the Fluid Management business.

Income Tax Provision (Benefit)

(in thousands)	Three months ended Nov 30, 2019	Nov 30, 2018
Income tax expense (benefit)	$ (0.6)	$ (0.2)
Effective tax rate including discrete items	17.1%	5.0%

Our effective tax rate including discrete items for the three month periods ended November 30, 2019 and 2018 was 17.1% and 5.0%, respectively. In fiscal 2020, the Company's effective tax rate differs from the U.S. statutory rate primarily due to the impact of the valuation allowance, foreign taxes, and other non-deductible permanent items (such as non-deductible meals and entertainment, Section 162(m) excess compensation and non-deductible stock based compensation).

The estimated annual effective tax rate, however, prior to discrete items was 13.2% in the second quarter of fiscal 2020, as compared to 13.2% for the same period in fiscal 2019.

Results of Operations for the Six Months Ended November 30, 2019 and 2018

For the six months ended November 30, 2019, the Company reported net loss of $4.0 million, or $0.11 per diluted share, on net sales of $136.0 million, compared with net loss of $9.3 million, or $0.25 loss per diluted share, on net sales of $133.9 million during the same quarter of the prior year.

Net Sales

Net sales - Net sales are derived from the sale of products and related freight charges, less discounts and returns.

Net sales for the six months ended November 30, 2019 and 2018:

(in thousands)	Six months ended Nov 30, 2019	Nov 30, 2018	% Growth
Net Sales by Global Business Unit			
Vascular Interventions & Therapies	$ 60,063	$ 59,573	0.8%
Vascular Access	45,943	47,513	(3.3)%
Oncology	30,039	26,842	11.9%
Total	$ 136,045	$ 133,928	1.6%
Net Sales by Geography			
United States	$ 108,492	$ 107,796	0.6%
International	27,553	26,132	5.4%
Total	$ 136,045	$ 133,928	1.6%

For the six months ended November 30, 2019, net sales increased $2.1 million to $136.0 million compared to the same period in the prior year.

Vascular Interventions & Therapies

- Total Vascular Interventions & Therapies sales increased $0.5 million primarily attributable to strong performance in the AngioVac business which grew $2.7 million and in Core Peripheral products which grew $0.3 million year over year. The Company continues to see strong case volumes in AngioVac, which increased 33% from the prior year due to increased adoption of the Company's unique technology and the launch of the next generation of the AngioVac product. These increases were partially offset by the termination of the Asclera distribution agreement, which contributed $3.1 million of revenue in the prior year.

- U.S. Vascular Interventions & Therapies sales increased $0.2 million due to increased case volume in AngioVac and increased Core Peripheral product sales which were partially offset by the termination of the Asclera distribution agreement, which contributed $3.1 million of revenue in the prior year.
- International Vascular Interventions & Therapies sales increased $0.3 million due to increased volume in Angiographic catheters primarily in EMEA (Europe, the Middle East and Africa).

Vascular Access

- Total Vascular Access sales decreased $1.6 million due to decreases in PICCs and Ports partially offset by growth in the Dialysis business of $0.6 million. BioFlo product lines comprise 51% of overall Vascular Access sales compared to 50% a year ago.
- U.S. Vascular Access sales decreased by $2.7 million due to competitive pressures in the PICC product lines and lower Port sales. This was partially offset by growth in Dialysis products which continue to gain traction in the marketplace.
- International Vascular Access sales increased by $1.1 million as the Company continues to expand its global reach of its Vascular Access product offerings.

Oncology

- Total Oncology sales increased $3.2 million year over year primarily due to increased NanoKnife capital sales of $2.8 million along with $2.1 million and $0.9 million in increased sales of balloons and BioSentry products, respectively. This was partially offset by decreased sales of Radiofrequency Ablation and NanoKnife disposable sales.
- U.S. Oncology sales increased by $3.1 million, driven by NanoKnife capital sales of $1.3 million, balloon sales of $2.1 million and BioSentry sales of $0.8 million. This was partially offset by a decrease in RadioFrequency Ablation and NanoKnife disposable sales.
- International Oncology sales increased by $0.1 million year over year as a result of increased NanoKnife capital sales of $1.5 million. This was offset by decreased NanoKnife disposable and RadioFrequency and Microwave Ablation product sales.

Gross Profit, Operating expenses, and Other income (expense)

	Six months ended		
(in thousands)	Nov 30, 2019	Nov 30, 2018	% Change
Gross profit	$ 79,761	$ 76,505	4.3 %
Gross profit % of sales	58.6%	57.1%	
Research and development	$ 14,055	$ 14,450	(2.7)%
% of sales	10.3%	10.8%	
Selling and marketing	$ 39,493	$ 37,669	4.8 %
% of sales	29.0%	28.1%	
General and administrative	$ 19,448	$ 17,697	9.9 %
% of sales	14.3%	13.2%	

Gross profit - Gross profit consists of net sales less the cost of goods sold, which includes the costs of materials, products purchased from third parties and sold by us, manufacturing personnel, royalties, freight, business insurance, depreciation of property and equipment and other manufacturing overhead, exclusive of intangible amortization.

Gross profit increased by $3.3 million compared to the prior year. The increase is primarily attributable to the following:

- Sales volume and mix driven by AngioVac and NanoKnife capital sales positively contributed $3.2 million year over year. Net productivity contributed $1.1 million of favorability.
- Currency and pricing tailwinds positively impacted gross margin by $0.8 million year over year, primarily driven by pricing.
- The termination of the Asclera distribution agreement negatively impacted gross margin by $1.8 million.

Research and development expenses - Research and development ("R&D") expenses include internal and external costs to develop new products, enhance existing products, validate new and enhanced products, and manage clinical, regulatory and medical affairs.

R&D expense decreased $0.4 million compared to the prior year. The decrease is primarily attributable to the following:

- Compensation and benefits increased approximately $0.3 million due to increased variable compensation along with increased headcount as a result of the Eximo acquisition.
- Other R&D expenses, including facilities, samples and project initiatives timing resulted in a decrease of $0.8 million.

Sales and marketing expenses - Sales and marketing ("S&M") expenses consist primarily of salaries, commissions, travel and related business expenses, attendance at medical society meetings, product promotions and marketing activities.

S&M expense increased $1.8 million compared to the prior year. The increase is primarily attributable to the following:

- Compensation and benefits increase of approximately $1.5 million which is primarily attributed to increased variable compensation and increased commissions as a result of NanoKnife capital sales during the second quarter.
- Other sales and marketing expenses increased $0.3 million to support company-wide initiatives.
- Outside service fees decreased $0.2 million.

General and administrative expenses - General and administrative ("G&A") expenses include executive management, finance, information technology, human resources, business development, legal, and the administrative and professional costs associated with those activities.

G&A expense increased $1.7 million compared to the prior year. The increase is primarily attributable to the following:

- Legal and professional fees relating to ongoing litigation that is within the normal course of business increased $1.9 million.
- Outside consultant spend increased $0.3 million and other expenses increased $0.4 million.
- Compensation and benefits decreased approximately $0.8 million primarily as a result of the timing of fully vested stock based compensation awards and lower high cost benefit claims.

	Six months ended		
(in thousands)	Nov 30, 2019	Nov 30, 2018	$ Change
Amortization of intangibles	$ 8,398	$ 7,939	$ 459
Change in fair value of contingent consideration	$ (303)	$ 256	$ (559)
Acquisition, restructuring and other items, net	$ 2,921	$ 7,150	$ (4,229)
Other expense	$ (442)	$ (2,053)	$ 1,611

Amortization of intangibles - Represents the amount of amortization expense that was taken on intangibles assets held by the Company.

- The increase in amortization expense from the prior year is due to intangible asset additions as a result of the Eximo product technology intangible asset which increased intangible assets by $59.0 million and resulted in additional amortization expense of $0.7 million. This was partially offset by the write-off of the Merz intangible in the fourth quarter of fiscal year 2019 and other intangibles that became fully amortized.

Change in fair value of contingent consideration - Represents changes in contingent consideration driven by changes to estimated future payments on earn-out liabilities created through acquisitions and amortization of present value discounts on long-term contingent consideration.

- The change from the prior year is due to the gain of $0.6 million that was recorded on the technical milestones for the RadiaDyne contingent consideration in the first quarter of fiscal year 2020. The gain was partially offset by decreased amortization on the RadiaDyne contingent consideration as a result of the first quarter gain along with the $8.4 million gain that was recorded in the fourth quarter of fiscal year 2019. The Eximo contingent consideration was recorded for

$14.9 million in the second quarter of fiscal year 2020. In addition, the final minimum payment of $1.2 million was paid for the Microsulis contingent consideration during the first quarter of fiscal 2020.

Acquisition, restructuring and other items, net - Represents costs associated with mergers and acquisitions, restructuring expenses, legal costs that are related to litigation that is not in the ordinary course of business, legal settlements and other one-time items.

Acquisition, restructuring and other items, net decreased by $4.2 million compared to the prior year. The decrease is primarily attributable to the following:

- M&A expense of $0.6 million was incurred in fiscal year 2020 compared to $2.9 million in the prior year.
- Legal expense, related to litigation that is outside of the normal course of business, of $1.4 million was recorded in fiscal year 2020, which includes an offset of $0.4 million from the Biolitec bankruptcy settlement, compared to $3.7 million in the prior year.
- In fiscal year 2020, the Company incurred $1.5 million of expense to move manufacturing facilities as a result of the sale of the Fluid Management business.
- As part of the sale of the Fluid Management business, the Company entered into a transition services agreement with Medline for certain legal, human resource, tax, accounting and information technology services from the Company for a period not to exceed 24 months. As a result of the transition services agreement, the Company invoiced Medline $1.3 million in fiscal year 2020.
- Other expenses of $0.8 million in fiscal year 2020 consists of expenses to move the manufacturing of BioSentry products and severance associated with the sale of the Fluid Management business.

Other expenses, net - Other expenses include interest expense, foreign currency impacts, bank fees, and amortization of deferred financing costs.

- The decrease in other expenses from the prior year of $1.6 million is due to decreased interest expense of $2.1 million as the Credit Facility was paid down in full at the beginning of the first quarter of fiscal year 2020. In addition to the decrease in interest expense, interest income increased $0.3 million from the prior year as a result of increased cash due to proceeds from the sale of the Fluid Management business. These increases are partially offset by the write-off of the deferred financing fees that were associated with the old Credit Facility of $0.6 million. Other expenses also include foreign currency fluctuations which increased by $0.3 million.

Income Tax Provision (Benefit)

	Six months ended	
(in thousands)	Nov 30, 2019	Nov 30, 2018
Income tax expense (benefit)	$ (0.7)	$ (1.4)
Effective tax rate including discrete items	14.5%	13.2%

Our effective tax rate including discrete items for the six month periods ended November 30, 2019 and 2018 was 14.5% and 13.2%, respectively. In fiscal 2020, the Company's effective tax rate differs from the U.S. statutory rate primarily due to the impact of the valuation allowance, foreign taxes, and other non-deductible permanent items (such as non-deductible meals and entertainment, Section 162(m) excess compensation and non-deductible stock based compensation).

The estimated annual effective tax rate, however, prior to discrete items was 13.2% in the second quarter of fiscal 2020, as compared to 13.2% for the same period in fiscal 2019.

Liquidity and Capital Resources

Our cash and cash equivalents totaled $41.2 million as of November 30, 2019, compared with $227.6 million as of May 31, 2019. As of November 30, 2019 there was no principal debt outstanding and as of May 31, 2019 there was $132.5 million principal debt outstanding. The fair value of contingent consideration liability as of November 30, 2019 and May 31, 2019, was $26.9 million and $13.5 million, respectively.

The table below summarizes our cash flows for the six months ended November 30, 2019 and 2018:

(in thousands)	Six Months Ended Nov 30, 2019	Six Months Ended Nov 30, 2018
Cash used in:		
Operating activities	$ (597)	$ 4,086
Investing activities	(50,124)	(86,336)
Financing activities	(135,749)	51,254
Effect of exchange rate changes on cash and cash equivalents	76	(280)
Net change in cash and cash equivalents	$ (186,394)	$ (31,276)

During the six months ended November 30, 2019 and 2018, cash flows consisted of the following:

Cash used in operating activities

Six months ended November 30, 2019:

- Net loss of $4.0 million plus the non-cash items, primarily driven by depreciation and amortization and stock based compensation, contributed to cash used in operations of $0.6 million.
- Working capital was negatively impacted by increased inventory on hand of $10.0 million and decreased accounts payable and accrued liabilities of $8.8 million. Accounts receivable had a favorable impact on working capital as a result of the sale of the Fluid Management business.

Six months ended November 30, 2018:

- Net income was driven by increased sales and increased gross profit. This was partially offset by higher operating expenses in research and development, selling and marketing and general administrative as well as costs related to our acquisition and restructuring activities.
- The Company continues to focus on optimizing its cash conversion cycle. In the second quarter of fiscal year 2019, working capital was negatively impacted by increased inventory on hand of $1.0 million. Additionally, even though days sales outstanding ("DSO") decreased by two days, receivables negatively impacted working capital by $3.1 million as a result of increased sales in the quarter. Also, the $12.5 million DOJ settlement payment that was made during the first quarter of fiscal year 2019 negatively impacted working capital from accounts payable and accrued liabilities.

Cash used in investing activities

Six months ended November 30, 2019 and 2018:

- $4.0 million in fixed asset additions versus $1.4 million in the prior year.
- $45.8 million cash payment to acquire Eximo Medical Ltd. in the second quarter of fiscal year 2020 compared to a $37.0 million cash payment to acquire the BioSentry product from SSC and a $47.9 million cash payment to acquire RadiaDyne in fiscal year 2019. Refer to Note 2 to the financial statements.

Cash used in financing activities

Six months ended November 30, 2019 and 2018:

- $132.5 million repayment of long-term debt in conjunction with the new Credit Agreement that was entered into at the beginning of the first quarter of fiscal year 2020. Refer to Note 8 of the financial statements.
- $55.0 million draw on the revolver in fiscal year 2019 as a result of the RadiaDyne acquisition described in Note 2 to the financial statements.
- $2.5 million repayment on the Term Loan in the prior year. This was consistent with the required amortization payment on the Term Loan.
- $1.3 million of outlays from stock option and ESPP activity versus $0.9 million in proceeds in the prior year.
- $1.2 million payment on earn-out liabilities in the current year compared to $2.1 million in the prior year.

On June 3, 2019 and in connection with the completion of the Fluid Management divestiture, the Company repaid all amounts outstanding under its existing Credit Agreement and entered into a new Credit Agreement. The Credit Agreement provides for a $125.0 million secured revolving credit facility, which includes an uncommitted expansion feature that allows the Company to increase the total revolving commitments and/or add new tranches of term loans in an aggregate amount not to exceed $75.0 million.

On December 17, 2019, the Company made a $15.0 million draw on the revolving credit facility as part of the acquisition of the C3 Wave tip location asset from Medical Components Inc. that is described Note 19 to the financial statements. We believe that our current cash and investment balances, together with cash generated from operations and access to our revolving credit facility, will provide sufficient liquidity to meet our anticipated needs for capital for at least the next 12 months. If we seek to make significant acquisitions of other businesses or technologies in the future for cash, we may require external financing.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Foreign Currency Exchange Rate Risk

We are exposed to market risk from changes in currency exchange rates, as well as interest rate fluctuations on our credit facility and investments that could impact our results of operations and financial position.

We transact sales in currencies other than the U.S. Dollar, particularly the Euro, British pound and Canadian dollar. Approximately 7% of our sales in the second quarter of fiscal 2020 were denominated in foreign currencies. We do not have expenses denominated in foreign currencies at the level of our sales and as a result, our profitability is exposed to currency fluctuations. When the U.S. Dollar strengthens, our sales and gross profit will be negatively impacted. In addition, we have assets and liabilities denominated in non-functional currencies which are remeasured at each reporting period, with the offset to changes presented as a component of Other (Expenses) Income. Significant non-functional balances include accounts receivable due from a sub-section of our international customers.

Interest Rate Risk

On June 3, 2019, we entered into the Credit Agreement which provides for a $125 million Revolving Facility. Interest on the facility will be based, at the Company’s option, on a base rate of LIBOR plus an applicable margin tied to the Company’s total leverage ratio and having ranges between 0.25% and 0.75% for base rate loans and between 1.25% and 1.75% for LIBOR loans. In the event of default, the interest rate may be increased by 2.0%.

Concentration of Credit Risk

Financial instruments, which potentially subject the Company to significant concentrations of credit risk, consist primarily of cash and cash equivalents, our credit facility and trade accounts receivable.

The Company maintains cash and cash equivalents at various institutions and performs periodic evaluations of the relative credit standings of these financial institutions to ensure their credit worthiness. In addition, the Credit Agreement is structured across five above investment grade banks. The Company has the ability to draw equally amongst the five banks which limits the concentration of credit risk of one institution.

Concentration of credit risk with respect to trade accounts receivable is limited due to the large number of customers that purchase products from the Company. No single customer represents more than 10% of total sales. The Company monitors the creditworthiness of its customers to which it grants credit terms in the normal course of business. Although the Company does not currently foresee a significant credit risk associated with the outstanding accounts receivable, repayment is dependent upon the financial stability of our customers.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

As of the end of the period covered by this report, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934, as amended. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were effective to provide reasonable assurance that the information required to be disclosed by us in reports filed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting for the fiscal quarter ended November 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II: OTHER INFORMATION

Item 1. Legal Proceedings.

C.R. Bard, Inc. v. AngioDynamics, Inc.

On January 11, 2012, C.R. Bard, Inc. ("Bard") filed a suit in the United States District Court of Utah claiming certain of the Company's implantable port products infringe on three U.S. patents held by Bard (the "Utah Action"). Bard's complaint sought unspecified damages and other relief. The Company filed petitions for reexamination in the US Patent and Trademark Office ("USPTO") seeking to invalidate all three patents asserted by Bard in the litigation. The Company's petitions were granted and 40 of Bard's 41 patent claims were rejected and, following further proceedings, the Patent Office issued a Final Rejection of all 40 claims subject to reexamination. Thereafter, Bard filed appeals to the USPTO Board of Appeals and Interferences for all three reexaminations which were decided as follows: For US Patent No. 7,785,302), the rejections of six of the ten claims under reexamination were affirmed, but were reversed on four of the ten claims. For U.S. Patent No. 7,959,615 the rejections of eight of the ten claims under reexamination were affirmed but the rejections of the other two of the ten claims were reversed. In the third (issued on March 29 for U.S. Patent No. 7,947,022) the rejections of all twenty claims under reexamination were affirmed. Thereafter, Bard sought Rehearing in all three appeals and the Company sought Rehearing in the '302 and '615 appeals. The PTO denied all three Rehearing Requests, but modified its characterization of one prior art reference for the '302 and '022 decisions.

Bard filed appeals to the Federal Circuit Court of Appeals in all three reexams and the Company Cross-Appealed for the '302 and the '615 reexams. Medcomp also filed an Amicus Brief in support of the Company on November 22, 2017. Meanwhile, on July 12, 2017 Bard assigned the asserted patents to Bard Peripheral Vascular, Inc. ("BPV") which was added as co-Appellant before the Federal Circuit and as a co-Plaintiff in the Utah action. An oral hearing was held on September 5, 2018 and the Court rendered its decision on September 28, 2018, affirming that claims 1-5 and 10 of the '615 patent were invalid, but that claims 6-7 of the 615 patent and 1-4 of the 302 patent were valid over the prior art references considered in the Reexamination proceedings. The Federal Circuit also reversed the PTAB's claim construction ruling and remanded for consideration of obviousness for the remaining claims under the new claim construction ruling and for further findings with respect to whether one of the asserted references qualified as a printed publication. On January 28, 2019, on remand, the USPTO reversed the rejections of the '302 claims 1-10, '022 claims 1-20 and '615 claims 8-9. The USPTO has since issued Inter Partes Reexamination Certificates for the '302 Patent for the '022 patent and for the '615 patent. The Company thereafter filed a Motion to Unstay the Utah Case and that motion was granted. On November 4, 2019 the Court held a joint Status Conference among the Company's Utah Action and two other cases filed by Bard on the same patents against Medcomp and Smiths. The Court set a schedule for Motions to Dismiss or Transfer. The Company filed its motion on November 25, 2019; and Bard filed a responsive brief and a motion for venue discovery on December 9, 2019. The Company filed a responsive brief on December 16, 2019 and Bard filed a reply on December 23, 2019. The Company believes these claims are without merit and intends to defend them vigorously. The Company has not recorded an expense related to the outcome of this litigation because it is not yet possible to determine if a potential loss is probable nor reasonably estimable.

On March 10, 2015, Bard and BPV filed suit in the United States District Court for the District of Delaware (the "Delaware Action") claiming certain of the Company's implantable port products infringe on three other U.S. patents held by Bard, which are different from those asserted in the Utah action. Bard's complaint seeks unspecified damages and other relief. On June 1, 2015, the Company filed two motions in response to Bard's Complaint - one sought transfer to the District of Utah where the Utah Action is currently pending, and the other sought dismissal of the entire complaint on grounds that none of the claims in the asserted patents is directed to patent eligible subject matter under Section 101 of the Patent Statute and in light of recent authority from the U. S. Supreme Court.

On January 12, 2016, the Court issued a decision denying both motions. A Markman hearing was held on March 10, 2017 and the Court issued its Claim Construction Order on May 19, 2017. On May 19, 2017, Bard served its Final Infringement Contentions and on June 2, 2017, the Company served its Final Invalidity Contentions.

On October 20, 2017, the scheduling order for the case was amended to, among other things, set a trial date commencing July 23, 2018. The parties completed Expert Discovery in January 2018 and completed briefing on their respective case dispositive motions on April 27, 2018. On June 26, 2018, the Court denied all case dispositive motions, ruling that issues of material fact remained in dispute. On July 9, 2018, the Court continued the trial until March 2019. On January 9, 2019 the Court held a further claim construction hearing to resolve two outstanding claim construction issues prior to trial. A Report and Recommendation (by Magistrate-Judge Fallon) was issued on February 11, 2019 and entered by the Court on February 28,

2019. Jury selection was held on Friday March 1, 2019 and trial began on March 4, 2019. On day four of the jury trial, at the close of C.R. Bard's case, the Court granted the Company's oral motion for judgment as a matter of law under rule 50(a) as well as its motions for summary judgement on the grounds that the asserted patents are invalid, ineligible, not infringed and not willfully infringed. On April 5, 2019, Bard filed a precautionary Notice of Appeal to the Federal Circuit. On April 26, 2019, the District Court issued a Memorandum and Order confirming the grant of judgment in the Company's favor of patent ineligibility, non-infringement, patent invalidity and no willful infringement. Meanwhile, on May 10, 2019, the Company filed a Motion for Attorney fees and non-taxable expenses under 35 USC Sec. 285. On May 21, 2019, the Court issued a Memorandum and Order which, inter alia, stayed proceedings on the Company's fee Motion and the Company's equitable claims pending appeal; and entered Final Judgment on May 21, 2019 as well. Bard filed a second Notice of Appeal on May 23, 2019. Both appeals have since been consolidated and Bard's opening brief was served on September 27, 2019 and the Company's answering brief is currently due on January 15, 2020. The Company maintains its belief that Bard's claims are without merit. The Company has not recorded an expense related to the outcome of this litigation because it is not yet possible to determine if a potential loss is probable nor reasonably estimable.

AngioDynamics, Inc. v. C.R. Bard, Inc.

On May 30, 2017, the Company commenced an action in the United States District Court for the Northern District of New York entitled AngioDynamics, Inc. v. C.R. Bard, Inc. and Bard Access Systems, Inc. ("Bard"). In this action, the Company alleges that Bard has illegally tied the sales of its tip location systems to the sales of its PICCs. The Company alleges that this practice violates the federal antitrust laws and has had, and continues to have, an anti-competitive effect in the market for PICCs. The Company seeks both monetary damages and injunctive relief. Bard moved to dismiss on September 8, 2017. On August 6, 2018 the court denied Bard's motion in its entirety. The parties are currently engaged in discovery, which is set to close in March 2020.

Merz North America Settlement

On May 16, 2019, Merz North America, Inc. ("Merz") commenced an action in the United States District Court for the Southern District of New York entitled Merz North America, Inc. v. AngioDynamics, Inc. In this action, Merz alleged breach of contract against AngioDynamics based on a March 1, 2016 Distribution Agreement. On June 28, 2019, AngioDynamics reached a settlement with Merz. AngioDynamics made a lump-sum payment of $2.5 million to Merz in return for dismissal of the case with prejudice during the first quarter. Merz filed a stipulation of dismissal with the Court on July 23, 2019.

Item 1A. Risk Factors.

In addition to information set forth in this report, you should carefully consider the factors discussed in “Part I, Item 1A. Risk Factors” of our annual report on Form 10-K for our fiscal year ended May 31, 2019 which set forth information relating to important risks and uncertainties that could materially adversely affect our business, financial condition or operating results. You should review and consider such Risk Factors in making any investment decision with respect to our securities. An investment in our securities continues to involve a high degree of risk. There have been no material changes to the risk factors previously disclosed in our annual report on Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

The following table provides information with respect to the shares of the Company’s common stock repurchased during the six months ended November 30, 2019:

	Issuer Purchases of Equity Securities			
	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs (1)	Maximum Approximate Dollar Value of Shares that May Yet Be Purchased Under Plans or Programs (1)
September 1, 2019 - September 30, 2019	—	$ —	—	$ —
October 1, 2019 - October 31, 2019	—	$ —	—	$ —
November 1, 2019 - November 30, 2019	—	$ —	—	$ —
Total	—	$ —	—	—

(1) These amounts are not applicable as the Company currently does not have a share repurchase program in effect.

Item 3. Defaults on Senior Securities.

None.

Item 4. Mine Safety Disclosures.

None.

Item 5. Other Information.

None.

Table of Contents

Item 6. Exhibits.

EXHIBIT INDEX

No.	Description
10.1.8	AngioDynamics 2019 Total Shareholder Return Performance Unit Agreement Program.
21	Subsidiaries
31.1	Certification pursuant to Rule 13a-14(a) or 15d-14 under the Securities Exchange Act of 1934.
31.2	Certification pursuant to Rule 13a-14(a) or 15d-14 under the Securities Exchange Act of 1934.
32.1	Certification of Chief Executive Officer pursuant to Title 18, United States Code, Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to Title 18, United States Code, Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Documents
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Labels Linkbase Documents
101.PRE	XBRL Presentation Linkbase Documents

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ANGIODYNAMICS, INC.
(Registrant)

Date:	January 8, 2020	/ S / JAMES C. CLEMMER
		James C. Clemmer, President, Chief Executive Officer (Principal Executive Officer)
Date:	January 8, 2020	/ S / STEPHEN A. TROWBRIDGE
		Stephen A. Trowbridge, Senior Vice President, General Counsel and Interim Chief Financial Officer (Interim Principal Financial and Accounting Officer)

PERFORMANCE SHARE AWARD AGREEMENT

This Performance Share Award Agreement (this "Agreement"), dated as of the _____ day of ____________________ (the "Grant Date"), is between AngioDynamics, Inc., a Delaware corporation ("AngioDynamics" or the "Company"), and _________________ (the "Participant"), an employee of the Company or any of its Affiliates or Subsidiaries and whose name appears on the signature page hereto. All capitalized terms not otherwise defined herein shall have the meaning ascribed thereto in Appendix A to this Agreement or the AngioDynamics 2004 Stock and Incentive Award Plan, as amended (the "Plan"), as applicable.

Overview of Your Award

Target Amount of Performance Shares: ______ shares.

Performance Period: June 1, 2019 to May 31, 2022.

Performance Year 1: June 1, 2019 through May 31, 2020.

Performance Year 2: June 1, 2020 through May 31, 2021.

Performance Year 3: June 1, 2021 through May 31, 2022.

Peer Group: Set forth on Appendix A.

1. Grant and Acceptance of Performance Shares. Effective as of the Grant Date, the Company hereby grants to the Participant a Performance Share Award (the "Performance Shares"), subject to the terms and conditions set forth in this Agreement and the Plan, with respect to _____ shares (the "Target Amount") of the Company's common stock, par value $0.01 per share (the "Common Stock"). This grant of Performance Shares shall not confer any right to the Participant (or any other participant) to be granted any Performance Shares in the future.

2. Eligibility Conditions upon Performance Shares. The Participant hereby acknowledges that the vesting of any of the Performance Shares (and delivery of shares of Common Stock with respect to any such vested Performance Shares) is subject to certain eligibility, performance and other conditions set forth herein. Except as otherwise provided in Section 7 of this Agreement, all shares of Common Stock in respect of Performance Shares that vest pursuant to the terms of this Agreement and the Plan shall be issued to the Participant as soon as practicable (and in all events within sixty (60) days) after the end of the Performance Period, and no shares of Common Stock in settlement of vested Performance Shares shall be issued to the Participant prior to the end of the Performance Period.

3. Satisfaction of Performance-Based Conditions. Subject to Sections 5, 6, 7(a) and 7(b) of this Agreement, the Performance Shares will be eligible to vest if and only if the performance conditions established in this Section 3 with respect to such Performance Shares are satisfied. Vesting of Performance Shares is based upon the performance of the Company with respect to the performance targets (as set forth below) for each Performance Year, subject to modification based on the Company's achieved Relative TSR, each as more fully provided below and in Appendix A.

(a) *Year 1 Performance Shares*. Subject to Sections 3(d), 5, 6, 7(a) and 7(b) of this Agreement, one-third of the Target Amount (or ____ Performance Shares) will be eligible to vest based on achievement of the performance targets set forth in the table below for Performance Year

1 (June 1, 2019 through May 31, 2020) (the “Year 1 Performance Shares”). One-half of the Year 1 Performance Shares shall be eligible to vest based on the Company’s Worldwide Revenue achieved for Performance Year 1 (the “Year 1 Revenue Shares”), and one-half of the Year 1 Performance Shares shall be eligible to vest based on the Company’s Worldwide Adjusted EPS achieved for Performance Year 1 (the “Year 1 EPS Shares”), each in accordance with the following table:

Worldwide Revenue (in millions) (50% of Year 1 Performance Shares)			Worldwide Adjusted EPS (50% of Year 1 Performance Shares)		
Target (%)	**Worldwide Revenue ($)**	**Revenue Payout Percentage (%)**	**Target (%)**	**Worldwide Adjusted EPS ($)**	**EPS Payout Percentage (%)**
103.00%	$ 292.5	200%	115.00%	$ 0.30	200%
102.40%	$ 290.8	180%	112.00%	$ 0.29	180%
101.80%	$ 289.1	160%	109.00%	$ 0.28	160%
101.20%	$ 287.4	140%	106.00%	$ 0.28	140%
100.60%	$ 285.7	120%	103.00%	$ 0.27	120%
[redacted]	[redacted]	100%	[redacted]	[redacted]	100%
99.00%	$ 281.2	80%	97.00%	$ 0.25	80%
98.00%	$ 278.3	60%	94.00%	$ 0.24	60%
97.00%	$ 275.5	40%	91.00%	$ 0.24	40%
96.00%	$ 272.6	20%	88.00%	$ 0.23	20%
95.00%	$ 269.8	0%	85.00%	$ 0.22	0%

The number of Year 1 Revenue Shares and Year 1 EPS Shares eligible to vest shall be calculated by multiplying the number of Year 1 Revenue Shares or Year 1 EPS Shares, as applicable, by the Revenue Payout Percentage or EPS Payout Percentage, respectively, set forth in the table above for the applicable level of achievement. Each of the Revenue Payout Percentage and EPS Payout Percentage shall not be below 0% and shall not exceed 200%, and the Revenue Payout Percentage and EPS Payout Percentage for performance between the levels set forth in the table above shall be determined by straight-line interpolation between such levels. Therefore, subject to Section 3(d) of this Agreement, the total number of Year 1 Performance Shares eligible to vest (the “Year 1 Eligible Performance Shares”) shall be equal to:

Year 1 Eligible Performance Shares = (Year 1 Revenue Shares * Revenue Payout Percentage) + (Year 1 EPS Shares * EPS Payout Percentage).

(b) *Year 2 Performance Shares*. Subject to Sections 3(d), 5, 6, 7(a) and 7(b) of this Agreement, one-third of the Target Amount (or ____ Performance Shares) will be eligible to vest based on achievement of the performance targets set forth in the table below for Performance Year 2 (June 1, 2020 through May 31, 2021) (the “Year 2 Performance Shares”). One-half of the Year 2 Performance Shares shall be eligible to vest based on the Company’s Worldwide Revenue Growth achieved for Performance Year 2 (the “Year 2 Revenue Shares”), and one-half of the Year 2 Performance Shares shall be eligible to vest based on the Company’s Worldwide Adjusted EPS achieved for Performance Year 2 (the “Year 2 EPS Shares”), each in accordance with the following table:

Worldwide Revenue Growth (50% of Year 2 Performance Shares)			Worldwide Adjusted EPS (50% of Year 2 Performance Shares)		
Target (%)	**Worldwide Revenue Growth (%)**	**Revenue Payout Percentage (%)**	**Target (%)**	**Worldwide Adjusted EPS ($)**	**EPS Payout Percentage (%)**
150.00%	9.0%	200%	116.00%	$ 0.58	200%
140.00%	8.4%	180%	112.80%	$ 0.56	180%
130.00%	7.8%	160%	109.60%	$ 0.55	160%
120.00%	7.2%	140%	106.40%	$ 0.53	140%
110.00%	6.6%	120%	103.20%	$ 0.52	120%
[redacted]	[redacted]	100%	[redacted]	[redacted]	100%
90.00%	5.4%	80%	96.80%	$ 0.48	80%
80.00%	4.8%	60%	93.60%	$ 0.47	60%
70.00%	4.2%	40%	90.40%	$ 0.45	40%
60.00%	3.6%	20%	87.20%	$ 0.44	20%
50.00%	3.0%	0%	84.00%	$ 0.42	0%

The number of Year 2 Revenue Shares and Year 2 EPS Shares eligible to vest shall be calculated by multiplying the number of Year 2 Revenue Shares or Year 2 EPS Shares, as applicable, by the Revenue Payout Percentage or EPS Payout Percentage, respectively, set forth in the table above for the applicable level of achievement. Each of the Revenue Payout Percentage and EPS Payout Percentage shall not be below 0% and shall not exceed 200%, and the Revenue Payout Percentage and EPS Payout Percentage for performance between the levels set forth in the table above shall be determined by straight-line interpolation between such levels. Therefore, subject to Section 3(d) of this Agreement, the total number of Year 2 Performance Shares eligible to vest (the "Year 2 Eligible Performance Shares") shall be equal to:

Year 2 Eligible Performance Shares = (Year 2 Revenue Shares * Revenue Payout Percentage) + (Year 2 EPS Shares * EPS Payout Percentage).

(c) *Year 3 Performance Shares*. Subject to Sections 3(d), 5, 6, 7(a) and 7(b) of this Agreement, one-third of the Target Amount (or ____ Performance Shares) will be eligible to vest based on achievement of the performance targets set forth in the table below for Performance Year 3 (June 1, 2021 through May 31, 2022) (the "Year 3 Performance Shares"). One-half of the Year 3 Performance Shares shall be eligible to vest based on the Company's Worldwide Revenue Growth achieved for Performance Year 3 (the "Year 3 Revenue Shares"), and one-half of the Year 3 Performance Shares shall be eligible to vest based on the Company's Worldwide Adjusted EPS achieved for Performance Year 3 (the "Year 3 EPS Shares"), each in accordance with the following table:

Worldwide Revenue Growth (50% of Year 3 Performance Shares)			Worldwide Adjusted EPS (50% of Year 3 Performance Shares)		
Target (%)	**Worldwide Revenue Growth (%)**	**Revenue Payout Percentage (%)**	**Target (%)**	**Worldwide Adjusted EPS ($)**	**EPS Payout Percentage (%)**
150.00%	10.5%	200%	116.00%	$ 0.87	200%
140.00%	9.8%	180%	112.80%	$ 0.85	180%
130.00%	9.1%	160%	109.60%	$ 0.82	160%
120.00%	8.4%	140%	106.40%	$ 0.80	140%
110.00%	7.7%	120%	103.20%	$ 0.77	120%
[redacted]		100%	[redacted]		100%
90.00%	6.3%	80%	96.80%	$ 0.73	80%
80.00%	5.6%	60%	93.60%	$ 0.70	60%
70.00%	4.9%	40%	90.40%	$ 0.68	40%
60.00%	4.2%	20%	87.20%	$ 0.65	20%
50.00%	3.5%	0%	85.00%	$ 0.64	0%

The number of Year 3 Revenue Shares and Year 3 EPS Shares eligible to vest shall be calculated by multiplying the number of Year 3 Revenue Shares or Year 3 EPS Shares, as applicable, by the Revenue Payout Percentage or EPS Payout Percentage, respectively, set forth in the table above for the applicable level of achievement. Each of the Revenue Payout Percentage and EPS Payout Percentage shall not be below 0% and shall not exceed 200%, and the Revenue Payout Percentage and EPS Payout Percentage for performance between the levels set forth in the table above shall be determined by straight-line interpolation between such levels. Therefore, subject to Section 3(d) of this Agreement, the total number of Year 3 Performance Shares eligible to vest (the "Year 3 Eligible Performance Shares") shall be equal to:

Year 3 Eligible Performance Shares = (Year 3 Revenue Shares * Revenue Payout Percentage) + (Year 3 EPS Shares * EPS Payout Percentage).

(d) *TSR Modifier; Total Performance Shares Eligible to Vest*. Notwithstanding the performance criteria set forth in Sections 3(a) through (c) above, the vesting of the Performance Shares is further subject to achievement of the following Relative TSR performance goal over the Performance Period, as calculated in accordance with Appendix A:

Relative TSR	**TSR Multiplier**
75th Percentile or Above	1.2
50th Percentile	1.0
25th Percentile or Below	0.8

The TSR Multiplier shall not be below 0.8 and shall not exceed 1.2, and shall be determined by straight-line interpolation for Relative TSR performance in between the levels set forth in the table above.

The total number of Performance Shares eligible to vest in accordance with Sections 5 through 7 of this Agreement (the "Total Eligible Performance Shares") shall be equal to:

Total Eligible Performance Shares = TSR Multiplier * (Year 1 Eligible Performance Shares + Year 2 Eligible Performance Shares + Year 3 Eligible Performance Shares).

(e) *Forfeiture Upon Failure to Satisfy Performance Conditions; Clawback*. For the avoidance of doubt, any Performance Shares for which the applicable performance conditions are not satisfied in accordance with this Section 3 shall be automatically forfeited by the Participant without consideration at the end of the Performance Period (or, if earlier, the date of termination in the circumstances described in Section 6). Without limitation of Section 13(j) of the Plan, the Performance Shares and any Common Stock that may be issued with respect to the Performance Shares shall be subject to any recovery, recoupment, clawback, and/or other forfeiture policy maintained by the Company or its Subsidiaries or Affiliates from time to time.

(f) *Board Determinations Binding; Adjustments to Performance Goals*. Without limitation of Section 12(b) of the Plan, all determinations and interpretations of the terms of this Agreement and the Plan (including, without limitation, all calculations regarding the determination of the level of achievement of any of the performance targets set forth herein) shall be made by the Board (or the Committee, as applicable) in its sole discretion, and shall be final, binding, and conclusive on the Company, its Subsidiaries and Affiliates, and the Participant (and each of their successors and assigns). Notwithstanding anything to the contrary set forth in this Agreement, the Board (or the Committee, as applicable) may modify the performance goals described in this Section 3 (including, without limitation, any of the definitions or formulas set forth on Appendix A) in any manner that the Board (or the Committee, as applicable) deems appropriate in its sole discretion to preserve the intended benefits of this Agreement, in each case to account for the impact of events that the Board (or the Committee, as applicable) deems appropriate, including, but not limited to, mergers, acquisitions, divestitures, licensing arrangements, accounting changes, currency fluctuations, financing activities, expenses for restructuring, and other extraordinary items, whether with respect to the Company, any member of the Peer Group, or otherwise. For the avoidance of doubt, the Performance Shares granted hereunder are not intended to constitute "Performance-Based Compensation" as defined in the Plan.

4. <u>Participant's Rights in Common Stock</u>. The shares of Common Stock, if and when issued hereunder upon the vesting of any Performance Shares, shall be registered in the name of the Participant and evidenced in the manner as the Company may determine. During the period prior to the issuance of Common Stock, the Participant will have no rights of a stockholder of the Company with respect to the Common Stock underlying the Performance Shares, including no right to receive dividends or vote the shares of Common Stock underlying the Performance Shares.

5. <u>Death; Retirement; Disability</u>. In the event that the Participant's employment with the Company or any of its Subsidiaries or Affiliates is terminated due to death, Retirement, or Disability, in each case on or after the Grant Date, but prior to the end of the Performance Period, the Performance Shares shall remain eligible to vest following the end date of the Performance Period; however, except as set forth in Section 7 of this Agreement, the Participant shall only be eligible to vest in a prorated portion of the Total Eligible Performance Shares calculated in accordance with Section 3 of this Agreement based on the Participant's months of service (rounded to the nearest whole month) with the Company (or any of its Subsidiaries or Affiliates) during the Performance Period prior to the date of such termination. The Participant may, from

time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under this Agreement is to be paid in case of his or her death before he or she receives any or all such benefit. Each such designation shall revoke all prior designations by the Participant, shall be in a form prescribed by the Company, and will be effective only when filed by the Participant in writing with the Secretary of the Company during the Participant's lifetime. In the absence of any such designation, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate.

6. Other Terminations of Employment -- Eligibility Conditions. Except as set forth in Sections 5 or 7, vesting in any of the Total Eligible Performance Shares is expressly conditioned upon the Participant's continuous employment with the Company or any of its Subsidiaries or Affiliates through the last day of the Performance Period. If the Participant's employment with the Company and its Subsidiaries or Affiliates is terminated or the Participant separates from the Company and its Subsidiaries or Affiliates for any reason other than death, Retirement, or Disability, in each case prior to the end of the Performance Period (and unless Section 7 applies), the Performance Shares shall immediately terminate for no consideration and no shares of Common Stock shall be issued in respect thereof, regardless of whether any of the performance conditions in Section 3 of this Agreement would have otherwise been satisfied.

7. Change in Control. Notwithstanding anything to the contrary in this Agreement:

(a) in the event of a Change in Control on or after the Grant Date, but prior to the end of the Performance Period and prior to the Participant's termination of employment with the Company or any Subsidiary or Affiliate for any reason, the Participant shall immediately vest in 100% of the Target Amount (regardless of the number of the Performance Shares that would have otherwise been eligible to vest pursuant to Section 3);

(b) in the event the Participant's employment with the Company or any Subsidiary or Affiliate terminates due to one of the reasons expressly covered by Section 5 of this Agreement and a Change in Control of the Company occurs subsequent to such a termination of employment (but during the Performance Period), the prorated vesting provided for in Section 5 shall be based on 100% of the Target Amount instead of on the Total Eligible Performance Shares calculated in accordance with Section 3 of this Agreement;

(c) any shares of Common Stock subject to the Performance Shares that become vested as described in Sections 7(a) or (b) of this Agreement shall be issued to the Participant upon or as soon as practicable and in all events no later than thirty (30) days after the effective date of the Change in Control (or, if so provided by the Board, immediately prior to the Change in Control); provided, that such issuance does not result in the imposition of any additional taxes, interest, or penalties on the Participant under Section 409A, as defined below (and, if such issuance would result in such imposition, the shares of Common Stock shall instead be issued to the Participant at the time specified in Section 2); and

(d) in the event a Change in Control occurs following the last day of the Performance Period and prior to the date all vested shares of Common Stock underlying the Performance Shares are issued pursuant to Section 2 above, any shares of Common Stock subject to the Performance Shares that became vested pursuant to the terms of this Agreement shall be issued to the Participant upon or as soon as practicable (and in all events within thirty (30) days) after the effective date of the Change in Control (or, if so provided by the Board, immediately prior to the Change in Control).

8. Consideration for Stock. The shares of Common Stock underlying the Performance Shares that are issued pursuant to this Agreement will be issued for no cash consideration.

9. Issuance of Stock. The Company shall not be obligated to issue any shares of Common Stock underlying the Performance Shares that become vested pursuant to the terms of this Agreement until (i) all federal and state laws and regulations as the Company may deem applicable have been complied with; (ii) the shares have been listed or authorized for listing upon official notice to the Nasdaq Global Select Market (or such other U.S. national securities exchange) or have otherwise been accorded trading privileges; and (iii) all other legal matters in connection with the issuance and delivery of the shares have been approved by the Company's legal department.

10. Tax Withholding. The Participant acknowledges that he or she shall be responsible for the payment of any taxes of any kind required by any national, state or local law to be paid with respect to the award of Performance Shares or the shares of Common Stock to be delivered hereunder, including, without limitation, the payment of any applicable withholding, income, social and similar taxes or obligations. The Participant further acknowledges that neither the Company nor any of its Subsidiaries or Affiliates (1) makes any representations or undertakings regarding the treatment of any tax-related matters in connection with any aspect of this Agreement, including the grant of the Performance Shares, the vesting of any of the Performance Shares, or the issuance of shares of Common Stock hereunder, the subsequent sale of any shares of Common Stock acquired hereunder and the receipt of any dividends (if applicable); or (2) commits or is under any obligation to structure the terms of the grant or any aspect of the Performance Shares to reduce or eliminate the Participant's liability for tax-related matters or achieve any particular tax result. Further, if the Participant becomes subject to tax and/or social security contributions in more than one jurisdiction between the Grant Date and the date of any relevant taxable, tax and/or social security contribution withholding event, as applicable, the Participant acknowledges that the Company (or any of its Subsidiaries or Affiliates) may be required to withhold or account for tax-related matters in more than one jurisdiction. Prior to any relevant taxable, tax and/or social security contribution withholding event, the Participant shall pay or make adequate arrangements satisfactory to the Company to satisfy all tax-related matters. In this regard, the Participant authorizes the Company (or its applicable Subsidiary or Affiliate), at its sole discretion, to satisfy the obligations with respect to tax-related matters by one or a combination of the following: (i) withholding from the Participant's wages or other cash compensation paid to him or her by the Company or any of its Subsidiaries or Affiliates; (ii) withholding from the proceeds of the sale of shares of Common Stock acquired hereunder, either through a voluntary sale or through a mandatory sale arranged by the Company (on the Participant's behalf pursuant to this authorization); or (iii) withholding in shares of Common Stock to be issued hereunder. The Company (or its applicable Subsidiary or Affiliate) will withhold or account for tax-related matters by considering applicable maximum statutory withholding amounts or other applicable withholding rates. If the obligation for tax-related matters is satisfied by withholding in shares of Common Stock, for tax purposes, the Participant will be deemed to have been issued the full number of shares of Common Stock subject to the vested portion of the Performance Shares, notwithstanding that a number of the shares of Common Stock that would otherwise be delivered to the Participant is held back solely for the purpose of paying any taxes of any kind due as a result of any aspect of the Participant's holding of these Performance Shares. Finally, the Participant shall pay to the Company (or at the Company's direction, its applicable Subsidiary or Affiliate) the amount of taxes of any kind that the Company (or such applicable Subsidiary or Affiliate) may be required to withhold or account for as a result of Participant's holding of these Performance Shares that cannot be satisfied by the means described in this Section 10. The Company may refuse to issue or deliver shares of Common Stock or the proceeds of the sale of shares of Common Stock to the Participant if the Participant fails to comply with Participant's obligation in connection with any tax-related matters.

11. Compliance with Section 409A. This Agreement is intended to comply with, or be exempt from, the requirements of Section 409A of the Code and the regulations promulgated thereunder (together, "Section 409A"). Accordingly, all provisions herein shall be construed and interpreted to comply with, or to be exempt from, Section 409A. This Agreement may be amended at any time by the Company, without the consent of

the Participant, to avoid the application of Section 409A in a particular circumstance or that is necessary or desirable to satisfy any of the requirements under Section 409A, but the Company shall not be under any obligation to make any such amendment. Nothing in this Agreement shall provide a basis for any person to take action against the Company or any of its Subsidiaries or Affiliates based on matters covered by Section 409A, including the tax treatment of any amount paid or Performance Shares granted under this Agreement, and neither the Company nor any of its Subsidiaries or Affiliates shall under any circumstances have any liability to Participant or his or her estate or any other party for any taxes, penalties or interest due on amounts paid or payable under this Agreement, including taxes, penalties or interest imposed under Section 409A. Notwithstanding any provision to the contrary in this Agreement, if shares of Common Stock or other amounts become issuable or distributable under this Agreement by reason of the Participant's "separation from service," within the meaning of Section 409A, and the Participant is a "specified employee," within the meaning of Section 409A, at the time of such "separation from service," the shares of Common Stock shall not be issued or distributed to the Participant prior to the earlier of (i) the first day of the seventh (7th) month following the date of the Participant's Separation from Service or (ii) the date of the Participant's death, if such delayed commencement is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i). Upon the expiration of the applicable Section 409A(a)(2)(B)(i) deferral period, any shares of Common Stock underlying the Performance Shares issued pursuant to this Agreement, the delivery of which is deferred pursuant to this Section 11, shall be issued or distributed (without interest) to the Participant.

12. Recapitalization. Without limitation of Section 10 of the Plan, in the event there is any change in the Company's Common Stock through the declaration of stock dividends or through recapitalization resulting in stock split-ups or through merger, consolidation, exchange of shares of Common Stock, or otherwise, the number and class of shares of Common Stock subject to the Performance Shares shall be equitably adjusted by the Company, in a manner determined in its sole discretion, to prevent dilution or enlargement of the benefits intended to be conferred by the Performance Shares under this Agreement.

13. Investment Intent; Unfunded Obligation. The Participant acknowledges that the acquisition of shares of Common Stock to be issued hereunder is for investment purposes without a view to distribution thereof. The Participant further acknowledges that the Performance Shares granted hereunder represent an unfunded, unsecured right to receive shares of Common Stock in respect of the Performance Shares that become vested in accordance with the terms of this Agreement, if any.

14. Limits on Transferability; Restrictions on Shares; Legend on Certificate. Until any shares of Common Stock have been issued in accordance with the terms of this Agreement or by action of the Board, the Performance Shares are not transferable and shall not be sold, transferred, assigned, pledged, gifted, hypothecated or otherwise disposed of or encumbered by the Participant. Transfers by the Participant of any shares of Common Stock delivered under this Agreement are subject to the Company's Insider Trading Policy and applicable securities laws. Shares of Common Stock issued to the Participant in certificate form or to the Participant's book entry account upon satisfaction of the vesting and other conditions of the Performance Shares may be restricted from transfer or sale by the Company and evidenced by stop-transfer instructions upon the Participant's book entry account or restricted legend(s) affixed to certificates in the form as the Company or its counsel may require with respect to any applicable restrictions on sale or transfer.

15. Award Subject to the Plan. The Performance Shares granted pursuant to this Agreement are subject to the Plan. The terms and provisions of the Plan, as each may be amended from time to time, are hereby incorporated herein by reference. In the event of a conflict between any term or provision contained in this Agreement and a term or provision of the Plan, the applicable terms and conditions of the Plan will govern and prevail. However, no amendment of the Plan after the date hereof may adversely alter or impair the issuance of the Common Stock underlying the Performance Shares to be made pursuant to this Agreement without the Participant's consent.

16. No Rights to Continued Employment. This Agreement shall not confer upon the Participant any right to continuation of employment with the Company, its Subsidiaries or Affiliates, nor shall this Agreement interfere in any way with the Company's (or its Subsidiaries' or Affiliates') right to terminate the Participant's employment at any time with or without cause.

17. Legal Notices. Any legal notice necessary under this Agreement shall be addressed to the Company in care of its General Counsel at the principal executive offices of the Company and to the Participant at the address appearing in the personnel records of the Company for such Participant or to either party at such other address as either party may designate in writing to the other. Any such notice shall be deemed effective upon receipt thereof by the addressee.

18. Governing Law. The interpretation, performance and enforcement of this Agreement shall be governed by the laws of the State of New York (without regard to the conflict of laws principles thereof) and applicable federal laws. For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this Agreement, the parties hereby submit and consent to the exclusive jurisdiction of the State of New York and agree that such litigation shall be conducted only in the State of New York, or the federal courts for the United States for the Northern District of New York, and no other courts, where this Agreement is made and/or to be performed.

19. Amendment. Upon the approval of the Board in its sole discretion, the Board or the Committee may terminate, amend or modify this Agreement, *provided, however,* that, subject to Sections 3(f), 11 and 12 of this Agreement, no such amendment or modification of this Agreement may in any way adversely affect the Participant's rights under this Agreement without the Participant's written consent.

20. Headings. The headings contained in this Agreement are for convenience only and shall not affect the meaning or interpretation of this Agreement.

21. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

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This Agreement is being signed as of the Grant Date.

AngioDynamics, Inc.

By:

Name: ___Jim Clemmer_______

Title: President &Chief Executive Officer
Participant

By: ______________________________

Name: _

APPENDIX A - CERTAIN DEFINITIONS AND CALCULATIONS

For purposes of this Agreement, the following terms have the meanings set forth below:

(a) "Change in Control" shall mean that any of the following events has occurred:

(i) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of paragraph (iii) below; or

(ii) the following individuals cease for any reason to constitute a majority of the number of directors serving on the Board: individuals who, at the beginning of any period of two consecutive years or less (not including any period prior to the date of this Agreement), constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of such period or whose appointment, election or nomination for election was previously so approved or recommended; or

(iii) there is consummated a merger or consolidation of the Company or any Subsidiary with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities; or

(iv) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

(b) "Disability" means disability as determined by the Board in its sole discretion.

(c) The "Peer Group" means the Company, together with the group of companies set forth on Schedule A hereto:

Without limitation of Section 3(f) of this Agreement, the Board (or the Committee, as applicable) shall have the sole discretion to make adjustments to the foregoing Peer Group to preserve the intended benefits of this Agreement, in each case to account for the impact of events that the Board (or the Committee, as applicable) deems appropriate, including, but not limited to, mergers, acquisitions, divestitures, licensing arrangements, accounting changes, currency fluctuations, financing activities, expenses for restructuring, and other extraordinary items, whether with respect to the Company, any member of the Peer Group, or otherwise.

(d) “Relative TSR” means “relative total shareholder return,” expressed as a percentile, and calculated as follows:

(1) “TSR,” or “total shareholder return,” for each member of the Peer Group shall be calculated using the following formula:

TSR = (Change in Stock Price + Dividends Paid) / Beginning Stock Price.

“Beginning Stock Price,” for each member of the Peer Group (including the Company), shall mean the average of the daily closing prices on the applicable stock exchange of one share of such Peer Group member’s common stock for the 20 calendar day period ending as of the close of business on the last trading day immediately prior to the first day of the Performance Period.

“Change in Stock Price,” for each member of the Peer Group (including the Company), shall mean the Ending Stock Price *less* the Beginning Stock Price.

“Dividends Paid,” for each member of the Peer Group (including the Company), shall mean the total of all dividends paid on one share of such Peer Group member’s common stock during the Performance Period.

“Ending Stock Price,” for each member of the Peer Group (including the Company), shall mean the average of the daily closing prices on the applicable stock exchange of one share of such Peer Group member’s common stock for the 20 calendar day period ending as of the close of business on the last trading day of the Performance Period.

(2) Following the calculation of the TSR for the Performance Period for the Company and each other company in the Peer Group, the Company and the other companies in the Peer Group will be ranked, in order of maximum to minimum, according to their respective TSR for the Performance Period.

(3) After this ranking, the Company’s Relative TSR, expressed as a percentile, shall be determined by the following formula:

“P” represents the Company’s Relative TSR, expressed as a percentile and rounded, if necessary, up to the next whole percentile.

“N” represents the number of companies in the Peer Group (including the Company).

“R” represents the Company’s ranking versus the other companies in the Peer Group determined in accordance with items (1) and (2) above.

Example: If the Company ranked 10th out of 56 total companies in the Peer Group (inclusive of the Company), the Relative TSR (“P”) therefore will be in the 84th percentile.

This calculation is as follows: **0.837** = 1 **-** (10 **-** 1) / (56 **-** 1).

(e) “Retirement” means retirement as determined by the Board in its sole discretion.

(f) "Worldwide Revenue" means for any particular Performance Year: revenue as publicly reported by the Company for that year and as reviewed by the Board's Audit Committee and Compensation Committee.

(g) "Worldwide Revenue Growth" means for any particular Performance Year: the following quotient (expressed as a percentage): (A) the excess, if any, of Worldwide Revenue for that year minus Worldwide Revenue for the immediately preceding Performance Year, divided by (B) Worldwide Revenue for the immediately preceding Performance Year.

"Worldwide Adjusted EPS" means for any particular Performance Year: adjusted earnings per share as publicly reported by the Company for that year and as reviewed by the Board's Audit Committee and Compensation Committee.

Schedule A

Becton, Dickinson and Company
Boston Scientific Corporation
Edwards Lifesciences Corporation
STERIS plc
Teleflex Incorporated
DexCom, Inc.
Invacare Corporation
CONMED Corporation
Wright Medical Group N.V.
Insulet Corporation
Accuray Incorporated
AtriCure, Inc.
Medtronic plc
Baxter International Inc.
Hologic, Inc.
Envista Holdings Corporation
Integer Holdings Corporation
Varex Imaging Corporation
Penumbra, Inc.
Nevro Corp.
NovoCure Limited
Cardiovascular Systems, Inc.
Stryker Corporation
Intuitive Surgical, Inc.
Varian Medical Systems, Inc.
ResMed Inc.
Integra LifeSciences Holdings Corporation
NuVasive, Inc.
Cantel Medical Corp.
Masimo Corporation
Abiomed, Inc.
Natus Medical Incorporated
CryoLife, Inc.
Abbott Laboratories
Danaher Corporation
Zimmer Biomet Holdings, Inc.
IDEXX Laboratories, Inc.
LivaNova PLC
Globus Medical, Inc.
Orthofix Medical Inc.
Inogen, Inc.
Tandem Diabetes Care, Inc.
Glaukos Corporation

Subsidiaries of AngioDynamics, Inc.

Subsidiary	State of Incorporation or Organization
Vortex Medical	Delaware
NM Holding Company, Inc.	Delaware
Navilyst Medical Holdings, Inc.	Delaware
Navilyst Medical, Inc.	Delaware
AngioDynamics UK Limited	United Kingdom
AngioDynamics Netherlands B. V.	Netherlands
RITA Medical Systems, LLC	Delaware
AngioDynamics France, SARL	France
AngioDynamics Canada Inc.	British Columbia
AngioDynamics Medical Brasil Participacoes Ltda.	Sao Paulo
RadiaDyne LLC	Texas
Eximo Medical, Ltd.	Israel
AngioDynamics VA LLC	Delaware

Exhibit 31.1

CERTIFICATION

I, James C. Clemmer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AngioDynamics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 8, 2020

/ S / JAMES C. CLEMMER
James C. Clemmer, President,
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Stephen A. Trowbridge, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AngioDynamics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 8, 2020

/ S / STEPHEN A. TROWBRIDGE
Stephen A. Trowbridge, Senior Vice President,
General Counsel and Interim Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO TITLE 18,
UNITED STATES CODE, SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, James C. Clemmer, President, Chief Executive Officer and Director of ANGIODYNAMICS, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that, to the best of my knowledge:

1. the quarterly report on Form 10-Q of the Company for the fiscal quarter ended November 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: January 8, 2020

/ S / JAMES C. CLEMMER

James C. Clemmer, President,
Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO TITLE 18,
UNITED STATES CODE, SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Stephen A. Trowbridge, Senior Vice President, General Counsel and Interim Chief Financial Officer of ANGIODYNAMICS, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that, to the best of my knowledge:

1. the quarterly report on Form 10-Q of the Company for the fiscal quarter ended November 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: January 8, 2020

/ S / STEPHEN A. TROWBRIDGE

Stephen A. Trowbridge, Senior Vice President,
General Counsel and Interim Chief Financial Officer