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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended July 2, 2022

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: 001-37844

BIOVENTUS INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**81-0980861**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
4721 Emperor Boulevard, Suite 100 **Durham, North Carolina** **(Address of Principal Executive Offices)**	**27703** **(Zip Code)**

(919) 474-6700
Registrant's Telephone Number, Including Area Code

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.001 par value per share	BVS	The Nasdaq Global Select Market

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 (§232.405 of this chapter) 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

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

As of August 5, 2022, there were 61,664,158 shares of Class A common stock outstanding and 15,786,737 shares of Class B common stock outstanding.

BIOVENTUS INC.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

As used in this Quarterly Report on Form 10-Q, unless expressly indicated or the context otherwise requires, references to "Bioventus," "we," "us," "our," "the Company," and similar references refer to Bioventus Inc. and its consolidated subsidiaries, including Bioventus LLC (BV LLC).

This Form 10-Q contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), and Section 27A of the Securities Act of 1933, as amended (Securities Act), concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements including, without limitation, statements regarding our business strategy, including, without limitation, expectations relating to our recent acquisitions of Misonix, Bioness and CartiHeal, expected expansion of our pipeline and research and development investment, new therapy launches, expected costs related to, and potential future options for, MOTYS, our operations and expected financial performance and condition, and impacts of the COVID-19 pandemic and inflation. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words.

Forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate, and management's beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this Quarterly Report on Form 10-Q may turn out to be inaccurate. Furthermore, if the forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. Important factors that may cause actual results to differ materially from current expectations include, among other things: our ability to complete acquisitions or successfully integrate new businesses, such as CartiHeal, products or technologies in a cost-effective and non-disruptive manner; we might not be able to fund the remainder of the deferred consideration for the acquisition of CartiHeal as it becomes due; our business may continue to experience adverse impacts as a result of the COVID-19 pandemic; we are highly dependent on a limited number of products; our long-term growth depends on our ability to develop, acquire and commercialize new products, line extensions or expanded indications; we may be unable to successfully commercialize newly developed or acquired products or therapies in the United States; demand for our existing portfolio of products and any new products, line extensions or expanded indications depends on the continued and future acceptance of our products by physicians, patients, third-party payers and others in the medical community; the proposed down classification of non-invasive bone growth stimulators, including our Exogen system, by the U.S. Food and Drug Administration (FDA) could increase future competition for bone growth stimulators and otherwise adversely affect the Company's sales of Exogen; failure to achieve and maintain adequate levels of coverage and/or reimbursement for our products or future products including potential changes to the reimbursement rates available for our hyaluronic acid (HA) viscosupplement products; pricing pressure and other competitive factors; governments outside the United States might not provide coverage or reimbursement of our products; we compete and may compete in the future against other companies, some of which have longer operating histories, more established products or greater resources than we do; the reclassification of our HA products from medical devices to drugs in the United States by the FDA could negatively impact our ability to market these products and may require that we conduct costly additional clinical studies to support current or future indications for use of those products; our ability to maintain our competitive position depends on our ability to attract, retain and motivate our senior management team and highly qualified personnel; our failure to properly manage our anticipated growth and strengthen our brands; risks related to product liability claims; fluctuations in demand for our products; issues relating to the supply of our products, potential supply chain disruptions and the increased cost of parts and components used to manufacture our products due to inflation; and our reliance on a limited number of third-party manufacturers to manufacture certain of our products; if our facilities are damaged or become inoperable, we will be unable to continue to research, develop and manufacture our products; failure to maintain contractual relationships; security breaches, unauthorized disclosure of information, denial of service attacks or the perception that confidential information in our possession is not secure; failure of key information technology and communications systems, process or sites; risks related to international sales and operations; risks related to our debt and future capital needs; failure to comply with extensive governmental regulation relevant to us and our products; we may be subject to enforcement action if we engage in improper claims submission practices and resulting audits or denials of our claims by government agencies could reduce our net sales or profits; the FDA regulatory process is expensive, time-consuming and uncertain, and the failure to obtain and maintain required regulatory clearances and approvals could prevent us from commercializing our products; if clinical studies of our future products do not produce results necessary to support regulatory clearance or approval in the United States or elsewhere, we will be unable to expand the indications for or commercialize these products; legislative or regulatory reforms; risks related to intellectual property matters; and other important factors described in *Part I, Item 1A. Risk Factors* in our 2021 Annual Report on Form 10-K as updated by this Quarterly Report on Form 10-Q and as may be further updated from time to time in our other filings with the SEC. You are urged to consider these factors carefully in evaluating these forward-looking statements. These forward-looking statements speak only as of the date hereof. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Bioventus Inc.
Consolidated condensed statements of operations and comprehensive (loss) income
Three and six months ended July 2, 2022 and July 3, 2021
(Amounts in thousands, except share amounts)
(Unaudited)

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Net sales	$ 140,331	$ 109,816	$ 257,621	$ 191,594
Cost of sales (including depreciation and amortization of $9,684, $5,618, $18,902 and $10,854 respectively)	43,677	33,503	85,265	55,725
Gross profit	96,654	76,313	172,356	135,869
Selling, general and administrative expense	89,620	69,050	175,744	103,736
Research and development expense	6,366	4,836	13,294	5,783
Restructuring costs	1,007	—	1,584	—
Change in fair value of contingent consideration	273	641	542	641
Depreciation and amortization	2,696	1,852	5,950	3,777
Impairment of variable interest entity assets	—	5,674	—	5,674
Operating (loss) income	(3,308)	(5,740)	(24,758)	16,258
Interest expense (income), net	2,578	1,681	1,028	(1,195)
Other expense	884	1,645	922	2,064
Other expense	3,462	3,326	1,950	869
(Loss) income before income taxes	(6,770)	(9,066)	(26,708)	15,389
Income tax expense (benefit), net	1,244	1,714	(3,888)	1,641
Net (loss) income	(8,014)	(10,780)	(22,820)	13,748
Loss attributable to noncontrolling interest	762	6,654	4,291	7,062
Net (loss) income attributable to Bioventus Inc.	$ (7,252)	$ (4,126)	$ (18,529)	$ 20,810
Net (loss) income	$ (8,014)	$ (10,780)	$ (22,820)	$ 13,748
Other comprehensive (loss) income, net of tax				
Change in foreign currency translation adjustments	(507)	23	(1,189)	(859)
Comprehensive (loss) income	(8,521)	(10,757)	(24,009)	12,889
Comprehensive loss attributable to noncontrolling interest	868	6,648	4,537	6,882
Comprehensive (loss) income attributable to Bioventus Inc.	$ (7,653)	$ (4,109)	$ (19,472)	$ 19,771
Loss per share of Class A common stock, basic and diluted[(1)]:	$ (0.11)	$ (0.10)	$ (0.30)	$ (0.12)
Weighted-average shares of Class A common stock outstanding, basic and diluted[(1)]:	61,475,350	41,805,347	60,977,556	41,802,840

[(1)] Per share information for the six months ended July 2, 2021 represents loss per share of Class A common stock and weighted-average shares of Class A common stock outstanding from February 16, 2021 through July 3, 2021, the period following Bioventus Inc.'s initial public offering and related transactions described in *Note 1. Organization* and *Note 8. Earnings per share* within the *Notes to the unaudited condensed consolidated financial statements.*

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

Bioventus Inc.
Consolidated condensed balance sheets as of July 2, 2022 (Unaudited) and December 31, 2021
(Amounts in thousands, except share amounts)

	July 2, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 41,001	$ 43,933
Restricted cash	—	5,280
Accounts receivable, net	143,018	124,963
Inventory	69,078	61,688
Prepaid and other current assets	24,060	27,239
Total current assets	277,157	263,103
Restricted cash, less current portion	—	50,000
Property and equipment, net	25,112	22,985
Goodwill	143,156	147,623
Intangible assets, net	666,523	695,193
Operating lease assets	18,342	17,186
Deferred tax assets	—	481
Investment and other assets	78,486	29,291
Total assets	$ 1,208,776	$ 1,225,862
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 25,735	$ 16,915
Accrued liabilities	146,758	131,473
Accrued equity-based compensation	—	10,875
Current portion of long-term debt	22,547	18,038
Other current liabilities	3,833	3,558
Total current liabilities	198,873	180,859
Long-term debt, less current portion	351,433	339,644
Deferred income taxes	98,892	133,518
Contingent consideration	16,871	16,329
Other long-term liabilities	22,517	21,723
Total liabilities	688,586	692,073
Commitments and contingencies (Note 11)		
Stockholders' Equity:		
Preferred stock, $0.001 par value, 10,000,000 shares authorized, 0 shares issued		
Class A common stock, $0.001 par value, 250,000,000 shares authorized as of July 2, 2022 and December 31, 2021, 61,656,499 and 59,548,504 shares issued and outstanding as of July 2, 2022 and December 31, 2021, respectively	64	59
Class B common stock, $0.001 par value, 50,000,000 shares authorized, 15,786,737 shares issued and outstanding as of July 2, 2022 and December 31, 2021	16	16
Additional paid-in capital	473,796	465,272
Accumulated deficit	(25,131)	(6,602)
Accumulated other comprehensive (loss) income	(764)	179
Total stockholders' equity attributable to Bioventus Inc.	447,981	458,924
Noncontrolling interest	72,209	74,865
Total stockholders' equity	520,190	533,789
Total liabilities and stockholders' equity	$ 1,208,776	$ 1,225,862

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

Bioventus Inc.
Consolidated condensed statements of changes in stockholders' and members' equity
Three and six months ended July 2, 2022 and July 3, 2021
(Amounts in thousands, except share amounts)
(Unaudited)

Three Months Ended July 2, 2022

	Class A Common Stock		Class B Common Stock						
	Shares	Amount	Shares	Amount	Additional Paid-In - Capital	Accumulated other comprehensive loss	Accumulated Deficit	Non-controlling interest	Total Stockholders' equity
Balance at April 2, 2022	61,357,270	$ 62	15,786,737	$ 16	$ 467,940	$ (363)	$ (17,879)	$ 72,142	$ 521,918
Issuance of Class A common stock	299,229	2	—	—	2,175	—	—	—	2,177
Net loss	—	—	—	—	—	—	(7,252)	(762)	(8,014)
Equity based compensation	—	—	—	—	3,681	—	—	935	4,616
Translation adjustment	—	—	—	—	—	(401)	—	(106)	(507)
Balance at July 2, 2022	61,656,499	$ 64	15,786,737	$ 16	$ 473,796	$ (764)	$ (25,131)	$ 72,209	$ 520,190

Three Months Ended July 3, 2021

	Class A Common Stock		Class B Common Stock						
	Shares	Amount	Shares	Amount	Additional Paid-In - Capital	Accumulated other comprehensive income	Accumulated Deficit	Non-controlling interest	Total Stockholders' equity
Balance at April 3, 2021	41,038,589	$ 41	15,786,737	$ 16	$ 142,923	$ 451	$ (1,041)	$ 77,892	$ 220,282
Issuance of Class A common stock	24,063	—	—	—	314	—	—	—	314
Distribution to Controlling LLC Owner	—	—	—	—	(1,393)	—	—	1,319	(74)
Net loss	—	—	—	—	—	—	(4,126)	(6,654)	(10,780)
Deconsolidation of variable interest entity	—	—	—	—	—	—	—	3,746	3,746
Equity based compensation	—	—	—	—	4,355	—	—	1,498	5,853
Translation adjustment	—	—	—	—	—	17	—	6	23
Balance at July 3, 2021	41,062,652	$ 41	15,786,737	$ 16	$ 146,199	$ 468	$ (5,167)	$ 77,807	$ 219,364

Six Months Ended July 2, 2022

	Class A Common Stock		Class B Common Stock						
	Shares	Amount	Shares	Amount	Additional Paid-In -Capital	Accumulated other comprehensive income (loss)	Accumulated Deficit	Non-controlling interest	Total Stockholders' equity
Balance at December 31, 2021	59,548,504	$ 59	15,786,737	$ 16	$ 465,272	$ 179	$ (6,602)	$ 74,865	$ 533,789
Issuance of Class A common stock	2,107,995	5	—	—	4,252	—	—	—	4,257
Net loss	—	—	—	—	—	—	(18,529)	(4,291)	(22,820)
Equity based compensation	—	—	—	—	7,624	—	—	1,881	9,505
Tax withholdings on equity compensation awards	—	—	—	—	(3,352)	—	—	—	(3,352)
Translation adjustment	—	—	—	—	—	(943)	—	(246)	(1,189)
Balance at July 2, 2022	61,656,499	$ 64	15,786,737	$ 16	$ 473,796	$ (764)	$ (25,131)	$ 72,209	$ 520,190

Six Months Ended July 3, 2021

	Members' Equity	Class A Common Stock		Class B Common Stock						
		Shares	Amount	Shares	Amount	Additional Paid-In -Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Non-controlling Interest	Total Stockholders' and Members' Equity
Balance at December 31, 2020	$ 144,160	—	$ —	—	$ —	$ —	$ —	$ —	$ —	$ 144,160
Prior to Organizational Transactions:										
Refund from members	123	—	—	—	—	—	—	—	—	123
Equity-based compensation	(39)	—	—	—	—	—	—	—	—	(39)
Net income	25,977	—	—	—	—	—	—	—	—	25,977
Other comprehensive loss	(1,507)	—	—	—	—	—	—	—	—	(1,507)
Effect of Organizational Transactions	(168,714)	31,838,589	32	15,786,737	16	33,623	—	—	79,119	(55,924)
Subsequent to Organizational Transactions:										
Initial public offering, net of offering costs	—	9,200,000	9	—	—	106,441	—	—	—	106,450
Issuance of Class A common stock for equity plans	—	24,063	—	—	—	314	—	—	—	314
Distribution to Continuing LLC Owner	—	—	—	—	—	—	—	—	(191)	(191)
Net loss	—	—	—	—	—	—	—	(5,167)	(7,062)	(12,229)
Deconsolidation of variable interest entity	—	—	—	—	—	—	—	—	3,746	3,746
Equity based compensation	—	—	—	—	—	5,821	—	—	2,015	7,836
Other comprehensive income	—	—	—	—	—	—	468	—	180	648
Balance at July 3, 2021	$ —	41,062,652	$ 41	15,786,737	$ 16	$ 146,199	$ 468	$ (5,167)	$ 77,807	$ 219,364

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

Bioventus Inc.
Consolidated condensed statements of cash flows
Six months ended July 2, 2022 and July 3, 2021
(Amounts in thousands)
(Unaudited)

	Six Months Ended	
	July 2, 2022	**July 3, 2021**
Operating activities:		
Net (loss) income	$ (22,820)	$ 13,748
Adjustments to reconcile net (loss) income to net cash from operating activities:		
Depreciation and amortization	24,863	14,663
Provision (recovery) for expected credit losses	2,505	(359)
Equity-based compensation from 2021 Stock Incentive Plan	9,505	7,797
Profits interest plan, liability-classified and other equity awards compensation	—	(24,356)
Change in fair value of contingent consideration	542	641
Change in fair value of interest rate swap	(4,196)	(1,310)
Deferred income taxes	(27,698)	(981)
Change in fair value of Equity Participation Rights	—	(2,774)
Impairments related to variable interest entity	—	7,043
Other, net	1,428	726
Changes in operating assets and liabilities:		
Accounts receivable	(21,157)	(9,370)
Inventories	(2,614)	3,913
Accounts payable and accrued expenses	17,747	2,917
Other current and noncurrent assets and liabilities	3,815	(13,011)
Net cash from operating activities	(18,080)	(713)
Investing activities:		
Investment held in trust for the acquisition of CartiHeal	(50,000)	—
Acquisitions, net of cash acquired	(231)	(45,790)
Purchase of property and equipment	(4,990)	(2,642)
Investments and acquisition of distribution rights	(1,478)	(864)
Net cash from investing activities	(56,699)	(49,296)
Financing activities:		
Proceeds from issuance of Class A common stock sold in initial public offering, net of underwriting discounts and offering costs	—	107,777
Proceeds from issuance of Class A and B common stock	4,257	330
Tax withholdings on equity-based compensation	(3,352)	—
Borrowing on revolver	25,000	—
Payments on long-term debt	(9,019)	(7,500)
Refunds from members	—	813
Other, net	(26)	(11)
Net cash from financing activities	16,860	101,409
Effect of exchange rate changes on cash	(293)	(171)
Net change in cash, cash equivalents and restricted cash	(58,212)	51,229
Cash, cash equivalents and restricted cash at the beginning of the period	99,213	86,839
Cash, cash equivalents and restricted cash at the end of the period	$ 41,001	$ 138,068
Supplemental disclosure of noncash investing and financing activities		
Accrued member distributions	$ —	$ 305
Accounts payable for purchase of property, plant and equipment	$ 67	$ 695

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

Bioventus Inc.
Notes to the unaudited consolidated condensed financial statements
(Amounts in thousands, except unit and share amounts)

1. Organization

The Company

Bioventus Inc. (together with its subsidiaries, the Company) was formed as a Delaware corporation for the purpose of facilitating an initial public offering (IPO) and other related transactions in order to carry on the business of Bioventus LLC and its subsidiaries (BV LLC). Bioventus Inc. functions as a holding company with no direct operations, material assets or liabilities other than the equity interest in BV LLC. BV LLC is a limited liability company formed under the laws of the state of Delaware on November 23, 2011 and operates as a partnership. BV LLC commenced operations in May 2012. The Company is focused on developing and commercializing clinically differentiated, cost efficient and minimally invasive treatments that engage and enhance the body's natural healing processes. The Company is headquartered in Durham, North Carolina and has approximately 1,160 employees.

Initial Public Offering

On February 16, 2021, the Company closed an IPO of 9,200,000 shares of Class A common stock at a public offering price of $13.00 per share, which includes 1,200,000 shares issued pursuant to the underwriters' over-allotment option. The Company received $111,228 in proceeds, net of underwriting discounts and commissions of $8,372, which was used to purchase newly-issued membership interests from BV LLC at a price per interest equal to the IPO price of $13.00. The Company also incurred offering expenses totaling $4,778 in addition to the underwriting discounts and commissions. Offering expenses of $1,327 were paid in 2020 and $3,451 were paid in 2021. The Company is the sole managing member of, has a majority economic interest in, has the sole voting interest in, and controls the management of BV LLC. As a result, the Company consolidates the financial results of BV LLC and reports a non-controlling interest for the interest not held by the Company.

IPO Transactions

In connection with the IPO, the Company completed the following transactions (Transactions).

- Amended and restated the limited liability company agreement of BV LLC (BV LLC Agreement), to, among other things, (i) provide for a new single class of common membership interests in BV LLC (LLC Interests); (ii) exchange all of the existing membership interests in BV LLC (Original BV LLC Owners) for new LLC Interests; and (iii) appoint Bioventus Inc. as the sole managing member of BV LLC. Refer to *Note 7. Stockholders' equity* for further information.
- Amended and restated the Bioventus Inc. certificate of incorporation to, among other things, (i) provide for an increase in the authorized shares of Class A common stock; (ii) provide for Class B common stock with voting rights but no economic interest, which shares were issued to the Original BV LLC Owners on a one-for-one basis with the number of LLC Interests they owned; and (iii) provide for undesignated preferred stock. Refer to *Note 7. Stockholders' equity* for further information.
- Acquired, by merger, ten entities that were Original BV LLC Owners (Former LLC Owners), for which the Company issued 31,838,589 shares of Class A common stock as merger consideration (IPO Mergers). The only assets held by the Former LLC Owners were 31,838,589 LLC Interests and a corresponding number of shares of Class B common stock. Upon consummation of the IPO Mergers, the 31,838,589 shares of Class B common stock were canceled, and the Company recognized the 31,838,589 LLC Interests at carrying value, as the IPO Mergers are considered to be a recapitalization transaction.

The financial statements for periods prior to the IPO and Transactions have been adjusted to combine the previously separate entities for presentation purposes. Prior to the Transactions, Bioventus Inc. had no operations.

Interim periods

The Company reports quarterly interim periods on a 13-week basis within a standard calendar year. Each annual reporting period begins on January 1 and ends on December 31. Each quarter ends on the Saturday closest to calendar quarter-end, with the exception of the fourth quarter, which ends on December 31. The 13-week quarterly periods for fiscal year 2022 end on April 2, July 2 and October 1. Comparable periods for 2021 ended on April 3, July 3 and October 2. The fourth and first quarters may vary in length depending on the calendar year.

Unaudited interim financial information

The accompanying unaudited consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP) for interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Pursuant to these rules and regulations, they do not include all information and notes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair statement of the Company's financial condition and results of operations have been included. Operating results for the periods presented are not necessarily indicative of the results that may be expected for the full year. As such, the information included in this report should be read in conjunction with the Company's 2021 Annual Report on Form 10-K. The balance sheet at December 31, 2021 has been derived from the audited consolidated financial statements of the Company, but does not include all the disclosures required by U.S. GAAP.

Recent accounting pronouncements

The Company has elected to comply with non-accelerated public company filer effective dates of adoption. Therefore, the required effective dates for adopting new or revised accounting standards are generally earlier than when emerging growth companies are required to adopt.

2. Balance sheet information

Cash, cash equivalents and restricted cash

A summary of cash and cash equivalents and restricted cash is as follows:

	July 2, 2022	December 31, 2021
Cash and cash equivalents	$ 41,001	$ 43,933
Restricted cash		
Current	—	5,280
Noncurrent	—	50,000
	$ 41,001	$ 99,213

As of December 31, 2021, current restricted cash consisted of an escrow deposit with a financial institution for the purpose of paying a Paycheck Protection Program loan acquired as part of a business combination. This loan was forgiven during the second quarter of 2022.

As of December 31, 2021, noncurrent restricted cash consisted of an escrow deposit with a financial institution for a potential acquisition, which is now reported in investment and other assets on the consolidated balance sheets. Refer to *Note 3. Acquisitions and investments* for further information.

Accounts receivable, net

Accounts receivable, net are amounts billed and currently due from customers. The Company records the amounts due net of allowance for credit losses. Collection of the consideration that the Company expects to receive typically occurs within 30 to 90 days of billing. The Company applies the practical expedient for contracts with payment terms of one year or less which does not consider the effects of the time value of money. Occasionally, the Company enters into payment agreements with patients that allow payment terms beyond one year. In those cases, the financing component is not deemed significant to the contract.

Accounts receivable, net of allowances, consisted of the following as of:

	July 2, 2022	December 31, 2021
Accounts receivable	$ 148,310	$ 128,365
Less: Allowance for credit losses	(5,292)	(3,402)
	$ 143,018	$ 124,963

Due to the short-term nature of its receivables, the estimate of expected credit losses is based on aging of the account receivable balances. The allowance is adjusted on a specific identification basis for certain accounts as well as pooling of accounts with similar characteristics. The Company has a diverse customer base with no single customer representing ten percent or more of sales or accounts receivable. Historically, the Company's reserves have been adequate to cover credit losses.

Changes in credit losses were as follows:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Beginning balance	$ (4,254)	$ (3,811)	$ (3,402)	$ (3,990)
Provision	(1,353)	550	(2,505)	359
Write-offs	456	278	825	684
Recoveries	(141)	(36)	(210)	(72)
Ending balance	$ (5,292)	$ (3,019)	$ (5,292)	$ (3,019)

Inventory

Inventory consisted of the following as of:

	July 2, 2022	December 31, 2021
Raw materials and supplies	$ 16,085	$ 12,213
Finished goods	54,277	50,805
Gross	70,362	63,018
Excess and obsolete reserves	(1,284)	(1,330)
	$ 69,078	$ 61,688

Prepaid and other current assets

Prepaid and other current assets consisted of the following as of:

	July 2, 2022	December 31, 2021
Prepaid taxes	$ 4,598	$ 12,236
Prepaid and other current assets	19,462	15,003
	$ 24,060	$ 27,239

Goodwill

Changes in the carrying amounts of goodwill by reportable segment during the six months ended July 2, 2022 are as follows:

	U.S.	International	Consolidated
Balance at December 31, 2021	$ 138,863	$ 8,760	$ 147,623
Purchase accounting adjustments	(4,467)	—	(4,467)
Balance at July 2, 2022	$ 134,396	$ 8,760	$ 143,156

Purchase accounting adjustments result from the changes in the preliminary fair values of assets acquired and liabilities assumed in acquisitions. Refer to *Note 3. Acquisitions and investments* for further details concerning these fair value changes. There were no accumulated goodwill impairment losses as of July 2, 2022 or December 31, 2021.

Accrued liabilities

Accrued liabilities consisted of the following as of:

	July 2, 2022	December 31, 2021
Gross-to-net deductions	$ 71,985	$ 67,945
Bonus and commission	14,838	23,342
Compensation and benefits	11,521	10,665
Income and other taxes	26,704	8,139
Other liabilities	21,710	21,382
	$ 146,758	$ 131,473

3. Acquisitions and investments

Misonix, Inc.

On October 29, 2021, in order to broaden its portfolio, the Company acquired 100% of the capital stock of Misonix, Inc. (Misonix) in a cash-and-stock transaction (the Misonix Acquisition). Misonix manufactures minimally invasive surgical ultrasonic medical devices used for precise bone sculpting, removal of soft and hard tumors and tissue debridement, primarily in the areas of neurosurgery, orthopedic surgery, plastic surgery, wound care and maxillo-facial surgery. Misonix also exclusively distributes skin allografts and wound care products used to support healing of wounds. The fair value of the consideration for the Misonix Acquisition is comprised of the following:

	Common Shares	Price per Share[(a)]	Amount
Cash			$ 182,988
Bioventus Class A shares	18,340,790	$ 14.97	274,562
Value of Misonix options settled in Bioventus options			27,636
Merger consideration			485,186
Other cash consideration			40,130
Total Misonix consideration			$ 525,316

(a) Closing price of the Company's Class A common stock as of October 28, 2021.

The Company accounted for the Misonix Acquisition using the acquisition method of accounting whereby the total purchase price was preliminarily allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values. The following table summarizes the preliminary fair values of the assets acquired and liabilities assumed at the acquisition date:

Fair value of consideration	$ 525,316
Assets acquired and liabilities assumed:	
Cash and cash equivalents	7,126
Accounts receivable	13,301
Inventory	23,428
Prepaid and other current assets	419
Property and equipment, net	10,280
Intangible assets	486,500
Operating lease assets	1,049
Deferred tax assets	6,448
Other assets	77
Accounts payable and accrued liabilities	(16,888)
Other current liabilities	(589)
Deferred income taxes	(94,012)
Other liabilities	(1,351)
Net assets acquired	435,788
Resulting goodwill	$ 89,528

As of July 2, 2022, the purchase price allocation for the Misonix Acquisition was preliminary in nature and subject to completion. Adjustments to the current fair value estimates in the above table may occur as the process conducted for various valuations and assessments is finalized, including tax liabilities and other working capital accounts. Changes to the preliminary purchase price allocation during the six months ended July 2, 2022 related to a deferred tax asset recognition of $6,448 and a reduction in inventory and property and equipment, net of $1,292 and $291, respectively.

Nearly 100% of the goodwill represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. The factors contributing to the recognition of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the Misonix Acquisition. The goodwill is not tax deductible and was allocated to the U.S. reporting unit for purposes of the evaluation for any future goodwill impairment.

The following table summarizes the preliminary fair values of identifiable intangible assets and their useful lives:

	Useful Life (in years)	Fair Value
Intellectual property	15 - 20 years	$ 477,000
Customer relationships	12 years	9,500
		$ 486,500

The preliminary fair value of the Misonix intellectual property was determined using a variation of the income approach or the multi-period excess earnings method, with projected earnings discounted at a rate of 12.0%. The preliminary fair value of the customer relationship asset was determined using the income approach or the profit-split method, with projected cash flow discounted at a rate of 12.0%. The determination of the useful lives was based upon consideration of market participant assumptions and transaction specific factors.

Bioness, Inc.

On March 30, 2021, the Company acquired 100% of the capital stock of Bioness, Inc. (Bioness Acquisition) for $48,933 in cash and future contingent consideration payments. Bioness, Inc. (Bioness) is a global leader in neuromodulation and advanced rehabilitation medical devices through its innovative peripheral nerve stimulation therapy and premium advanced rehabilitation solutions.

Contingent consideration is comprised of future earn-out payments contingent upon the achievement of certain research and development projects as well as sales milestones related to Bioness products. The Bioness Acquisition Agreement includes maximum earn-out payments of $65,000 as follows:

- $15,000 for obtaining FDA approval for U.S. commercial distribution of a certain product for certain indications on or before June 30, 2022;
- $20,000 for meeting net sales targets for certain implantable products over a three year period ending on June 30, 2025 at the latest;
- Up to $10,000 for meeting net sales milestones for certain implantable products over a three year period ending on June 30, 2025 at the latest; and
- $20,000 for maintaining Centers for Medicare & Medicaid Services coverage and reimbursement for certain products at specified levels as of December 31, 2024.

In December 2021, it became clear that the $15,000 FDA approval milestone would not be met, therefore, was assigned no value and was recorded as a measurement period adjustment. As of December 31, 2021, the maximum contingent earn-out payment decreased to $50,000 as a result.

Consolidated Pro Forma Results

The results of operations of Misonix have been included in the accompanying consolidated financial statements since the October 29, 2021 acquisition date. The Company's consolidated statements of operations reflect net sales of $21,604 and $41,027 and a net loss of $2,969 and $10,316, attributable to Misonix, for the three and six months ended July 2, 2022, respectively.

The results of operations of Misonix and Bioness have been included in the accompanying consolidated financial statements since their respective acquisition dates of October 29, 2021 and March 30, 2021. Revenue and earnings including the Bioness and Misonix operations as if the companies were acquired at January 1, 2021 are as follows:

	Three Months Ended July 3, 2021	Six Months Ended July 3, 2021
Net sales	$ 129,501	$ 238,573
Net income	$ 2,502	$ 23,333

The historical consolidated financial information of the Company, Misonix and Bioness have been adjusted in the pro forma information to give effect to pro forma events that are (1) directly attributable to both the Misonix and Bioness acquisitions, (2) factually supportable and (3) expected to have a continuing impact on the combined results. The unaudited pro forma results include adjustments to reflect the inventory step-up amortization, the incremental intangible asset amortization to be incurred based on the valuations of the assets acquired, transaction costs that would have been incurred in the prior period, vesting of equity-based compensation that was accelerated due to the Misonix Acquisition, adjustments to financing costs to reflect the new capital structure as well as the income tax effect and the noncontrolling interest impact of these adjustments. These pro forma amounts are not necessarily indicative of the results that would have been obtained if the acquisitions had occurred prior to the beginning of the period presented or that may occur in the future, and does not reflect future synergies, integration costs, or other such costs or savings.

Investments

VIE

The Company had a fully diluted 8.8% ownership of Harbor Medtech Inc.'s (Harbor) Series C Preferred Stock. The Company and Harbor entered into an exclusive Collaboration Agreement in 2019 for purposes of developing a product for orthopedic uses to be commercialized by the Company and supplied by Harbor. The Company's partial ownership and exclusive Collaboration Agreement created a variable interest in Harbor. The Company terminated the Collaboration Agreement on June 8, 2021. As a result, Harbor had been consolidated in the Company's consolidated financial statements from the third quarter of 2019 through June 8, 2021 when the Company ceased being the primary beneficiary because it no longer had the power to direct Harbor's significant activities.

The Company determined that the termination of the Collaboration Agreement was a triggering event requiring an impairment assessment of Harbor's long lived assets. The assessment resulted in an impairment of $5,674, representing Harbor's long-lived asset balance, which was recorded within impairment of variable entity assets for the three and six months ended July 3, 2021 in the consolidated condensed statements of operations and comprehensive (loss) income, of which $5,176 was attributable to the non-controlling interest. The Company also assessed its Harbor investment post deconsolidation, which resulted in a $1,369 impairment, representing the remaining investment balance in Harbor. This amount was recorded within other expense for the three and six months ended July 3, 2021 in the consolidated condensed statements of operations and comprehensive (loss) income. The Company continues to have license rights to certain technology obtained from Harbor and is continuing product development initiated under the Collaboration Agreement.

Equity Method

On January 30, 2018, the Company purchased 337,397 shares of Series F Convertible Preferred Stock of CartiHeal (2009) Ltd. (CartiHeal), a privately held entity, for $2,500. On January 22, 2020, the Company made an additional $152 investment in CartiHeal, through a Simple Agreement for Future Equity (SAFE). On July 15, 2020, CartiHeal completed the future equity financing and the Company received 12,825 in Series G-1 Preferred Shares resulting in the SAFE being terminated. In addition, on July 15, 2020, the Company entered into an Option and Equity Purchase Agreement with CartiHeal (Option Agreement). In connection with the Company's entry into the Option Agreement, the Company purchased 1,014,267 shares of CartiHeal Series G Preferred Shares for $15,000. The Company had a 10.03% equity ownership of CartiHeal's fully diluted shares and its investment carrying value was $16,090 and $16,771 as of July 2, 2022 and December 31, 2021, respectively. The investment does not have a readily determinable fair value and is included within investments and other assets on the consolidated balance sheets. Beginning in July 2020, the Company was able to exercise significant influence over CartiHeal but did not have control and as a result the investment was recognized as an equity method investment. Net losses from equity method investments for the three months ended July 2, 2022 and July 3, 2021 and the six months ended July 2, 2022 and July 3, 2021, totaled $280, $432, $681 and $901, respectively, which are included in other expense on the consolidated statement of operations and comprehensive income.

The Option Agreement provided the Company with an exclusive option to acquire 100% of CartiHeal's shares (Call Option), and provided CartiHeal with a put option that would require the Company to purchase 100% of CartiHeal's shares under certain conditions (Put Option). In August 2021, CartiHeal achieved pivotal clinical trial success, as defined in the Option Agreement, for the CartiHeal device. In order to preserve the Company's Call Option, in accordance with the Option Agreement and upon approval of the Board of Directors (BOD), the Company deposited $50,000 into escrow in August 2021 for the potential acquisition of CartiHeal. The escrow deposit was historically presented as restricted cash on the consolidated balance sheets until it was transferred to a payment agent and held in trust on June 16, 2022. The transferred deposit was held in trust for the benefit of CartiHeal Security Holders as a down payment for the acquisition of CartiHeal and is included within investment and other assets on the consolidated balance sheets as of July 3, 2021.

In April 2022, the Company exercised its Call Option to acquire all of the remaining shares of CartiHeal, excluding shares already owned by the Company, for approximately $314,895. The Company's decision to exercise the option followed the U.S. Food and Drug Administration's March 29, 2022 premarket approval of CartiHeal's Agili-C™ implant.

On June 17, 2022 the Company entered into an amendment to the Option Agreement with CartiHeal (CartiHeal Amendment) and Elron Ventures Limited, in its capacity as the shareholder representative. The Company will now defer $215,000 of upfront consideration (Deferred Amount) otherwise payable to CartiHeal stockholders at the closing of the acquisition of CartiHeal pursuant to the CartiHeal Amendment. The Deferred Amount will be paid to CartiHeal stockholders upon the earlier of the achievement of certain milestones and the occurrence of certain installment payment dates. The Deferred Amount will be paid in five tranches commencing in 2023 and ending no later than 2027.

Pursuant to the CartiHeal Amendment, the Company will pay interest on each tranche of the Deferred Amount at a rate of 8.0% annually, until such tranche is paid. An additional $134,955 will be payable upon achievement of $75,000 in trailing twelve month sales pursuant to the CartiHeal Amendment. The acquisition of CartiHeal closed on July 12, 2022. At the closing, the Company paid to CartiHeal stockholders an aggregate up-front payment of $100,000 (inclusive of the previously discussed escrow deposit). The Company also paid approximately $8,000 of CartiHeal's transaction related fees and expenses. Refer to *Note 14. Subsequent events* for further details regarding the acquisition of CartiHeal.

4. Financial instruments

Long-term debt consisted of the following as of:

	July 2, 2022	December 31, 2021
Term Loan due December 2026 (3.67% at July 2, 2022)	$ 351,731	$ 360,750
Revolver due December 2026 (3.41% at July 2, 2022)	25,000	—
Less:		
Current portion of long-term debt	(22,547)	(18,038)
Unamortized debt issuance cost	(1,513)	(1,687)
Unamortized discount	(1,238)	(1,381)
	$ 351,433	$ 339,644

The Company's Credit and Guaranty Agreement, dated as of December 6, 2019, as amended (the 2019 Credit Agreement) requires it to comply with financial and other covenants. The Company complied with all covenants as of July 2, 2022. The 2019 Credit Agreement contains a $50,000 revolving credit facility, from which there was $25,000 in outstanding borrowings as of July 2, 2022 and none at December 31, 2021.

The estimated fair value of the Term Loan under the 2019 Credit Agreement as of July 2, 2022 was $328,429. The fair value of these obligations was determined by using a discounted cash flow model based on current market interest rates available to the Company. These inputs are corroborated by observable market data for similar obligations and are classified as Level 2 instruments within the fair value hierarchy.

The Company enters into interest rate swap agreements to limit its exposure to changes in the variable interest rate on its long-term debt. The Company has one non-designated interest rate swap agreement and has no other active derivatives. The swap is carried at fair value on the balance sheet (Refer to *Note 5. Fair value measurements*) with changes in fair value recorded as interest income or expense within the consolidated statements of operations and comprehensive (loss) income. Net interest income of $272 and expense of $255 was recorded related to the change in fair value of the interest rate swap for the three months ended July 2, 2022 and July 3, 2021, respectively. Net interest income of $4,196 and $1,310 were recorded related to the change in fair value of the interest rate swap for the six months ended July 2, 2022 and July 3, 2021, respectively.

The notional amount of the swap totaled $100,000, or 28.4% of the Term Loan outstanding principal at July 2, 2022. The swap locked in the variable portion of the interest rate on the $100,000 notional at 0.64%.

Refer to *Note 14. Subsequent events* for financing details and loan modifications involved in the acquisition of CartiHeal.

5. Fair value measurements

The process for determining fair value has not changed from that described in the Company's 2021 Annual Report on Form 10-K.

There were no assets measured at fair value on a recurring basis and there were no liabilities valued at fair value using Level 1 inputs. The following table provides information for assets and liabilities measured at fair value on a recurring basis using Level 2 and Level 3 inputs:

	July 2, 2022			December 31, 2021		
	Total	Level 2	Level 3	Total	Level 2	Level 3
Assets:						
Interest rate swap	$ 5,324	$ 5,324	$ —	$ 1,128	$ 1,128	$ —
Liabilities:						
Contingent consideration	$ 16,871	$ —	$ 16,871	$ 16,329	$ —	$ 16,329

Interest rate swap

The Company values interest rate swaps using discounted cash flows. Forward curves and volatility levels are used to estimate future cash flows that are not certain. These are determined using observable market inputs when available and based on estimates when not available. The fair value of the swap was recorded in the Company's consolidated balance sheets within prepaid and other current assets. Changes in fair value are recognized as interest income or expense within the consolidated statements of operations and comprehensive (loss) income.

Contingent consideration

The Company initially values contingent consideration related to business combinations using a probability-weighted calculation of potential payment scenarios discounted at rates reflective of the risks associated with the expected future cash flows for certain milestones. For other milestones, the Company used a variation of the income approach where revenue was simulated in a risk-neutral framework using Geometric Brownian Motion, a stock price behavior model.

Key assumptions used to estimate the fair value of contingent consideration include projected financial information, market data and the probability and timing of achieving the specific targets as discussed in *Note 3. Acquisitions and investment*s. After the initial valuation, the Company generally uses its best estimate to measure contingent consideration at each subsequent reporting period using the following unobservable Level 3 inputs:

	Valuation Technique	Unobservable inputs	Range
Bioness contingent consideration	Discounted cash flow	Payment discount rate	6.4% - 6.8%
		Payment period	2024 - 2025

Significant changes in these assumptions could result in a significantly higher or lower fair value. The contingent consideration reported in the above table resulted from the Bioness Acquisition on March 30, 2021, which is adjusted quarterly based upon the passage of time or the anticipated success or failure of achieving certain milestones. Changes in contingent consideration related to the Bioness Acquisition totaled $273 and $542 for the three and six months ended July 2, 2022, respectively, and $641 for the three and six months ended July 3, 2021 were recorded as the change in fair value of contingent consideration within the consolidated statements of operations and comprehensive (loss) income.

Management incentive plan (MIP) and liability-classified awards

BV LLC had operated two equity-based compensation plans, the management incentive plan (MIP) and the BV LLC Phantom Profits Interest Plan (Phantom Plan and, together with the MIP, the Plans), which were terminated on February 11, 2021 in connection with the Company's IPO. Awards granted under the MIP Plan and the 2015 Phantom Units were liability-classified and the 2012 Phantom Units were equity-classified. Prior to the IPO and during the six months ended July 3, 2021, the Company settled the remaining 183,078 units with the sole MIP awardee for $10,802. No awards under the Plans were granted post-IPO and the Phantom Plan awards were settled 12 months following the termination. Vested awardees whose BV LLC employment terminated prior to the IPO had their awards settled in March 2022 for $10,413, which was included in accrued equity-based compensation on the consolidated condensed balance sheets at December 31, 2021. Awardees that were active BV LLC employees at the IPO were entitled to receive an aggregate of 798,422 shares of Class A common stock. In February 2022, awardees received 538,203 shares of Class A common stock, of which 260,219 shares were withheld to satisfy employee payroll taxes.

6. Equity-based compensation

Terminated plans

Prior to the IPO, BV LLC operated two equity-based compensation plans, the MIP and the Phantom Plan, which were terminated on February 11, 2021 in conjunction with the IPO. Prior to the Plans termination, during the six months ended July 3, 2021, (i) the Company granted 90,000 Phantom Plan units; (ii) there were no MIP awards granted; (iii) 900 Phantom Plan units were forfeited; and (iv) other Phantom Units were redeemed for $479. Compensation expense related to the Phantom Plan totaled $829 for the six months ended July 3, 2021. This amount excludes the $25,185 decrease in fair market value of accrued equity-based compensation due to adjustments to reflect the difference between the expected pricing from the pending IPO and the actual offering price, of which $1,777 was recorded in research and development expense within the consolidated statement of operations and comprehensive (loss) income for the six months ended July 3, 2021.

2021 Plan

The Company operates an equity-based compensation plan (2021 Plan), which allows for the issuance of stock options (incentive and nonqualified), restricted stock, dividend equivalents, restricted stock units (RSUs), other stock-based awards, and cash awards (collectively, Awards). As of July 2, 2022, 11,873,784 shares of Class A common stock were authorized to be awarded and 2,327,540 shares were available for Awards.

Equity-based compensation expense for Awards granted under the 2021 Plan for the three months ended July 2, 2022 and July 3, 2021 and the six months ended July 2, 2022 and July 3, 2021, totaled $4,522, $5,778, $9,253 and $7,722, respectively. The expense is primarily included in selling, general and administrative expense with a nominal amount in research and development expense on the consolidated statement of operations and comprehensive (loss) income based upon the classification of the employee. There were $1,065 and $2,290 income tax benefit related to this expense for the three and six months ended July 2, 2022, respectively. There was no income tax benefit related to equity-based compensation expense for the three and six months ended July 3, 2021.

Restricted Stock Units

During the three and six months ended July 2, 2022, the Company granted time-based RSUs which vest at various dates through March 14, 2026. RSU compensation expense is recognized over the vesting period, which is typically between 1 and 4 years. Unamortized compensation expense related to the RSUs totaled $12,496 at July 2, 2022, and is expected to be recognized over a weighted average period of approximately 3.17 years. A summary of the RSU award activity for the six months ended July 2, 2022 is as follows (number of units in thousands):

	Number of units	Weighted-average grant-date fair value per unit
Unvested at December 31, 2021	1,024	$ 14.41
Granted	1,159	12.16
Vested	(739)	14.75
Forfeited or canceled	(174)	12.87
Unvested at July 2, 2022	1,270	$ 12.37

Stock Options

During the six months ended July 2, 2022, the Company granted time-based stock options which vest over 2 to 4 years following the date of grant and expire within 10 years. The fair value of time-based stock options is determined using the Black-Scholes valuation model, with such value recognized as expense over the service period, which is typically 2 to 4 years, net of actual forfeitures. A summary of the Company's assumptions used in determining the fair value of the stock options granted during the six months ended July 2, 2022 is shown in the following table.

Risk-free interest rate	1.8% - 3.1%
Expected dividend yield	— %
Expected stock price volatility	33.2% - 33.8%
Expected life of stock options (years)	6.25

The weighted-average grant date fair value of options granted during the six months ended July 2, 2022 was $4.68 per share. The expected term of the options granted is estimated using the simplified method. Expected volatility is based on the historical volatility of the Company's peers common stock. The risk-free interest rate is determined based upon a constant U.S. Treasury security rate with a contractual life that approximates the expected term of the option. Unamortized compensation expense related to the options totaled $16,517 at July 2, 2022, and is expected to be recognized over a weighted average period of approximately 3.43 years.

A summary of stock option activity is as follows for the six months ended July 2, 2022 (number of options in thousands):

	Number of options	Weighted-average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
Outstanding at December 31, 2021	8,364	$ 11.16		
Granted	2,393	12.62		
Exercised	(471)	7.12		
Forfeited or canceled	(469)	13.01		
Outstanding at July 2, 2022	9,817	11.63	8.11	$ 2,550
Exercisable and vested at July 2, 2022	4,153	$ 9.73	6.74	$ 2,550

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying options and the market price of the Company's Class A common stock for options that had exercise prices lower than $7.11 per share, the closing price of the Company's Class A common stock on July 1, 2022.

Employee Stock Purchase Plan

The Company operates a non-qualified Employee Stock Purchase Plan (ESPP), which provides for the issuance of shares of the Company's Class A common stock to eligible employees of the Company that elect to participate in the plan and purchase shares of Class A common stock through payroll deductions at a discounted price. As of July 2, 2022, the aggregate number of shares reserved for issuance under the ESPP was 344,706. A total of 53,826 and 102,819 shares were issued and $94 and $252 of expense was recognized during the three and six months ended July 2, 2022, respectively. A total of 24,063 shares were issued and $75 of expense was recognized during the three and six months ended July 3, 2021.

7. Stockholders' equity

Amendment and restatement of certificate of incorporation

On February 16, 2021 the Company amended and restated its certificate of incorporation to, among other things, provide for: (i) the authorization of 250,000,000 shares of Class A common stock with a par value of $0.001 per share; (ii) the authorization of 50,000,000 shares of Class B common stock with a par value of $0.001 per share; (iii) the authorization of 10,000,000 shares of undesignated preferred stock that may be issued from time to time by the BOD in one or more series; and (iv) the establishment of a classified BOD, divided into three classes, each of whose members will serve for staggered three-year terms.

Holders of Class A and Class B common stock are entitled to one vote per share and, except as otherwise required, will vote together as a single class on all matters on which stockholders generally are entitled to vote. Holders of Class B common stock are not entitled to receive dividends and will not be entitled to receive any distributions upon the liquidation, dissolution or winding up of the Company. Shares of Class B common stock may only be issued to the extent necessary to maintain the one-to-one ratio between the number of LLC Interests and the number of shares of Class B common stock held by the Continuing LLC Owner. Shares of Class B common stock are transferable only together with an equal number of LLC Interests. Shares of Class B common stock will be canceled on a one-for-one basis upon the redemption or exchange of any outstanding LLC Interests.

The Company must, at all times, maintain a one-to-one ratio between the number of outstanding shares of Class A common stock and the number of LLC Interests owned by the Company.

BV LLC recapitalization

As described in *Note 1. Organization*, on February 16, 2021, the Company amended and restated the BV LLC Agreement to, among other things, (i) provide for the new LLC Interests; (ii) exchange all of the then-existing membership interests of the Original BV LLC Owners for new LLC Interests; and (iii) appoint Bioventus Inc. as the sole managing member of BV LLC.

The BV LLC Agreement also provides that holders of LLC Interests may, from time to time, require the Company to redeem all or a portion of their LLC Interests for newly-issued shares of Class A common stock on a one-for-one basis. The Company may elect to settle any such redemption in shares of Class A common stock or in cash.

The amendment also requires that the Company, at all times, maintain (i) a one-to-one ratio between the number of outstanding shares of Class A common stock and the number of LLC Interests owned by Bioventus Inc. and (ii) a one-to-one ratio between the number of shares of Class B common stock owned by the Continuing LLC Owner and the number of LLC Interests owned by the Continuing LLC Owner.

Noncontrolling interest

In connection with any redemption, the Company will receive a corresponding number of LLC Interests, increasing its ownership interest in BV LLC. Future redemptions of LLC Interests will result in a change in ownership and reduce the amount recorded as noncontrolling interest and increase additional paid-in capital. There were no redemptions during the six months ended July 2, 2022 or during the year ended December 31, 2021. The following table summarizes the ownership interest in BV LLC as of July 2, 2022 and December 31, 2021 (number of units in thousands):

	July 2, 2022		December 31, 2021	
	LLC Interests	Ownership %	LLC Interests	Ownership %
Number of LLC Interests owned				
Bioventus Inc.	61,656	79.6 %	59,548	79.0 %
Continuing LLC Owner	15,787	20.4 %	15,787	21.0 %
Total	77,443	100.0 %	75,335	100.0 %

8. Earnings per share

The following table sets forth the computation of basic and diluted loss per share of Class A common stock for the periods presented (amounts in thousands, except share and per share data):

	Three Months Ended		Six Months Ended July 2, 2022	February 16, 2021 through July 3, 2021
	July 2, 2022	July 3, 2021		
Numerator:				
Net loss	$ (8,014)	$ (10,780)	$ (22,820)	$ (12,229)
Net loss attributable to noncontrolling interests	762	6,654	4,291	7,062
Net loss attributable to Bioventus Inc. Class A common stockholders	$ (7,252)	$ (4,126)	$ (18,529)	$ (5,167)
Denominator:				
Weighted-average shares of Class A common stock outstanding - basic and diluted	61,475,350	41,805,347	60,977,556	41,802,840
Net loss per share of Class A common stock, basic and diluted	$ (0.11)	$ (0.10)	$ (0.30)	$ (0.12)

Shares of Class B common stock do not share in the losses of the Company and are therefore not participating securities. As such, separate presentation of basic and diluted losses per share of Class B common stock under the two-class method has not been presented.

The following number of weighted-average potentially dilutive shares as of July 2, 2022 and July 3, 2021 were excluded from the calculation of diluted loss per share because the effect of including such potentially dilutive shares would have been antidilutive upon conversion:

	Three Months Ended		Six Months Ended July 2, 2022	February 16, 2021 through July 3, 2021
	July 2, 2022	July 3, 2021		
LLC Interests held by Continuing LLC Owner[(a)]	15,786,737	15,786,737	15,786,737	15,786,737
Stock options	10,020,106	4,622,287	9,396,023	4,602,747
RSUs	1,137,936	1,221,555	769,809	941,031
Unvested shares of Class A common stock	—	32,458	—	34,698
Total	26,944,779	21,663,037	25,952,569	21,365,213

(a) Class A Shares reserved for future issuance upon redemption or exchange of LLC Interests by the Continuing LLC Owner.

9. Restructuring costs

Restructuring costs are not allocated to the Company's reportable segments as they are not part of the segment performance measures regularly reviewed by management. These charges are included in restructuring costs in the consolidated statement of operations and comprehensive (loss) income.

The Company adopted restructuring plans for businesses acquired to reduce headcount, reorganize management structure and consolidate certain facilities during the second half of 2021 (the 2021 Restructuring Plan) and during the first quarter of 2022 (the 2022 Restructuring Plan). The Company planned total pre-tax charges for the 2021 Restructuring Plan to be $3,500, of which $223 and $600 was recognized in the three and six months ended July 2, 2022, respectively, and $2,487 was recorded during the year ended December 31, 2021. Expected pre-tax charges related to the 2022 Restructuring Plan is $2,000, of which $784 and $984 was recognized during the three and six months ended July 2, 2022, respectively.

The Company's restructuring charges and payments for plans related to businesses recently acquired comprised of the following:

	Employee severance and temporary labor costs	Other charges	Total
Balance at December 31, 2021	$ 1,400	$ 136	$ 1,536
Expenses incurred	1,584	—	1,584
Payments made	(2,034)	(136)	(2,170)
Balance at July 2, 2022	$ 950	$ —	$ 950

10. Income taxes

As a result of the Transactions, Bioventus Inc. became the sole managing member of BV LLC, which is treated as a partnership for U.S. federal and most applicable state and local income tax purposes. As a partnership, BV LLC is not subject to U.S. federal and certain state and local income taxes. Any taxable income or loss generated by BV LLC is passed through to and included in the taxable income or loss of its members, including the Company following the Transactions, on a pro rata basis. Bioventus Inc. is subject to U.S. federal income taxes, in addition to state and local income taxes with respect to its allocable share of any taxable income of BV LLC following the Transactions. The Company is also subject to taxes in foreign jurisdictions.

The tax provision for interim periods is determined using an estimate of the Company's annual effective tax rate, adjusted for discrete items, if any, that arise during the period. Each quarter, the Company updates its estimate of its annual effective tax rate, and if the estimated annual effective tax rate changes, the Company makes a cumulative adjustment in such period. The quarterly tax provision, and estimate of the Company's annual effective tax rate, are subject to variation due to several factors, including variability in pre-tax income (or loss), the mix of jurisdictions to which such income relates, changes in how the Company conducts business, and tax law developments.

For the three months ended July 2, 2022 and July 3, 2021 and the six months ended July 2, 2022 and July 3, 2021, the Company's estimated effective tax rate was 18.4%, 18.9%, 14.6% and 10.7%, respectively. The decrease for the three months ended July 2, 2022 was primarily due to a change in our forecasted effective rate. The change for the six months ended July 2, 2022 compared to six months ended July 2, 2021 was primarily due to net losses experienced during the first six months of 2022 compared to capitalized expenses resulted from our IPO in 2021.

Tax Receivable Agreement

The Company expects to obtain an increase in the share of the tax basis of the assets of BV LLC when LLC Interests are redeemed or exchanged by the Continuing LLC Owner and other qualifying transactions. This increase in tax basis may have the effect of reducing the amounts that the Company would otherwise pay in the future to various tax authorities. The increase in tax basis may also decrease gains (or increase losses) on future dispositions of certain capital assets to the extent tax basis is allocated to those capital assets.

On February 16, 2021, the Company entered into a tax receivable agreement (TRA) with the Continuing LLC Owner that provides for the payment by the Company to the Continuing LLC Owner of 85% of the amount of tax benefits, if any, that the Company actually realizes as a result of (i) increases in the tax basis of assets of BV LLC resulting from any redemptions or exchanges of LLC Interests or any prior sales of interests in BV LLC; and (ii) certain other tax benefits related to our making payments under the TRA.

The Company will maintain a full valuation allowance against deferred tax assets related to the tax attributes generated as a result of redemptions of LLC Interests or exchanges described above until it is determined that the benefits are more-likely-than-not to be realized. As of July 2, 2022, the Continuing LLC Owner had not exchanged LLC Interests for shares of Class A common stock and therefore the Company had not recorded any liabilities under the TRA.

11. Commitments and contingencies

Leases

The Company leases its office facilities as well as other property, vehicles and equipment under operating leases. The Company also leases certain office equipment under nominal finance leases. The remaining lease terms range from 1 month to 6.25 years.

The components of lease cost were as follows:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Operating lease cost	$ 1,180	$ 912	$ 2,306	$ 1,614
Short-term lease cost[(a)]	145	212	328	329
Total lease cost	$ 1,325	$ 1,124	$ 2,634	$ 1,943

(a) Includes variable lease cost and sublease income, which are immaterial.

Supplemental cash flow information and non-cash activity related to operating leases were as follows:

	Six Months Ended	
	July 2, 2022	July 3, 2021
Operating cash flows from operating leases	$ 2,418	$ 1,696
Right-of-use assets obtained in exchange for operating lease obligations	$ 3,590	$ —

Supplemental balance sheet and other information related to operating leases were as follows:

	July 2, 2022	December 31, 2021
Operating lease assets	$ 18,342	$ 17,186
Operating lease liabilities- current	$ 3,779	$ 3,504
Operating lease liabilities- noncurrent	15,899	15,038
Total operating lease liabilities	$ 19,678	$ 18,542
Weighted average remaining lease term (years)		
Weighted average remaining lease term (years) for operating leases	5.2	5.6
Weighted average discount rate for operating leases	4.3 %	4.7 %

Governmental and legal contingencies

In the normal course of business, the Company periodically becomes involved in various claims and lawsuits, and governmental proceedings and investigations that are incidental to the business. The Company accrues a liability when a loss is considered probable and the amount can be reasonably estimated. When a material loss contingency is reasonably possible but not probable, the Company does not record a liability, but instead discloses the nature and amount of the claim, and an estimate of the possible loss or range of loss, if such an estimate can be made. Legal fees are expensed as incurred. With respect to governmental proceedings and investigations, like other companies in the industry, the Company is subject to extensive regulation by national, state and local governmental agencies in the U.S. and in other jurisdictions in which the Company and its affiliates operate. As a result, interaction with governmental agencies is ongoing. The Company's standard practice is to cooperate with regulators and investigators in responding to inquiries.

The Company is presently unable to predict the duration, scope, or result of the following matters. As such, the Company is presently unable to develop a reasonable estimate of a possible loss or range of losses, if any, related to these matters. While the Company intends to defend these matters vigorously, the outcome of such litigation or any other litigation is necessarily uncertain, are not within the Company's complete control and might not be known for extended periods of time. In the opinion of management, the outcome of any existing claims and legal or regulatory proceedings, other than the specific matters described below, if decided adversely, is not expected to have a material adverse effect on the Company's business, financial condition, results of operations, or cash flows.

Misonix stockholder

On September 15, 2021, a purported stockholder of Misonix filed an action in the United States District Court for the Eastern District of New York, captioned Stein v. Misonix, Inc., et al., Case No. 2:21-cv-05127 (E.D.N.Y.) (the Stein Complaint). The Stein Complaint named Misonix and members of its board of directors as defendants. The Stein Complaint was dismissed on April 6, 2022. On September 16, 2021, a purported stockholder of Misonix filed an action in the United States District Court for the Southern District of New York, captioned Ciccotelli v. Misonix, Inc. et al., Case No. 1:21-cv-07773 (S.D.N.Y.) (the Ciccotelli Complaint) against Misonix, members of its board of directors, the Company, and its subsidiaries, Merger Sub I and Merger Sub II, as defendants. Plaintiff voluntarily dismissed the Ciccotelli Complaint on November 10, 2021. On October 12, 2021, another purported stockholder of Misonix filed an action in the United States District Court for the Eastern District of New York, captioned Rubin v. Misonix, Inc. et al., Case No. 1:21-cv-05672 (S.D.N.Y.) (the Rubin Complaint) and on October 15, 2021, another purported stockholder of Misonix filed an action in the United States District Court for the Southern District of New York, captioned Taylor v. Misonix, Inc. et al., Case No. 1:21-cv-08513 (S.D.N.Y.) (the Taylor Complaint). The Rubin Complaint and the Taylor Complaint name Misonix and members of its board of directors as defendants. Plaintiffs voluntarily dismissed the Rubin and Taylor Complaints on January 21, 2022 and February 18, 2022, respectively.

Each of the complaints asserted claims under Section 14(a) and Section 20(a) of the Exchange Act and SEC Rule 14a-9, challenging the adequacy of disclosures in the proxy statement/prospectus filed with the SEC on September 8, 2021 or the Definitive Proxy Statement filed with the SEC on September 24, 2021, regarding Misonix and/or Bioventus' projections and J.P. Morgan's financial analysis. The complaints had sought, among other relief, (i) injunctive relief preventing the parties from proceeding with the merger; (ii) rescission in the event that the merger is consummated; and (iii) an award of costs, including attorneys' and experts' fees.

Misonix former distributor

On March 23, 2017, Misonix's former distributor in China, Cicel (Beijing) Science & Technology Co., Ltd., filed a lawsuit against Misonix and certain of its officers and directors in the United States District Court for the Eastern District of New York. The complaint alleged that Misonix improperly terminated its contract with the former distributor. The complaint sought various remedies, including compensatory and punitive damages, specific performance and preliminary and post judgment injunctive relief, and asserted various causes of action, including breach of contract, unfair competition, tortious interference with contract, fraudulent inducement, and conversion. On October 7, 2017, the court granted Misonix's motion to dismiss each of the tort claims asserted against Misonix, and also granted the individual defendants' motion to dismiss all claims asserted against them. On January 23, 2020, the Court granted Cicel's motion to amend its complaint, to include claims for alleged defamation and theft of trade secrets in addition to the breach of contract claim. Discovery in the matter ended on August 5, 2021. On January 20, 2022, the Court granted Misonix's summary judgment motion on Cicel's breach of contract and defamation claims. Cicel's motion for reconsideration of the Court's summary judgment ruling in Misonix's favor was dismissed by the Court on April 29, 2022. On July 18, 2022, Cicel voluntarily dismissed the remaining claim for trade secret theft and stated its intention to appeal the Court's January 20, 2022 ruling on the breach of contract and defamation claims to the Court of Appeals. The Company believes that it has various legal and factual defenses to these claims and intends to vigorously defend any appeal of the lower court's summary judgment rulings in its favor.

Bioness shareholder

Prior to closing the Bioness Acquisition, Bioness had been named as a defendant in a lawsuit, for which the Company is indemnified under the indemnification provisions contained in the Bioness Merger Agreement. The case relates to an action brought in February 2021 in the Delaware State Court of Chancery by a former minority shareholder and director of Bioness, seeking a temporary restraining order contesting the acquisition of Bioness. While the complaint to block the Bioness acquisition was dismissed by the court, a separate action was brought against the Company under the indemnification provisions of the Bioness Certificate of Incorporation to recover attorney fees and other expenses totaling approximately $2,400 incurred by the director and shareholder in connection with the dismissed case.

On August 19, 2021, the court issued a ruling granting, in part, plaintiff's motion for summary judgment, awarding plaintiff attorney's fees and related expenses incurred in connection with performance of the plaintiff's directorial duties, and denying fees and expenses incurred in a non-director capacity. In its ruling, the Court's order also directed the parties to agree upon a process that will govern the payment of and challenges to plaintiff's payment requests and required Bioness to pay 50% of the demanded amount into escrow if more than 50% of the total invoiced amount was in dispute. Pursuant to the court's order, to date, Bioness has paid approximately $1,200 into escrow. The Company awaits the court's final ruling on the appropriateness of these fees.

On February 8, 2022, the above referenced minority shareholder of Bioness filed another action in the Delaware State Court of Chancery in connection with our acquisition of Bioness. This action names the former Bioness directors, the Alfred E. Mann Trust (Trust), which was the former majority shareholder of Bioness, the trustees of the Trust and Bioventus as defendants. The complaint alleges, among other things, that the individual directors, the Trust, and the trustees breached their fiduciary duty to the plaintiff in connection with their consideration and approval of our transaction. The complaint also alleges that we aided and abetted the other defendants in breaching their fiduciary duties to the plaintiff and that we breached the Merger Agreement by failing to pay the plaintiff its pro rata share of the merger consideration. We believe that we are indemnified under the indemnification provisions contained in the Bioness Merger Agreement for these claims. On July 20, 2022, we filed a motion to dismiss all claims made against us on various grounds, as did all the other named defendants in the suit. The Court has not yet ruled on any of these motions. We also believe that there are various legal and factual defenses to the claims plaintiff made against us and intend to defend ourselves vigorously.

Other matters

On November 10, 2021, the Company entered into an asset purchase agreement for an HA product and made an upfront payment of $853. An additional maximum payment of $853 is due upon the transfer of certain seller customer data. If the Company is able to obtain a Medical Device Regulation Certification for the product, $1,707 will be paid to the seller within five days. The Company is required to pay royalties through 2026 of 5.0% on the first $569 in sales and 2.5% thereafter.

On August 23, 2019, the Company was assigned a third-party license on a product currently in development and the Company is subject to a 3% royalty on certain commercial sales, or a nominal minimum amount per quarter, beginning in 2023.

On May 29, 2019, the Company and the Musculoskeletal Transplant Foundation, Inc. d/b/a MTF Biologics (MTF), entered into a collaboration and development agreement to develop one or more products for orthopedic application to be commercialized by the Company and supplied by MTF (the Development Agreement). The first phase has been completed, but during the second quarter of 2022, the Company elected to discontinue the development of MOTYS, the initial product candidate under development. The Development Agreement continues until the date when the parties execute a supply agreement for the commercial products or otherwise is terminated under its terms.

On December 9, 2016, the Company entered into an amended and restated license agreement for the exclusive U.S. distribution and commercialization rights of a single injection osteoarthritis (OA) product with the supplier of the Company's single injection OA product for the non-U.S. market. The agreement requires the Company to meet annual minimum purchase requirements and pay royalties on net sales. Royalties related to this agreement during the three months ended July 2, 2022 and July 3, 2021 and six months ended July 2, 2022 and July 3, 2021 totaled $4,083, $3,548, $7,415 and $5,925, respectively. These royalties are included in cost of sales within the consolidated statement of operations and comprehensive (loss) income.

As part of a supply agreement entered on February 9, 2016 for the Company's three injection OA product, the Company is subject to annual minimum purchase requirements for 10 years. After the initial 10 years, the agreement will automatically renew for an additional 5 years unless terminated by the Company or the seller in accordance with the agreement.

As part of a supply agreement for the Company's five injection OA product that was amended and restated on December 22, 2020, the Company is subject to annual minimum purchase requirements for 8 years.

The Company has an exclusive license agreement for bioactive bone graft putty. The Company is required to pay a royalty on all commercial sales revenue from the licensed products with a minimum annual royalty payment through 2023, the date the agreement will expire, upon the expiration of the patent held by the licensor. These royalties are included in cost of sales on the consolidated statement of operations and comprehensive (loss) income.

From time to time, the Company causes letters of credit (LOCs) to be issued to provide credit support for guarantees, contractual commitments and insurance policies. The fair values of the LOCs reflect the amount of the underlying obligation and are subject to fees payable to the issuers, competitively determined in the marketplace. As of July 2, 2022 and December 31, 2021, the Company had one LOC outstanding for a nominal amount.

The Company currently maintains insurance for risks associated with the operation of its business, provision of professional services and ownership of property. These policies provide coverage for a variety of potential losses, including loss or damage to property, bodily injury, general commercial liability, professional errors and omissions and medical malpractice. The Company is self-insured for health insurance covering most of its employees located in the United States. The Company maintains stop-loss insurance on a "claims made" basis for expenses in excess of $200 per member per year.

12. Revenue recognition

Our policies for recognizing sales have not changed from those described in the Company's 2021 Annual Report on Form 10-K. The Company attributes net sales to external customers to the U.S. and to all foreign countries based on the legal entity from which the sale originated. The following table presents our net sales by segment disaggregated by geographic markets and major products (Vertical) as follows:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Primary geographic markets:				
U.S.	$ 126,310	$ 98,682	$ 230,391	$ 173,220
International	14,021	11,134	27,230	18,374
Total net sales	$ 140,331	$ 109,816	$ 257,621	$ 191,594
Vertical:				
Pain Treatments	$ 63,914	$ 56,704	$ 115,967	$ 98,234
Restorative Therapies	39,902	32,511	74,262	54,332
Surgical Solutions	36,515	20,601	67,392	39,028
Total net sales	$ 140,331	$ 109,816	$ 257,621	$ 191,594

13. Segments

The Company's two reportable segments are U.S. and International. The Company's products are primarily sold to orthopedists, musculoskeletal and sports medicine physicians, podiatrists, neurosurgeons and orthopedic spine surgeons, as well as to their patients. The Company does not disclose segment information by asset as the Chief Operating Decision Maker does not review or use it to allocate resources or to assess the operating results and financial performance. Segment adjusted EBITDA is the segment profitability metric reported to the Company's Chief Operating Decision Maker for purposes of decisions about allocation of resources to, and assessing performance of, each reportable segment.

The following table presents segment adjusted EBITDA reconciled to (loss) income before income taxes:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Segment adjusted EBITDA				
U.S.	$ 19,196	$ 17,149	$ 23,924	$ 27,147
International	3,735	2,738	6,118	3,810
Interest (expense) income, net	(2,578)	(1,681)	(1,028)	1,195
Depreciation and amortization	(12,384)	(7,479)	(24,863)	(14,663)
Acquisition and related costs	(3,901)	(4,580)	(11,304)	(7,776)
Restructuring and succession charges	(1,695)	(187)	(2,272)	(344)
Impairments related to variable interest entity	—	(7,043)	—	(7,043)
Equity compensation	(4,616)	(5,853)	(9,505)	16,559
Equity loss in unconsolidated investments	(280)	(432)	(681)	(901)
Foreign currency impact	(602)	12	(541)	64
Other items	(3,645)	(1,710)	(6,556)	(2,659)
(Loss) income before income taxes	$ (6,770)	$ (9,066)	$ (26,708)	$ 15,389

14. Subsequent events

On July 11, 2022 the Company amended the 2019 Credit Agreement (as amended, the Amended 2019 Credit Agreement) in conjunction with the acquisition of CartiHeal (CartiHeal Acquisition). Pursuant to the Amended 2019 Credit Agreement, an $80,000 term loan facility (Term Loan Facility) was extended to the Company to be used for (i) the financing of the CartiHeal Acquisition; (ii) the payment of related fees and expenses; and (iii) working capital needs and general corporate purposes of the Company, including without limitation for permitted acquisitions. The Term Loan Facility will mature on October 29, 2026. The Company may elect either the secured overnight financial rate (SOFR) or base interest rate options for all borrowings as of July 12, 2022, which includes any outstanding balances under the Term Loan, Term Loan Facility and revolving credit facility. Initial SOFR loans and base rate loans had a margin of 3.25% and 2.25%, respectively, subsequent to July 12, 2022.

The Company will make quarterly scheduled principal payments of the Term Loan Facility, commencing September 30, 2022, in an amount equal to: (a) for the first two such payments, 1.25% of the initial principal amount of the Term Loan Facility, (b) for the next eight such payments, 1.875% of the initial principal amount of the Term Loan Facility, and (c) for the next eight such payments, 2.50% of the initial principal amount of the Term Loan Facility, with the balance to be paid at maturity.

On July 12, 2022, the Company acquired 100% of CartiHeal for an aggregate purchase price of approximately $315,000 and an additional $135,000 becoming payable after closing upon achievement of certain sales milestones. The Company paid $100,000 of the aggregate purchase price upon closing consisting of $50,000, previously deposited in escrow by the Company and then held by a payment agent and $50,000 from the Term Loan Facility. The Company also paid approximately $8,000 of CartiHeal's transaction-related fees and expenses and deferred $215,000 of the aggregate purchase price otherwise due at closing until the earlier of the achievement of certain milestones and the occurrence of certain installment payment dates. Refer to *Note 3. Acquisitions and investments* for further details regarding the agreements and conditions of payment in regard to the acquisition of CartiHeal.

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

The following discussion and analysis of Bioventus Inc.'s (sometimes referred to as "we," "us," "our" or "Bioventus") financial condition and results of operations should be read in conjunction with the "Special Note Regarding Forward-Looking Statements" and our unaudited consolidated condensed financial statements and related notes thereto appearing elsewhere in this Form 10-Q, as well as our audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the Securities and Exchange Commission (SEC) on March 11, 2022 (2021 10-K).

Executive Summary

We are a global medical device company focused on developing and commercializing clinically differentiated, cost efficient and minimally invasive treatments that engage and enhance the body's natural healing process. We operate our business through two reportable segments, U.S. and International, and our portfolio of products is grouped into three verticals:

- Pain Treatments is comprised of non-surgical joint pain injection therapies as well as peripheral nerve stimulation (PNS) products to help the patient get back to their normal activities.
- Surgical Solutions is comprised of bone graft substitutes (BGS) to fuse and grow bones, improve results following spinal and other orthopedic surgeries as well as minimally invasive ultrasonic medical devices used for precise bone sculpting, removing tumors and tissue debridement, in various surgeries.
- Restorative Therapies is comprised of a bone healing system, skin allografts and products used to support healing of wounds as well as devices designed to help patients regain leg or hand function due to stroke, multiple sclerosis or other central nervous system disorders.

The following table sets forth total net sales, net (loss) income and Adjusted EBITDA for the periods presented:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Net sales	$ 140,331	$ 109,816	$ 257,621	$ 191,594
Net (loss) income	$ (8,014)	$ (10,780)	$ (22,820)	$ 13,748
Adjusted EBITDA[(1)]	$ 22,931	$ 19,887	$ 30,042	$ 30,957
Loss per share, basic and diluted	$ (0.11)	$ (0.10)	$ (0.30)	$ (0.12)

(1) See below under results of operations-Adjusted EBITDA for a reconciliation of net (loss) income to Adjusted EBITDA.

Strategic transactions

CartiHeal

On July 15, 2020, we entered into an Option and Equity Purchase Agreement (Option Agreement) with CartiHeal (2009) Ltd. (CartiHeal), a privately-held company headquartered in Israel and the developer of the proprietary Agili-C™ implant for the treatment of joint surface lesions in traumatic and osteoarthritic joint, and its shareholders. The agreement provided us with an exclusive option to acquire 100% of CartiHeal's shares under certain conditions (Call Option), and provided CartiHeal with a put option that would require us to purchase 100% of CartiHeal's shares under certain conditions (Put Option).

We exercised the Call Option in April 2022 for the acquisition of all the remaining shares of CartiHeal, excluding shares we already owned, for approximately $315.0 million, with an additional $135.0 million payable upon the achievement of certain milestones. The Company's decision to exercise the Call Option follows the U.S. Food and Drug Administration's (FDA) March 29, 2022 premarket approval of CartiHeal's Agili-C implant. In August, 2021, CartiHeal provided us with the required evidence of the Agili-C™ device clinical trial's success demonstrating the superiority of the Agili-C implant over the surgical standard of care, including microfracture and debridement, for the treatment of cartilage or osteochondral defects, in both osteoarthritic knees and knees without degenerative changes. As a result, we deposited $50.0 million into escrow toward the potential purchase price of CartiHeal, which was subsequently transferred to a payment agent on June 16, 2022.

On June 17, 2022, we entered into an amendment to the Option Agreement with CartiHeal (CartiHeal Amendment) and Elron Ventures Limited, in its capacity as the CartiHeal shareholder representative. Pursuant to the CartiHeal Amendment, we secured the right to defer $215.0 million of upfront consideration (Deferred Amount) otherwise payable to CartiHeal stockholders at the closing of the acquisition (CartiHeal Acquisition). The Deferred Amount will be paid to CartiHeal stockholders upon the earlier of the achievement of certain milestones and the occurrence of certain installment payment dates. The Deferred Amount will be paid in five tranches commencing in 2023 and ending no later than 2027.

Pursuant to the CartiHeal Amendment, we will pay interest on each tranche of the Deferred Amount at a rate of 8.0% annually, until such tranche becomes due and payable and is paid (subject to an interest penalty of 10% per annum in the event of default). The additional $135.0 million payable would be payable upon achievement of $75.0 million in trailing twelve month sales pursuant to the CartiHeal Amendment. The acquisition of CartiHeal closed on July 12, 2022. We paid at closing to CartiHeal stockholders an aggregate up-front payment of $100.0 million (inclusive of the previously discussed escrow deposit). We also paid approximately $8.0 million of CartiHeal's transaction related fees and expenses.

On July 11, 2022 we amended our credit agreement (as amended, the Amended 2019 Credit Agreement) in conjunction with the CartiHeal Acquisition. Pursuant to the Amended 2019 Credit Agreement, an $80.0 million term loan facility (Term Loan Facility) was extended to us for: (i) the financing of the CartiHeal Acquisition; (ii) the payment of related fees and expenses; and (iii) working capital needs and general corporate purposes of the Company, including without limitation for permitted acquisitions. The Term Loan Facility will mature on October 29, 2026. Refer to the *Liquidity and Capital Resources—Credit Facilities* for further information.

On July 12, 2022, we closed the CartiHeal Acquisition thereby acquiring all of its remaining shares for an aggregate purchase price of $315.0 million and an additional $135.0 million becoming payable after closing upon achievement of the sales milestones previously discussed. We paid $100.0 million of the aggregate purchase price at the closing consisting of the $50.0 million escrow deposit and the $50.0 million from the Term Loan Facility. We also paid approximately $8.0 million for the previously discussed transaction related fees and expenses of CartiHeal.

B.O.N.E.S. Trial

We submitted a premarket approval (PMA) supplement to the FDA in December 2020 seeking approval of an expanded indication for EXOGEN, specifically, for the adjunctive treatment of acute and delayed metatarsal fractures to reduce the risk of non-union. This PMA supplement was based on and supported by clinical data in metatarsal fractures from the ongoing B.O.N.E.S. study. In April 2021, we received a letter from the FDA identifying certain deficiencies in the PMA supplement that must be addressed before the FDA can complete its review of the PMA supplement. The deficiencies include concerns about the data and endpoints from the B.O.N.E.S. study, and requests for re-analyses of certain data and provision of other information to support the findings. We are in the process of performing ancillary analysis on the data as requested by the FDA and remain engaged in discussions with the FDA to address the agency's concerns. In addition, in December 2021, we completed the follow-up of all patients in the scaphoid B.O.N.E.S. study. We plan on submitting a PMA supplement for this indication in the fourth quarter of 2022. We can give no assurance that we will be able to resolve the deficiencies identified by the FDA in a timely manner, or at all. Consequently, the FDA's decision on the PMA supplements may be delayed beyond the time originally anticipated. Moreover, if our responses do not satisfy the FDA's concerns, the FDA might not approve our PMA supplements seeking to expand the indications for use of EXOGEN in metatarsal and scaphoid fractures as proposed.

MOTYS Update

During the second quarter of 2022, prior to obtaining the results from our Phase 2 trial, we elected to discontinue the development of MOTYS, to focus our resources on other priorities, including the integration of our recent acquisitions and our expanded R&D and product development portfolio we inherited with these acquisitions. We expect to incur approximately $4.0 to $6.0 million in required costs over the next year exclusively to fulfill our remaining regulatory obligations related to our Phase 2 trial (MOTYS Costs) with the majority in the second half of 2022. We may assess further strategic options at a future date.

Consolidated Appropriations Act - 2021

In July 2022, in connection with the Consolidated Appropriations Act, 2021 (CAA), the Centers for Medicare and Medicaid Services (CMS) began utilizing new pricing information the Company reported to it pursuant to the newly adopted reporting obligations to adjust the Medicare payment to healthcare providers using our Durolane and Gelsyn-3 products.

COVID-19 pandemic impact

Our business, results of operations and financial condition have been and may continue to be, materially impacted by fluctuations in patient visits and elective procedures and any future temporary cessations of elective procedures as a result of the COVID-19 pandemic and could be further impacted by delays in payments from customers, supply chain interruptions, "shelter-in-place" orders or advisories, facility closures or other reasons related to the pandemic. As of the date of this Quarterly Report on Form 10-Q, the extent to which COVID-19 could materially impact our financial conditions, liquidity or results of operations is uncertain.

To the extent COVID-19 disruptions continue to adversely impact our business, results of operations and financial condition, it might also have the effect of heightening risks relating to our ability to successfully commercialize newly developed or acquired products or therapies, consolidation in the healthcare industry, intensified pricing pressure as a result of changes in the purchasing behavior of hospitals and maintenance of our numerous contractual relationships.

Results of Operations

For a description of the components of our results of operations, refer to *Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations* in our 2021 10-K.

The following table sets forth components of our condensed consolidated statements of operations as a percentage of net sales for the periods presented:

	Three Months Ended		Six Months Ended	
	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Cost of sales (including depreciation and amortization)	31.1 %	30.5 %	33.1 %	29.1 %
Gross profit	68.9 %	69.5 %	66.9 %	70.9 %
Selling, general and administrative expense	64.0 %	62.9 %	68.2 %	54.1 %
Research and development expense	4.5 %	4.4 %	5.2 %	3.0 %
Restructuring costs	0.7 %	— %	0.6 %	— %
Change in fair value of contingent consideration	0.2 %	0.6 %	0.2 %	0.3 %
Depreciation and amortization	1.9 %	1.7 %	2.3 %	2.0 %
Impairment of variable interest entity assets	— %	5.2 %	— %	3.0 %
Operating (loss) income	(2.4 %)	(5.3 %)	(9.6 %)	8.5 %

The following table presents a reconciliation of net (loss) income to Adjusted EBITDA for the periods presented:

	Three Months Ended		Six Months Ended	
(in thousands)	July 2, 2022	July 3, 2021	July 2, 2022	July 3, 2021
Net (loss) income	**$ (8,014)**	**$ (10,780)**	**$ (22,820)**	**$ 13,748**
Income tax expense (benefit)	1,244	1,714	(3,888)	1,641
Interest expense (income), net	2,578	1,681	1,028	(1,195)
Depreciation and amortization[(a)]	12,384	7,479	24,863	14,663
Acquisition and related costs[(b)]	3,901	4,580	11,304	7,776
Restructuring and succession charges[(c)]	1,695	187	2,272	344
Equity compensation[(d)]	4,616	5,853	9,505	(16,559)
Equity loss in unconsolidated investments[(e)]	280	432	681	901
Foreign currency impact[(f)]	602	(12)	541	(64)
Impairments related to variable interest entity[(g)]	—	7,043	—	7,043
Other items[(h)]	3,645	1,710	6,556	2,659
Adjusted EBITDA	**$ 22,931**	**$ 19,887**	**$ 30,042**	**$ 30,957**

(a) Includes for the three months ended July 2, 2022 and July 3, 2021 and the six months ended July 2, 2022 and July 3, 2021, respectively, depreciation and amortization of $9,684, $5,618, $18,902 and $10,854 in cost of sales and $2,700, $1,861, $5,961 and $3,809 in operating expenses presented in the consolidated statements of operations and comprehensive (loss) income.

(b) Includes acquisition and integration costs related to completed acquisitions, amortization of inventory step-up associated with acquired entities, and changes in fair value of contingent consideration.

(c) Costs incurred during the three and six months ended July 2, 2022 were the result of adopting acquisition related restructuring plans to reduce headcount, reorganize management structure and to consolidate certain facilities. Costs incurred during the corresponding periods in 2021 were primarily related to executive transitions.

(d) The three and six months ended July 2, 2022 and the three months ended July 3, 2021 include compensation expense resulting from awards granted under the Company's equity-based compensation plans in effect after its initial public offering (IPO). The six months ended July 3, 2021 also includes the expense and the change in fair value of the liability-classified awards granted under the compensation plans in effect prior to the Company's IPO.

(e) Represents CartiHeal equity investment losses.

(f) Includes realized and unrealized gains and losses from fluctuations in foreign currency.

(g) Represents the loss on impairment of Harbor Medtech Inc.'s (Harbor) long-lived assets and the Company's investment in Harbor.

(h) Other items primarily includes charges associated with strategic transactions, such as potential acquisitions; public company preparation costs, which primarily includes accounting and legal fees; and MOTYS Costs (as defined below). During the second quarter of 2022, prior to obtaining the results from our Phase 2 trial, we elected to discontinue the development of MOTYS, to focus our resources on other priorities, including the integration of our recent acquisitions and our expanded R&D and product development portfolio we inherited with these acquisitions. In the second quarter of 2022, we incurred $0.8 million, and we expect to incur approximately $4.0 to $6.0 million in required costs over the next twelve months with the majority in the second half of 2022, exclusively to fulfill our remaining regulatory obligations related to our Phase 2 trial (MOTYS Costs).

We present Adjusted EBITDA, a non-GAAP financial measure, because we believe it is a useful indicator that management uses as a measure of operating performance as well as for planning purposes, including the preparation of our annual operating budget and financial projections. We believe that Adjusted EBITDA is useful to our investors because it is frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies in industries similar to ours. We define Adjusted EBITDA as net (loss) income before depreciation and amortization, provision of income taxes and interest expense (income), net, adjusted for the impact of certain cash, non-cash and other items that we do not consider in our evaluation of ongoing operating performance. These items include acquisition and related costs, restructuring and succession charges, equity compensation, equity loss in unconsolidated investments, foreign currency impact, and other items. Adjusted EBITDA by segment is comprised of net sales and costs directly attributable to a segment, as well as an allocation of corporate overhead costs primarily based on a ratio of net sales by segment to total consolidated net sales.

Non-GAAP financial measures have limitations as an analytical tool and should not be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with U.S. GAAP. These measures might exclude certain normal recurring expenses. Therefore, these measures might not provide a complete understanding of the Company's performance and should be reviewed in conjunction with the U.S. GAAP financial measures. Additionally, other companies might define their non-GAAP financial measures differently than we do. Investors are encouraged to review the reconciliation of the non-GAAP measure provided in this report, including in the table above, to its most directly comparable U.S. GAAP measure.

Net sales

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
U.S.	$ 126,310	$ 98,682	$ 27,628	28.0 %
International	14,021	11,134	2,887	25.9 %
Net Sales	$ 140,331	$ 109,816	$ 30,515	27.8 %

U.S.

Net sales increased $27.6 million, or 28.0%, of which acquisitions contributed $18.1 million. Revenue also increased due to volume growth. Total increases by vertical were: (i) Pain Treatments—$6.9 million; (ii) Restorative Therapies—$8.2 million; and (iii) Surgical Solutions—$12.5 million.

International

Net sales increased $2.9 million, or 25.9%, of which acquisitions contributed $3.5 million, partially offset by a decline in sales volume within our Restorative Therapies vertical.

	Six Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
U.S.	$ 230,391	$ 173,220	$ 57,171	33.0 %
International	27,230	18,374	8,856	48.2 %
Net Sales	$ 257,621	$ 191,594	$ 66,027	34.5 %

U.S.

Net sales increased $57.2 million, or 33.0%, of which acquisitions contributed $41.2 million. Revenue also increased due to volume growth. Total increases by vertical were: (i) Pain Treatments—$17.0 million; (ii) Restorative Therapies—$18.5 million; and (iii) Surgical Solutions—$21.6 million.

International

Net sales increased $8.9 million, or 48.2%, due to acquisitions. Revenue also slightly increased due to sales volume growth as revenue during the first quarter of 2021 was negatively affected by the economic impact of the COVID-19 pandemic. This growth was partially offset by a decline in sales volume within our Restorative Therapies vertical during the second quarter of 2022.

Gross profit and gross margin

	Three Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
U.S.	$ 87,331	$ 68,814	$ 18,517	26.9 %
International	9,323	7,499	1,824	24.3 %
Total	$ 96,654	$ 76,313	$ 20,341	26.7 %

	Three Months Ended		
	July 2, 2022	July 3, 2021	Change
U.S.	69.1 %	69.7 %	(0.6 %)
International	66.5 %	67.4 %	(0.9 %)
Total	68.9 %	69.5 %	(0.6 %)

U.S.

Gross profit increased $18.5 million, or 26.9%, primarily due to the increase in net sales. Gross margin decreased due to product mix including products introduced as a result of acquisitions, partially offset by less inventory step-up amortization of acquisition related assets in 2022 compared with the prior year.

International

Gross profit increased $1.8 million, or 24.3%, primarily due to the increase in net sales. Gross margin decreased due to product mix including products introduced as a result of acquisitions.

	Six Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
U.S.	$ 154,947	$ 123,429	$ 31,518	25.5 %
International	17,409	12,440	4,969	39.9 %
Total	$ 172,356	$ 135,869	$ 36,487	26.9 %

	Six Months Ended		
	July 2, 2022	July 3, 2021	Change
U.S.	67.3 %	71.3 %	(4.0 %)
International	63.9 %	67.7 %	(3.8 %)
Total	66.9 %	70.9 %	(4.0 %)

U.S.

Gross profit increased $31.5 million, or 25.5%, primarily due to the increase in net sales. Gross margin decreased due to product mix including products introduced as a result of acquisitions. Gross margin was also negatively impacted by 1.5% from inventory step-up amortization of acquisition related assets in 2022 compared with the prior year.

International

Gross profit increased $5.0 million, or 39.9%, primarily due to the increase in net sales. Gross margin decreased due to product mix including products introduced as a result of acquisitions.

Selling, general and administrative expense

	Three Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Selling, general and administrative expense	$ 89,620	$ 69,050	$ 20,570	29.8 %

Selling, general and administrative expenses increased $20.6 million, or 29.8%, primarily due to: (i) an increase in compensation related expenses of $12.3 million, primarily resulting from acquisitions; (ii) an increase in consulting and travel related expenses of $4.4 million; and (iii) an increase in bad debt expenses of $1.9 million.

	Six Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Selling, general and administrative expense	$ 175,744	$ 103,736	$ 72,008	69.4 %

Selling, general and administrative expenses increased $72.0 million, or 69.4%, primarily due to: (i) an increase in compensation related expenses of $29.1 million, primarily resulting from acquisitions; (ii) an increase in equity-based compensation of $24.0 million, which includes a $23.4 million decrease in fair market value during 2021 of accrued equity-based compensation resulting from the difference between the pricing from the pending IPO and the actual offering price; (iii) an increase in consulting and travel related expenses of $8.8 million; (iv) an increase of $2.9 million in bad debt expenses; and (v) an increase of $1.9 million in corporate and employee health insurance primarily resulting from acquisitions.

Research and development expenses

	Three Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Research and development expense	$ 6,366	$ 4,836	$ 1,530	31.6 %

Research and development expense increased by $1.5 million, or 31.6%, due to: (i) an increase of $0.9 million in consulting costs; and (ii) an increase of $0.8 million in compensation related expenses partially driven by acquisitions.

	Six Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Research and development expense	$ 13,294	$ 5,783	$ 7,511	129.9 %

Research and development expense increased by $7.5 million, or 129.9%, primarily due to: (i) an increase of $2.7 million in consulting costs; (ii) an increase of $2.3 million in compensation related expenses partially driven by acquisitions; and (iii) an increase in equity-based compensation of $2.0 million, which includes a $1.8 million decrease in fair market value during 2021 of accrued equity-based compensation resulting from the difference between the pricing from the pending IPO and the actual offering price.

Restructuring costs

Restructuring costs of $1.0 million and $1.6 million for the three and six months ended July 2, 2022, respectively, were incurred as a result of restructuring plans for recently acquired businesses to reduce headcount, to reorganize management structure and to consolidate certain facilities.

Change in fair value of contingent consideration

	Three Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Change in fair value of contingent consideration	$ 273	$ 641	$ (368)	(57.4 %)

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
Change in fair value of contingent consideration	$ 542	$ 641	$ (99)	(15.4 %)

The changes in fair value of contingent consideration during the three and six months ended July 2, 2022 compared with the prior year comparable periods resulted from not meeting the $15,000 FDA approval milestone related to the Bioness Acquisition, thereby decreasing the amount of contingent consideration owed. Fair value changes involving contingent consideration represent changes in the present value of discounted cash flows due to the passage of time.

Depreciation and amortization

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
Depreciation and amortization	$ 2,696	$ 1,852	$ 844	45.6 %

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
Depreciation and amortization	$ 5,950	$ 3,777	$ 2,173	57.5 %

Depreciation and amortization increased during three and six months ended July 2, 2022 compared with the prior year comparable periods primarily due to acquisitions, partially offset by lower amortization expense in the current year as certain assets became fully amortized.

Impairment of variable interest entity assets

We terminated its Collaboration Agreement with Harbor on June 8, 2021 resulting in a $5.7 million impairment on Harbor's long-lived asset balances, of which $5.2 million was recorded in loss attributable to noncontrolling interest. Refer to *Note 3. Business combination and investments* in the *Notes to the unaudited condensed consolidated financial statements Part I, Item 1. Financial Statements* of this Form 10-Q for further details concerning the impairment and deconsolidation of Harbor.

Other expense

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
Interest expense, net	$ 2,578	$ 1,681	$ 897	53.4 %
Other expense	$ 884	$ 1,645	$ (761)	(46.3 %)

Interest expense, net increased $0.9 million due to an increase of $1.3 million in interest expense as a result of our October 2021 debt refinancing, partially offset by $0.5 million of interest income from the change in the fair value of our interest rate swap.

Other expense decreased $0.8 million primarily due to the impairment of our Harbor investment of $1.4 million in the prior year, partially offset by a $0.6 million foreign currency impact.

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
Interest expense (income), net	$ 1,028	$ (1,195)	$ 2,223	(186.0 %)
Other expense	$ 922	$ 2,064	$ (1,142)	(55.3 %)

Interest expense (income), net changed $2.2 million due to: (i) the settlement of our equity participation right (EPR) liability in 2021 resulting in interest income of $2.8 million; and (ii) an increase of $2.1 million in interest expense as a result of our October 2021 debt refinancing. These changes were partially offset by a $2.9 million increase in interest income resulting from the change in the fair value of our interest rate swap.

Other expense decreased $1.1 million primarily due to the impairment of our Harbor investment of $1.4 million in the prior year, partially offset by a $0.6 million foreign currency impact.

Income tax (benefit) expense

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
Income tax expense	$ 1,244	$ 1,714	$ (470)	(27.4)%
Effective tax rate	18.4 %	18.9 %		(0.5)%

Income tax expense for the three months ended July 2, 2022 and July 3, 2021 was primarily due to a change in our forecasted effective tax rate.

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
Income tax (benefit) expense	$ (3,888)	$ 1,641	$ (5,529)	NM
Effective tax rate	14.6 %	10.7 %		3.9 %

(NM = Not Meaningful)

Income tax benefit for the six months ended July 2, 2022 and July 3, 2021 was primarily due to net losses experienced during the first six months of 2022. The income tax expense for the six months ended July 3, 2021 was primarily due to capitalized expenses resulting from our IPO.

Noncontrolling interest

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
Continuing LLC Owner	$ 545	$ 1,478	$ (933)	(63.1) %
Other noncontrolling interest	217	5,176	(4,959)	(95.8 %)
Total	$ 762	$ 6,654	$ (5,892)	

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
Continuing LLC Owner	$ 3,956	$ 1,397	$ 2,559	183.2 %
Other noncontrolling interest	335	5,665	(5,330)	(94.1 %)
Total	$ 4,291	$ 7,062	$ (2,771)	

Subsequent to the IPO and related transactions, we are the sole managing member of BV LLC in which we own 79.6%. We have a majority economic interest, the sole voting interest in, and control the management of BV LLC. As a result, we consolidate the financial results of BV LLC and report a non-controlling interest representing the 20.4% that is owned by the Continuing LLC Owner.

The decline in losses associated with other noncontrolling interest resulted from our deconsolidation of Harbor upon the termination of the Collaboration Agreement during the second quarter of 2021 in which we incurred a $5.7 million impairment charge. We ceased being the primary beneficiary upon termination as we no longer had the power to direct Harbor's significant activities.

Segment Adjusted EBITDA

Adjusted EBITDA for each of our reportable segments is as follows:

(in thousands, except for percentage)	Three Months Ended July 2, 2022	Three Months Ended July 3, 2021	Change $	Change %
U.S.	$ 19,196	$ 17,149	$ 2,047	11.9 %
International	$ 3,735	$ 2,738	$ 997	36.4 %

U.S.

Adjusted EBITDA increased $2.0 million, or 11.9%, primarily due to higher gross profit, partially offset with an increase in compensation related charges, consulting and travel related expenses as well as higher public company costs.

International

Adjusted EBITDA increased $1.0 million, or 36.4%, primarily due to an increase in gross profit resulting from the increase in sales. This increase was partially offset by consulting, travel related expenses and the negative impact of foreign currency.

(in thousands, except for percentage)	Six Months Ended July 2, 2022	Six Months Ended July 3, 2021	Change $	Change %
U.S.	$ 23,924	$ 27,147	$ (3,223)	(11.9 %)
International	$ 6,118	$ 3,810	$ 2,308	60.6 %

U.S.

Adjusted EBITDA decreased $3.2 million, or 11.9%, primarily due to an increase in compensation related charges of previously discussed as well as higher public company costs, partially offset by an increase in gross profit.

International

Adjusted EBITDA increased $2.3 million, or 60.6%, primarily due to an increase in gross profit resulting from the increase in sales. This increase was partially offset by the increase in consulting, travel related expenses, compensation and the negative impact of foreign currency.

Liquidity and Capital Resources

Sources of liquidity

Our principal liquidity needs have historically been for acquisitions, working capital, research and development, clinical trials, and capital expenditures. We expect these needs to continue as we develop and commercialize new products and further our expansion into international markets. As discussed below under *CartiHeal*, additional capital was provided to consummate the CartiHeal Acquisition through the Term Loan Facility, extended to us through the Amended 2019 Credit Agreement, and additional capital will be required to fund the Deferred Amount under the CartiHeal Amendment. We believe that our existing cash and cash equivalents, borrowing capacity under our revolving credit facility and cash flow from operations will be enough to meet our anticipated cash requirements for at least the next twelve months. However, additional capital may be required to fund the Deferred Amount under the CartiHeal Amendment.

We anticipate that to the extent that we require additional liquidity, we will obtain funding through the incurrence of other indebtedness, additional equity financings or a combination of these potential sources of liquidity. In addition, we may raise additional funds to finance future cash needs through receivables or royalty financings or corporate collaboration and licensing arrangements. If we raise additional funds by issuing equity securities or convertible debt, our stockholders will experience dilution. Debt financing, if available, would result in increased payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, or making capital expenditures. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish valuable rights to our products, future revenue streams or product candidates, or to grant licenses on terms that might not be favorable to us. The covenants under the Amended 2019 Credit Agreement limit our ability to obtain additional debt financing. We cannot be certain that additional funding will be available on acceptable terms, or at all. Any failure to raise capital in the future could have a negative impact on our financial condition and our ability to pursue our business strategies.

Initial public offering

On February 16, 2021, in connection with our IPO, we issued and sold 9,200,000 shares of our Class A common stock at a price to the public of $13.00 per share, resulting in gross proceeds to us of approximately $119.6 million, before deducting the underwriting discount, commissions and estimated offering expenses payable by us. Bioventus Inc. is a holding company and has no material assets other than the ownership of LLC Interests and has no independent means of generating revenue. Deterioration in the financial condition, earnings, or cash flow of BV LLC and its subsidiaries for any reason could limit or impair their ability to pay such distributions. In addition, the terms of our financing arrangements, including the Amended 2019 Credit Agreement, contain covenants that may restrict BV LLC and its subsidiaries from paying such distributions, subject to certain exceptions. Further, BV LLC is generally prohibited under Delaware law from making a distribution to a member to the extent that, at the time of the distribution, after giving effect to the distribution, liabilities of BV LLC (with certain exceptions), as applicable, exceed the fair value of its assets. Subsidiaries of BV LLC are generally subject to similar legal limitations on their ability to make distributions to BV LLC. Bioventus Inc., as the managing member, causes BV LLC to make cash distributions to the owners of LLC Interests in an amount sufficient to (i) fund tax obligations in respect of allocations of taxable income from BV LLC; and (ii) cover Bioventus Inc. operating expenses, including payments under the Tax Receivable Agreement (TRA).

Cash requirements

Except as provided below and the previously discussed capital requirements for the acquisition of CartiHeal, there have been no material changes to our future cash requirements as disclosed in Part II, Item 7 of our 2021 10-K.

We enter into contracts in the normal course of business with various third parties for development, collaboration and other services for operating purposes. These contracts provide for termination upon notice. Payments due upon cancellation generally consist only of payments for services provided or expenses incurred, including non-cancellable obligations of our service providers, up to the date of cancellation. Certain agreements include contingent events that upon occurrence would require payment. For information regarding Commitments and Contingencies, refer to *Note 11. Commitment and contingencies* in *Part 1, Item 8. Financial Statements and Supplementary Data* in this Quarterly Report on Form 10-Q for further information regarding other matters.

Tax Receivable Agreement

The BV LLC Agreement provides for the payment of certain distributions to the Continuing LLC Owner in amounts sufficient to cover the income taxes imposed with respect to the allocation of taxable income from BV LLC as well as obligations under the Tax Receivable Agreement (TRA). Under the TRA, we are required to make cash payments to the Continuing LLC Owner equal to 85% of the tax benefits, if any, that we actually realize (or in certain circumstances are deemed to realize), as a result of (1) increases in the tax basis of assets of BV LLC resulting from (a) any future redemptions or exchanges of LLC Interests, and (b) certain distributions (or deemed distributions) by BV LLC and (2) certain other tax benefits arising from payments under the TRA. We expect the amount of the cash payments required to be made under the TRA will be significant. The actual amount and timing of any payments under the TRA will vary depending upon a number of factors, including the timing of redemptions or exchanges by the Continuing LLC Owner, the amount of gain recognized by the Continuing LLC Owner, the amount and timing of the taxable income we generate in the future, and the federal tax rates then applicable. Any payments made by us to the Continuing LLC Owner under the TRA will generally reduce the amount of overall cash flow that might have otherwise been available to us. To the extent that we are unable to make payments under the TRA for any reason, such payments generally will be deferred and will accrue interest until paid; provided, however, that nonpayment for a specified period may constitute a material breach of a material obligation under the TRA and therefore accelerate payments due under the TRA.

CartiHeal

As disclosed under *Strategic Transactions—CartiHeal*, we exercised the Call Option in April 2022 for the acquisition of all the remaining shares of CartiHeal, excluding shares we already own, for approximately $315.0 million. An additional $135.0 million is payable contingent upon the achievement of $75.0 million in trailing twelve month sales. Pursuant to the CartiHeal Amendment, we deferred $215.0 million of the aggregate purchase price otherwise due at closing until the earlier of the achievement of certain milestones and the occurrence of certain installment payment dates. The first two milestones, each of which are $50.0 million, will be paid no later than the end of the third quarter of 2023. The next two milestones, each of which are $25.0 million, will be paid by the end of 2024 and 2025, respectively. The final milestone of $65.0 million is to be paid by 2027. We are currently exploring financing options in order to fund Deferred Amount payable in connection with the CartiHeal Acquisition. For additional information, see *Part II, Item 1A. Risk Factors*.

Credit Facilities

On July 11, 2022 we amended the 2019 Credit Agreement (as amended, the Amended 2019 Credit Agreement) in conjunction with the CartiHeal Acquisition. Through the Amended 2019 Credit Agreement, an $80.0 million Term Loan Facility was extended to us for (i) the financing of the CartiHeal Acquisition; (ii) the payment of related fees and expenses; and (iii) working capital needs and general corporate purposes of the Company. The Term Loan Facility will mature on October 26, 2026. We may elect either the secured overnight financial rate (SOFR) or base interest rate options for all borrowings as of July 12, 2022, which includes any outstanding balances under the Term Loan, Term Loan Facility and revolving credit facility. Initial SOFR loans and base rate loans had a margin of 3.25% and 2.25%, respectively, subsequent to July 12, 2022. The Amended 2019 Credit Agreement includes customary affirmative and negative covenants including financial maintenance covenants.

We were in compliance with all required financial covenants under the 2019 Credit Agreement as of July 2, 2022.

Other

For information regarding Commitments and Contingencies, refer to *Note 11. Commitments and contingencies* and *Note 3. Acquisitions and investments* to the *Notes to the Unaudited condensed consolidated financial statements of Part 1, Item 1. Financial Statements* of this Form 10-Q.

Information regarding cash flows

Cash, cash equivalents and restricted cash as of July 2, 2022 totaled $41.0 million, compared to $99.2 million as of December 31, 2021. The decrease in cash was primarily due to the following:

	Six Months Ended		Change	
(in thousands, except for percentage)	July 2, 2022	July 3, 2021	$	%
Net cash from operating activities	$ (18,080)	$ (713)	$ (17,367)	NM
Net cash from investing activities	(56,699)	(49,296)	(7,403)	15.0 %
Net cash from financing activities	16,860	101,409	(84,549)	(83.4 %)
Effect of exchange rate changes on cash	(293)	(171)	(122)	71.3 %
Net change in cash, cash equivalents and restricted cash	$ (58,212)	$ 51,229	$ (109,441)	NM

NM = Not Meaningful

Operating Activities

Net cash used in operating activities increased $17.4 million, primarily due to completed acquisitions and the resulting integration costs, higher employee compensation and increased operating expenses. These outflows were partially offset by increased collections from higher sales.

Investing Activities

Cash flows used in investing activities increased $7.4 million, primarily due to the $50.0 million held in trust for the acquisition of CartiHeal and an increase of $2.3 million in capital expenditures, partially offset by the $45.8 million acquisition of Bioness in 2021.

Financing Activities

Cash flows provided by financing activities decreased $84.5 million, primarily due to the $107.8 million in net proceeds from the issuance of Class A common stock sold during our 2021 IPO. This was partially offset by a $25.0 million draw on our revolving credit facility in 2022.

Off-balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Contractual Obligations

Except as discussed above, there have been no material changes to our contractual obligations as disclosed in our 2021 10-K.

Critical Accounting Estimates

Our discussion of operating results is based upon the unaudited condensed consolidated financial statements and accompanying notes. The preparation of these statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Our critical accounting estimates are detailed in *Item 7* of our 2021 10-K and we have no material changes from such disclosures.

Recently Issued Accounting Pronouncements

Refer to *Note 1. Organization*, in the *Notes to the unaudited condensed consolidated financial statements of Part 1, Item 1. Financial Statements* of this Form 10-Q for detailed information regarding the status of recently issued accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

There have been no material changes to our market risks as disclosed in our 2021 10-K.

Item 4. Controls and Procedures.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of July 2, 2022.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarterly period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

On June 15, 2022, the Company, through its subsidiary Bioness, filed a lawsuit in the United States District Court for the Eastern District of Virginia against Aretech, LLC ("Aretech") alleging infringement by Aretech of various patents related to our Vector Gait and Safety Support System®. On August 8, 2022, Aretech filed an answer to the lawsuit denying infringement and asserting various affirmative defenses and counterclaims to the Bioness complaint. We are reviewing the answer and counterclaims made by Aretech and plan to aggressively defend our patents in the litigation.

On March 23, 2017, Misonix's former distributor in China, Cicel (Beijing) Science & Technology Co., Ltd., filed a lawsuit against Misonix and certain of its officers and directors in the United States District Court for the Eastern District of New York. The complaint alleged that Misonix improperly terminated its contract with the former distributor. The complaint sought various remedies, including compensatory and punitive damages, specific performance and preliminary and post judgment injunctive relief, and asserted various causes of action, including breach of contract, unfair competition, tortious interference with contract, fraudulent inducement, and conversion. On October 7, 2017, the court granted Misonix's motion to dismiss each of the tort claims asserted against Misonix, and also granted the individual defendants' motion to dismiss all claims asserted against them. On January 23, 2020, the Court granted Cicel's motion to amend its complaint, to include claims for alleged defamation and theft of trade secrets in addition to the breach of contract claim. Discovery in the matter ended on August 5, 2021. On January 20, 2022, the Court granted Misonix's summary judgment motion on Cicel's breach of contract and defamation claims. Cicel's motion for reconsideration of the Court's summary judgment ruling in Misonix's favor was dismissed by the Court on April 29, 2022. On July 18, 2022, Cicel voluntarily dismissed the remaining claim for trade secret theft and stated its intention to appeal the Court's January 20, 2022 ruling on the breach of contract and defamation claims to the Court of Appeals. We believe that we have various legal and factual defenses to these claims and intend to vigorously defend any appeal of the lower court's summary judgement rulings in our favor.

Prior to the closing of our acquisition of Bioness, Bioness had been named as a defendant in a lawsuit, for which we are indemnified under the indemnification provisions contained in the Bioness Merger Agreement. The case relates to an action brought in February 2021 in the Delaware State Court of Chancery by a former minority shareholder and director of Bioness, seeking a temporary restraining order contesting our acquisition of Bioness. While the complaint to block the Bioness acquisition was dismissed by the court, a separate action was brought against the Company under the indemnification provisions of the Bioness Certificate of Incorporation to recover approximately $2.4 million in attorney fees and other expenses incurred by the director and shareholder in connection with the dismissed case.

On August 19, 2021, the court issued a ruling granting, in part, plaintiff's motion for summary judgment, awarding plaintiff attorney's fees and related expenses incurred in connection with performance of the plaintiff's directorial duties, and denying fees and expenses incurred in a non-director capacity. In its ruling, the Court's order also directed the parties to agree upon a process that will govern the payment of and challenges to plaintiff's payment requests and required Bioness to pay 50% of the demanded amount into escrow if more than 50% of the total invoiced amount was in dispute. Pursuant to the court's order, to date, Bioness has paid approximately $1.2 million into escrow. We await the court's final ruling on the appropriateness of these fees.

On February 8, 2022, the above referenced minority shareholder of Bioness filed another action in the Delaware State Court of Chancery in connection with our acquisition of Bioness. This action names the former Bioness directors, the Alfred E. Mann Trust (Trust), which was the former majority shareholder of Bioness, the trustees of the Trust and Bioventus as defendants. The complaint alleges, among other things, that the individual directors, the Trust, and the trustees breached their fiduciary duty to the plaintiff in connection with their consideration and approval of our transaction. The complaint also alleges that we aided and abetted the other defendants in breaching their fiduciary duties to the plaintiff and that we breached the Merger Agreement by failing to pay the plaintiff its pro rata share of the merger consideration. We believe that we are indemnified under the indemnification provisions contained in the Bioness Merger Agreement for these claims. On July 20, 2022, we filed a motion to dismiss all claims made against us on various grounds, as did all the other named defendants in the suit. The Court has not yet ruled on any of these motions. We also believe that there are various legal and factual defenses to the claims plaintiff made against us and intend to defend ourselves vigorously.

On September 15, 2021, a purported stockholder of Misonix filed an action in the United States District Court for the Eastern District of New York, captioned Stein v. Misonix, Inc., et al., Case No. 2:21-cv-05127 (E.D.N.Y.) (the Stein Complaint). The Stein Complaint named Misonix and members of its board of directors as defendants. The Stein Complaint was dismissed on April 6, 2022. On September 16, 2021, a purported stockholder of Misonix filed an action in the United States District Court for the Southern District of New York, captioned Ciccotelli v. Misonix, Inc. et al., Case No. 1:21-cv-07773 (S.D.N.Y.) (the Ciccotelli Complaint) against Misonix, members of its board of directors, the Company, and its subsidiaries, Merger Sub I and Merger Sub II, as defendants. Plaintiff voluntarily dismissed the Ciccotelli Complaint on November 10, 2021. On October 12, 2021, another purported stockholder of Misonix filed an action in the United States District Court for the Eastern District of New York, captioned Rubin v. Misonix, Inc. et al., Case No. 1:21-cv-05672 (S.D.N.Y.) (the Rubin Complaint) and on October 15, 2021, another purported stockholder of Misonix filed an action in the United States District Court for the Southern District of New York, captioned Taylor v. Misonix, Inc. et al., Case No. 1:21-cv-08513 (S.D.N.Y.) (the Taylor Complaint). The Rubin Complaint and the Taylor Complaint name Misonix and members of its board of directors as defendants. Plaintiffs voluntarily dismissed the Rubin and Taylor Complaints on January 21, 2022 and February 18, 2022, respectively.

Each of the complaints relating to the Misonix Acquisition asserted claims under Section 14(a) and Section 20(a) of the Exchange Act and SEC Rule 14a-9, challenging the adequacy of disclosures in the proxy statement/prospectus filed with the SEC on September 8, 2021 or the Definitive Proxy Statement filed with the SEC on September 24, 2021, regarding Misonix and/or Bioventus' projections and J.P. Morgan's financial analysis. The complaints sought, among other relief, (i) injunctive relief preventing the parties from proceeding with the merger; (ii) rescission in the event that the merger is consummated; and (iii) an award of costs, including attorneys' and experts' fees.

Please refer to *Note 11. Commitments and contingencies* in the notes to our financial statements included in *Part I, Item 1*, of this Quarterly Report on Form 10-Q for information pertaining to legal proceedings. In addition, we are party to legal proceedings incidental to our business. While our management currently believes the ultimate outcome of these proceedings, individually and in the aggregate, will not have a material adverse effect on our consolidated financial statements, litigation is subject to inherent uncertainties. Were an unfavorable ruling to occur, there exists the possibility of a material adverse impact on our financial condition and results of operations.

Item 1A. Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the risk factors and other cautionary statements described in *Part I, Item 1A., Risk Factors* included in our 2021 10-K, which could materially affect our businesses, financial condition, or future results. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, or future results. There have been no material updates to our Risk Factors presented in our 2021 10-K except for the following:

If we are unable to fund the remainder of the deferred consideration for the CartiHeal Acquisition as it becomes due, we will be subject to penalty interest payment and might lose the assets acquired in the acquisition.

On April 4, 2022, we exercised our Call Option to acquire CartiHeal., excluding the ownership interest already owned by us, for approximately $315.0 million with an additional approximately $135.0 million payable contingent upon the achievement of $75.0 million in trailing twelve-month sales. Pursuant to the CartiHeal Amendment entered into on June 17, 2022, we deferred $215.0 million of upfront consideration otherwise payable to CartiHeal stockholders at the closing of the CartiHeal Acquisition. We closed the acquisition on July 12, 2022 with an upfront payment of $100.0 million, funded through the $50.0 million previously deposited in escrow and an extension of an $80.0 million Term Loan Facility under the Amended 2019 Credit Agreement. We are required to pay the Deferred Amount in five tranches commencing in 2023 and ending no later than 2027, upon the earlier of the achievement of certain milestones and the occurrence of such installment payment dates. Interest on each tranche of the Deferred Amount is accrued at a rate of 8.0% annually until such tranche becomes due and payable and is paid, subject to a penalty interest at a rate of 10.0% per annum if we are unable to pay the amount when due and payable. Our obligation to pay the Deferred Amount also is secured by a first ranking fixed pledge of all of the share capital and intellectual property of CartiHeal and a first ranking floating pledge of all of the assets acquired in the CartiHeal Acquisition.

We expect to fund the Deferred Amount with cash on hand, in combination with the borrowing availability under our credit facility and our expected cash from operations. However, in the event our expected cash from operations together with the borrowing availability under our credit facility are not sufficient, we might require additional capital. If we were to seek additional funds from public and private stock offerings, borrowings under our existing or new credit facilities or other sources in order to fund the Deferred Amount under the CartiHeal Amendment and other future initiatives related to the expansion of our business, such financing might not be available on acceptable or commercially reasonable terms, if at all. Further, such alternative sources of borrowing might be subject to the approval of the requisite lenders under our credit facilities, which we might not be able to secure under reasonable terms.

Furthermore, if we issue equity or debt securities to raise additional capital, our existing stockholders might experience dilution, and the new equity or debt securities might have rights, preferences and privileges senior to those of our existing stockholders. In addition, if we raise additional capital through collaboration, licensing or other similar arrangements, it might be necessary to relinquish valuable rights to our products, potential products or proprietary technologies, or grant licenses on terms that are not favorable to us.

If we cannot fund any tranche of the Deferred Amount as such tranche becomes due, such unfunded amount will thereafter bear interest at a penalty rate of 10.0% per annum (as opposed to 8.0%) until paid, and CartiHeal's former security holders will be entitled to enforce the pledge agreements securing our obligation to pay such Deferred Amounts when due and payable pursuant to the CartiHeal Amendment. If such events were to occur, it could adversely affect our results of operations, financial condition and business.

If we are unable to achieve and maintain adequate levels of coverage and/or reimbursement for our products, the procedures using our products, such as our HA viscosupplements, or any products or future products we may seek to commercialize, such as our recently acquired Agili-C product, the commercial success of these and other products we seek to commercialize may be adversely affected.

Our products are purchased by healthcare providers and customers who typically bill third-party payers or private insurance plans and healthcare networks, to cover all or a portion of the costs and fees associated with our products. These third-party payers and insurers may deny reimbursement if they determine that a device or product provided to a patient or used in a procedure does not meet applicable payment criteria or if the policyholder's healthcare insurance benefits are limited. Further, limits put on reimbursement by third-party payers, whether foreign or domestic, governmental or commercial, could make it more difficult to buy our products and substantially reduce, or possibly eliminate, patient access to our products. The healthcare industry in the United States has experienced a trend toward cost containment as government and private insurers seek to control rising healthcare costs by imposing lower payment rates and negotiating reduced contract rates with providers and suppliers.

Private payers may adopt coverage decisions and payment amounts determined by the Centers for Medicare and Medicaid Services (CMS), the federal agency that administers the Medicare program in the United States, as guidelines in setting their coverage and reimbursement policies. In addition, CMS periodically reviews medical study literature to determine how the literature addresses certain procedures and therapies in the Medicare population. For some governmental programs, such as Medicaid, coverage and reimbursement differs from state to state. Medicaid payments to physicians, facilities and other providers are often lower than payments by other third-party payers and some state Medicaid programs may not pay an adequate amount for the procedures performed with our products, if any payment is made at all. If CMS, other government agencies or private payers lower their reimbursement rates or establish additional limitations on coverage of our products, or if any of the proposed drug pricing executive orders or legislative reforms are enacted, the commercial success of our products may be adversely affected.

At present, there is no established reimbursement for Agili-C products. As a result, we may also be required to conduct expensive clinical studies of Agili-C to justify reimbursement coverage by Medicare and private payers at the level of reimbursement equal to or greater than existing therapies. Moreover, since there is no uniform policy of coverage and reimbursement for our products or procedures using our products among third-party payers in the United States, even if such studies are successful, coverage and reimbursement for our products and procedures using our products can differ significantly from payer to payer. Further, these payers regularly review new and existing technologies for possible coverage and can, without notice, deny or reverse coverage for new or existing products and treatments. Third-party payers may not consider our products to be medically necessary or cost-effective for certain indications or off-label uses or for all uses, and as a result, might not provide coverage for the products. As a result, securing or maintaining third-party reimbursement for our Agili-C product or other products might be time consuming and expensive and the commercial success of our products may be adversely affected if we are not successful in our efforts to obtain and maintain adequate third-party reimbursement for our products.

Further, legislative or other regulatory reforms that have been adopted or may be adopted in the future may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies or other downward pressure on the pricing or reimbursement we or our customers receive for our products. For example, the Consolidated Appropriations Act, 2021 (CAA), was signed into law on December 27, 2020, and, pursuant to implementing regulations promulgated by CMS, expanded price reporting obligations for manufacturers of certain products reimbursed under Medicare Part B beginning January 1, 2022, including all of our HA viscosupplements. In July 2022, CMS began utilizing the new pricing information we reported to it pursuant to these newly adopted reporting obligations to adjust the Medicare payment to healthcare providers using our Durolane and Gelsyn-3 products. As a result, the rates currently available for those products have been reduced from those previously available and will be subject to future reporting and adjustment, which may affect the demand for those products or our ability to sell them profitably. We cannot predict the extent to which this law, or other reimbursement reform proposals or other healthcare cost containment measures that might be enacted in the future, may impact the demand or commercial success of our HA viscosupplements and other products we sell or plan to commercialize in the future.

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

Recent Sales of Unregistered Securities

There were no sales of unregistered securities during the three months ended July 2, 2022.

Item 3. Defaults Upon Senior Securities

Not Applicable

Item 4. Mine Safety Disclosures

Not Applicable

Item 5. Other Information

Not Applicable

Item 6. Exhibits

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed / Furnished Herewith
2.1	Agreement and Plan of Merger by and among: Bioventus Inc., a Delaware corporation; Oyster Merger Sub I, Inc., A Delaware corporation; Oyster Merger Sub II LLC, a Delaware limited liability company; and Misonix, Inc. a Delaware corporation, dated as of July 29, 2021	8-K	001-37844	2.1	7/29/2021	
3.1	Amended and Restated Certificate of Incorporation of Bioventus Inc.	8-K	001-37844	3.1	2/17/2021	
3.2	Amended and Restated Bylaws of Bioventus Inc.	8-K	001-37844	3.2	2/17/2021	
10.1	Form of Inducement Award Restricted Stock Unit Agreement	S-8	333-264050	99.1	4/1/2022	

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed / Furnished Herewith
10.2	Form of Inducement Award Option Agreement	S-8	333-264050	99.2	4/1/2022	
10.3	Bioventus Inc. 2021 Equity Incentive Plan					*
10.4	Amendment No. 1 to Option and Equity Purchase Agreement, between the Company, CartiHeal (2009) Ltd. ("CartiHeal"), Elron Ventures Ltd. and ESOP Management and Trust Services Ltd., dated June 17, 2022	8-K	001-37844	10.1	6/22/2022	
10.5	Amendment No. 3 to Credit and Guaranty Agreement between Bioventus LLC, Wells Fargo Bank, National Association, as administrative agent and collateral agent, and the lenders and other financial institutions party thereto, dated July 11, 2022	8-K	001-37844	10.1	7/12/2022	
31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934, as amended					*
31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934, as amended					*
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					**
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					***
101.SCH	Inline XBRL Taxonomy Extension Schema Document					***
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					***
101.DEF	Inline XBRL Extension Definition Linkbase Document					***
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					***
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					***
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					***

* Filed herewith
** Furnished herewith
*** Submitted electronically herewith

SIGNATURE

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 duly authorized.

BIOVENTUS INC.

August 12, 2022
Date

/s/ Mark L. Singleton
Mark L. Singleton
Senior Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

BIOVENTUS INC.
2021 EQUITY INCENTIVE PLAN

ARTICLE 1.

PURPOSE

The purpose of the Bioventus Inc. 2021 Equity Incentive Plan (as it may be amended or restated from time to time, the "Plan") is to promote the success and enhance the value of Bioventus Inc. (the "Company") by linking the individual interests of the members of the Board, Employees, and Consultants to those of Company stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to Company stockholders. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of members of the Board, Employees, and Consultants upon whose judgment, interest, and special effort the successful conduct of the Company's operation is largely dependent.

ARTICLE 2.

DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates.

2.1 "Administrator" shall mean the Board or a Committee to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

2.2 "Affiliate" shall mean (a) any Subsidiary; and (b) any domestic eligible entity that is disregarded, under Treasury Regulation Section 301.7701-3, as an entity separate from either (i) the Company or (ii) any Subsidiary.

2.3 "Applicable Accounting Standards" shall mean Generally Accepted Accounting Principles in the United States, International Financial Reporting Standards or such other accounting principles or standards as may apply to the Company's financial statements under United States federal securities laws from time to time.

2.4 "Applicable Law" shall mean any applicable law, including without limitation: (a) provisions of the Code, the Securities Act, the Exchange Act and any rules or regulations thereunder; (b) corporate, securities, tax or other laws, statutes, rules, requirements or regulations, whether federal, state, local or foreign; and (c) rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

2.5 "Automatic Exercise Date" shall mean, with respect to an Option or a Stock Appreciation Right, the last business day of the applicable Option Term or Stock Appreciation Right Term that was initially established by the Administrator for such Option or Stock Appreciation Right (e.g., the last business day prior to the tenth anniversary of the date of grant of such Option or Stock Appreciation Right if the Option or Stock Appreciation Right initially had a ten-year Option Term or Stock Appreciation Right Term, as applicable).

2.6 "Award" shall mean an Option, a Stock Appreciation Right, a Restricted Stock award, a Restricted Stock Unit award, an Other Stock or Cash Based Award or a Dividend Equivalent award, which may be awarded or granted under the Plan.

2.7 "Award Agreement" shall mean any written notice, agreement, terms and conditions, contract or other instrument or document evidencing an Award, including through electronic medium, which shall contain such terms and conditions with respect to an Award as the Administrator shall determine consistent with the Plan.

2.8 "Board" shall mean the Board of Directors of the Company.

2.9 "Change in Control" shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any Person directly or indirectly acquires beneficial ownership (within the meaning of Rules 13d-3 and 13d-5 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; provided, however, that the following acquisitions shall not constitute a Change in Control: (i) any acquisition by the Company or any of its Subsidiaries; (ii) any acquisition by an employee benefit plan maintained by the Company or any of its Subsidiaries; (iii) any acquisition which complies with Sections 2.9(c)(i), 2.9(c)(ii) or 2.9(c)(iii); or (iv) in respect of an Award held by a particular Holder, any acquisition by the Holder or any group of Persons including the Holder (or any entity controlled by the Holder or any group of Persons including the Holder); or

(b) The Incumbent Directors cease for any reason to constitute a majority of the Board;

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination, (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the Person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such Person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no Person beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no Person shall be treated for purposes of this Section 2.9(c)(ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; and

(iii) after which at least a majority of the members of the board of directors (or the analogous governing body) of the Successor Entity were Board members at the time of the Board's approval of the execution of the initial agreement providing for such transaction; or

(d) The date specified by the Board following approval by the Company's stockholders of a plan of complete liquidation or dissolution of the Company.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award (or any portion of an Award) that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5).

The Administrator shall have full and final authority, which shall be exercised in its sole discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

2.10 "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder, whether issued prior or subsequent to the grant of any Award.

2.11 "Committee" shall mean the Compensation Committee of the Board, or another committee or subcommittee of the Board, which may be comprised of one or more Directors and/or executive officers of the Company as appointed by the Board, to the extent permitted in accordance with Applicable Law.

2.12 "Common Stock" shall mean the Class A common stock of the Company.

2.13 "Company" shall have the meaning set forth in Article 1.

2.14 "Consultant" shall mean any consultant or adviser engaged to provide services to the Company or any parent of the Company or Affiliate who qualifies as a consultant or advisor under the applicable rules of the Securities and Exchange Commission for registration of shares on a Form S-8 Registration Statement.

2.15 "Director" shall mean a member of the Board, as constituted from time to time.

2.16 "Director Limit" shall have the meaning set forth in Section 4.6.

2.17 "Dividend Equivalent" shall mean a right to receive the equivalent value (in cash or Shares) of dividends paid on Shares, awarded under Section 9.2.

2.18 "DRO" shall mean a "domestic relations order" as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

2.19 "Effective Date" shall mean the day prior to the Public Trading Date.

2.20 "Eligible Individual" shall mean any Person who is an Employee, a Consultant or a Non-Employee Director, as determined by the Administrator.

2.21 "Employee" shall mean any officer or other employee (as determined in accordance with Section 3401(c) of the Code and the Treasury Regulations thereunder) of the Company or of any parent of the Company or Affiliate.

2.22 "Equity Restructuring" shall mean a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per-share value of the Common Stock underlying outstanding Awards.

2.23 "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

2.24 "Exchange Program" shall mean a Program under which (i) outstanding Awards are surrendered or cancelled in exchange for Awards of the Same type (which may have higher or lower exercise prices and different terms), Awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is reduced or increased. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

2.25 "Expiration Date" shall have the meaning given to such term in Section 12.1(c).

2.26 "Fair Market Value" shall mean, as of any given date, the value of a Share determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the Nasdaq Capital Market, the Nasdaq Global Market and the Nasdaq Global Select Market), (ii) listed on any national market system or (iii) quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a Share on such date, the high bid and low asked prices for a Share on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in its discretion.

Notwithstanding the foregoing, with respect to any Award granted on the pricing date of the Company's initial public offering, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company's final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

2.27 "Greater Than 10% Stockholder" shall mean an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or any subsidiary corporation (as defined in Section 424(f) of the Code) or parent corporation thereof (as defined in Section 424(e) of the Code).

2.28 "Holder" shall mean a Person who has been granted an Award.

2.29 "Incentive Stock Option" shall mean an Option that is intended to qualify as an incentive stock option and conforms to the applicable provisions of Section 422 of the Code.

2.30 "Incumbent Directors' shall mean for any period of 12 consecutive months, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a Person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.9(a) or 2.9(c) whose election or nomination for election to the Board was approved by a vote of at least a majority (either by a specific vote or by approval of the proxy statement of the Company in which such Person is named as a nominee for Director without objection to such nomination) of the Directors then still in office who either were Directors at the beginning of the 12-month period or whose election or nomination for election was previously so approved. No individual initially elected or nominated as a director of the Company as a result of an actual or threatened election contest with respect to Directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any Person other than the Board shall be an Incumbent Director.

2.31 "Non-Employee Director" shall mean a Director of the Company who is not an Employee.

2.32 "Non-Employee Director Equity Compensation Policy" shall have the meaning set forth in Section 4.6.

2.33 "Non-Qualified Stock Option" shall mean an Option that is not an Incentive Stock Option or which is designated as an Incentive Stock Option but does not meet the applicable requirements of Section 422 of the Code.

2.34 "Option" shall mean a right to purchase Shares at a specified exercise price, granted under Article 5. An Option shall be either a Non-Qualified Stock Option or an Incentive Stock Option; provided, however, that Options granted to Non-Employee Directors and Consultants shall only be Non-Qualified Stock Options.

2.35 "Option Term" shall have the meaning set forth in Section 5.4.

2.36 "Organizational Documents" shall mean, collectively, (a) the Company's articles of incorporation, certificate of incorporation, bylaws or other similar organizational documents relating to the creation and governance of the Company, and (b) the Committee's charter or other similar organizational documentation relating to the creation and governance of the Committee.

2.37 "Other Stock or Cash Based Award" shall mean a cash payment, cash bonus award, stock payment, stock bonus award, performance award or incentive award that is paid in cash, Shares or a combination of both, awarded under Section 9.1, which may include, without limitation, deferred stock, deferred stock units, performance awards, retainers, committee fees, and meeting-based fees.

2.38 "Permitted Transferee" shall mean, with respect to a Holder, any "family member" of the Holder, as defined in the General Instructions to Form S-8 Registration Statement under the Securities Act (or any successor form thereto), or any other transferee specifically approved by the Administrator after taking into account Applicable Law.

2.39 "Person" shall mean any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act).

2.40 "Plan" shall have the meaning set forth in Article 1.

2.41 "Program" shall mean any program adopted by the Administrator pursuant to the Plan containing the terms and conditions intended to govern a specified type of Award granted under the Plan and pursuant to which such type of Award may be granted under the Plan.

2.42 "Public Trading Date" shall mean the first date upon which Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

2.43 "Restricted Stock" shall mean Common Stock awarded under Article 7 that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.

2.44 "Restricted Stock Units" shall mean the right to receive Shares awarded under Article 8.

2.45 "SAR Term" shall have the meaning set forth in Section 5.4.

2.46 "Section 409A" shall mean Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including, without limitation, any such regulations or other guidance that may be issued after the Effective Date.

2.47 "Securities Act" shall mean the Securities Act of 1933, as amended.

2.48 "Shares" shall mean shares of Common Stock.

2.49 "Stock Appreciation Right" shall mean an Award entitling the Holder (or other Person entitled to exercise pursuant to the Plan) to exercise all or a specified portion thereof (to the extent then exercisable pursuant to its terms) and to receive from the Company an amount determined by multiplying (i) the difference obtained by subtracting (x) the exercise price per share of such Award from (y) the Fair Market Value on the date of exercise of such Award, by (ii) the number of Shares with respect to which such Award shall have been exercised, subject to any limitations the Administrator may impose.

2.50 "Subsidiary" shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.51 "Substitute Award" shall mean an Award granted under the Plan in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock, in any case, upon the assumption of, or in substitution for, outstanding equity awards previously granted by a company or other entity; provided, however, that in no event shall the term "Substitute Award" be construed to refer to an award made in connection with the cancellation and repricing of an Option or Stock Appreciation Right.

2.52 "Termination of Service" shall mean the date the Holder ceases to be an Eligible Individual.

The Administrator, in its sole discretion, shall determine the effect of all matters and questions relating to any Termination of Service, including, without limitation, whether a

Termination of Service has occurred, whether a Termination of Service resulted from a discharge for cause and all questions of whether particular leaves of absence constitute a Termination of Service; provided, however, that, with respect to Incentive Stock Options, unless the Administrator otherwise provides in the terms of any Program, Award Agreement or otherwise, or as otherwise required by Applicable Law, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Service only if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the then-applicable regulations and revenue rulings under said Section. For purposes of the Plan, a Holder's employee-employer relationship or consultancy relations shall be deemed to be terminated in the event that the Affiliate employing or contracting with such Holder ceases to remain an Affiliate following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off).

ARTICLE 3.

SHARES SUBJECT TO THE PLAN

3.1 Number of Shares.

(a) Subject to Sections 3.1(b) and 12.2, Awards may be made under the Plan covering an aggregate number of Shares equal to the sum of: (i) 7,592,476 and (ii) an annual increase on the first day of each calendar year beginning on January 1, 2022 and ending on and including January 1, 2031, equal to the lesser of (A) 4.5% of the Shares outstanding (on an as-converted basis) on the last day of the immediately preceding fiscal year and (B) such smaller number of Shares as determined by the Board; provided, however, no more than 7,592,476 Shares may be issued upon the exercise of Incentive Stock Options. Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Common Stock, treasury Common Stock or Common Stock purchased on the open market.

(b) If any Shares subject to an Award are forfeited or expire, are converted to shares of another Person in connection with a recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, exchange of shares or other similar event, are surrendered pursuant to an Exchange Program, or such Award is settled for cash (in whole or in part) (including Shares repurchased by the Company under Section 7.4 at the same price paid by the Holder), the Shares subject to such Award shall, to the extent of such forfeiture, expiration, or cash settlement, again be available for future grants of Awards under the Plan. Notwithstanding anything to the contrary contained herein, the following Shares shall not be added to the Shares authorized for grant under Section 3.1(a) and shall not be available for future grants of Awards: (i) Shares tendered by a Holder or withheld by the Company in payment of the exercise price of an Option; (ii) Shares tendered by the Holder or withheld by the Company to satisfy any tax withholding obligation with respect to an Award; (iii) Shares subject to a Stock Appreciation Right or other stock-settled Award (including Awards that may be settled in cash or stock) that are not issued in connection with the settlement or exercise, as applicable, of the Stock Appreciation Right or other stock-settled Award; and (iv) Shares purchased on the open market by the Company with the cash proceeds received from the exercise of Options. Any Shares repurchased by the Company under Section 7.4 at the same price paid by the Holder so that such Shares are returned to the Company shall again be available for Awards. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the Shares available for issuance under the Plan. Notwithstanding the provisions of this Section 3.1(b), no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an incentive stock option under Section 422 of the Code.

(c) Substitute Awards may be granted on such terms as the Administrator deems appropriate, notwithstanding limitations on Awards in the Plan. Substitute Awards shall not reduce the Shares authorized for grant under the Plan, except as may be required by reason of Section 422 of the Code, and Shares subject to such Substitute Awards shall not be added to the Shares available for Awards under the Plan as provided in Section 3.1(b) above. Additionally, in the event that a company acquired by the Company or any Affiliate or with which the Company or any Affiliate combines has shares available under a pre-existing plan approved by its stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may, subject to Applicable Law, be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan (and Shares subject to such Awards shall not be added to the Shares available for Awards under the Plan as provided in Section 3.1(b) above); provided that Awards using such available Shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not employed by or providing services to the Company or its Affiliates immediately prior to such acquisition or combination.

ARTICLE 4.

GRANTING OF AWARDS

4.1 Participation. The Administrator may, from time to time, select from among all Eligible Individuals, those to whom an Award shall be granted and shall determine the nature and amount of each Award, which shall not be inconsistent with the requirements of the Plan. Except for any Non-Employee Director's right to Awards that may be required pursuant to the Non-Employee Director Equity Compensation Policy as described in Section 4.6, no Eligible Individual or other Person shall have any right to be granted an Award pursuant to the Plan and neither the Company nor the Administrator is obligated to treat Eligible Individuals, Holders or any other Persons uniformly. Participation by each Holder in the Plan shall be voluntary and nothing in the Plan or any Program shall be construed as mandating that any Eligible Individual or other Person shall participate in the Plan.

4.2 Award Agreement. Each Award shall be evidenced by an Award Agreement that sets forth the terms, conditions and limitations for such Award as determined by the Administrator in its sole discretion (consistent with the requirements of the Plan and any applicable Program). Award Agreements evidencing Incentive Stock Options shall contain such terms and conditions as may be necessary to meet the applicable provisions of Section 422 of the Code.

4.3 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan, the Plan, and any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act, shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

4.4 At-Will Service. Nothing in the Plan or in any Program or Award Agreement hereunder shall confer upon any Holder any right to continue in the employ of, or as a Director or Consultant for, the Company or any Affiliate, or shall interfere with or restrict in any way the

rights of the Company and any Affiliate, which rights are hereby expressly reserved, to discharge any Holder at any time for any reason whatsoever, with or without cause, and with or without notice, or to terminate or change all other terms and conditions of employment or engagement, except to the extent expressly provided otherwise in a written agreement between the Holder and the Company or any Affiliate.

4.5 Foreign Holders. Notwithstanding any provision of the Plan or applicable Program to the contrary, in order to comply with the laws in countries other than the United States in which the Company and its Affiliates operate or have Employees, Non-Employee Directors or Consultants, or in order to comply with the requirements of any foreign securities exchange or other Applicable Law, the Administrator, in its sole discretion, shall have the power and authority to: (a) determine which Affiliates shall be covered by the Plan; (b) determine which Eligible Individuals outside the United States are eligible to participate in the Plan; (c) modify the terms and conditions of any Award granted to Eligible Individuals outside the United States to comply with Applicable Law (including, without limitation, applicable foreign laws or listing requirements of any foreign securities exchange); (d) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable; provided, however, that no such subplans and/or modifications shall increase the share limitation contained in Section 3.1 or the Director Limit; and (e) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals or listing requirements of any foreign securities exchange.

4.6 Non-Employee Director Awards.

(a) Non-Employee Director Equity Compensation Policy. The Administrator, in its sole discretion, may provide that Awards granted to Non-Employee Directors shall be granted pursuant to a written nondiscretionary formula established by the Administrator (the "Non-Employee Director Equity Compensation Policy"), subject to the limitations of the Plan. The Non-Employee Director Equity Compensation Policy shall set forth the type of Award(s) to be granted to Non-Employee Directors, the number of Shares to be subject to Non-Employee Director Awards, the conditions on which such Awards shall be granted, become exercisable and/or payable and expire, and such other terms and conditions as the Administrator shall determine in its sole discretion. The Non-Employee Director Equity Compensation Policy may be modified by the Administrator from time to time in its sole discretion and pursuant to the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time.

(b) Director Limit. Notwithstanding any provision to the contrary in the Plan or in the Non-Employee Director Equity Compensation Policy, the sum of the amount of any cash-based Awards or other fees and the value (determined as of the grant date in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor thereto) of equity-based Awards granted to a Non-Employee Director as compensation for services as a Non-Employee Director during any calendar year following the Public Trading Date shall not exceed $700,000, increased to $1,000,000 with respect to the calendar year of a Non-Employee Director's initial service as a Non-Employee Director (the applicable amount, the "Director Limit"). The Administrator may make exceptions to this limit for individual Non-Employee Directors in extraordinary circumstances, as the Administrator may determine in its discretion, provided that the Non-Employee Director receiving such additional compensation may not participate in the decision to award such compensation or in other contemporaneous compensation decisions involving Non-Employee Directors..

ARTICLE 5.

GRANTING OF OPTIONS AND STOCK APPRECIATION RIGHTS

5.1 Granting of Options and Stock Appreciation Rights to Eligible Individuals. The Administrator is authorized to grant Options and Stock Appreciation Rights to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine, which shall not be inconsistent with the Plan, including any limitations in the Plan that apply to Incentive Stock Options.

5.2 Qualification of Incentive Stock Options. The Administrator may grant Options intended to qualify as Incentive Stock Options only to employees of the Company, any of the Company's present or future "parent corporations" or "subsidiary corporations" as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. No Person who qualifies as a Greater Than 10% Stockholder may be granted an Incentive Stock Option unless such Incentive Stock Option conforms to the applicable provisions of Section 422 of the Code. To the extent that the aggregate fair market value of stock with respect to which "incentive stock options" (within the meaning of Section 422 of the Code, but without regard to Section 422(d) of the Code) are exercisable for the first time by a Holder during any calendar year under the Plan, and all other plans of the Company and any parent corporation or subsidiary corporation thereof (as defined in Section 424(e) and 424(f) of the Code, respectively), exceeds $100,000, the Options shall be treated as Non-Qualified Stock Options to the extent required by Section 422 of the Code. The rule set forth in the immediately preceding sentence shall be applied by taking Options and other "incentive stock options" into account in the order in which they were granted and the fair market value of stock shall be determined as of the time the respective options were granted. Any interpretations and rules under the Plan with respect to Incentive Stock Options shall be consistent with the provisions of Section 422 of the Code. Neither the Company nor the Administrator shall have any liability to a Holder, or any other Person, (a) if an Option (or any part thereof) which is intended to qualify as an Incentive Stock Option fails to qualify as an Incentive Stock Option or (b) for any action or omission by the Company or the Administrator that causes an Option not to qualify as an Incentive Stock Option, including without limitation, the conversion of an Incentive Stock Option to a Non-Qualified Stock Option or the grant of an Option intended as an Incentive Stock Option that fails to satisfy the requirements under the Code applicable to an Incentive Stock Option.

5.3 Option and Stock Appreciation Right Exercise Price. The exercise price per Share subject to each Option and Stock Appreciation Right shall be set by the Administrator, but shall not be less than 100% of the Fair Market Value of a Share on the date the Option or Stock Appreciation Right, as applicable, is granted (or, as to Incentive Stock Options, on the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). In addition, in the case of Incentive Stock Options granted to a Greater Than 10% Stockholder, such price shall not be less than 110% of the Fair Market Value of a Share on the date the Option is granted (or the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). Notwithstanding the foregoing, in the case of an Option or Stock Appreciation Right that is a Substitute Award, the exercise price per share of the Shares subject to such Option or Stock Appreciation Right, as applicable, may be less than the Fair Market Value per share on the date of grant; provided that the exercise price of any Substitute Award shall be determined in accordance with the applicable requirements of Section 424 and 409A of the Code.

5.4 Option and SAR Term. The term of each Option (the "Option Term") and the term of each Stock Appreciation Right (the "SAR Term") shall be set by the Administrator in its sole discretion; provided, however, that the Option Term or SAR Term, as applicable, shall not be more than (a) ten (10) years from the date the Option or Stock Appreciation Right, as

applicable, is granted to an Eligible Individual (other than a Greater Than 10% Stockholder), or (b) five (5) years from the date an Incentive Stock Option is granted to a Greater Than 10% Stockholder. Except as limited by the requirements of Section 409A or Section 422 of the Code and regulations and rulings thereunder or the first sentence of this Section 5.4 and without limiting the Company's rights under Section 10.7, the Administrator may extend the Option Term of any outstanding Option or the SAR Term of any outstanding Stock Appreciation Right, and may extend the time period during which vested Options or Stock Appreciation Rights may be exercised, in connection with any Termination of Service of the Holder or otherwise, and may amend, subject to Section 10.7 and 12.1, any other term or condition of such Option or Stock Appreciation Right relating to such Termination of Service of the Holder or otherwise.

5.5 Option and SAR Vesting. The period during which the right to exercise, in whole or in part, an Option or Stock Appreciation Right vests in the Holder shall be set by the Administrator and set forth in the applicable Award Agreement. Notwithstanding the foregoing and unless determined otherwise by the Company, in the event that on the last business day of the term of an Option or Stock Appreciation Right (other than an Incentive Stock Option) (a) the exercise of the Option or Stock Appreciation Right is prohibited by Applicable Law, as determined by the Company, or (b) Shares may not be purchased or sold by the applicable Participant due to any Company insider trading policy (including blackout periods) or a "lock-up" agreement undertaken in connection with an issuance of securities by the Company, the term of the Option or Stock Appreciation Right shall be extended until the date that is thirty (30) days after the end of the legal prohibition, black-out period or lock-up agreement, as determined by the Company; provided, however, in no event shall the extension last beyond the ten year term of the applicable Option or Stock Appreciation Right. Unless otherwise determined by the Administrator in the Award Agreement, the applicable Program or by action of the Administrator following the grant of the Option or Stock Appreciation Right, (a) no portion of an Option or Stock Appreciation Right which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable and (b) the portion of an Option or Stock Appreciation Right that is unexercisable at a Holder's Termination of Service shall automatically expire thirty (30) days following such Termination of Service.

ARTICLE 6.

EXERCISE OF OPTIONS AND STOCK APPRECIATION RIGHTS

6.1. Exercise and Payment. An exercisable Option or Stock Appreciation Right may be exercised in whole or in part. However, unless the Administrator otherwise determines, an Option or Stock Appreciation Right shall not be exercisable with respect to fractional Shares and the Administrator may require that, by the terms of the Option or Stock Appreciation Right, a partial exercise must be with respect to a minimum number of Shares. Payment of the amounts payable with respect to Stock Appreciation Rights pursuant to this Article 6 shall be in cash, Shares (based on its Fair Market Value as of the date the Stock Appreciation Right is exercised), or a combination of both, as determined by the Administrator.

6.2. Manner of Exercise. All or a portion of an exercisable Option or Stock Appreciation Right shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, the stock plan administrator of the Company or such other Person designated by the Administrator, or his, her or its office, as applicable:

(a) A written notice of exercise in a form the Administrator approves (which may be electronic) complying with the applicable rules established by the Administrator. The notice shall be signed or otherwise acknowledge electronically by the Holder or other Person then entitled to exercise the Option or Stock Appreciation Right or such portion thereof;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with Applicable Law;

(c) In the event that the Option shall be exercised pursuant to Section 10.3 by any Person or Persons other than the Holder, appropriate proof of the right of such Person or Persons to exercise the Option or Stock Appreciation Right, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes for the Shares with respect to which the Option or Stock Appreciation Right, or portion thereof, is exercised, in a manner permitted by the Administrator in accordance with Sections 10.1 and 10.2.

6.3. Expiration of Option Term or SAR Term: Automatic Exercise of In-The-Money Options and Stock Appreciation Rights. Unless otherwise provided by the Administrator in an Award Agreement or otherwise or as otherwise directed by an Option or Stock Appreciation Rights Holder in writing to the Company, each vested and exercisable Option and Stock Appreciation Right outstanding on the Automatic Exercise Date with an exercise price per Share that is less than the Fair Market Value per Share as of such date shall automatically and without further action by the Option or Stock Appreciation Rights Holder or the Company be exercised on the Automatic Exercise Date. In the sole discretion of the Administrator, payment of the exercise price of any such Option shall be made pursuant to Section 10.1(b) or 10.1(c) and the Company or any Subsidiary shall be entitled to deduct or withhold an amount sufficient to satisfy all taxes associated with such exercise in accordance with Section 10.2. Unless otherwise determined by the Administrator, this Section 6.3 shall not apply to an Option or Stock Appreciation Right if the Holder of such Option or Stock Appreciation Right incurs a Termination of Service on or before the Automatic Exercise Date. For the avoidance of doubt, no Option or Stock Appreciation Right with an exercise price per Share that is equal to or greater than the Fair Market Value per Share on the Automatic Exercise Date shall be exercised pursuant to this Section 6.3.

6.4. Notification Regarding Disposition. The Holder shall give the Company prompt written or electronic notice of any disposition or other transfers (other than in connection with a Change in Control) of Shares acquired by exercise of an Incentive Stock Option which occurs within (a) two years from the date of granting (including the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code) such Option to such Holder, or (b) one year after the date of transfer of such Shares to such Holder. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Holder in such disposition or other transfer.

ARTICLE 7.

AWARD OF RESTRICTED STOCK

7.1. Award of Restricted Stock. The Administrator is authorized to grant Restricted Stock, or the right to purchase Restricted Stock, to Eligible Individuals, and shall determine the terms and conditions, including the restrictions applicable to each award of Restricted Stock, which terms and conditions shall not be inconsistent with the Plan or any applicable Program, and may impose such conditions on the issuance of such Restricted Stock as it deems appropriate. At the time of grant, the Administrator shall specify the date or dates on which the Restricted Stock shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service to the Company or any Affiliate, one or more performance goals or other

specific criteria, in each case on a specified date or dates or over any period or periods, as determined by the Administrator. The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock; provided, however, that if a purchase price is charged, such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Law. In all cases, legal consideration shall be required for each issuance of Restricted Stock to the extent required by Applicable Law.

7.2. Rights as Stockholders. Subject to Section 7.4, upon issuance of Restricted Stock, the Holder shall have, unless otherwise provided by the Administrator, all of the rights of a stockholder with respect to said Shares, subject to the restrictions in the Plan, any applicable Program and/or the applicable Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to the Shares to the extent such dividends and other distributions have a record date that is on or after the date on which the Holder to whom such Restricted Stock are granted becomes the record holder of such Restricted Stock; provided, however, that, in the sole discretion of the Administrator, any extraordinary dividends or distributions with respect to the Shares may be subject to the restrictions set forth in Section 7.3. In addition, notwithstanding anything to the contrary herein, with respect to a share of Restricted Stock, dividends which are paid prior to vesting shall only be paid out to the Holder to the extent that the share of Restricted Stock vests.

7.3. Restrictions. All shares of Restricted Stock (including any shares received by Holders thereof with respect to shares of Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) and, unless the Administrator provides otherwise, any property (other than cash) transferred to Holders in connection with an extraordinary dividend or distribution shall be subject to such restrictions and vesting requirements as the Administrator shall provide in the applicable Program or Award Agreement.

7.4. Repurchase or Forfeiture of Restricted Stock. Except as otherwise determined by the Administrator or as otherwise provided in an Award Agreement, if no price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Holder's rights in unvested Restricted Stock then subject to restrictions shall lapse, and such Restricted Stock shall be surrendered to the Company and cancelled without consideration on the date of such Termination of Service. If a price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Company shall have the right to repurchase from the Holder the unvested Restricted Stock then subject to restrictions at a cash price per share equal to the price paid by the Holder for such Restricted Stock or such other amount as may be specified in the applicable Program or Award Agreement.

7.5. Section 83(b) Election. If a Holder makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Holder would otherwise be taxable under Section 83(a) of the Code, the Holder shall be required to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service along with proof of the timely filing thereof with the Internal Revenue Service.

ARTICLE 8.

AWARD OF RESTRICTED STOCK UNITS

8.1 Grant of Restricted Stock Units. The Administrator is authorized to grant Awards of Restricted Stock Units to any Eligible Individual selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator. A Holder

will have no rights of a stockholder with respect to Shares subject to any Restricted Stock Unit unless and until the Shares are delivered in settlement of the Restricted Stock Unit.

8.2 Vesting of Restricted Stock Units. At the time of grant, the Administrator shall specify the date or dates on which the Restricted Stock Units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service to the Company or any Affiliate, one or more performance goals, or other specific criteria, in each case on a specified date or dates or over any period or periods, as determined by the Administrator. An Award of Restricted Stock Units shall only be eligible to vest while the Holder is an Employee, a Consultant or a Director, as applicable; provided, however, that the Administrator, in its sole discretion, may provide (in an Award Agreement or otherwise) that a Restricted Stock Unit award may become vested subsequent to a Termination of Service in the event of the occurrence of certain event, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service, subject to Section 11.7.

8.3 Maturity and Payment. At the time of grant, the Administrator shall specify the maturity date applicable to each grant of Restricted Stock Units, which shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the Holder (if permitted by the applicable Award Agreement); provided that, except as otherwise determined by the Administrator, and subject to compliance with Section 409A, in no event shall the maturity date relating to each Restricted Stock Unit occur following the later of (a) the 15th day of the third month following the end of the calendar year in which the applicable portion of the Restricted Stock Unit vests; and (b) the 15th day of the third month following the end of the Company's fiscal year in which the applicable portion of the Restricted Stock Unit vests. On the maturity date, the Company shall, in accordance with the applicable Award Agreement and subject to Section 10.4(f), transfer to the Holder one unrestricted, fully transferable Share for each Restricted Stock Unit scheduled to be paid out on such date and not previously forfeited, or in the sole discretion of the Administrator, an amount in cash equal to the Fair Market Value of such Shares on the maturity date or a combination of cash and Common Stock as determined by the Administrator.

ARTICLE 9.

AWARD OF OTHER STOCK OR CASH BASED AWARDS AND DIVIDEND EQUIVALENTS

9.1 Other Stock or Cash Based Awards. The Administrator is authorized to grant Other Stock or Cash Based Awards, including awards entitling a Holder to receive Shares or cash to be delivered immediately or in the future, to any Eligible Individual. Subject to the provisions of the Plan and any applicable Program, the Administrator shall determine the terms and conditions of each Other Stock or Cash Based Award, including the term of the Award, any exercise or purchase price, performance goals, transfer restrictions, vesting conditions and other terms and conditions applicable thereto, which shall be set forth in the applicable Award Agreement. Other Stock or Cash Based Awards may be paid in cash, Shares, or a combination of cash and Shares, as determined by the Administrator, and may be available as a form of payment in the settlement of other Awards granted under the Plan, as stand-alone payments, as a part of a bonus, deferred bonus, deferred compensation or other arrangement, and/or as payment in lieu of compensation to which an Eligible Individual is otherwise entitled.

9.2 Dividend Equivalents. Dividend Equivalents may be granted by the Administrator, either alone or in tandem with another Award, based on dividends declared on the Common Stock, to be credited as of dividend payment dates during the period between the date the Dividend Equivalents are granted to a Holder and the date such Dividend Equivalents

terminate or expire, as determined by the Administrator. Such Dividend Equivalents shall be converted to cash or additional Shares by such formula and at such time and subject to such restrictions and limitations as may be determined by the Administrator. In addition, Dividend Equivalents with respect to an Award that are based on dividends paid prior to the vesting of such Award shall only be paid out to the Holder to the extent that the vesting conditions are subsequently satisfied and the Award vests. Notwithstanding the foregoing, no Dividend Equivalents shall be payable with respect to Options or Stock Appreciation Rights.

ARTICLE 10.

ADDITIONAL TERMS OF AWARDS

10.1 Payment. The Administrator shall determine the method or methods by which payments by any Holder with respect to any Awards granted under the Plan shall be made, including, without limitation: (a) cash, wire transfer of immediately available funds or check, (b) Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) or Shares held for such minimum period of time as may be established by the Administrator, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required, (c) delivery of a written or electronic notice that the Holder has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; provided that payment of such proceeds is then made to the Company upon settlement of such sale, (d) other form of legal consideration acceptable to the Administrator in its sole discretion, or (e) any combination of the above permitted forms of payment. Notwithstanding any other provision of the Plan to the contrary, no Holder who is a Director or an "executive officer" of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment, with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

10.2 Tax Withholding. The Company or any Affiliate shall have the authority and the right to deduct or withhold, or require a Holder to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Holder's FICA, employment tax or other social security contribution obligation) required by law to be withheld with respect to any taxable event concerning a Holder arising as a result of the Plan or any Award. The Administrator may, in its sole discretion and in satisfaction of the foregoing requirement, or in satisfaction of such additional withholding obligations as a Holder may have elected, allow a Holder to satisfy such obligations by any payment means described in Section 10.1 hereof, including without limitation, by allowing such Holder to elect to have the Company or any Affiliate withhold Shares otherwise issuable under an Award (or allow the surrender of Shares). The number of Shares that may be so withheld or surrendered shall be limited to the number of Shares that have a Fair Market Value on the date of withholding or repurchase no greater than the aggregate amount of such liabilities based on the maximum statutory withholding rates in such Holder's applicable jurisdictions for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such taxable income. The Administrator shall determine the Fair Market Value of the Shares, consistent with applicable provisions of the Code, for tax withholding obligations due in connection with a broker-assisted cashless Option or Stock Appreciation Right exercise involving the sale of Shares to pay the Option or Stock Appreciation Right exercise price or any tax withholding obligation.

10.3 Transferability of Awards.

(a) Except as otherwise provided in Sections 10.3(b) and 10.3(c):

(i) No Award under the Plan may be sold, pledged, assigned or transferred in any manner other than (A) by will or the laws of descent and distribution or (B) subject to the consent of the Administrator, pursuant to a DRO, unless and until such Award has been exercised or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed;

(ii) No Award or interest or right therein shall be liable for or otherwise subject to the debts, contracts or engagements of the Holder or the Holder's successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy) unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed, and any attempted disposition of an Award prior to satisfaction of these conditions shall be null and void and of no effect, except to the extent that such disposition is permitted by Section 10.3(a)(i); and

(iii) During the lifetime of the Holder, only the Holder may exercise any exercisable portion of an Award granted to such Holder under the Plan, unless it has been disposed of pursuant to a DRO. After the death of the Holder, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Program or Award Agreement, be exercised by the Holder's personal representative or by any Person empowered to do so under the deceased Holder's will or under the then-applicable laws of descent and distribution.

(b) Notwithstanding Section 10.3(a), the Administrator, in its sole discretion, may determine to permit a Holder or a Permitted Transferee of such Holder to transfer an Award other than an Incentive Stock Option (unless such Incentive Stock Option is intended to become a Nonqualified Stock Option) to any one or more Permitted Transferees of such Holder, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee other than (A) to another Permitted Transferee of the applicable Holder or (B) by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Holder (other than the ability to further transfer the Award to any Person other than another Permitted Transferee of the applicable Holder); (iii) the Holder (or transferring Permitted Transferee) and the receiving Permitted Transferee shall execute any and all documents requested by the Administrator, including, without limitation documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under Applicable Law and (C) evidence the transfer; and (iv) the transfer of an Award to a Permitted Transferee shall be without consideration. In addition, and further notwithstanding Section 10.3(a), hereof, the Administrator, in its sole discretion, may determine to permit a Holder to transfer Incentive Stock Options to a trust that constitutes a Permitted Transferee if, under Section 671 of the Code and other Applicable Law, the Holder is considered the sole beneficial owner of the Incentive Stock Option while it is held in the trust.

(c) Notwithstanding Section 10.3(a), a Holder may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Holder and to receive any distribution with respect to any Award upon the Holder's death. A beneficiary, legal guardian, legal representative, or other Person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Program or Award Agreement applicable to the

Holder and any additional restrictions deemed necessary or appropriate by the Administrator. If the Holder is married or a domestic partner in a domestic partnership qualified under Applicable Law and resides in a community property state, a designation of a Person other than the Holder's spouse or domestic partner, as applicable, as the Holder's beneficiary with respect to more than 50% of the Holder's interest in the Award shall not be effective without the prior written or electronic consent of the Holder's spouse or domestic partner. If no beneficiary has been designated or survives the Holder, payment shall be made to the Person entitled thereto pursuant to the Holder's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Holder at any time; provided that the change or revocation is delivered in writing to the Administrator prior to the Holder's death.

10.4 Conditions to Issuance of Shares.

(a) The Administrator shall determine the methods by which Shares shall be delivered or deemed to be delivered to Holders. Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award, unless and until the Administrator has determined that the issuance of such Shares is in compliance with Applicable Law and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Administrator may require that a Holder make such reasonable covenants, agreements and representations as the Administrator, in its sole discretion, deems advisable in order to comply with Applicable Law.

(b) All share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with Applicable Law. The Administrator may place legends on any share certificate or book entry to reference restrictions applicable to the Shares (including, without limitation, restrictions applicable to Restricted Stock).

(c) The Administrator shall have the right to require any Holder to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation, as may be imposed in the sole discretion of the Administrator.

(d) Unless the Administrator otherwise determines, no fractional Shares shall be issued and the Administrator, in its sole discretion, shall determine whether cash shall be given in lieu of fractional Shares or whether such fractional Shares shall be eliminated by rounding down.

(e) The Company, in its sole discretion, may (i) retain physical possession of any stock certificate evidencing Shares until any restrictions thereon shall have lapsed and/or (ii) require that the stock certificates evidencing such Shares be held in custody by a designated escrow agent (which may but need not be the Company) until the restrictions thereon shall have lapsed, and that the Holder deliver a stock power, endorsed in blank, relating to such Shares.

(f) Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by Applicable Law, the Company shall not deliver to any Holder certificates evidencing Shares issued in connection with any Award and instead such Shares shall be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

10.5 Forfeiture and Claw-Back Provisions. All Awards (including any proceeds, gains or other economic benefit actually or constructively received by a Holder upon any receipt or exercise of any Award or upon the receipt or resale of any Shares underlying the Award and any

payments of a portion of an incentive-based bonus pool allocated to a Holder) shall be subject to the provisions of any claw-back policy implemented by the Company, including, without limitation, any claw-back policy adopted to comply with the requirements of Applicable Law, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, whether or not such claw-back policy was in place at the time of grant of an Award, to the extent set forth in such claw-back policy and/or in the applicable Award Agreement.

10.6 Amendment of Awards. Subject to Applicable Law, the Administrator may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or settlement, and converting an Incentive Stock Option to a Non-Qualified Stock Option. The Holder's consent to such action shall be required unless (a) the Administrator determines that the action, taking into account any related action, would not materially and adversely affect the Holder, or (b) the change is otherwise permitted under the Plan (including, without limitation, under Section 12.2 or 12.10).

10.7 Lock-Up Period. The Company may, in connection with registering the offering of any Company securities under the Securities Act, prohibit Holders from, directly or indirectly, selling or otherwise transferring any Shares or other Company securities during a period of up to one hundred eighty days following the effective date of a Company registration statement filed under the Securities Act, or such longer period as determined by the underwriter. In order to enforce the foregoing, the Company shall have the right to place restrictive legends on the certificates of any securities of the Company held by the Holder and to impose stop transfer instructions with the Company's transfer agent with respect to any securities of the Company held by the Holder until the end of such period.

10.8 Data Privacy. As a condition of receipt of any Award, each Holder explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this Section 10.8 by and among, as applicable, the Company and its Affiliates for the exclusive purpose of implementing, administering and managing the Holder's participation in the Plan. The Company and its Affiliates may hold certain personal information about a Holder, including but not limited to, the Holder's name, home address and telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title(s), any shares of stock held in the Company or any of its Affiliates and details of all Awards, in each case, for the purpose of implementing, managing and administering the Plan and Awards (the "Data"). The Company and its Affiliates may transfer the Data amongst themselves as necessary for the purpose of implementation, administration and management of a Holder's participation in the Plan, and the Company and its Affiliates may each further transfer the Data to any third parties assisting the Company and its Affiliates in the implementation, administration and management of the Plan. These recipients may be located in the Holder's country, or elsewhere, and the Holder's country may have different data privacy laws and protections than the recipients' country. Through acceptance of an Award, each Holder authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Holder's participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Company or any of its Affiliates or the Holder may elect to deposit any Shares. The Data related to a Holder will be held only as long as is necessary to implement, administer, and manage the Holder's participation in the Plan. A Holder may, at any time, view the Data held by the Company with respect to such Holder, request additional information about the storage and processing of the Data with respect to such Holder, recommend any necessary corrections to the Data with respect to the Holder or refuse or withdraw the consents herein in writing, in any case without cost, by contacting his or her local human resources representative. The Company may cancel the Holder's ability to participate in

the Plan and, in the Administrator's discretion, the Holder may forfeit any outstanding Awards if the Holder refuses or withdraws his or her consents as described herein. For more information on the consequences of refusal to consent or withdrawal of consent, Holders may contact their local human resources representative.

ARTICLE 11.

ADMINISTRATION

11.1 Administrator. The Committee shall administer the Plan (except as otherwise permitted herein). To the extent required to comply with the provisions of Rule 16b-3, it is intended that each member of the Committee will be, at the time the Committee takes any action with respect to an Award that is subject to Rule 16b-3, a "non-employee director" within the meaning of Rule 16b-3. Additionally, to the extent required by Applicable Law, each of the individuals constituting the Committee shall be an "independent director" under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded. Notwithstanding the foregoing, any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership set forth in this Section 11.1 or the Organizational Documents. Except as may otherwise be provided in the Organizational Documents or as otherwise required by Applicable Law, (a) appointment of Committee members shall be effective upon acceptance of appointment, (b) Committee members may resign at any time by delivering written or electronic notice to the Board and (c) vacancies in the Committee may only be filled by the Board. Notwithstanding the foregoing, (i) the full Board, acting by a majority of its members in office, shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors and, with respect to such Awards, the term "Administrator" as used in the Plan shall be deemed to refer to the Board and (ii) the Board or Committee may delegate its authority hereunder to the extent permitted by Section 11.6.

11.2 Duties and Powers of Administrator. It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with its provisions. The Administrator shall have the power to interpret the Plan, all Programs and Award Agreements, and to adopt such rules for the administration, interpretation and application of the Plan and any Program (including Exchange Programs) as are not inconsistent with the Plan, to interpret, amend or revoke any such rules and to amend the Plan or any Program or Award Agreement; provided that the rights or obligations of the Holder of the Award that is the subject of any such Program or Award Agreement are not materially and adversely affected by such amendment, unless the consent of the Holder is obtained or such amendment is otherwise permitted under Section 10.6 or Section 12.10. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee in its capacity as the Administrator under the Plan except with respect to matters which under Rule 16b-3 under the Exchange Act or any successor rule, or any regulations or rules issued thereunder, or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded are required to be determined in the sole discretion of the Committee.

11.3 Action by the Administrator. Unless otherwise established by the Board, set forth in any Organizational Documents or as required by Applicable Law, a majority of the Administrator shall constitute a quorum and the acts of a majority of the members present at any meeting at which a quorum is present, and acts approved in writing by all members of the Administrator in lieu of a meeting, shall be deemed the acts of the Administrator. Each member of the Administrator is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Affiliate, the Company's independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan. Neither

the Administrator nor any member or delegate thereof shall have nay liability to any person (including any Holder) for any action taken or omitted to be taken or any determination made in good faith with respect to the Plan or any Award.

11.4 Authority of Administrator. Subject to the Organizational Documents, any specific designation in the Plan and Applicable Law, the Administrator has the exclusive power, authority and sole discretion to:

(a) Designate Eligible Individuals to receive Awards;

(b) Determine the type or types of Awards to be granted to each Eligible Individual (including, without limitation, any Awards granted in tandem with another Award granted pursuant to the Plan);

(c) Determine the number of Awards to be granted and the number of Shares to which an Award will relate;

(d) Determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, purchase price, any performance criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and claw-back and recapture of gain on an Award, based in each case on such considerations as the Administrator in its sole discretion determines;

(e) Determine whether, to what extent, and under what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards, or other property, or an Award may be canceled, forfeited, or surrendered;

(f) Prescribe the form of each Award Agreement, which need not be identical for each Holder;

(g) Decide all other matters that must be determined in connection with an Award;

(h) Institute and determine the terms and conditions of an Exchange Program;

(i) Establish, adopt, or revise any Programs, rules and regulations as it may deem necessary or advisable to administer the Plan;

(j) Interpret the terms of, and any matter arising pursuant to, the Plan, any Program or any Award Agreement; and

(k) Make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan.

11.5 Decisions Binding. The Administrator's interpretation of the Plan, any Awards granted pursuant to the Plan, any Program or any Award Agreement and all decisions and determinations by the Administrator with respect to the Plan are final, binding and conclusive on all Persons.

11.6 Delegation of Authority. The Board or Committee may from time to time delegate to a committee of one or more Directors or one or more officers of the Company the authority to grant or amend Awards or to take other administrative actions pursuant to this Article 11;

provided, however, that in no event shall an officer of the Company be delegated the authority to grant Awards to, or amend Awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act or (b) officers of the Company (or Directors) to whom authority to grant or amend Awards has been delegated hereunder; provided, further, that any delegation of administrative authority shall only be permitted to the extent it is permissible under any Organizational Documents and Applicable Law. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation or that are otherwise included in the applicable Organizational Documents, and the Board or Committee, as applicable, may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 11.6 shall serve in such capacity at the pleasure of the Board or the Committee, as applicable, and the Board or the Committee may abolish any committee at any time and re-vest in itself any previously delegated authority.

11.7 Acceleration. Subject to the Organizational Documents, any specific designation in the Plan and Applicable Law, the Administrator has the exclusive power, authority and sole discretion to accelerate, wholly or partially, the vesting or lapse of restrictions (and, if applicable, the Company shall cease to have a right of repurchase) of any Award or portion thereof at any time after the grant of an Award.

ARTICLE 12.

MISCELLANEOUS PROVISIONS

12.1 Amendment, Suspension or Termination of the Plan.

(a) Except as otherwise provided in Section 12.1(b), the Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Board; provided that, except as provided in Section 10.6 and Section 12.10, no amendment, suspension or termination of the Plan shall, without the consent of the Holder, materially and adversely affect any rights or obligations under any Award theretofore granted or awarded, unless the Award itself otherwise expressly so provides.

(b) Notwithstanding Section 12.1(a), the Board may not, except as provided in Section 12.2, increase the limit imposed in Section 3.1 on the maximum number of Shares which may be issued under the Plan without approval of the Company's stockholders given within twelve (12) months before or after such increase.

(c) No Awards may be granted or awarded during any period of suspension or after termination of the Plan, and notwithstanding anything herein to the contrary, in no event may any Award be granted under the Plan after the tenth (10^{th}) anniversary of the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders (such anniversary, the "Expiration Date"). Any Awards that are outstanding on the Expiration Date shall remain in force according to the terms of the Plan, the applicable Program and the applicable Award Agreement.

12.2 Changes in Common Stock or Assets of the Company, Acquisition or Liquidation of the Company and Other Corporate Events.

(a) In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of the Company's stock or the share price of the Company's stock other than an Equity Restructuring, the Administrator

may make equitable adjustments to reflect such change with respect to: (i) the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Section 3.1 on the maximum number and kind of Shares which may be issued under the Plan); (ii) the number and kind of Shares (or other securities or property) subject to outstanding Awards; (iii) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); (iv) the grant or exercise price per share for any outstanding Awards under the Plan; and (v) the number and kind of Shares (or other securities or property) for which automatic grants are subsequently to be made to new and continuing Non-Employee Directors pursuant to any Non-Employee Director Equity Compensation Policy adopted in accordance with Section 4.6.

(b) In the event of any transaction or event described in Section 12.2(a) or any unusual or nonrecurring transactions or events affecting the Company, any Affiliate of the Company, or the financial statements of the Company or any Affiliate, or of changes in Applicable Law or Applicable Accounting Standards, the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in Applicable Law or Applicable Accounting Standards:

(i) To provide for the termination of any such Award in exchange for an amount of cash and/or other property with a value equal to the amount that would have been attained upon the exercise of such Award or realization of the Holder's rights (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction or event described in this Section 12.2 the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Holder's rights, then such Award may be terminated by the Company without payment);

(ii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and applicable exercise or purchase price, in all cases, as determined by the Administrator;

(iii) To make adjustments in the number and type of Shares of the Company's stock (or other securities or property) subject to outstanding Awards, and/or in the

terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards and Awards which may be granted in the future;

(iv) To provide that such Award shall be exercisable or payable or fully vested with respect to all Shares covered thereby, notwithstanding anything to the contrary in the Plan or the applicable Program or Award Agreement;

(v) To replace such Award with other rights or property selected by the Administrator; and/or

(vi) To provide that the Award cannot vest, be exercised or become payable after such event.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Sections 12.2(a) and 12.2(b):

(i) The number and type of securities subject to each outstanding Award and the exercise price or grant price thereof, if applicable, shall be equitably adjusted (and the adjustments provided under this Section 12.2(c)(i) shall be nondiscretionary and shall be final and binding on the affected Holder and the Company); and/or

(ii) The Administrator shall make such equitable adjustments, if any, as the Administrator, in its sole discretion, may deem appropriate to reflect such Equity Restructuring with respect to the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitation in Section 3.1 on the maximum number and kind of Shares which may be issued under the Plan).

(d) Notwithstanding any other provision of the Plan, in the event of a Change in Control, unless the Administrator elects to (i) terminate an Award in exchange for cash, rights or property, or (ii) cause an Award to become fully exercisable and no longer subject to any forfeiture restrictions prior to the consummation of a Change in Control, pursuant to Section 12.2, (A) such Award (other than any portion subject to performance-based vesting) shall continue in effect or be assumed or an equivalent Award (which may include, without limitation, an Award settled in cash) substituted by the successor corporation or a parent or subsidiary of the successor corporation and (B) the portion of such Award subject to performance-based vesting shall be subject to the terms and conditions of the applicable Award Agreement and, in the absence of applicable terms and conditions, the Administrator's discretion. In the event an Award continues in effect or is assumed or an equivalent Award substituted, and a Holder incurs a Termination of Service without "cause" (as such term is defined in the sole discretion of the Administrator, or as set forth in the Award Agreement relating to such Award) upon or within twelve (12) months following the Change in Control, then such Holder shall be fully vested in such continued, assumed or substituted Award.

(e) In the event that the successor corporation in a Change in Control refuses to assume or substitute for an Award, the Administrator may cause (i) any or all of such Award (or portion thereof) to terminate in exchange for cash, rights or other property pursuant to Section 12.2(b)(i) or (ii) any or all of such Award (or portion thereof) to become fully exercisable immediately prior to the consummation of such transaction and all forfeiture restrictions on any or all of such Award to lapse. If any such Award is exercisable in lieu of assumption or substitution in the event of a Change in Control, the Administrator shall notify the Holder that such Award shall be fully exercisable for a period of fifteen (15) days from the date

of such notice, contingent upon the occurrence of the Change in Control, and such Award shall terminate upon the expiration of such period.

(f) For the purposes of this Section 12.2, an Award shall be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the Change in Control was not solely common stock of the successor corporation or its parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Award, for each Share subject to an Award, to be solely common stock of the successor corporation or its parent equal in fair market value to the per-share consideration received by holders of Common Stock in the Change in Control.

(g) The Administrator, in its sole discretion, may include such further provisions and limitations in any Award, agreement or certificate, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(h) Unless otherwise determined by the Administrator, no adjustment or action described in this Section 12.2 or in any other provision of the Plan shall be authorized to the extent it would (i) cause the Plan to violate Section 422(b)(1) of the Code, (ii) result in short-swing profits liability under Section 16 of the Exchange Act or violate the exemptive conditions of Rule 16b-3 of the Exchange Act, or (iii) cause an Award to fail to be exempt from or comply with Section 409A.

(i) The existence of the Plan, any Program, any Award Agreement and/or the Awards granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

(j) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares or the share price of the Common Stock including any Equity Restructuring, for reasons of administrative convenience, the Administrator, in its sole discretion, may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the consummation of any such transaction.

12.3 Approval of Plan by Stockholders. The Plan shall be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan. Awards may be granted or awarded prior to such stockholder approval; provided that such Awards shall not be exercisable, shall not vest and the restrictions thereon shall not lapse and no Shares shall be issued pursuant thereto prior to the time when the Plan is approved by the Company's stockholders; and provided, further, that if such approval has not

been obtained at the end of said twelve (12) month period, all Awards previously granted or awarded under the Plan shall thereupon be canceled and become null and void.

12.4 No Stockholders Rights. Except as otherwise provided herein or in an applicable Program or Award Agreement, a Holder shall have none of the rights of a stockholder with respect to Shares covered by any Award until the Holder becomes the record owner of such Shares.

12.5 Paperless Administration. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Holder may be permitted through the use of such an automated system.

12.6 Effect of Plan upon Other Compensation Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company or any Affiliate. Nothing in the Plan shall be construed to limit the right of the Company or any Affiliate: (a) to establish any other forms of incentives or compensation for Employees, Directors or Consultants of the Company or any Affiliate, or (b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose including without limitation, the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, partnership, limited liability company, firm or association.

12.7 Compliance with Laws. The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded hereunder are subject to compliance with all Applicable Law (including but not limited to state, federal and foreign securities law and margin requirements), and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions, and the Person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all Applicable Law. The Administrator, in its sole discretion, may take whatever actions it deems necessary or appropriate to effect compliance with Applicable Law, including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars. Notwithstanding anything to the contrary herein, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate Applicable Law. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to Applicable Law.

12.8 Titles and Headings, References to Sections of the Code or Exchange Act. The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.

12.9 Governing Law. The Plan and any Programs and Award Agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof or of any other jurisdiction.

12.10 Section 409A. To the extent that the Administrator determines that any Award granted under the Plan is subject to Section 409A, the Plan, the Program pursuant to which such

Award is granted and the Award Agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A. In that regard, to the extent any Award under the Plan or any other compensatory plan or arrangement of the Company or any of its Affiliates is subject to Section 409A, and such Award or other amount is payable on account of a Holder's Termination of Service (or any similarly defined term), then (a) such Award or amount shall only be paid to the extent such Termination of Service qualifies as a "separation from service" as defined in Section 409A, and (b) if such Award or amount is payable to a "specified employee" as defined in Section 409A then to the extent required in order to avoid a prohibited distribution under Section 409A, such Award or other compensatory payment shall not be payable prior to the earlier of (i) the expiration of the six-month period measured from the date of the Holder's Termination of Service, or (ii) the date of the Holder's death. To the extent applicable, the Plan, the Program and any Award Agreements shall be interpreted in accordance with Section 409A. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Administrator determines that any Award may be subject to Section 409A, the Administrator may (but is not obligated to), without a Holder's consent, adopt such amendments to the Plan and the applicable Program and Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (A) exempt the Award from Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (B) comply with the requirements of Section 409A and thereby avoid the application of any penalty taxes under Section 409A. The Company makes no representations or warranties as to the tax treatment of any Award under Section 409A or otherwise. The Company shall have no obligation under this Section 12.10 or otherwise to take any action (whether or not described herein) to avoid the imposition of taxes, penalties or interest under Section 409A with respect to any Award and shall have no liability to any Holder or any other Person if any Award, compensation or other benefits under the Plan are determined to constitute non-compliant, "nonqualified deferred compensation" subject to the imposition of taxes, penalties and/or interest under Section 409A.

12.11 Unfunded Status of Awards. The Plan is intended to be an "unfunded" plan for incentive compensation. With respect to any payments not yet made to a Holder pursuant to an Award, nothing contained in the Plan or any Program or Award Agreement shall give the Holder any rights that are greater than those of a general creditor of the Company or any Affiliate.

12.12 Indemnification. To the extent permitted under Applicable Law and the Organizational Documents, each member of the Administrator (and each delegate thereof pursuant to Section 11.6) shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan or any Award Agreement and against and from any and all amounts paid by him or her, with the Board's approval, in satisfaction of judgment in such action, suit, or proceeding against him or her; provided he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf and, once the Company gives notice of its intent to assume such defense, the Company shall have sole control over such defense with counsel of the Company's choosing. The foregoing right of indemnification shall not be available to the extent that a court of competent jurisdiction in a final judgment or other final adjudication, in either case not subject to further appeal, determines that the acts or omissions of the person seeking indemnity giving rise to the indemnification claim resulted from such person's bad faith, fraud or willful criminal act or omission. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such Persons may be entitled pursuant to the Organizational Documents, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

12.13 Relationship to Other Benefits. No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Affiliate except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

12.14 Expenses. The expenses of administering the Plan shall be borne by the Company and its Affiliates.

* * * * *

I hereby certify that the foregoing Plan was duly adopted by the Board of Directors of Bioventus Inc. on _____ __, 2021.

* * * * *

I hereby certify that the foregoing Plan was approved by the stockholders of Bioventus Inc. on _____ __, 2021.

Executed on this ____ day of _____, 2021.

_____
Corporate Secretary

Exhibit 31.1

CERTIFICATIONS

I, Kenneth M. Reali, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Bioventus 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 ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(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.

/s/ Kenneth M. Reali

Name: Kenneth M. Reali

Title: Chief Executive Officer and Director (Principal Executive Officer)

Date: August 12, 2022

Exhibit 31.2

CERTIFICATIONS

I, Mark L. Singleton, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Bioventus 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 ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(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.

/s/ Mark L. Singleton

Name: Mark L. Singleton

Title: Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Date: August 12, 2022

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, in connection with the Quarterly Report on Form 10-Q of Bioventus Inc. (the Company) for the quarter ended July 2, 2022, as filed with the Securities and Exchange Commission on the date hereof (the Report), each of Kenneth M. Reali, Chief Executive Officer and Director of the Company and Mark L. Singleton, Senior Vice President and Chief Financial Officer of the Company, hereby certifies, that, to such officer's knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Kenneth M. Reali

Name: Kenneth M. Reali
Title: Chief Executive Officer and Director (Principal Executive Officer)

/s/ Mark L. Singleton

Name: Mark L. Singleton
Title: Senior Vice President and Chief Financial Officer (Principal Financial Officer)

Date: August 12, 2022