

REFINITIV

DELTA REPORT

10-Q

BLFS - BIOLIFE SOLUTIONS INC

10-Q - MARCH 31, 2024 COMPARED TO 10-Q - SEPTEMBER 30, 2023

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TOTAL DELTAS 1180

CHANGES	222
DELETIONS	501
ADDITIONS	457

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2023 March 31, 2024

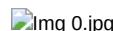
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934

For the transition period from _____ to _____

Commission File Number 001-36362

BioLife Solutions, Inc.

(Exact name of registrant as specified in its charter)



Delaware

94-3076866

(IRS Employer
Identification No.)

(State or other jurisdiction of incorporation or organization)

3303 Monte Villa Parkway, Suite 310, Bothell, Washington, 98021

(Address of registrant's principal executive offices, Zip Code)

(425) 402-1400

(Telephone number, including area code)

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

Title of each class	Trading symbol	Name of exchange on which registered
Common stock, par value \$0.001 per share	BLFS	The NASDAQ Stock Market, LLC

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 (S232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit said 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 Act). Yes No

As of November 1, 2023 May 3, 2024, 44,031,322 46,030,886 shares of the registrant's common stock were outstanding.

BIOLIFE SOLUTIONS, INC.

FORM 10-Q

FOR THE QUARTER ENDED **SEPTEMBER 30, 2023** **MARCH 31, 2024**

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PART I. FINANCIAL INFORMATION**Item 1. Financial Statements**

BioLife Solutions, Inc.
Unaudited Condensed Consolidated Balance Sheets

	September 30,	December 31,		
	March 31,		March 31,	December 31,
	(In thousands,			
(In thousands, except per share and share and share data)	(In thousands, except per share and share data)	2023	2024	2023
Assets	Assets			

Current assets:	Current assets:		
Current assets:			
Current assets:			
Cash and cash equivalents			
Cash and cash equivalents			
Cash and cash equivalents	Cash and cash equivalents	\$ 19,235	\$ 19,442
	Restricted cash		
Restricted cash	cash	31	31
Available-for-sale securities, current portion	Available-for-sale securities, current portion	21,794	43,260
Accounts receivable, trade, net of allowance for credit losses of \$1,244 and \$739 as of September 30, 2023 and December 31, 2022, respectively		24,556	33,936
Accounts receivable, trade, net of allowance for credit losses of \$1,745 and \$1,710 as of March 31, 2024 and December 31, 2023, respectively			
Inventories	Inventories	43,354	34,904
Prepaid expenses and other current assets	Prepaid expenses and other current assets	7,854	6,879
Total current assets	Total current assets	116,824	138,452
Assets held for rent, net			
Assets held for rent, net			
Assets held for rent, net	Assets held for rent, net	7,209	9,064
Property and equipment, net	Property and equipment, net	20,998	23,638
Operating lease assets, net	Operating lease right-of-use assets, net	12,651	15,292
Financing lease assets, net	Financing lease right-of-use assets, net	124	272
Long-term deposits and other assets	Long-term deposits and other assets	316	281
Available-for-sale securities, long-term	Available-for-sale securities, long-term	1,156	1,332
Equity investments	Equity investments	5,069	5,069
Intangible assets, net	Intangible assets, net	22,064	32,088

Goodwill	Goodwill	224,741	224,741
Total assets	Total assets	\$ 411,152	\$ 450,229
Liabilities and Shareholders' Equity	Liabilities and Shareholders' Equity		
Equity	Equity		
Liabilities and Shareholders' Equity			
Liabilities and Shareholders' Equity			
Current liabilities:	Current liabilities:		
Accounts payable	Accounts payable	\$ 11,980	\$ 15,367
Accrued expenses and other current liabilities	Accrued expenses and other current liabilities	8,568	9,782
Sales taxes payable	Sales taxes payable	5,469	4,151
Warranty liability	Warranty liability	8,215	8,312
Lease liabilities, operating, current portion	Lease liabilities, operating, current portion	2,906	2,860
Lease liabilities, financing, current portion	Lease liabilities, financing, current portion	398	158
Debt, current portion	Debt, current portion	5,034	1,814
Contingent consideration, current portion		52	2,138
Total current liabilities	Total current liabilities	42,622	44,582
Contingent consideration, long-term		363	2,318
Lease liabilities, operating, long-term			
Lease liabilities, operating, long-term			
Lease liabilities, operating, long-term	Lease liabilities, operating, long-term	13,677	14,962
Lease liabilities, financing, long-term	Lease liabilities, financing, long-term	1,250	126
Debt, long-term	Debt, long-term	20,937	23,793
Deferred tax liabilities	Deferred tax liabilities	286	250
Other long-term liabilities		-	10
Total liabilities	Total liabilities	79,135	86,041

Commitments and contingencies (Note 13)			
Commitments and contingencies (Note 12)			
Commitments and contingencies (Note 12)			
Commitments and contingencies (Note 12)			
Shareholders' equity:	Shareholders' equity:		
Preferred stock, \$0.001 par value; 1,000,000 shares authorized, Series A, 4,250 shares designated, and 0 shares issued and outstanding as of September 30, 2023 and December 31, 2022	-	-	
Common stock, \$0.001 par value; 150,000,000 shares authorized, 43,831,351 and 42,832,231 shares issued and outstanding, respectively, as of September 30, 2023 and December 31, 2022	44	43	
Shareholders' equity:			
Shareholders' equity:			
Preferred stock, \$0.001 par value; 1,000,000 shares authorized, Series A, 4,250 shares designated, and 0 shares issued and outstanding as of March 31, 2024 and December 31, 2023			
Common stock, \$0.001 par value; 150,000,000 shares authorized, 45,689,583 and 45,167,225 shares issued and outstanding, respectively, as of March 31, 2024 and December 31, 2023			
Additional paid-in capital	Additional paid-in capital	632,593	611,739

Accumulated other comprehensive loss, net of taxes	Accumulated other comprehensive loss, net of taxes	(660)	(679)
Accumulated deficit	Accumulated deficit	(299,960)	(246,915)
Total shareholders' equity	Total shareholders' equity	332,017	364,188
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	\$ 411,152	\$ 450,229

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

BioLife Solutions, Inc.
Unaudited Condensed Consolidated Statements of Operations

	Three Months Ended March 31,		Three Months Ended March 31,		Three Months Ended March 31,	
	(In thousands, except per share and share data)		(In thousands, except per share and share data)		(In thousands, except per share and share data)	
Product revenue	Product revenue	\$ 26,891	\$ 33,668	\$ 91,520	\$ 98,227	
Product revenue						
Product revenue						
Service revenue						
Service revenue	Service revenue	4,378	4,330	13,043	11,117	
Rental revenue	Rental revenue	2,059	2,749	5,975	8,156	
Rental revenue						
Rental revenue						
Total product, rental, and service revenue						
Total product, rental, and service revenue						
Total product, rental, and service revenue	Total product, rental, and service revenue	33,328	40,747	110,538	117,500	

Costs and operating expenses:	Costs and operating expenses:				
Costs and operating expenses:					
Cost of product revenue (exclusive of intangible assets amortization)					
Cost of product revenue (exclusive of intangible assets amortization)					
Cost of product revenue (exclusive of intangible assets amortization)	Cost of product revenue (exclusive of intangible assets amortization)	16,665	21,876	57,022	63,377
Cost of service revenue (exclusive of intangible assets amortization)	Cost of service revenue (exclusive of intangible assets amortization)	3,945	3,253	11,873	8,810
Cost of service revenue (exclusive of intangible assets amortization)					
Cost of service revenue (exclusive of intangible assets amortization)					
Cost of rental revenue (exclusive of intangible assets amortization)					
Cost of rental revenue (exclusive of intangible assets amortization)					
Cost of rental revenue (exclusive of intangible assets amortization)	Cost of rental revenue (exclusive of intangible assets amortization)	1,069	1,880	4,141	5,462
General and administrative	General and administrative	12,513	11,916	42,757	35,098
General and administrative					
General and administrative					
Sales and marketing					
Sales and marketing					
Sales and marketing	Sales and marketing	7,256	5,278	20,045	15,601
Research and development	Research and development	5,402	3,425	14,397	10,634
Asset impairment charges		15,485	—	15,485	69,900
Research and development					
Research and development					
Intangible asset amortization	Intangible asset amortization	1,356	2,513	4,266	8,236
Intangible asset amortization					
Intangible asset amortization					
Acquisition costs					
Acquisition costs					
Acquisition costs					
Change in fair value of contingent consideration					
Change in fair value of contingent consideration					

Change in fair value of contingent consideration	Change in fair value of contingent consideration	(1,580)	2,346	(1,778)	(3,348)
Total operating expenses	Total operating expenses	62,111	52,487	168,208	213,770
Total operating expenses					
Operating loss					
Operating loss	Operating loss	(28,783)	(11,740)	(57,670)	(96,270)
Other (expense) income:					
Change in fair value of investments		—	697	—	697
Gain on settlement of Global Cooling escrow		—	—	5,115	—
Other income (expense):					
Other income (expense):					
Interest expense, net					
Interest expense, net	Interest expense, net	(476)	(15)	(1,305)	(250)
Other income	Other income	242	142	1,027	270
Total other (expense) income, net		(234)	824	4,837	717
Other income					
Other income					
Total other income (expense), net					
Total other income (expense), net					
Total other income (expense), net					
Loss before income tax (expense) benefit		(29,017)	(10,916)	(52,833)	(95,553)
Income tax (expense) benefit		(115)	599	(212)	4,937
Loss before income tax expense					
Loss before income tax expense					
Loss before income tax expense					
Income tax expense					
Income tax expense					
Net loss					
Net loss	Net loss	\$ (29,132)	\$ (10,317)	\$ (53,045)	\$ (90,616)
Net loss attributable to common shareholders:					
Net loss attributable to common shareholders:					
Net loss attributable to common shareholders:	Net loss attributable to common shareholders:				
Basic and Diluted	Basic and Diluted	\$ (29,132)	\$ (10,317)	\$ (53,045)	\$ (90,616)
Basic and Diluted					
Basic and Diluted					

Net loss per share attributable to common shareholders:								
Net loss per share attributable to common shareholders:								
Net loss per share attributable to common shareholders:	Net loss per share attributable to common shareholders:							
Basic and Diluted	Basic and Diluted	\$ (0.67)	\$ (0.24)	\$ (1.22)	\$ (2.14)			
Basic and Diluted	Basic and Diluted							
Basic and Diluted	Weighted average shares used to compute loss per share attributable to common shareholders:							
Weighted average shares used to compute loss per share attributable to common shareholders:	Weighted average shares used to compute loss per share attributable to common shareholders:							
Basic and Diluted	Basic and Diluted	<u>43,570,438</u>	<u>42,647,967</u>	<u>43,348,412</u>	<u>42,376,392</u>			
Basic and Diluted	Basic and Diluted							
Basic and Diluted	Basic and Diluted							

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

BioLife Solutions, Inc. Unaudited Condensed Consolidated Statements of Comprehensive Loss							
Three Months Ended September 30,				Nine Months Ended September 30,			
		Three Months Ended March 31,	Three Months Ended March 31,			Three Months Ended March 31,	Nine Months Ended September 30,
(In thousands)	(In thousands)						
(In thousands)	(In thousands)	2023	2022	2023	2022		
Net loss	Net loss	\$ (29,132)	\$ (10,317)	\$ (53,045)	\$ (90,616)		
Net loss							
Net loss							
Other comprehensive income (loss):							
Other comprehensive income (loss):							
Other comprehensive income (loss):	Other comprehensive income (loss):						
Foreign currency translation	Foreign currency translation						
adjustment, net of tax	adjustment, net of tax	(165)	(321)	(25)	(900)		

Unrealized gain (loss) on available-for-sale securities, net of tax	4	(36)	44	(75)
Foreign currency translation adjustment, net of tax				
Foreign currency translation adjustment, net of tax				
Unrealized (loss) gain on available-for-sale securities, net of tax				
Unrealized (loss) gain on available-for-sale securities, net of tax				
Unrealized (loss) gain on available-for-sale securities, net of tax				
Comprehensive loss	Comprehensive loss	\$ (29,293)	\$ (10,674)	\$ (53,026)
Comprehensive loss				
Comprehensive loss				

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

BioLife Solutions, Inc.
Unaudited Condensed Consolidated Statements of Shareholders' Equity

(In thousands, except share data)	Nine Months Ended September 30, 2023									
	Series A		Series A		Common		Common		Accumulated	
	Preferred	Stock	Preferred	Stock	Stock	Stock	Paid-in	Additional	Other	
	Stock Shares	Amount	Stock Shares	Amount	Stock Shares	Amount	Capital	Capital	Comprehensive Income	Accumulated Deficit
Balance, December 31, 2022	-	\$ -	-	-	42,832,231	\$ 43	\$ 611,739	\$ (679)	\$ (246,915)	\$ 364,188
Stock-based compensation	-	-	-	-	-	-	23,337	-	-	23,337
Stock option exercises	-	-	-	175,043	-	-	369	-	-	369
Stock issued – on vested RSAs	-	-	-	923,128	1	-	-	-	-	1
Contingent consideration shares issued	-	-	-	116,973	-	-	2,263	-	-	2,263
Settlement of Global Cooling escrow	-	-	-	(216,024)	-	-	(5,115)	-	-	(5,115)
Foreign currency translation	-	-	-	-	-	-	-	(25)	-	(25)
Unrealized gain on available-for-sale securities	-	-	-	-	-	-	-	44	-	44
Net loss	-	-	-	-	-	-	-	-	(53,045)	(53,045)
Balance, September 30, 2023	-	\$ -	-	43,831,351	\$ 44	\$ 632,593	\$ (660)	\$ (299,960)	\$ 332,017	

(In thousands, except share data)	Three Months Ended March 31, 2024									
	Three Months Ended March 31, 2024									
	Series A		Series A		Common		Common		Accumulated	
	Preferred shares	Stock amount	Preferred shares	Stock amount	Stock shares	Stock amount	Stock shares	Paid-in capital	Additional capital	Other
Balance, December 31, 2023	-	\$ -	-	-	-	-	-	-	-	-
Stock-based compensation	-	-	-	-	-	-	-	-	-	-

Three Months Ended September 30, 2023

(in thousands, except share data)	Series A		Series A		Accumulated				
	Preferred	Stock	Preferred	Stock	Common	Stock	Paid-in	Comprehensive	Total
	Shares	Amount	Shares	Amount	Capital	Income	Accumulated Deficit	Shareholders' Equity	
Balance, June 30, 2023	-	\$ -	43,442,250	\$ 43	\$ 623,412	\$ (499)	\$ (270,828)	\$ 352,128	
Stock-based compensation	-	-	-	-	9,117	-	-	9,117	
Stock option exercises	-	-	31,000	-	64	-	-	64	
Stock issued – on vested RSAs									
Stock issued	Stock								
– on vested	issued –								
RSAs	on vested								
	RSAs		358,101	1	-	-	-	1	
Foreign currency translation	Foreign currency translation				(165)			(165)	
Unrealized gain on available-for-sale securities					4			4	
Unrealized loss on available-for-sale securities									
Net loss	Net loss				(29,132)			(29,132)	
Balance, September 30, 2023	-	\$ -	43,831,351	\$ 44	\$ 632,593	\$ (660)	\$ (299,960)	\$ 332,017	
Balance, March 31, 2024									

(in thousands, except share data)	Nine Months Ended September 30, 2022									
	Series A		Series A		Common		Common		Accumulated	
	Preferred	Stock	Preferred	Stock	Stock	Stock	Additional Paid-in Capital	Other Comprehensive Loss	Accumulated Deficit	Total Shareholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance, December 31, 2021	-	\$ -	-	-	41,817,503	\$ 42	\$ 585,397	\$ (282)	\$ (107,110)	\$ 478,047
Fees incurred for registration filings	-	-	-	-	-	-	(130)	-	-	(130)
Stock-based compensation	-	-	-	-	-	-	17,671	-	-	17,671
Stock option exercises	-	-	-	-	158,075	-	307	-	-	307
Stock issued – on vested RSAs	-	-	-	-	666,336	1	(1)	-	-	-
Contingent consideration shares issued	-	-	-	-	64,130	-	816	-	-	816
Foreign currency translation	-	-	-	-	-	-	(900)	-	-	(900)
Unrealized loss on available-for-sale securities	-	-	-	-	-	-	(75)	-	-	(75)
Net loss	-	-	-	-	-	-	-	(90,616)	-	(90,616)
Balance, September 30, 2022	-	\$ -	-	-	42,706,044	\$ 43	\$ 604,060	\$ (1,257)	\$ (197,726)	\$ 405,120
Three Months Ended September 30, 2022										
Three Months Ended March 31, 2023										
Three Months Ended March 31, 2023										

(In thousands, data)	(In thousands, data)	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Other Comprehensive Loss	Accumulated Deficit	Total Shareholders' Equity	(In thousands, share data)	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Other Comprehensive Loss	Accumulated Deficit	Total Shareholders' Equity
Balance, June 30, 2022		- \$ -	42,536,734	\$ 43	\$ 597,810	\$ (900)	\$ (187,409)	\$ 409,544										
Fees incurred for registration filings							(55)									(55)		
Balance, December 31, 2022																		
Stock-based compensation	Stock-based compensation	-	-	-	-	6,299			6,299									
Stock option exercises	Stock option exercises	-	-	3,571	-	6			6									
Stock issued – on vested	Stock issued – on vested	-	-	165,739	-													
RSAs	RSAs	-	-															
Foreign currency translation	Foreign currency translation	-	-	-	-	(321)			(321)									
Unrealized loss on available-for-sale securities		-	-	-	-	(36)			(36)									
Unrealized gain on available-for- sale securities																		
Net loss	Net loss	-	-	-	-	(10,317)			(10,317)									
Balance, September 30, 2022		- \$ -	42,706,044	\$ 43	\$ 604,060	\$ (1,257)	\$ (197,726)	\$ 405,120										
Balance, March 31, 2023																		

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

BioLife Solutions, Inc.
Unaudited Condensed Consolidated Statements of Cash Flows

Nine Months Ended September 30,				Three Months Ended March 31,				Three Months Ended March 31,			
(In thousands)	(In thousands)	2023	2022	(In thousands)		2024		2023		2023	
Cash flows from operating activities	Cash flows from operating activities										
Net loss	Net loss	\$(53,045)	\$(90,616)								
Net loss											
Net loss											

Adjustments to reconcile net loss to net cash used in operating activities	Adjustments to reconcile net loss to net cash used in operating activities		
Impairment of intangible assets	5,758	69,900	
Impairment of long-lived assets	9,727	-	
Settlement of Global Cooling escrow	(5,115)	-	
Depreciation			
Depreciation			
Depreciation	Depreciation	5,646	5,056
Amortization of intangible assets	Amortization of intangible assets	4,266	8,236
Amortization of loan costs	Amortization of loan costs	13	-
Stock-based compensation	Stock-based compensation	23,337	17,671
Non-cash lease expense		494	1,025
Deferred income tax expense (benefit)		36	(4,937)
Non-cash lease (benefit) expense			
Deferred income tax expense			
Change in fair value of contingent consideration	Change in fair value of contingent consideration	(1,778)	(3,348)
Change in fair value of equity investments		-	(697)
Accretion of investments		(1,049)	-
Loss on disposal of property and equipment, net		227	54
Accretion of available-for-sale investments			
Accretion of available-for-sale investments			
Accretion of available-for-sale investments			
(Gain) loss on disposal of property and equipment, net			
Loss on disposal of assets held for rent, net	Loss on disposal of assets held for rent, net	443	369

Other	Other	-	302
Change in operating assets and liabilities, net of effects of acquisitions	Change in operating assets and liabilities, net of effects of acquisitions		
Change in operating assets and liabilities, net of effects of acquisitions	Change in operating assets and liabilities, net of effects of acquisitions		
Accounts receivable, trade, net	Accounts receivable, trade, net	9,437	(9,438)
Inventories	Inventories	(8,450)	(5,403)
Prepaid expenses and other assets	Prepaid expenses and other assets	(1,045)	(1,843)
Accounts payable	Accounts payable	(3,380)	(3,615)
Accrued expenses and other current liabilities	Accrued expenses and other current liabilities	(1,692)	444
Warranty liability	Warranty liability	(97)	(1,031)
Sales taxes payable	Sales taxes payable	1,330	1,526
Other	Other	128	-
Net cash used in operating activities	Net cash used in operating activities	(14,809)	(16,345)
Cash flows from investing activities	Cash flows from investing activities		
Cash flows from investing activities	Cash flows from investing activities		
Purchases of available-for-sale securities	Purchases of available-for-sale securities		
Purchases of available-for-sale securities	Purchases of available-for-sale securities		
Purchases of available-for-sale securities	Purchases of available-for-sale securities	(22,688)	(35,767)

Proceeds from sale of available-for-sale securities	Proceeds from sale of available-for-sale securities	2,971	-
Maturities of available-for-sale securities	Maturities of available-for-sale securities	42,450	750
Purchases of assets held for rent	Purchases of assets held for rent	(3,453)	(2,269)
Purchases of property and equipment	Purchases of property and equipment	(5,400)	(5,937)
Net cash provided by (used in) investing activities		13,880	(43,223)
Net cash (used in) provided by investing activities			
Cash flows from financing activities	Cash flows from financing activities		
Cash flows from financing activities			
Cash flows from financing activities			
Payments on equipment loans	Payments on equipment loans		
Payments on equipment loans	Payments on equipment loans	(383)	(370)
Proceeds from exercise of common stock options	Proceeds from exercise of common stock options	370	307
Proceeds from term loans		-	20,000
Payments on financed insurance premium	Payments on financed insurance premium		
Payments on financed insurance premium	Payments on financed insurance premium		
Payments on financed insurance premium	Payments on financed insurance premium		
Other			
Net cash used in financing activities			
Net decrease in cash, cash equivalents, and restricted cash	Net decrease in cash, cash equivalents, and restricted cash		
Net decrease in cash, cash equivalents, and restricted cash	Net decrease in cash, cash equivalents, and restricted cash		
Net decrease in cash, cash equivalents, and restricted cash	Net decrease in cash, cash equivalents, and restricted cash		

Cash, cash equivalents, and restricted cash – beginning of period		
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Payments on term loans	(300)	(1,750)
Fees paid related to issuance of common stock	-	(130)
Proceeds from financed insurance premium	2,639	
Payments on financed insurance premium	(1,653)	(814)
Other	77	(302)
Net cash provided by financing activities	750	16,941
Net decrease in cash, cash equivalents, and restricted cash	(179)	(42,627)
Cash, cash equivalents, and restricted cash – beginning of period	19,473	69,870
Effects of currency translation on cash, cash equivalents, and restricted cash	(28)	(176)
Cash, cash equivalents, and restricted cash – end of period	\$ 19,266	\$ 27,067
Non-cash investing and financing activities		
Purchase of property and equipment not yet paid	\$ 4,064	\$ 1,661
Assets acquired under operating leases	\$ (880)	\$ 243
Assets acquired under financing leases	\$ 1,682	\$ -
Unrealized gains and losses on currency translation	\$ (11)	\$ -
Unrealized gains and losses on available-for-sale securities	\$ (44)	\$ 75
Cashless issuance of SciSafe earnout shares	\$ 2,263	\$ 817
Cash interest paid	\$ 1,394	\$ 230
Returned shares from settlement of Global Cooling escrow	\$ (5,115)	\$ -

Effects of currency translation on cash, cash equivalents, and restricted cash	(65)	11
Cash, cash equivalents, and restricted cash – end of period	\$ 29,725	\$ 19,136
Non-cash investing and financing activities		
Purchase of property and equipment not yet paid	\$ 26	\$ 347
Assets acquired under operating leases	\$ -	\$ 880
Unrealized gains and losses on currency translation	\$ (6)	\$ -
Unrealized gains and losses on available-for-sale securities	\$ 18	\$ (39)
Cash interest paid	\$ 445	\$ 497

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

BioLife Solutions, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements

1. Organization and significant accounting policies

Business

BioLife Solutions, Inc. ("BioLife", "us", "we", "our", or the "Company") is a developer, manufacturer, and supplier of a portfolio of bioproduction tools and services including proprietary biopreservation media, automated thawing devices, cloud-connected shipping containers, ultra-low temperature mechanical freezers, cryogenic and controlled rate freezers, and

biological and pharmaceutical materials storage. Our CryoStor® freeze media and HypoThermosol® hypothermic storage media are optimized to preserve cells in the regenerative medicine market. These novel biopreservation media products are serum-free and protein-free, fully defined, and are formulated to reduce preservation-induced cell damage and death. Our Sexton cell processing product line includes human platelet lysates ("hPL") for cell expansion, reducing risk and improving downstream performance over fetal bovine serum, human serum, and other chemically defined media, CellSeal® cryogenic vials that are purpose-built rigid containers used in cell and gene therapy ("CGT") that can be filled manually or with high throughput systems, and automated cell processing machines that bring multiple processes traditionally performed by manual techniques under a higher level of control to protect therapies from loss or contamination. Our ThawSTAR® product line is composed of a family of automated thawing devices for frozen cell and gene therapies packaged in cryovials and cryobags. These products help administer temperature-sensitive biologic therapies to patients by standardizing the thawing process and reducing the risks of contamination and overheating, which are inherent with the use of traditional water baths. Our cryogenic freezer technology provides for controlled rate freezing and cryogenic storage of biologic materials. Our ultra-low temperature mechanical freezers allow biological materials and vaccines to be stored at temperatures which range from negative 20 °C to negative 86 °C. Our evo® shipping containers provide cloud-connected passive storage and transport containers for temperature-sensitive biologics and pharmaceuticals. Our biological and pharmaceutical materials storage services provide facilities that allow for real-time tracking of biologic materials and vaccines that can be stored at a wide range of temperatures.

On April 17, 2024, the Company sold all of the issued and outstanding shares of common stock of Global Cooling, Inc., a Delaware corporation and wholly owned subsidiary of the Company ("Global Cooling"), to GCI Holdings Company, LLC, an Ohio limited liability company ("GCI Holdings") pursuant to a Stock Purchase Agreement (the "Purchase Agreement"), by and between the Company and GCI Holdings (the "Global Cooling Divestiture"). The Global Cooling Divestiture was considered a subsequent event to the financial results presented as of March 31, 2024. Global Cooling is therefore presented as a part of our continuing operations as of the three months ended March 31, 2024. For additional information on the Global Cooling Divestiture, see Note 19: Subsequent events.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the financial statements and reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Significant estimates and assumptions by management affect the Company's net realizable value of inventory, sales tax liabilities, valuation of market-based stock awards, valuations, fair value of marketable debt securities, expected future cash flows including growth rates, discount rates, terminal values and other assumptions and estimates used to evaluate the recoverability of long-lived assets, estimated fair values of intangible assets and goodwill, amortization methods and periods, warranty reserves, certain accrued expenses, stock-based compensation, contingent consideration from business combinations, and provision for income taxes.

The Company regularly assesses these estimates; however, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances.

Basis of presentation

The Unaudited Condensed Consolidated Financial Statements and related footnote disclosures as of and for the three and nine months ended **September 30, 2023** **March 31, 2024** are unaudited, and are not necessarily indicative of the Company's operating results for a full year. The Unaudited Condensed Consolidated Financial Statements include all normal and recurring adjustments necessary for a fair presentation of the Company's financial results for the three and nine months ended **September 30, 2023** **March 31, 2024** in accordance with U.S. GAAP, however, certain information and footnote disclosures normally included in annual financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to the U.S. Securities and Exchange Commission (the "SEC") rules and regulations relating to interim financial statements. These Unaudited Condensed Consolidated Financial Statements should be read in conjunction with the Audited Consolidated Financial Statements and accompanying notes thereto included in the Company's Annual Report on Form 10-K as of and for the fiscal year ended **December 31, 2022** **December 31, 2023**, filed with the SEC on **March 31, 2023** **February 29, 2024** (the "Annual Report").

The Unaudited Condensed Consolidated Financial Statements include the accounts of the Company and its wholly owned subsidiaries, SAVSU Technologies, Inc. ("SAVSU"), Arctic Solutions, Inc. doing business as Custom Biogenic Systems ("CBS"), SciSafe Holdings, Inc. ("SciSafe"), BioLife Solutions B.V., Global Cooling, Inc. doing business as Stirling Ultracold ("Global Cooling" or "GCI"), and Sexton Biotechnologies, Inc. ("Sexton"). All intercompany accounts and transactions have been eliminated in consolidation.

In the opinion of management, the accompanying Unaudited Condensed Consolidated Financial Statements include all adjustments, consisting of only normal, recurring adjustments necessary for a fair presentation of the financial position, results of operations, and cash flows. The results of operations for the interim periods presented are not necessarily indicative of results to be expected for the entire year.

Foreign currency translation

The Company translates items presented on its Unaudited Condensed Consolidated Balance Sheet, Sheets, Unaudited Condensed Consolidated Statements of Operations, Unaudited Condensed Consolidated Statements of Comprehensive Loss, Unaudited Condensed Consolidated Statements of Shareholders' Equity, and Unaudited Condensed Consolidated Statements of Cash Flows into U.S. dollars. For the Company's subsidiaries that operate in a local currency functional environment, all assets and liabilities are translated into U.S. dollars using current exchange rates at the balance sheet date; revenue and expenses are translated using average exchange rates in effect during each period. Resulting translation adjustments are reported as a separate component of Accumulated Other Comprehensive Loss in the Unaudited Condensed Consolidated Statements of Shareholders' Equity.

Segment reporting

The Company views its operations and makes decisions regarding how to allocate resources and manages its business as one reportable segment and one reporting unit. The Company's Chief Executive Officer, who is the chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and

evaluating financial performance.

Significant accounting policies

There have been no significant changes to the accounting policies during the three and nine months ended September 30, 2023 March 31, 2024, as compared to the significant accounting policies described in our Annual Report.

Liquidity and capital resources

On September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, we had \$42.2 million \$46.1 million and \$64.1 million \$52.3 million in cash, cash equivalents, and available-for-sale securities, respectively. We have the ability to borrow up to \$10 million under our Loan Agreement (as defined in Note 14 below). For additional information, see Note 14. Additionally, on October 19, 2023, we entered into a Securities Purchase Agreement with Casdin Partners Master Fund, L.P. ("Casdin") whereby the Company sold, and Casdin purchased, 927,165 shares of common stock of the Company at a share price of \$11.19 per share for an aggregate purchase price of \$10,374,976, infusing additional capital into the Company. Based on our current expectations with respect to our future revenue and expenses, we believe that our current level of cash, cash equivalents, and other liquid assets will be sufficient to meet our liquidity needs for at least the next twelve months from the date of the filing of this Quarterly Report on Form 10-Q. 10-Q (this "Form 10-Q").

Risks and uncertainties

Supply chain considerations

Our domestic The preparation of financial statements requires the use of estimates and international supply chain operations were affected assumptions that affect the reported amounts of assets and liabilities at the reporting date and revenues and expenses during the reporting periods. These estimates represent management's judgment about the outcome of future events. The global business environment continues to be impacted by cost pressure, the global pandemic overall effects of the coronavirus ("COVID-19") economic uncertainty on customers' purchasing patterns, high interest rates, and the resulting volatility and uncertainty it caused in the U.S. and international markets. The onset of the COVID-19 pandemic caused supply chains globally to become constrained, and these constraints historically impacted our business through both increased difficulty in obtaining semiconductor chips and increased pricing on available parts. However, as of the nine months ended September 30, 2023, both availability and pricing of semiconductor chips have improved and no longer pose constraints on our supply chain. We currently have sufficient supply for electrical component parts within our operations and do not foresee constraints to return over our supply chain. other factors. It is not possible to accurately predict the future impact of such events and circumstances. Actual results could differ from our estimates.

For additional information, see caption "Risk Factors" identified in Part I, Item 1A of our Annual Report and in Part II, Item 1A of this Form 10-Q.

Concentrations of credit risk and business risk

Significant customers are those that represent more than 10% of the Company's total revenues revenue or gross accounts receivable balances for the periods and as of each balance sheet date presented. For each significant customer, revenue as a percentage of total revenues revenue and gross accounts receivable as a percentage of total gross accounts receivable as of the periods presented were as follows:

	Accounts Receivable		Revenue			
			Three Months Ended	Nine Months Ended		
	September 30, 2023	December 31, 2022	September 30, 2023	September 30, 2022	2023	2022
Accounts Receivable						
Accounts Receivable						
Accounts Receivable						
March 31, 2024						
Customer A						
Customer A						
Customer A	Customer A	*	15 %	*	*	*
Customer B	Customer B	11 %		* 19 %	17 %	16 %
Customer B	Customer B			19 %		
Customer C	Customer C	*	11 %	*	*	*
Customer C	Customer C					

Customer C

* less than 10%

Revenue from foreign customers is denominated in United States dollars or euros.

The following table represents the Company's products representing more than 10% of the Company's total revenues: revenue:

		Three Months Ended September 30,		Nine Months Ended September 30,	
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
Product revenue concentration					
Product revenue concentration					
Product revenue concentration	Product revenue concentration	2023	2022	2023	2022
CryoStor	CryoStor	33 %	38 %	39 %	35 %
CryoStor					
780XLE Freezer	780XLE Freezer	23 %	21 %	19 %	22 %
780XLE Freezer					
780XLE Freezer					

The following table represents the Company's total revenue by geographic area (based on the location of the customer):

		Three Months Ended September 30,		Nine Months Ended September 30,	
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
Revenue by customers' geographic locations⁽¹⁾					
Revenue by customers' geographic locations ⁽¹⁾	Revenue by customers' geographic locations ⁽¹⁾	2023	2022	2023	2022
North America ⁽²⁾		81 %	81 %	81 %	81 %
Revenue by customers' geographic locations ⁽¹⁾					
Revenue by customers' geographic locations ⁽¹⁾					
United States ⁽²⁾					
United States ⁽²⁾					
United States ⁽²⁾					
Europe, Middle East, Africa (EMEA)					
Europe, Middle East, Africa (EMEA)					
Europe, Middle East, Africa (EMEA)	Europe, Middle East, Africa (EMEA)	15 %	16 %	16 %	16 %
Other	Other	4 %	3 %	3 %	3 %
Other					
Other					
Total revenue	Total revenue	100 %	100 %	100 %	100 %
Total revenue					

Total revenue

(1) During the **nine months** year ended **September 30, 2023** **December 31, 2023**, the Company updated its methodology for determining the country of origin for its sales. Sales are now recorded by shipping country rather than billing country. The Company updated the methodology retrospectively, adjusting the prior year presentation for all regions presented.

(2) The line item presented above previously bifurcated sales between the United States and Canada. Due to the updated methodology for determining the country of origin for sales, it was noted that Canada no longer was a material location to separately disclose. Both Canada sales have been **combined** included within the "Other" line item in the table above and United States sales have been retained as a single line item presented above to more accurately reflect origin of sales for material regions.

In the three **and nine** months ended **September 30, 2023** **March 31, 2024**, one supplier accounted for **14%** and **12%** **13%** of purchases, respectively. In the three **and nine** months ended **September 30, 2022**, no suppliers accounted for more than **10%** of purchases.

As of **September 30, 2023** **March 31, 2023**, one supplier accounted for **19%** **15%** of purchases.

As of **March 31, 2024**, one supplier accounted for **11%** of our accounts payable. As of **December 31, 2022** **December 31, 2023**, one supplier accounted for **23%** **12%** of our accounts payable.

Recent accounting pronouncements

As In March 2024, the SEC adopted final rules on the enhancement and standardization of **January 1, 2023**, we adopted the ASC 2016-13, Measurement climate-related disclosures of Credit Losses on Financial Instruments, which later was codified as ASC 326 (CECL) public companies. The final rules require disclosure of, among other things, material climate-related risks and their impact; activities to mitigate or adapt to material climate-related risks; governance and oversight of climate-related risks; and material Scope 1 and/or Scope 2 greenhouse gas emissions with an accompanying assurance report required following an initial transition period, at a limited assurance level, and then following an additional transition period, at a reasonable assurance level. In addition, the effects of severe weather events and other natural conditions, subject to certain thresholds, and amounts related to carbon offsets and renewable energy credits or certificates are required to be disclosed in the notes to the adoption audited financial statements in certain circumstances.

On April 4, 2024, the SEC voluntarily stayed the implementation of **ASC 326**, the final rules pending the completion of judicial review of the consolidated challenges to the final rules by the Court of Appeals for the Eighth Circuit. The final rules, as originally issued, would be effective for the Company adopted in various fiscal years, starting with its Annual Report on Form 10-K for fiscal year 2025. Disclosures pursuant to the accompanying ASU No. 2022-02, final rules, as originally issued, would be required prospectively, with information for prior periods required only to the extent it was previously disclosed in an SEC filing. The Company is currently evaluating the impact of the final rules on its Consolidated Financial Instruments-Credit Losses (Topic 326): Troubled Debt Restructurings Statements and Vintage Disclosures. Both standards mark a significant change requiring the immediate recognition of estimated credit losses expected to occur over the remaining life of many financial assets. ASU 2022-02 specifically eliminates the accounting guidance for troubled debt restructurings and requires disclosure of current-period gross write-offs by year of loan origination. Additionally, ASU 2022-02 updates the accounting for credit losses under ASC 326 and adds enhanced disclosures with respect to loan refinancings and restructurings in the form of principal forgiveness, interest rate concessions, other-than-insignificant payment delays, or term extensions when the borrower is experiencing financial difficulties. ASC 326 is intended to improve financial reporting by corporations by requiring earlier recognition of credit losses on loans from corporations, held-to-maturity (HTM) securities, and certain other financial assets. ASC 326 also amended the impairment guidance for available-for-sale (AFS) debt securities in that it eliminated the Other Than Temporary Impairment (OTTI) impairment model. Under Subtopic ASC 326-30, Financial Instruments—Credit Losses—Available-for-Sale Debt Securities, changes in expected cash flows due to credit on AFS debt securities will be recorded through an allowance, rather than permanent write-downs for negative changes and prospective yield adjustments for positive changes, as required by the current OTTI model. ASC 326 replaces the current incurred loss impairment model that recognizes losses when a probable threshold is met with a requirement to recognize lifetime expected credit losses immediately when a financial asset is originated or purchased. For the period ended **September 30, 2023**, the adoption of **ASC 326** did not result in a material effect on the Company's Unaudited Condensed Consolidated financial statements. disclosures.

2. Correction of immaterial errors

As reported in our Annual Report, During the three months ended March 31, 2024, we determined that an error existed in our previously issued consolidated financial statements. Specifically, we identified we had established nexus in several jurisdictions beginning in not properly accelerated stock compensation expense related to unvested shares of market-based awards of certain employees upon their termination during the year ended December 31, 2019 in which we were not collecting and remitting sales taxes appropriately. fourth quarter of 2023. The error was evaluated and recorded as of each period impacted by the error under the U.S. Securities and Exchange Commission's ("SEC's") Staff Accounting Bulletin ("SAB") Topic 1M, "Materiality," and SEC guidance on evaluating SAB Topic 1N, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in the Current Year Financial Statements" to determine the materiality of prior period misstatements to the Company's financial statements. We evaluated the error and concluded that it was not material to any previously issued consolidated financial statements and accompanying Unaudited Condensed Consolidated financial statements. Although the error was not material to any period, we corrected the accompanying historical Unaudited Condensed Consolidated consolidated financial statements for each period impacted. The corrections to the quarter year ended **September 30, 2022** are presented below December 31, 2023 to reflect the sales tax liability and associated expenses owed additional stock compensation expense incurred within the each period for comparative purposes.

The following table represents the adjustments to our Consolidated Balance Sheet as of December 31, 2023 in accordance with ASC 250. The adjustments to our Consolidated Statement of Shareholders' Equity was limited to the adjustments outlined below.

The effect of the adjustments to our **Unaudited Condensed Consolidated Balance** **balance** Sheet as of **September 30, 2022** **December 31, 2023** was as follows: follows (in thousands):

(In thousands)	September 30, 2022		
	As reported	Adjustment	As corrected
Prepaid expenses and other current assets	\$ 8,041	\$ 341	\$ 8,382
Total current assets	135,874	341	136,215
Total assets	487,679	341	488,020
Accrued expenses and other current liabilities	7,778	(340)	7,438
Sales taxes payable	-	3,810	3,810
Total current liabilities	36,948	3,470	40,418
Total liabilities	79,430	3,470	82,900
Accumulated deficit	(194,597)	(3,129)	(197,726)
Total shareholders' equity	408,249	(3,129)	405,120
Total liabilities and shareholders' equity	487,679	341	488,020

The effect of the adjustments to our Unaudited Condensed Consolidated Statements of Operations for the quarter ended September 30, 2022 was as follows:

(In thousands, except per share and share data)	Three Months Ended September 30, 2022			Nine Months Ended September 30, 2022		
	As reported	Adjustment	As corrected	As reported	Adjustment	As corrected
General and administrative	\$ 11,581	\$ 335	\$ 11,916	\$ 34,128	\$ 970	\$ 35,098
Total operating expenses	52,152	335	52,487	212,800	970	213,770
Operating loss	(11,405)	(335)	(11,740)	(95,300)	(970)	(96,270)
Interest income (expense)	10	(25)	(15)	(181)	(69)	(250)
Total other income, net	849	(25)	824	786	(69)	717
Loss before income tax benefit	(10,556)	(360)	(10,916)	(94,514)	(1,039)	(95,553)
Net loss	(9,957)	(360)	(10,317)	(89,577)	(1,039)	(90,616)
Net loss per basic and diluted share	(0.23)	(0.01)	(0.24)	(2.11)	(0.03)	(2.14)

The effect of the adjustments to our Unaudited Condensed Consolidated Statements of Cash Flows for the quarter ended September 30, 2022 was as follows:

(In thousands)	Nine Months Ended September 30, 2022		
	As reported	Adjustment	As corrected
Net loss	\$ (89,577)	\$ (1,039)	\$ (90,616)
Prepaid expenses and other current assets	(1,356)	(487)	(1,843)
Sales taxes payable	-	1,526	1,526

(In thousands)	December 31, 2023		
	As reported	Adjustment	As corrected
Additional paid-in-capital	\$ 651,305	\$ 1,575	\$ 652,880
Accumulated deficit	(313,342)	(1,575)	(314,917)

3. Impairment of property and equipment and definite-lived intangible assets

Subsequent to the second quarter of 2023, the Company began to actively seek divestment of its GCI and CBS freezer product lines (the "Freezer Business"). The announcement, coupled with broader economic uncertainty leading to reductions in spending across the biopharma industry and the Company's customer base constituted interim triggering events that required further analysis with respect to potential impairment to goodwill, indefinite-lived intangibles, and its long-lived asset groups. The Company performed an interim quantitative impairment test as of the September 30, 2023 balance sheet date.

To assess any potential impairment of goodwill, the Company compared the carrying value of its single reporting unit against its market capitalization, noting that the market capitalization exceeded the carrying value. As such, goodwill was not impaired as of September 30, 2023.

As a part of the interim quantitative impairment analysis performed, the Company determined that decreases in the market price of the GCI long-lived asset group and historical operating cash flow losses for both GCI and CBS were indicative of potential impairment. The recoverability tests performed over the asset groups of the Freezer Business resulted in a \$9.7 million non-cash impairment charge over property and equipment and a \$5.8 million non-cash impairment charge over definite-lived intangible assets reflected in the Company's Unaudited Condensed Consolidated Statements of Operations, which represents the entirety of the asset groups' carrying value.

In order to determine the fair value of the property and equipment, acquired technology, customer relationships, and tradename definite-lived intangible assets, the Company utilized the market approach and discounted cash flow analyses to

determine if the recoverability of the Freezer Business asset groups were above its carrying value. The key assumptions associated with determining the estimated fair value include (i) the amount and timing of projected future cash flows (including revenue and expenses), (ii) the discount rate selected to measure the risks inherent in the future cash flows, (iii) the assessment of the asset's life cycle, and (iv) the competitive trends impacting the asset. As a result of the analysis, we recognized non-cash impairment charges of \$9.7 million, \$3.1 million, \$0.2 million, and \$2.5 million during the period ended September 30, 2023 for the property and equipment, acquired technology, customer relationships, and tradename definite-lived intangible assets, respectively, in the line item titled, "Asset impairment charges" in the Company's Unaudited Condensed Consolidated Statements of Operations, which represents the difference between the estimated fair value of the Company's definite-lived intangible assets and their carrying values.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. Estimating the fair value of the Company's reporting unit and definite-lived intangible assets requires us to make assumptions and estimates regarding our future plans, as well as industry, economic, and regulatory conditions. These assumptions and estimates include projected future revenue growth rates, EBITDA margins, terminal growth rates, discount rates, royalty rates and other market factors. If current expectations of future growth rates, margins and cash flows are not met, or if market factors outside of our control change significantly, then our reporting unit, indefinite-lived intangible assets, and definite-lived intangible assets might become impaired in the future, negatively impacting our operating results and financial position. As the carrying amounts of the Company's definite-lived intangible assets were impaired as of September 30, 2023 and written down to fair value, those amounts are more susceptible to an impairment risk if there are unfavorable changes in assumptions and estimates.

4. Fair value measurement

In accordance with FASB ASC Topic 820, *Fair Value Measurements and Disclosures*, ("ASC Topic 820"), the Company measures its financial instruments at fair value on a recurring basis. The carrying values of certain of our financial instruments including cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities approximate fair value because of their short maturities. The carrying value of our marketable debt securities, which are accounted for as available-for-sale, are classified within either Level 1 or Level 2 in the fair value hierarchy because we use quoted market prices or alternative pricing sources and models utilizing market observable inputs to determine their fair value. The carrying values of our long-term debt, which is classified within Level 2 in the fair value hierarchy, approximates fair value as our borrowings with lenders are at interest rates that approximate market rates for comparable loans. The fair values of investments and contingent consideration classified as Level 3 were derived from management assumptions. The Company also measures certain assets and liabilities at fair value on a non-recurring basis when applying acquisition accounting.

ASC Topic 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, ASC Topic 820 establishes a three-tier value fair hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1 – Observable inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 – Observable inputs other than quoted prices included in Level 1 for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities.

Level 3 – Unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability.

The fair value of the SciSafe **Contingent Consideration Liability** **contingent consideration liability** was valued based on unobservable inputs using a Monte Carlo simulation. These inputs included the estimated amount and timing of projected future revenue, a discount rate of 4.5%, a risk-free rate of approximately **0.20%** **0.2%**, asset volatility of 60%, and revenue volatility of 15%. Significant changes in any of those inputs in isolation would result in a significant change in the fair value measurement of the liability. Generally, changes used in the assumptions for projected future revenue and revenue volatility would be accompanied by a directionally similar change in the fair value measurement. Conversely, changes in the discount rate would be accompanied by a directionally opposite change in the related fair value measurement. However, due to the contingent consideration having a maximum payout amount, changes in these assumptions would not affect the fair value of the contingent consideration if they increase (decrease) beyond certain amounts. At the acquisition date, the contingent consideration was determined to have a fair value of \$3.7 million. Subsequent to the acquisition date, the SciSafe **Contingent Consideration Liability** **contingent consideration liability** was re-measured to fair value with changes recorded in the *Change in Fair Value fair value of Contingent Consideration contingent consideration* in the Unaudited Condensed Consolidated Statements of Operations.

During the most recent re-measurement of the **SciSafe**

Contingent Consideration Liability contingent consideration liability as of **September 30, 2023** December 31, 2023, the Company used a discount rate determined it appropriate to write-off the remaining balance of 14.5%, a risk-free rate of approximately 4.9%, asset volatility of 71%, the SciSafe contingent consideration liability. The target revenue required for earnout was not met during the year ended December 31, 2023 and revenue volatility of 36% had been determined to not be probable to achieve in future years. The SciSafe Contingent Consideration Liability is included in the Unaudited Condensed Consolidated Balance Sheets as of September 30, 2023 and December 31, 2022 in the amounts of \$0.3 million and \$4.3 million, respectively. The changes change in fair value of contingent consideration of \$0.7 million associated with this contingent consideration liability are was included within the *Change in Fair Value of Contingent Consideration in the Unaudited Condensed Consolidated Statements of Operations*. These changes in fair value of contingent consideration associated with this liability are included within the *Change in Fair Value of Contingent Consideration* in the Unaudited Condensed Consolidated Statements of Operations. These changes were \$1.6 million and \$1.8 million of benefit Operations for the three and nine months ended September 30, 2023, respectively, and \$2.3 million of expense and \$3.3 million of benefit for the three and nine months ended September 30, 2022, respectively. As of the year ended December 31, 2022, the second hurdle associated with this liability was satisfied and 116,973 shares were issued as payment during the second quarter of 2023. **March 31, 2023**.

There were no remeasurements to fair value during the three and nine months ended **September 30, 2023** **March 31, 2024** of financial assets and liabilities that are not measured at fair value on a recurring basis.

The following tables set forth the Company's financial assets and liabilities measured at fair value on a recurring basis as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**, based on the three-tier fair value hierarchy:

(In thousands)

As of September 30, 2023		Level 1	Level 2	Level 3	Total
As of March 31, 2024					
Assets:	Assets:				
Cash equivalents:	Cash equivalents:				
Cash equivalents:	Cash equivalents:				
Money market accounts	Money market accounts				
Money market accounts	Money market accounts				
Money market accounts	Money market accounts	\$12,392	\$ -	\$ -	\$12,392
Available-for-sale securities:	Available-for-sale securities:				
U.S. government securities	U.S. government securities	5,028	-	-	5,028
Corporate debt securities	Corporate debt securities	-	15,898	-	15,898
Other debt securities	Other debt securities	-	2,024	-	2,024
Total	Total	\$17,420	\$17,922	\$ -	\$35,342
Liabilities:					
Contingent consideration - business combinations	- - 415	415	415		
Debt	- 25,971	-	25,971		
Total	\$ -	\$25,971	\$ 415	\$ -	\$26,386
As of December 31, 2022					
As of December 31, 2023					
As of December 31, 2023					

As of December 31, 2023

Assets:

Assets:

Assets:

Cash equivalents:	Cash equivalents:
-------------------	-------------------

Cash equivalents:

Cash equivalents:

Money market accounts

Money market accounts

Money market accounts	Money market accounts
	\$11,416
	\$ -
	\$ -
	\$11,416

Available-for-sale securities:

Available-for-sale securities:

U.S. government securities	U.S. government securities

U.S. government securities	U.S. government securities
	15,051
	-
	-
	15,051
Corporate debt securities	Corporate debt securities
	-
	26,047
	-
	26,047
Other debt securities	Other debt securities
	-
	3,494
	-
	3,494
Total	Total
	\$26,467
	\$29,541
	\$ -
	\$56,008

Liabilities:

Contingent consideration - business combinations	-	-	4,456	4,456
Debt	-	25,607	-	25,607
Total	\$ -	\$25,607	\$4,456	\$30,063

There have been no transfers of assets or liabilities between the fair value measurement levels.

The following table presents the changes in fair value of contingent consideration liabilities which that are measured using Level 3 inputs: inputs for the three months ended March 31, 2023. There was no contingent consideration liability outstanding as of March 31, 2024.

(In thousands)	Nine Months Ended September 30,	
	2023	2022
Beginning balance as of December 31, 2022 and 2021	\$ 4,456	\$ 10,027
Change in fair value recognized in net loss	(1,778)	(3,348)
Payment of contingent consideration earned	(2,263)	(817)
Ending balance	\$ 415	\$ 5,862

(In thousands)	Three Months Ended March 31,	
	2023	2022
Balance at beginning of period	\$ 4,456	\$ 4,456
Change in fair value recognized in net loss	720	720
Balance at end of period	\$ 5,176	\$ 5,176

5.4. Investments

Available-for-sale securities

The Company's portfolio of available-for-sale marketable securities consists of the following:

		September 30, 2023			March 31, 2024		
		Amortized Cost	Gross unrealized	Estimated Fair Value	March 31, 2024		
(In thousands)	Amortized Cost	(In thousands)	Gains	Losses	Amortized Cost	Gross unrealized	Estimated Fair Value
Available-for-sale securities, current portion		Amortized Cost			Estimated Fair Value		
Available-for-sale securities, current portion							
Available-for-sale securities, current portion							
U.S. government securities	securities	\$ 5,030	\$ -	\$ 2	\$ 5,028		
Corporate debt securities	Corporate debt securities	15,901	1	4	15,898		
Other debt securities	Other debt securities	868	-	-	868		
Total short-term	Total short-term	21,799	1	6	21,794		
Available-for-sale securities, long-term	Available-for-sale securities, long-term				Available-for-sale securities, long-term		
Other debt securities	Other debt securities	1,158	2	4	1,156		
Total marketable securities	Total marketable securities	\$ 22,957	\$ 3	\$ 10	\$ 22,950		
December 31, 2022							
		Gross			December 31, 2023		
		Amortized Cost	Gross unrealized	Estimated Fair Value	December 31, 2023		
(In thousands)	Amortized Cost	(In thousands)	Amortized Cost	Gains	Losses	Estimated Fair Value	Amortized Cost
							Estimated Fair Value

Available-for-sale securities, current portion	Available-for-sale securities, current portion				
Available-for-sale securities, current portion					
Available-for-sale securities, current portion					
U.S. government securities					
U.S. government securities					
U.S. government securities	U.S. government securities	\$ 15,087	\$ 1	\$37	\$ 15,051
Corporate debt securities	Corporate debt securities	26,057	6	16	26,047
Other debt securities	Other debt securities	2,169	-	7	2,162
Total short-term	Total short-term	43,313	7	60	43,260
Available-for-sale securities, long-term	Available-for-sale securities, long-term				
Available-for-sale securities, long-term					
Other debt securities					
Other debt securities					
Other debt securities	Other debt securities	1,329	3	-	1,332
Total marketable securities	Total marketable securities	\$ 44,642	\$10	\$60	\$ 44,592

September 30, 2023				March 31, 2024	
(In thousands)	(In thousands)	Amortized Cost	Estimated Fair Value (in thousands)	Amortized Cost	Estimated Fair Value
Due in one year or less	Due in one year or less	\$ 21,799	\$ 21,794		
Due after one year through five years	Due after one year through five years	1,158	1,156		
Total	Total	\$ 22,957	\$ 22,950		

Equity investments

The Company periodically invests in non-marketable equity securities of private companies without a readily determinable fair value to promote business and strategic objectives. The securities are carried at cost minus impairment, if any, plus or minus changes resulting from observable process changes in orderly transactions for identical or similar transactions of the same issuer. These securities included Series A-1 and A-2 Preferred Stock in iVexSol, Inc. carried at \$4.1 million for the periods ending **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**, and Series E Preferred Stock in PanTHERA CryoSolutions, Inc. carried at **\$995,000** **\$1.0 million** as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**.

6.5. Inventories

Inventories consist of the following as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**:

	September December				March 31, 2024	March 31, 2023	December 31, 2023
	30,	31,					
(In thousands)	(In thousands)	2023	2022	(In thousands)			
Raw materials	Raw materials	\$ 24,452	\$ 20,950				
Work in progress	Work in progress	5,973	5,680				
Finished goods	Finished goods	12,929	8,274				
Total inventories	Total inventories	\$ 43,354	\$ 34,904				

7.6. Leases

The Company has various operating lease agreements for office space, warehouses, manufacturing, and production locations as well as vehicles and other equipment. Our real estate leases had original lease terms of three to eleven years and have remaining lease terms of one to ten years. We exclude options that are not reasonably certain to be exercised from our lease terms, ranging from one to five years. Our lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms, with all other lease payments consisting of variable lease costs. For certain leases, we receive incentives from our landlords, such as rent abatements, which effectively reduce the total lease payments owed for these leases. Vehicle and other equipment operating leases had original lease terms of four to five years and have remaining terms between one and five years.

Our financing leases relate to research equipment, machinery, and other equipment.

The table below presents certain information related to the weighted average discount rate and weighted average remaining lease term for the Company's leases as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**:

	September December				March 31, 2024	March 31, 2023	December 31, 2023
	30,	31,					
(In thousands)	(In thousands)	2023	2022	(In thousands)			
Weighted average discount rate - operating leases	Weighted average discount rate - operating leases	4.3 %	4.2 %	Weighted average discount rate - operating leases	4.3 %	4.3 %	
Weighted average discount rate - finance leases	Weighted average discount rate - finance leases	8.3 %	6.1 %	Weighted average discount rate - finance leases	8.4 %	8.3 %	

Weighted average remaining lease term in years - operating leases	6.5	7.2	Weighted average remaining lease term in years - operating leases	6.2	6.4
Weighted average remaining lease term in years - finance leases	4.3	2.0	Weighted average remaining lease term in years - finance leases	3.9	4.1

The components of lease expense for the three and nine months ended September 30, 2023 March 31, 2024 and 2022 2023 were as follows:

	Three Months Ended March 31,	Three Months Ended March 31,	Three Months Ended March 31,
(In thousands)			
(In thousands)			
(In thousands)			
Operating lease costs			
Operating lease costs			
Operating lease costs			
Financing lease costs			
Financing lease costs			
Financing lease costs			
Short-term lease costs			
Short-term lease costs			
Short-term lease costs			
Total operating lease costs			
Total operating lease costs			
Total operating lease costs			
	Three Months Ended September 30,		Nine Months Ended September 30,
(In thousands)	2023	2022	2023
Operating lease costs	\$ 883	\$ 909	\$ 2,679
Short-term lease costs	560	534	1,410
Total operating lease costs	1,443	1,443	4,089
Variable lease costs	299	250	903
Variable lease costs			809
Variable lease costs			
Total lease costs	\$ 1,742	\$ 1,693	\$ 4,992
Total lease costs			
Total lease costs			\$ 5,181

Maturities of our lease liabilities as of **September 30, 2023** **March 31, 2024** are as follows:

(In thousands)	(In thousands)	Operating Leases	Financing Leases
2023 (3 months remaining)		\$ 909	\$ 134
2024		3,383	487
2024 (9 months remaining)			
2025	2025	2,942	424
2026	2026	2,532	389
2027	2027	2,280	387
2028			
Thereafter	Thereafter	6,938	134
Total lease payments	Total lease payments	18,984	1,955
Less: interest	Less: interest	(2,401)	(307)
Total present value of lease liabilities	Total present value of lease liabilities	\$ 16,583	\$ 1,648

8.7. Assets held for rent

Assets held for rent consist of the following as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**:

(In thousands)	(In thousands)	September December		March 31, 2024	March 31, 2023	December 31, 2023
		30, 2023	31, 2022			
Shippers placed in service	Shippers placed in service	\$ 9,848	\$ 7,671			
Fixed assets held for rent	Fixed assets held for rent	1,562	4,686			
Accumulated depreciation	Accumulated depreciation	(5,778)	(4,952)			
Subtotal	Subtotal	5,632	7,405			
Shippers and related components in production	Shippers and related components in production	1,577	1,659			
Total	Total	\$ 7,209	\$ 9,064			

Shippers and related components in production include shippers complete and ready to be deployed and placed in service upon a customer order, shippers in the process of being assembled, and components available to build shippers. We recognized \$0.9 million and \$2.8 million in depreciation expense related to assets held for rent during the three and nine months ended **September 30, 2023**, respectively, **March 31, 2024** and \$0.9 million and \$2.7 million during the three and nine months ended **September 30, 2022**, **December 31, 2023**, respectively.

8.8. Property and equipment

Property and equipment consist of the following as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**:

	September 30,	December 31,
--	---------------	--------------

(In thousands)	2023	2022
Property and equipment ⁽¹⁾		
Leasehold improvements	\$ 5,948	\$ 5,249
Furniture and computer equipment	1,046	1,908
Manufacturing and other equipment	19,862	20,557
Construction in-progress	3,500	5,095
Subtotal	30,356	32,809
Less: Accumulated depreciation	(9,358)	(9,171)
Property and equipment, net	\$ 20,998	\$ 23,638

(1) The entirety of the carrying values and accumulated depreciation of the Freezer Business property and equipment assets were impaired during the three months ended September 30, 2023. Refer to Note 3: *Impairment of property and equipment and definite-lived intangible assets* for more information on the assessed non-cash impairment charges.

(In thousands)	March 31,	December 31,
	2024	2023
Property and equipment		
Leasehold improvements	\$ 5,927	\$ 5,913
Furniture and computer equipment	819	820
Manufacturing and other equipment	20,871	19,893
Construction in-progress	4,112	3,953
Subtotal	31,729	30,579
Less: Accumulated depreciation	(10,687)	(9,502)
Property and equipment, net	\$ 21,042	\$ 21,077

Depreciation expense for property and equipment was \$1.0 \$0.7 million and \$2.9 \$0.9 million for the three and nine months ended September 30, 2023, respectively, March 31, 2024 and \$0.9 million and \$2.4 million during the three and nine months ended September 30, 2022, 2023, respectively.

10.9. Goodwill and intangible assets

Goodwill

Goodwill represents the difference between the purchase price and the estimated fair value of identifiable assets acquired and liabilities assumed. Goodwill acquired in a business combination is determined to have an indefinite useful life and is not amortized but instead is tested for impairment at least annually in accordance with ASC 350.

Intangible assets

Intangible assets, net consisted of the following as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023:

(In thousands, except weighted average useful life)	(In thousands, except weighted average useful life)	September 30, 2023	Weighted Average		
Intangible assets:	Intangible assets:	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Useful Life (in years)
Customer relationships ⁽¹⁾	\$ 9,936	\$ (4,081)	\$ 5,855	10.9	
Tradenames ⁽¹⁾	8,134	(1,921)	6,213	11.5	
Technology - acquired ⁽¹⁾	18,372	(8,541)	9,831	4.3	

Intangible assets:

		Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life (in years)
Intangible assets:					
Customer relationships	Customer relationships	\$ 9,936	\$ (4,353)	\$ 5,583	10.4
Tradenames	Tradenames	8,134	(2,231)	5,903	11.0
Technology - acquired	Technology - acquired	18,372	(9,705)	8,667	3.8
Non-compete agreements	Non-compete agreements	750	(668)	82	0.5
Total intangible assets	Total intangible assets	\$ 37,192	\$ (16,957)	\$ 20,235	7.1

(1) The entirety of the gross carrying values and accumulated amortization of the specified intangible assets above associated with the Freezer Business were impaired during the three months ended September 30, 2023. Refer to Note 3: *Impairment of property and equipment and definite-lived intangible assets* for more information on the assessed non-cash impairment charges.

(In thousands, except weighted average useful life)		December 31, 2022			Weighted Average Useful Life (in years)(1)
Intangible assets:		Gross Carrying Value(1)	Accumulated Amortization(1)	Net Carrying Value	
Customer relationships		\$ 10,496	\$ (3,328)	\$ 7,168	8.8
Tradenames		11,328	(1,794)	9,534	11.8
Technology - acquired		23,802	(8,705)	15,097	5.3
Non-compete agreements		750	(461)	289	1.8
Total intangible assets		\$ 46,376	\$ (14,288)	\$ 32,088	8.0

(1) Both the Gross Carrying Value and Accumulated Amortization balances as of December 31, 2022 contain immaterial adjustments to reflect impairments taken during the year ended December 31, 2022 on each of the intangible asset classes presented here. Each intangible asset class was adjusted as follows: Customer relationships: \$0.8 million, Tradenames: \$2.4 million, Technology - acquired: \$4.1 million, and Non-compete agreements: \$0.4 million. The Weighted Average Useful Life was additionally adjusted to reflect the updated balances subsequent to the impairment charges.

(In thousands, except weighted average useful life)		December 31, 2023			Weighted Average Useful Life (in years)
Intangible assets:		Gross Carrying Value	Accumulated Amortization	Net Carrying Value	
Customer relationships		\$ 9,936	\$ (4,217)	\$ 5,719	10.7
Tradenames		8,134	(2,077)	6,057	11.3
Technology - acquired		18,372	(9,123)	9,249	4.1
Non-compete agreements		750	(626)	124	0.8
Total intangible assets		\$ 37,192	\$ (16,043)	\$ 21,149	7.3

Amortization expense for definite-lived intangible assets was \$1.4 million \$0.9 million and \$4.3 \$1.5 million for the three and nine months ended September 30, 2023, respectively March 31, 2024 and \$2.5 million and \$8.2 million for the three and nine months ended September 30, 2022, 2023, respectively. As of September 30, 2023 March 31, 2024, the Company expects to record the following amortization expense for definite-lived intangible assets:

(In thousands)	(In thousands)	Amortization (In thousands)	Amortization Expense
For the Years Ending December 31,			
2023 (3 months remaining)	\$ 915		
2024	3,602		

2024 (9 months remaining)		
2025	2025	3,468
2026	2026	3,358
2027	2027	2,605
2028		
Thereafter	Thereafter	8,116
Total	Total	\$ 22,064

11.10. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consist of the following as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**:

		September 30,		December 31,	
		2023	2022	March 31,	2023
(In thousands)	(In thousands)				December 31,
Accrued expenses					
Accrued taxes					
Accrued compensation	Accrued compensation	\$ 3,309	\$ 5,080		
Accrued expenses		3,704	3,128		
Deferred revenue, current	Deferred revenue, current	660	548		
Accrued taxes		895	975		
Other		-	51		
Total accrued expenses and other current liabilities	Total accrued expenses and other current liabilities	\$ 8,568	\$ 9,782		

12.11. Warranty reserve liability

The Company reserves estimated exposures on known claims, as well as anticipated claims, for product warranty and rework cost, based on historical product liability claims. Claim costs are deducted from the accrual when paid. Factors that could have an impact on the warranty accrual in any given period include the following: changes in manufacturing quality, changes in product costs, changes in product mix and any significant changes in sales volume.

A rollforward of our warranty liability is as follows:

(In thousands)	Nine Months Ended September 30,	
	2023	2022
Beginning balance as of December 31, 2022 and 2021	\$ 8,312	\$ 9,398
Provision for warranties ⁽¹⁾	2,861	2,353
Settlements of warranty claims ⁽¹⁾	(2,958)	(3,384)
Ending balance	\$ 8,215	\$ 8,367

(1) Both the Provision for warranties and Settlements of warranty claims balances during the nine months ended September 30, 2022 include immaterial reclassifications of \$0.6 million to reflect changes in warranty utilization on pre-existing claims.

(In thousands)	Three Months Ended	
	March 31,	2023
Balance at beginning of period	\$ 7,858	\$ 8,312
Provision for warranties	767	1,891
Settlements of warranty claims	(825)	(1,308)
Balance at end of period	\$ 7,800	\$ 8,895

13.12. Commitments and contingencies

Employment agreements

We have employment agreements with certain key employees. None of these employment agreements is for a definitive period, but rather each will continue indefinitely until terminated in accordance with its terms. The agreements provide for a base annual salary, payable in monthly (or shorter) installments. Under certain conditions and for certain of these officers, we may be required to pay additional amounts upon terminating the employee or upon the employee resigning for good reason.

Litigation

From time to time, the Company is subject to various legal proceedings that arise in the ordinary course of business, none of which are currently material to the Company's business. The Company's industry is characterized by frequent claims and litigation, including claims regarding intellectual property. As a result, the Company may be subject to various legal proceedings from time to time. The results of any future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors. Management is not aware of any significant pending or threatened litigation that is anticipated to result in unfavorable judgments against the Company.

Indemnification

As permitted under Delaware law and in accordance with the Company's bylaws, the Company is required to indemnify its officers and directors for certain errors and occurrences while the officer or director is or was serving in such capacity. The Company is also party to indemnification agreements with its directors. The Company believes the fair value of the indemnification rights and agreements is minimal. Accordingly, the Company has not recorded any liabilities for these indemnification rights and agreements as of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**.

Purchase obligations

Purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum, or variable pricing provisions and the approximate timing of the transactions. As of **September 30, 2023** **March 31, 2024**, our total short-term obligations were **\$14.3** **\$10.0** million.

Non-income related taxes

Companies are required to collect and remit sales tax from certain customers if the company is determined to have nexus in a particular state. Upon the determination of nexus, which varies by state, companies are additionally required to maintain detailed record of specific product and customer information within each jurisdiction in which it has established nexus to appropriately determine their sales tax liability, requiring technical knowledge of each jurisdiction's tax case law. During the year ended **December 31, 2022** **December 31, 2023**, the Company determined that a sales tax liability related to the periods of 2019 through **2022** **2023** was probable and determined an estimated liability. The estimated liability was approximately **\$5.2 million** **\$5.0 million** and **\$3.7 million** **\$5.4 million** as of **September 30, 2023** **March 31, 2024** and **December 31, 2022**, respectively. Outside of the analysis performed to determine the sales tax liability related to the periods of 2019 through 2022, we assessed approximately **\$0.1 million** and **\$0.3 million** of sales tax obligations generated during the normal course of business as of **September 30, 2023** and **December 31, 2022** **December 31, 2023**, respectively. Due to the variety of jurisdictions in which this estimated liability relates to and our ongoing assessment of sales taxes owed, we cannot predict when final liabilities will be satisfied. We will reevaluate the estimated liability and timing of satisfaction each reporting period.

Settlement of Global Cooling escrow

On May 3, 2021, the Company acquired GCI pursuant to an Agreement and Plan of Merger, dated as of March 19, 2021 (the "GCI Merger Agreement"). Pursuant to the GCI Merger Agreement, the aggregate consideration paid to former stockholders of GCI (collectively, the "GCI Stockholders") was 6,646,870 newly issued shares of common stock (the "GCI Merger Consideration") were provided with the requirement that the GCI Merger Consideration otherwise payable to GCI Stockholders were subject to reduction for indemnification obligations. Approximately 9% of the GCI Merger Consideration (the "GCI Escrow Shares") otherwise issuable to the GCI Stockholders were deposited into a segregated escrow account (the "GCI Escrow Account") in accordance with an escrow agreement entered into in connection with the closing of the transactions contemplated by the GCI Merger Agreement (the "GCI Escrow Agreement"). Of the GCI Escrow Shares, an amount equal to 5% of the GCI Merger Consideration were considered general escrow shares (the "General Escrow Shares"). The General Escrow Shares were eligible to be held in escrow for a period of up to 18 months after the closing of the GCI acquisition as the sole and exclusive source of payment for any indemnification claims made by the Company.

On September 28, 2022, BioLife asserted an indemnification claim pursuant to the GCI Merger Agreement. On June 5, 2023, the Company entered into a Settlement Agreement with the representatives of the GCI Stockholders, pursuant to which the parties agreed to release 65% of the General Escrow Shares, totaling 216,024 shares, to the Company from

the GCI Escrow Account. These shares were returned to the Company and subsequently cancelled. As a result of the settlement, the Company recorded a \$5.1 million gain recognizing the return of the shares during the second quarter of 2023.

14.13. Long-term debt

2022 term loan 2

Upon acquisition of Global Cooling in Term Notes

In May 2021, the Company assumed three term notes. notes in the acquisition of Global Cooling. At the time of acquisition, these notes carried aggregate outstanding principal balances of \$4.4 million. These term notes bore interest at a floating rate equal to the 3-month LIBOR rate plus 6.5%. The term notes included financial covenants tied to the performance of Global Cooling.

In October 2021, the Company entered into amended and restated term notes for all three term notes. Pursuant notes (the "Global Cooling Term Notes") with two lenders. As amended, the principal amount borrowed pursuant to the loan agreements, Global Cooling Amended Term Notes" consisted of an aggregate \$4.6 million, with one lender provided providing two term notes in the amounts principal amount of \$1.4 million \$1.4 million per note and \$1.4 million. A separate lender provided providing one term note in the principal amount of \$1.8 million. \$1.8 million. The maturity dates for the Global Cooling Amended Term Notes are July 17, 2024, September 7, 2024, and December 18, 2027, respectively. All three term notes Global Cooling Amended Term Notes bear interest at a fixed rate of 4% 4.0%, were interest-only with one balloon principal payment at maturity, and could be pre-paid without penalty at any time. As of September 20, 2022, the The Company fully extinguished one the Global Cooling Amended Term Notes with maturity dates of the three term notes. September 7, 2024 and July 17, 2024 on September 20, 2022 and July 17, 2023, respectively. All financial covenants included in the original agreements term notes previously in effect were removed upon amendment and restatement pursuant to the Global Cooling Amended Term Notes.

In connection with the Global Cooling Divestiture as of April 17, 2024, the Company fully extinguished the remaining balance of the Global Cooling Amended Term Notes, totaling \$2.6 million. For additional information regarding the Global Cooling Divestiture and associated costs incurred by the amended loan agreements. Company, see Note 19: Subsequent events.

2022 term loan 3 Term Loan

On September 20, 2022, the Company and certain of its subsidiaries entered into a term loan agreement (the "Loan Agreement"), which provided for a term loan in an aggregate maximum principal amount of up to \$50.0 million \$60 million in aggregate principal to be drawn, the increments and upon the dates and milestones described below (the "Term Loan"). The term loan Term Loan matures on June 1, 2026. The agreement provided for borrowings of up to \$30.0 million upon closing and options Loan Agreement permitted the Company to borrow up to \$10.0 million \$30 million upon the initial closing of the transactions contemplated by the Loan Agreement (the "Term Loan Closing"), and provided options to borrow (i) up to \$10 million between closing the Term Loan Closing and June 30, 2023, (ii) up to \$10.0 million \$10 million upon the achievement of certain revenue milestones by the Company, and (iii) an additional \$10.0 million \$10 million at the discretion of the lender. The Company borrowed \$20.0 million upon closing, \$20 million at the Term Loan Closing and accounts for the Term Loan at cost. As of September 30, 2023 December 31, 2023, the Company had not drawn additional funding nor had it met the revenue milestones outlined within the term loan agreement. Loan Agreement. The Company has had until December 31, 2023 to draw an additional \$10.0 million, \$10 million, subject to approval from the lender, and therefore has no additional opportunities under the Loan Agreement. Payments on the borrowing are interest-only through June 2024, with additional criteria allowing for interest-only payments to continue through June 2025. Tranches borrowed under the term loan agreement Loan Agreement bear interest at the Wall Street Journal prime rate plus 0.5%. However, the interest rate is subject to a ceiling that restricts the interest rate for each tranche from exceeding 1.0% above the overall rate applicable to each tranche at their respective funding dates and has a balloon payment due at the earliest of term loan maturity, repayment of the term loan Term Loan in full, or termination of the loan agreement Loan Agreement at \$1.2 million. \$1.2 million. As of March 31, 2024, the implied interest rate of the Term Loan is 6.6% and the implied value of the Term Loan is \$20.4 million. The term loan agreement Loan Agreement contains customary representations and warranties as well as customary affirmative and negative covenants. As of September 30, 2023 March 31, 2024, the Company is in compliance with the covenants set forth in the 2022 term loan 3 agreement. In the event that borrowings under 2022 term loan 3 exceed \$20.0 million Loan Agreement.

On April 17, 2024, the Company will become subject entered into a Consent and Second Amendment to certain financial covenants. the Term Loan (the "Amendment") by and among Silicon Valley Bank, a division of First-Citizens Bank & Trust Company ("Bank") and the Company and its subsidiaries. For additional information on the Amendment, see Note 19: Subsequent events.

Long-term debt consisted of the following as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023:

(In thousands)	(In thousands)	December		(In thousands)	Maturity Date	Interest Rate	March 31, December 31,	
		September 30,	31,				2024	2023
2022 term loan 2	Various	4.0 %		2,596	2,896			
2022 term loan 3	Jun-26	7.0 %		20,000	20,000			
Global Cooling Amended Term Notes								
Term Loan								

Insurance premium financing	Insurance premium financing	Apr-24			
Freezer equipment loan	Freezer equipment loan	Dec-25	8.0 %	2,061	1,074
Manufacturing equipment loans	Manufacturing equipment loans	Oct-25	5.7 %	355	466
Freezer installation loan	Freezer installation loan	Various	5.7 %	195	266
Other loans	Other loans	Various	Various	3	6
Total debt, excluding unamortized debt issuance costs	Total debt, excluding unamortized debt issuance costs			26,086	25,786
Less: unamortized debt issuance costs	Less: unamortized debt issuance costs			(115)	(179)
Total debt	Total debt			25,971	25,607
Less: current portion				(5,034)	(1,814)
Less: current portion of debt					
Total long-term debt	Total long-term debt			\$ 20,937	\$ 23,793

2022 term loan 3 is As of March 31, 2024, the Term Loan was secured by substantially all assets of BioLife, SAVSU, CBS, SciSafe, Global Cooling, and Sexton, other than intellectual property. 2022 term loan 2 is property, and the Global Cooling Term Amended Notes were secured by substantially all assets of Global Cooling, and is which security interest was effectively subordinated to the security interest established by the lenders of 2022 term loan 3. Loan Agreement. Equipment loans are secured by the financed equipment.

In connection with the Global Cooling Divestiture as of April 17, 2024, the Company entered into the Amendment as described above to remove Global Cooling as a party to the Loan Agreement and to release Bank's security interest in the assets of Global Cooling and the shares of capital stock of Global Cooling arising under the Loan Agreement.

As of September 30, 2023 March 31, 2024, the scheduled maturities of loans payable for each of the next five years and thereafter were as follows:

(In thousands)	(In thousands)	Amount (In thousands)	Amount
2023 (3 months remaining)		\$ 816	
2024		6,830	
2024 (9 months remaining)			
2025	2025	10,511	
2026	2026	5,218	
2027	2027	2,596	
2028			
Thereafter	Thereafter	-	
Total debt	Total debt	\$25,971	

15.14. Revenue

To determine revenue recognition for contractual arrangements that we determine are within the scope of FASB Topic 606, Revenue from Contracts with Customers, we perform the following five steps: (i) identify each contract with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to our performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy the relevant performance obligation. We only apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to the customer. Contracts with customers may contain multiple performance obligations. For such arrangements, the transaction price is allocated to each performance obligation based on the estimated relative standalone selling prices of the promised products or services underlying each performance obligation. The Company determines standalone selling prices based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price, taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations. Payment terms and conditions vary, although terms generally include a requirement of payment within 30 to 90 days. As of **September 30, 2023** **March 31, 2024** and **December 31, 2022** **December 31, 2023**, our deferred revenue balance totaled **\$0.7** **\$0.3** million and **\$0.6** **\$0.7** million, respectively. During the three and nine months ended **September 30, 2023**, **March 31, 2024** and **2023**, the Company recognized approximately **\$0.1** **\$0.4** million and **\$0.4** million, respectively, of revenue that was included in the deferred revenue balance at the beginning of the year. During the three and nine months ended **September 30, 2022**, the Company recognized approximately **\$26** thousand and **\$0.5** **\$0.2** million, respectively, of revenue that was included in the deferred revenue balance at the beginning of the year.

The Company primarily recognizes product revenues, service revenues, and rental revenues. Product revenues are generated from the sale of cell processing tools, freezers, thawing devices, and cold chain products. We recognize product revenue, including shipping and handling charges billed to customers, at a point in time when we transfer control of our products to our customers, which is upon shipment for substantially all transactions. Shipping and handling costs are classified as part of cost of product revenue in the Condensed Consolidated Statements of Operations. Service revenue is generated from the storage of biological and pharmaceutical materials. We recognize service revenue over time as services are performed or ratably over the contract term. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing the expected value method or the most likely amount method, depending on the facts and circumstances relative to the contract. When determining the transaction price of a contract, an adjustment is made if payment from a customer occurs either significantly before or significantly after performance, resulting in a significant financing component. Applying the practical expedient in ASC Topic 606, the Company does not assess whether a significant financing component exists if the period between when the Company performs its obligations under the contract and when the customer pays is one year or less. None of the Company's contracts contained a significant financing component as of and during the three and nine months ended **September 30, 2023** **March 31, 2024**.

The Company also generates revenue from the leasing of our property, plant, and equipment, operating right-of-use assets, and evo cold chain systems within its biostorage services product line to customers pursuant to service contracts or rental arrangements entered into with the customer. Revenue from these arrangements is not within the scope of FASB ASC Topic 606 as it is within the scope of FASB ASC Topic 842, Leases. All customers leasing shippers currently do so under **month-to-month** **annual** rental arrangements. We account for these rental transactions as operating leases and record rental revenue on a straight-line basis over the rental term.

The Company enters into various customer service agreements (collectively, "Service Contracts") with customers to provide biological and pharmaceutical storage services. In certain of these Service Contracts, the property, plant, and equipment or operating right-of-use assets used to store the customer product are used only for the benefit of one customer. This is primarily driven by the customer's desire to ensure that sufficient storage capacity is available in a specific geographic location for a set period of time. These agreements may include extension and termination clauses. These Service Contracts do not allow for customers to purchase the underlying assets.

The Company has assessed its Service Contracts and concluded that certain of the contracts for the storage of customer products met the criteria to be considered a leasing arrangement ("Embedded Leases"), with the Company as the lessor. The specific Service Contracts that met the criteria were those that provided a single customer with the ability to substantially direct the use of the Company's property, plant, and equipment or operating right-of-use assets.

Applying the practical expedient from ASC Topic 842, consistent with the previous guidance, the Company will continue to recognize operating right-of-use asset embedded lessor arrangements on its Unaudited Condensed Consolidated Balance Sheets in operating right-of-use assets.

None of the Embedded Leases identified by the Company qualify as a sales-type or direct finance lease. None of the operating leases for which the Company is the lessor include options for the lessee to purchase the underlying asset at the end of the lease term or residual value guarantees, nor are any such operating leases with related parties.

Embedded Leases may contain both lease and non-lease components. We have elected to utilize the practical expedient from ASC Topic 842 to account for lease and non-lease components together as a single combined lease component as the timing and pattern of transfer are the same for the non-lease components and associated lease component and, the lease component, if accounted for separately, would be classified as an operating lease. Non-lease components of the Company's rental arrangements include reimbursements of lessor costs.

Total bioproduction tools and services revenue for the three and nine months ended **September 30, 2023** **March 31, 2024** and **2022** **2023** were composed of the following:

Three Months Ended September 30,	Nine Months Ended September 30,
Three Months Ended March 31,	
Three Months Ended March 31,	
Three Months Ended March 31,	

(In thousands, except percentages)								
(In thousands, except percentages)								
(In thousands, except percentages)	(In thousands, except percentages)	2023		2022		2023		2022
Product revenue	Product revenue							
Product revenue								
Product revenue								
Freezer and thaw								
Freezer and thaw								
Freezer and thaw	Freezer and thaw	\$ 13,188		\$ 15,326		\$ 39,417		\$ 49,331
Cell processing	Cell processing	13,338		18,082		51,004		48,336
Cell processing								
Cell processing								
Biostorage services								
Biostorage services								
Biostorage services	Biostorage services	365		260		1,099		560
Service revenue	Service revenue							
Service revenue								
Service revenue								
Biostorage services								
Biostorage services								
Biostorage services	Biostorage services	4,186		4,312		12,166		11,099
Freezer and thaw	Freezer and thaw	192		18		877		18
Freezer and thaw								
Freezer and thaw								
Rental revenue								
Rental revenue								
Rental revenue	Rental revenue							
Biostorage services	Biostorage services	2,059		2,749		5,975		8,156
Biostorage services								
Biostorage services								
Total revenue	Total revenue	\$ 33,328		\$ 40,747		\$ 110,538		\$ 117,500
Total revenue								
Total revenue								

The following table includes estimated rental revenue expected to be recognized in the future related to **embedded leases** **Embedded Leases** as well as estimated service revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied as of the end of the reporting periods. The Company is electing not to disclose the value of the remaining unsatisfied performance obligation with a duration of one year or less as permitted by the practical expedient in ASU 2014-09, Revenue from Contracts with Customers. The estimated revenue in the following table does not include contracts with the original durations of one year or less, amounts of variable consideration attributable to royalties, or contract renewals that are unexercised as of **September 30, 2023** **March 31, 2024**. As of **March 31, 2024**, we did not have rental revenue expected to be recognized.

The balances in the table below are partially based on judgments involved in estimating future orders from customers pursuant to their respective contracts:

	2023 (3 months)			2024 (9 months remaining)			Total
(In thousands)	(In thousands)	(In thousands)	(In thousands)	2024 (9 months remaining)	Total		
Rental revenue	\$ 900	\$ 900	\$ 1,800				
(In thousands)							
(In thousands)							
Service revenue	\$ 313	\$ 10	\$ 323				

Service revenue
Service revenue

16.15. Stock-based compensation

Service vesting-based Service-based vesting stock options

The following is a summary of service vesting-based service-based vesting stock option activity for the September 30, 2023 March 31, 2024, and the status of service vesting-based service-based vesting stock options outstanding as of September 30, 2023 March 31, 2024:

	Nine Months Ended September 30, 2023	
	Options	Wtd. Avg. Exercise Price
Outstanding as of beginning of year	456,293	\$ 2.17
Exercised	(175,043)	2.11
Outstanding as of September 30, 2023	281,250	\$ 2.19
Stock options exercisable as of September 30, 2023	281,250	\$ 2.19

	Three Months Ended March 31, 2024	
	Options	Wtd. Avg. Exercise Price
Outstanding as of beginning of period	217,250	\$ 2.21
Exercised	—	—
Outstanding as of March 31, 2024	217,250	\$ 2.21
Stock options exercisable as of March 31, 2024	217,250	\$ 2.21

As of September 30, 2023 March 31, 2024, there was \$3.3 million \$3.6 million of aggregate intrinsic value of outstanding and exercisable service vesting-based service-based vesting stock options. Intrinsic value is the total pretax intrinsic value for all "in-the-money" options (i.e., the difference between the Company's closing stock price on the last trading day of the reporting period and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options on September 30, 2023 March 31, 2024. This amount will change based on the fair market value of the Company's stock. Intrinsic value of service vesting-based awards exercised was \$0.5 million and \$3.3 million We did not recognize stock compensation expense related to service-based options during the three and nine months ended September 30, 2023, respectively, March 31, 2024. There were no service-based vesting options granted during the three and nine months ended September 30, 2023 March 31, 2024. The weighted average remaining contractual life of service vesting-based service-based vesting stock options outstanding and exercisable as of September 30, 2023 March 31, 2024 is 2.3 1.8 years. There were no unrecognized compensation costs for service vesting-based service-based vesting stock options as of September 30, 2023 March 31, 2024.

Restricted stock

Service vesting-based Service-based vesting restricted stock

The following is a summary of service vesting-based service-based vesting restricted stock activity for the three and nine months ended September 30, 2023 March 31, 2024, and the status of unvested service vesting-based service-based vesting restricted stock outstanding as of September 30, 2023 March 31, 2024:

Nine Months Ended September 30, 2023	
Wtd. Avg. Grant Date Fair Value	Shares

Outstanding as of beginning of year		1,879,215	\$28.94		Three Months Ended March 31, 2024	Three Months Ended March 31, 2024
		Shares	Shares		Wtd. Avg. Grant Date Fair Value	
Outstanding as of beginning of period						
Granted	Granted	584,976	17.57			
Vested	Vested	(892,512)	25.95			
Forfeited	Forfeited	(151,984)	28.25			
Non-vested as of September 30, 2023		1,419,695	\$26.21			
Non-vested as of March 31, 2024						

The aggregate fair value of the service vesting-based service-based vesting awards granted was \$1.0 million and \$16.8 million \$3.2 million during the three and nine months ended September 30, 2023, respectively. March 31, 2024. The aggregate fair value of the service vesting-based service-based vesting awards that vested was \$5.0 million and \$16.9 million \$3.7 million during the three and nine months ended September 30, 2023, respectively. March 31, 2024.

We recognized stock compensation expense related to service vesting-based service-based vesting awards of \$9.1 million and \$23.3 million \$4.7 million during the three and nine months ended September 30, 2023, respectively. March 31, 2024. As of September 30, 2023 March 31, 2024, there was \$33.0

million \$35.4 million in unrecognized compensation costs related to service vesting-based service-based vesting awards. We expect to recognize those costs over 2.2 2.6 years.

Performance-based restricted stock

On March 8, 2024, the Company granted 109,512 shares of performance-based stock to an executive in the form of restricted stock. The shares granted contain performance conditions based on several Company metrics related to future performance. The grant date fair value of this award was \$17.36 per share. The fair value of this award is being expensed on a straight-line basis over the requisite service period ending on December 31, 2025.

We recognized stock compensation expense of \$0.2 million related to performance-based restricted stock awards for the three months ended March 31, 2024. As of March 31, 2024, there was \$1.7 million in unrecognized non-cash compensation costs related to performance-based restricted stock awards expected to vest. We expect to recognize those costs over 1.8 years. Non-cash compensation costs are expensed over the period for which performance was measured.

The aggregate fair value of the performance-based awards granted during the three months ended March 31, 2024 was \$1.9 million. No performance-based awards vested during the three months ended March 31, 2024.

No performance-based restricted stock awards were granted or vested during the three months ended March 31, 2023.

Market-based restricted stock

The following is a summary of market-based restricted stock activity under our stock option plan for the three and nine months ended September 30, 2023 March 31, 2024 and the status of market-based restricted stock outstanding as of September 30, 2023 March 31, 2024:

		Nine Months Ended September 30, 2023	
		Shares	Wtd. Avg. Grant
Outstanding as of beginning of year		271,044	\$ 30.64
Granted		268,738	19.67
Vested		(30,616)	51.65
Non-vested as of September 30, 2023		509,166	\$ 26.00

On February 8, 2021, the Company granted 30,616 shares of market-based stock to its executives in the form of restricted stock. The shares granted contain a market condition based on TSR. The TSR market condition measures the Company's performance against a peer group. On March 31, 2023, the Company's Compensation Committee determined the TSR attainment was 100% of the targeted shares and 30,616 shares were granted and immediately vested to the executives of the Company based on our total shareholder return during the period beginning on January 1, 2021 through December 31, 2022 as compared to the total shareholder return of 20 of our peers. The fair value of this award was determined at the grant date using a Monte Carlo simulation with the following assumptions: a historical volatility of 68%, 0% dividend yield and a risk-free interest rate of 0.1%. The historical volatility was based on the most recent 2-year period for the Company and correlated with the components of the peer group. The stock price projection for the Company and the components of the peer group assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is based on the yield on the U.S. Treasury Strips as of the Measurement Date with a maturity consistent with the 2-year term associated with the market condition of the award. The fair value of this award of \$1.3 million was being expensed on a straight-line basis over the grant date to the vesting date of December 31, 2022.

	Three Months Ended March 31, 2024	
	Shares	Wtd. Avg. Grant
Outstanding as of beginning of period	509,166	\$ 26.50
Granted	299,565	23.20
Vested	(300,529)	27.97
Non-vested as of March 31, 2024	508,202	\$ 25.70

On February 24, 2022, the Company granted 240,428 shares of market-based stock to its executives in the form of restricted stock. The shares granted contain a market condition based on TSR. The market-based restricted stock awards will vest as to between 0% and 200% of the number of targeted shares and 300,529 shares were granted and immediately vested to the executives of restricted shares granted to each recipient of the Company based on our total shareholder return TSR during the period beginning on January 1, 2022 through December 31, 2023 as compared to the total shareholder return TSR of 20 of our peers. The fair value of this award was determined using a Monte Carlo simulation with the following assumptions: a historical volatility of 63%, 0% dividend yield and a risk-free interest rate of 1.5%. The historical volatility was based on the most recent 2-year period for the Company and correlated with the components of the peer group. The stock price projection for the Company and the components of the peer group assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is based on the yield on the U.S. Treasury Strips as of the Measurement Date with a maturity consistent with the 2-year term associated with the market condition of the award. The fair value of this award of \$6.7 million is being expensed on a straight-line basis over the grant date to the vesting date of December 31, 2023.

On January 8, 2023 January 3, 2023, the Company granted 268,738 shares of market-based stock to its executives in the form of restricted stock. The shares granted contain a market condition based on TSR. The TSR market condition measures the Company's performance against a peer group. The market-based restricted stock awards will vest as to between 0% and 200% of the number of restricted shares granted to each recipient based on our total shareholder return TSR during the period beginning on January 1, 2023 through December 31, 2024 as compared to the total shareholder return TSR of 20 of our peers. The fair value of this award was determined using a Monte Carlo simulation with the following assumptions: a historical volatility of 78%, 0% dividend yield and a risk-free interest rate of 4.4%. The historical volatility was based on the most recent 2-year period for the Company and correlated with the components of the peer group. The stock price projection for the Company and the components of the peer group assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is based on the yield on the U.S. Treasury Strips as of the Measurement Date with a maturity consistent with the 2-year term associated with the market condition of the award. The fair value of this award of \$6.8 million is being expensed on a straight-line basis over the grant date to the vesting date of December 31, 2024, excluding \$1.6 million of expense recognized in 2023 to reflect accelerations in the vesting period of certain awards.

On March 8, 2024, the Company granted 239,464 shares of market-based stock to its executives in the form of restricted stock. The shares granted contain a market condition based on TSR. The TSR market condition measures the Company's performance against a peer group. The market-based restricted stock awards will vest as to between 0% and 200% of the number of restricted shares granted to each recipient based on our TSR during the period beginning on January 1, 2024 through December 31, 2025 as compared to the TSR of 20 of our peers. The fair value of this award was determined using a Monte Carlo simulation with the following assumptions: a historical volatility of 80%, 0% dividend yield and a risk-free interest rate of 4.6%. The historical volatility was based on the most recent 2-year period for the Company and correlated with the components of the peer group. The stock price projection for the Company and the components of the peer group assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is based on the yield on the U.S. Treasury Strips as of the Measurement Date with a maturity consistent with the 2-year term associated with the market condition of the award. The fair value of this award of \$6.8 million \$6.3 million is being expensed on a straight-line basis over the grant date to the vesting date of December 31, 2024 December 31, 2025.

We recognized stock compensation expense of \$1.6 million \$1.1 million and \$4.9 \$1.3 million related to market-based restricted stock awards for the three and nine months ended September 30, 2023, respectively, March 31, 2024 and \$1.2 million and \$3.1 million during the three and nine months ended September 30, 2022, 2023, respectively. As of September 30, 2023 March 31, 2024, there was \$4.9 million \$8.6 million in unrecognized non-cash compensation costs related to market-based restricted stock awards expected to vest. We expect to recognize those costs over 1.1 1.5 years.

There were no market-based awards granted or vested during the three months ended September 30, 2023 and September 30, 2022. The aggregate fair value of the market-based awards granted was \$6.5 million \$6.3 million and \$6.5 million during the nine three months ended September 30, 2023, March 31, 2024 and \$6.7 million during the nine months ended September 30, 2022, 2023, respectively. The aggregate fair value of the market-based awards that vested was \$5.1 million and \$0.7 million during the nine three months ended September 30, 2023, March 31, 2024 and \$5.0 million during the nine months ended September 30, 2022, 2023, respectively.

Total stock compensation expense

Compensation expense associated with equity-based awards is recognized on a straight-line basis over the requisite service period, with awards generally vesting over a 4 year 4-year period, and forfeitures recognized as incurred. We recorded total stock compensation expense for the three and nine months ended September 30, 2023 March 31, 2024 and 2022, 2023, as follows:

(In thousands)	(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,		2023	2022
		2023	2022	2023	2022		
Cost of revenue							
Cost of revenue	Cost of revenue	\$ 1,409	\$ 809	\$ 4,252	\$ 2,619		
General and administrative costs	General and administrative costs	3,696	3,959	10,544	10,687		
General and administrative costs							
Sales and marketing costs							
Sales and marketing costs	Sales and marketing costs	2,225	829	4,563	2,272		
Research and development costs	Research and development costs	1,787	702	3,978	2,093		
Research and development costs							
Total	Total	\$ 9,117	\$ 6,299	\$ 23,337	\$ 17,671		
Total							
Total							

17.16. Income taxes

The Company accounts for income taxes under ASC Topic 740 – Income Taxes. Under this standard, deferred tax assets and liabilities are recognized for future tax benefits or consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The Company's tax provision for interim periods is determined using an estimate of the annual effective income tax rate, adjusted for discrete items, if any, that occur in the relevant period. The income tax expense of \$0.2 million \$0.1 million for the ~~three~~ months ended ~~September 30, 2023~~ ~~March 31, 2024~~ resulted in an effective income tax rate of negative 0.4% 1.2%. Included in the \$0.2 million \$0.1 million was a discrete tax benefit expense of \$1.2 million \$0.6 million related to a stock compensation shortfall, tax expenses, which ~~were~~ was offset by a change in the valuation allowance.

The Company's ~~US U.S.~~ projected effective income tax rate without discrete items was negative 0.4% 1.8%, which is lower than the ~~US U.S.~~ federal statutory rate of 21% primarily due to the increase in the valuation allowance on US deferred tax assets and non-deductible executive compensation offset by ~~a non-taxable gain~~, state tax benefits and research tax credits.

Realization of deferred tax assets is dependent upon the generation of future taxable income, the timing and amount of which are uncertain. In determining the need for a valuation allowance, the Company's management evaluates both positive and negative evidence when concluding whether it is more likely than not that deferred tax assets are realizable. After reviewing the evidence available, the Company's management believes there is uncertainty regarding the future realizability of the U.S. net operating loss carryforward and is projecting a full valuation allowance of \$48.2 million \$54.7 million by year end. If operating results improve and projections indicate future utilization of the tax attributes, all or a portion of the valuation allowance would be released, resulting in a corresponding non-cash income tax benefit.

18.17. Net loss per common share

The Company considers its unvested restricted shares, which contain non-forfeitable rights to dividends, as participating securities, and includes such participating securities in its computation of earnings per share pursuant to the two-class method. Basic earnings per share is calculated by dividing net loss by the weighted average number of shares of common stock outstanding during the reporting period. Diluted earnings per share is calculated using the weighted average number of shares of common stock plus the potentially dilutive effect of common equivalent shares outstanding determined under both the two-class method and the treasury stock method, whichever is more dilutive. In periods when we have a net loss, common stock equivalents are excluded from our calculation of earnings per share as their inclusion would have an antidilutive effect.

The following table presents computations of basic and diluted earnings per share:

		Three Months Ended September 30,		Nine Months Ended September 30,	
		Three Months Ended March 31,	Three Months Ended March 31,	Three Months Ended March 31,	Three Months Ended March 31,
(In thousands, except share and earnings per share data)					
(In thousands, except share and earnings per share data)					
(In thousands, except share and earnings per share data)	(In thousands, except share and earnings per share data)	2023	2022	2023	2022
Basic earnings (loss) per common share	Basic earnings (loss) per common share				
Basic earnings (loss) per common share	Basic earnings (loss) per common share				
Numerator:	Numerator:				
Net loss	Net loss	\$ (29,132)	\$ (10,317)	\$ (53,045)	\$ (90,616)
Net loss	Net loss				
Net loss allocated to common shareholders	Net loss allocated to common shareholders				
Net loss allocated to common shareholders	Net loss allocated to common shareholders				
Net loss allocated to common shareholders	Net loss allocated to common shareholders	(29,132)	(10,317)	(53,045)	(90,616)
Denominator:	Denominator:				
Weighted-average common shares issued and outstanding	Weighted-average common shares issued and outstanding				
Weighted-average common shares issued and outstanding	Weighted-average common shares issued and outstanding				
Weighted-average common shares issued and outstanding	Weighted-average common shares issued and outstanding	43,570,438	42,647,967	43,348,412	42,376,392
Basic and diluted loss per common share	Basic and diluted loss per common share	\$ (0.67)	\$ (0.24)	\$ (1.22)	\$ (2.14)
Basic and diluted loss per common share	Basic and diluted loss per common share				
Basic and diluted loss per common share	Basic and diluted loss per common share				

The following table sets forth the number of weighted-average shares of common stock excluded from the computation of diluted loss per share, as their inclusion would have been anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
	Three Months Ended March 31,			
	Three Months Ended March 31,			
	Three Months Ended March 31,			
	2024			
	2024			
	2024			
Stock options and restricted stock awards				
Stock options and restricted stock awards				
Stock options and restricted stock awards	Stock options and restricted stock awards			
	2,636,283		2,022,405	
Total	Total	2,636,283	2,022,405	3,007,126
				2,678,601
Total				
Total				

19.18. Employee benefit plan

The Company sponsors 401(k) defined contribution plans for its employees. These plans provide This plan provides for pre-tax and post-tax contributions for all employees. Employee contributions are voluntary. Employees may contribute up to 100% of their annual compensation to these plans, this plan as limited by an annual maximum amount as determined by the Internal Revenue Service. The Company matches employee contributions in amounts to be determined at the Company's sole discretion. The Company made \$0.3 million and \$0.9 million in contributions to the this plan for the three and nine months ended September 30, 2023, respectively, for both March 31, 2024 and \$0.3 million and \$0.8 million for the three and nine months ended September 30, 2022, respectively, 2023.

20.19. Subsequent events

Stock Purchase Agreement for Global Cooling Divestiture

The Company has evaluated events subsequent to September 30, 2023 March 31, 2024 through the date of this filing to assess the need for potential recognition or disclosure.

On October 19, 2023 April 17, 2024, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with Casdin, whereby by and between the Company sold, and Casdin purchased, 927,165 GCI Holdings, which is wholly owned by an consulting contractor of Global Cooling, for the sale of all of the issued and outstanding shares of common stock of the Company, par value \$0.001 per share, at a purchase price of \$11.19 per share Global Cooling to GCI Holdings for an aggregate purchase price of \$10,374,976.35 \$1.00. In addition, at the closing of the GCI Divestiture, Global Cooling was required to have \$7.0 million in cash on its balance sheet, of which, \$4.9 million in cash funded by the Company, and the Company was required to repay approximately \$2.6 million of outstanding indebtedness of Global Cooling, and assume certain other liabilities of Global Cooling. Following the execution of the Purchase Agreement, the GCI Divestiture was consummated on April 17, 2024. The Company expects to recognize a loss on the GCI Divestiture, calculated as follows:

(In thousands)	April 17, 2024
Selling price: \$1	\$ —
Cash to Global Cooling funded by Company	(4,910)
Approximate costs to sell Global Cooling ⁽¹⁾	(2,409)
Negative selling price	(7,319)
Global Cooling carrying basis as of December 31, 2023 ⁽²⁾	(963)
Estimated net loss on disposal	\$ (8,282)

(1) Represents the costs incurred in connection with the GCI Divestiture, including fees to be paid to the broker, attorneys, and other external parties.

(2) The Company is utilizing the carrying basis of Global Cooling as of December 31, 2023 as an estimate for its carrying basis as of the date of divestiture. The carrying basis to calculate the loss on disposal will utilize the carrying basis as of the date of divestiture on April 17, 2024, and may differ from the estimate noted here upon disclosure in the second quarter of 2024.

The Company's estimates are subject to a number of assumptions, and actual results may differ.

In connection with the Company's entry into the Purchase Agreement, the Company implemented a reduction in force (the "Private RIF") related to the business of Global Cooling, which reduced the Company's workforce by 47 employees (representing approximately 11% of its full-time employees). The Company's Board of Directors approved the RIF on March 29, 2024, and all affected employees were informed by April 18, 2024, following the execution of the Purchase Agreement. The Company expects to recognize approximately \$1.6 million of charges in connection with the RIF, comprised of approximately \$1.3 million of stock compensation expense and approximately \$0.3 million in cash expenditures, substantially all of which are expected to be related to employee severance costs. The Company expects to recognize most of these expenditures in the second quarter of 2024. The Company's estimates are subject to a number of assumptions, and actual results may differ. The Company may also incur additional costs not currently contemplated due to events that may occur as a result of, or that are associated with, the RIF. In addition, the Company expects to recognize approximately \$4.5 million in stock compensation expense in connection with the acceleration of unvested shares for all former employees of the Company that remained with Global Cooling upon the closing of the GCI Divestiture.

The following table summarizes the additional costs incurred by the Company in connection with closing the GCI Divestiture and expected to be recorded during the second quarter of 2024:

Placement").

(In thousands)	April 17, 2024
Global Cooling Term Notes payoff ⁽¹⁾	\$ 2,596
Assumed liabilities from Global Cooling ⁽²⁾	2,353
RIF compensation expenses ⁽³⁾	1,595
Global Cooling employee stock based compensation expense ⁽⁴⁾	4,106
Total	\$ 10,650

(1) As a condition to close the GCI Divestiture, the Company repaid the balance of the Global Cooling Amended Term Notes. For further additional information on the Purchase Agreement, please terms of the Global Cooling Term Notes, see Note 13: Long-term debt.

(2) As a condition to close the Company's Form 8-K filed GCI Divestiture, the Company assumed certain accounts payable and accrued expenses from Global Cooling, totaling to approximately \$1.8 million and \$0.6 million, respectively.

(3) The Company expects to recognize approximately \$1.6 million of charges in connection with the SEC on October 19, 2023, RIF, comprised of approximately \$1.3 million of stock compensation expense and approximately \$0.3 million in cash expenditures, substantially all of which are expected to be related to employee severance costs.

(4) The Company expects to recognize approximately \$4.5 million in stock compensation expense in connection with the acceleration of unvested shares for all former employees of the Company that remained with Global Cooling upon the closing of the GCI Divestiture.

In addition, upon the closing of the Transaction, the Company and Global Cooling entered into a transition services agreement, pursuant to which the Company will provide certain transition services to Global Cooling for up to 90 days following the Closing Date.

Second Amendment to Loan and Security Agreement with Silicon Valley Bank

Additionally, on October 19, 2023, Michael Rice, the Chief Executive Officer and Chairman of the Board of Directors of the Company (the "Board"), retired from his positions as Chairman of the Board and Chief Executive Officer of the Company. Mr. Rice's resignation was not the result of any disagreement with the Company on any matter relating to the Company's operations, policies or practices. In connection with Mr. Rice's resignation, the Company and Mr. Rice entered into a Separation, Release of Claims and Consulting Agreement (the "Separation Agreement") on October 19, 2023 (the "Separation Date"), pursuant to which Mr. Rice will serve as a consultant for the Company beginning on the Separation Date and ending on the six-month anniversary thereof.

On October 19, 2023, the Board appointed Roderick de Greef as the President and Chief Executive Officer of the Company and Chairman of the Board. In connection with Mr. de Greef's appointment as Chief Executive Officer, on October 19, 2023 April 17, 2024, the Company and Mr. de Greef entered into an Employment the Amendment by and among Bank and Borrower. Pursuant to the Amendment and subject to the conditions set forth therein, Bank consented to the GCI Divestiture and released its security interests in the assets of Global Cooling and the shares of capital stock of Global Cooling arising under the Loan Agreement. In addition, effective as of the closing of the GCI Divestiture, the Amendment amended the Loan Agreement (the "de Greef Employment Agreement").

For further information on to remove Global Cooling as a party to the resignation of Mr. Rice and appointment of Mr. de Greef, including the Separation Loan Agreement and de Greef Employment provide for a non-refundable termination fee in the amount of \$500,000 payable by Borrower to Bank in the event that the Loan Agreement referenced above, please see is terminated prior to the Company's Form 8-K filed Term Loan Maturity Date (as defined in the Loan Agreement) for any reason. The Amendment additionally contained a financial covenant requiring the Company to limit cash outflows and unsecured indebtedness in connection with the SEC on October 23, 2023.

Other than Transaction to \$15 million or less. The Amendment also contains customary representations and warranties of Borrower and provides for a release of Bank by Borrower for any claims existing or arising through the events outlined above, based upon this evaluation, it was determined that no other subsequent events occurred that require recognition date of the Amendment, including, without limitation, those arising out of or disclosure in any manner connected with or related to the Consolidated Financial Statements. Loan Agreement.

Item 2. Management's discussion and analysis of financial condition and results of operations

Forward looking statements

Certain statements contained in this Quarterly Report on Form 10-Q are not historical facts and may be forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "plans," "expects," "believes," "anticipates," "designed," and similar words are intended to identify forward-looking statements. Forward-looking statements are based on our current expectations and beliefs, and involve a number of risks and uncertainties that are difficult to predict and that could cause actual results to differ materially from those stated or implied by the forward-looking statements. A description of certain of these risks, uncertainties and other matters can be found in filings we make with the U.S. Securities and Exchange Commission (the "SEC"), all of which are available at www.sec.gov, including our Annual Report on Form 10-K as of and for the fiscal year ended **December 31, 2022** **December 31, 2023** **February 29, 2024**, (the "Annual Report"). Because forward-looking statements involve risks and uncertainties, actual results and events may differ materially from results and events currently expected by us. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. We undertake no obligation to publicly update these forward-looking statements to reflect events or circumstances that occur after the date hereof or to reflect any change in its expectations with regard to these forward-looking statements or the occurrence of unanticipated events.

Overview

Management's discussion and analysis provides additional insight into the Company and is provided as a supplement to, and should be read in conjunction with, our Annual Report.

We are a life sciences company that develops, manufactures and **markets supplies** bioproduction tools and services which are designed to improve quality and de-risk biologic manufacturing, storage, distribution, and transportation in the cell and gene therapy ("CGT") industry and **the** broader biopharma **markets**, **market**. Our products are used in basic and applied research and commercial manufacturing of biologic-based therapies. Customers use our products to maintain the health and function of biologic material during sourcing, manufacturing, storage, and distribution.

Our current portfolio of bioproduction tools and services is composed of three revenue lines that contain seven main offerings: (i) cell processing (including biopreservation media for the preservation of cells and tissues, human platelet lysate media for the supplementation of cell expansion, cryogenic vials and automated fill machines that provide high-quality, efficient, and precise mixes of solutions), (ii) freezers and thaw systems (including a full line of mechanical ultra-low temperature ("ULT"), isothermal, and liquid nitrogen freezers and accessories, automated thaw devices which provide controlled, consistent thawing of frozen biologics in vials and cryobags), and (iii) biostorage services (including biological and pharmaceutical storage services, and "smart", cloud connected devices for transporting biologic payloads).

We currently operate as one bioproduction tools and services **reporting segment business** which supports several steps in the biologic material manufacturing and delivery process. We have a diversified portfolio of tools and services that **focuses focus** on biopreservation, cell processing, frozen biologic storage products and services, cold-chain transportation, and thawing of biologic materials. We have in-house expertise in cryobiology and continue to capitalize on opportunities to maximize the value of our product platform for our extensive customer base through both organic growth innovations and acquisitions.

On April 17, 2024, the Company sold all of the issued and outstanding shares of common stock of Global Cooling, Inc., a Delaware corporation and wholly owned subsidiary of the Company ("Global Cooling"), to GCI Holdings Company, LLC, an Ohio limited liability company ("GCI Holdings"), pursuant to a Stock Purchase Agreement, by and between the Company and GCI Holdings (the "Global Cooling Divestiture"). The Global Cooling Divestiture was considered a subsequent event of the financial results presented as of March 31, 2024. Global Cooling is therefore presented as a part of our continuing operations as of the three months ended March 31, 2024. For additional information on the details of the Purchase Agreement, see Note 19: *Subsequent events*, to the Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Our products

Our bioproduction tools and services are composed of three revenue lines that contain seven main offerings:

- Cell processing
 - Biopreservation media
 - Human platelet lysate media ("hPL"), cryogenic vials, and automated cell-processing fill machines
- Freezers and thaw systems
 - Ultra-low temperature freezers
 - Cryogenic freezers and accessories
 - Automated thawing devices
- Biostorage services
 - Biological and pharmaceutical material storage
 - Cloud connected "smart" shipping containers

Biopreservation media

Our proprietary biopreservation media products, HypoThermosol FRS and CryoStor, are formulated to mitigate preservation-induced, delayed-onset cell damage and death, which result when cells and tissues are subjected to reduced temperatures. Our technology can provide our CGT customers with significant shelf-life extension of biologic source material and final cell products and can also greatly improve post-preservation cell and tissue viability and function. Our biopreservation media are serum-free, protein-free, fully defined, and

manufactured under current Good Manufacturing Practices ("cGMP"). We strive to source wherever possible, the highest available grade, multi-compendium raw materials. We estimate our cell processing products have been incorporated in over 700 customer clinical applications, including numerous chimeric antigen receptor ("CAR") T cell and other cell types.

Stability (i.e. shelf-life) and functional recovery are crucial aspects of academic research and clinical practice in the biopreservation of biologic-based source material, intermediate derivatives, and isolated, derived, and expanded cellular products and therapies. Limited stability is especially critical in the CGT field, where harvested cells and tissues will lose viability over time, if not maintained appropriately at normothermic body temperature (37°C) or stored in a hypothermic state in an effective preservation medium. Chilling (hypothermia) is used to reduce metabolism and delay degradation of harvested cells and tissues. However, subjecting biologic material to hypothermic environments induces damaging molecular stress and structural changes. Although cooling successfully reduces metabolism (i.e., lowers demand for energy), various levels of cellular damage and death occur when using suboptimal methods. Traditional biopreservation media range from simple "balanced salt" (electrolyte) formulations to complex mixtures of electrolytes, energy substrates such as sugars, osmotic buffering agents and antibiotics. The limited stability, which results from the use of these traditional biopreservation media formulations, is a significant shortcoming that our optimized proprietary products address with great success.

Our scientific research activities over the last 30+ years enabled a detailed understanding of the molecular basis for the hypothermic and cryogenic (low-temperature induced) damage/destruction of cells through apoptosis and necrosis. This research led directly to the development of our HypoThermosol FRS and CryoStor technologies. Our proprietary biopreservation media products are specifically formulated to:

- Minimize cell and tissue swelling
- Reduce free radical levels upon formation
- Maintain appropriate low temperature ionic balances
- Provide regenerative, high energy substrates to stimulate recovery upon warming
- Avoid the creation of an acidic state (acidosis)
- Inhibit the onset of apoptosis and necrosis

A key feature of our biopreservation media products is their "fully-defined" profile. All of our cGMP products are serum-free, protein-free and are formulated and filled using aseptic processing. We strive to use USP/Multicompodial grade or the highest quality available synthetic components. All of these features benefit prospective customers by facilitating the qualification process required to incorporate our products into their regulatory filings.

Competing biopreservation media products are often formulated with simple isotonic media cocktails, animal serum, potentially a single sugar or human protein. A key differentiator of our proprietary HypoThermosol FRS and CryoStor formulation is the engineered optimization of the key ionic component concentrations for low temperature environments, as opposed to normothermic body temperature around 37°C, as found in culture media or saline-based isotonic formulas. Competing cryopreservation freeze media is often composed of a single permeating cryoprotectant such as dimethyl sulfoxide ("DMSO"). Our CryoStor formulations incorporate multiple permeating and non-permeating cryoprotectant agents which allow for multiple mechanisms of protection and reduces the dependence on a single cryoprotectant. We believe that our products offer significant advantages over in-house formulations, or commercial "generic" preservation media, including, time savings, improved quality of components, more rigorous quality control release testing, cost effectiveness, and improved preservation efficacy.

The results of independent testing demonstrate that our biopreservation media products significantly extend shelf-life and improve cell and tissue post-thaw viability and function. Our products have demonstrated improved biopreservation outcomes, including greatly extended shelf-life and post-thaw viability, across a broad array of cell and tissue types.

We estimate that annual revenue from each customer commercial application in which our products are used could range from \$500,000 to \$2.0 million, if such application is approved and our customer commences large scale commercial manufacturing of the biologic based therapy.

Human platelet lysate media, cryogenic vials and automated cell-processing fill machines

Our bioproduction tools portfolio includes hPL for cell expansion, which reduces risk and improves downstream performance over fetal bovine serum, human serum, and other chemically defined media, CellSeal closed system vials that are purpose-built rigid containers used in CGT that can be filled manually or with high throughput systems, and automated cell processing machines that bring multiple processes traditionally performed by manual techniques under a higher level of control to protect therapies from loss or contamination.

For our Sexton vials and media, we estimate that annual revenue from each customer commercial application in which these products are used could also range from \$500,000 to \$2.0 million, if such application is approved and our customer commences large scale commercial manufacturing of the biologic-based therapy.

Ultra-low temperature freezers

Our portfolio of class defining ultra-low temperature freezers range in size from portable units to stationary upright freezers to accommodate a wide variety of use cases. Users can configure these freezers to achieve temperatures between -20°C and -80°C. The portfolio was designed to be environmentally friendly and energy efficient, using as little as 2.8 kWh/day at temperatures of -80°C. The freezers do not use compressor-based or cascade refrigeration systems. Instead, they use patented free-piston Stirling engine technology that uses fewer moving parts, resulting in maintenance cost savings for end users.

Liquid nitrogen freezers and storage devices

Our line of cryogenic freezers offer leading design and manufacture of state-of-the-art liquid nitrogen laboratory freezers, cryogenic equipment, and accessories.

Our line of liquid nitrogen freezers are controlled-rate freezers and Isothermal LN2 freezers, constructed with a patented system which stores liquid nitrogen in a jacketed space in the walls of the freezer. This dry storage method eliminates liquid nitrogen contact with stored specimens, reduces the risk of cross-contamination and provides increased user

safety in a laboratory setting. To accommodate customer requirements, we offer customizable features including wide bodied and extended height.

To accompany the offerings of cryogenic freezer equipment, we supply equipment for storing critically important biological materials. This storage equipment includes upright freezer racks, chest freezer racks, liquid nitrogen freezer racks, canisters/cassettes and frames as well as laboratory boxes and dividers. Due to our onsite design and manufacturing capability, racks and canisters can be customized to address customers' varying requirements.

In order to provide customers with a proactive approach to safety and monitoring of equipment containing liquefied gas, we offer Versalert, a patented wireless remote asset monitoring system that can monitor and record temperatures. Versalert has an intelligent mesh network system that enables customers to view current equipment conditions and receive alarm notification on smartphones, tablets or personal computers and maintain permanent electronic records for regulatory compliance and legal verification.

Automated, water-free thawing products

The ThawSTAR line includes automated vial and cryobag thawing products that control the heat and timing of the thawing process of biologic material. Our customizable, automated, water-free thawing products uses algorithmic programmed, heating plates to consistently bring biologic material from a frozen state to a liquid state in a controlled and consistent manner. This helps reduce cell structure damage during the temperature transition. The ThawSTAR products can reduce risks of contamination versus using a traditional water bath.

Biological and pharmaceutical storage

We are a premier provider of biological and pharmaceutical storage services, including cold chain logistics that ensures materials are kept at target temperatures from the moment that the materials leave the customer's premises to their ultimate return. Our state-of-the-art monitoring systems allow for customers to monitor the storage temperatures of their materials throughout the entire logistics chain.

We operate six storage facilities in the USA and one facility in the Netherlands.

evo cloud connected shipping containers

We are a leading developer and supplier of next generation cold chain management tools for cell and gene therapies. Our cloud-connected shipping containers and evo.is cloud app allows biologic products to be traced and tracked in real time. Our evo platform consists of rentable cloud-connected shippers that include technologies enabling tracking software to provide real-time information on geolocation, payload temperature, ambient temperature, tilt of shipper, humidity, altitude, and real-time alerts when a shipper has been opened. Our internally developed evo.is software allows customers to customize alert notifications both in data measurements and user requirements. The evo Dry Vapor Shipper ("DVS") is specifically marketed for use with cell and gene therapies. The evo DVS has an improved form factor and ergonomics over the traditional dewar, including extended thermal performance, reduced liquid nitrogen recharge time, improved payload extractors, and ability to maintain temperature for longer periods if tilted on its side.

We utilize couriers who already have established logistic channels and distribution centers. Our strategy greatly reduces the cash need to build out specialized facilities around the world. Our partnerships with several white glove couriers allow us to scale our sales and marketing effort by leveraging their salesforce. Our courier partnerships market our evo platform to their existing cell and gene therapy customers as a cost effective and innovative solution. We also market directly to our existing and prospective customers who can utilize the evo platform through our courier partnerships.

Critical accounting policies and estimates

A "critical accounting policy" is one which is both important to the portrayal of our financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. For a description of our critical accounting policies that affect our more significant judgments and estimates used in the preparation of our Unaudited Condensed Consolidated Financial Statements, refer to the recently updated policy below in addition to Management's Discussion and Analysis of Financial Condition and Results of Operations and our significant accounting policies in Note 1 to the Consolidated Financial Statements included in our Annual Report and Part I, Note 1 to the Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Stock-based compensation

We measure and record compensation expense using the applicable accounting guidance for share-based payments related to stock options, time-based restricted stock, market-based restricted stock awards and performance-based awards granted to our directors and employees. The fair value of market-based restricted stock awards is estimated at the date of grant using the Monte Carlo Simulation model. The Monte Carlo Simulation valuation model incorporates assumptions as to stock price volatility, the expected life of options or awards, a risk-free interest rate and dividend yield. In valuing our market-based stock awards, significant judgment is required in determining the expected volatility of our common stock. Expected volatility for our market-based restricted stock awards is based on the historical volatility of our own stock and the stock of companies within our defined peer group. Further, our expected volatility may change in the future, which could substantially change the grant-date fair value of future awards and, ultimately, the expense we record. The fair value of restricted stock, including performance awards, without a market condition is estimated using the current market price of our common stock on the date of grant.

We expense stock-based compensation for stock options, restricted stock awards, and performance awards over the requisite service period. For awards with only a service condition, we expense stock-based compensation using the straight-line method over the requisite service period for the entire award. For awards with a market condition, we expense over the vesting period regardless of the value that the award recipients will ultimately receive. Share-based compensation expense from both service vesting-based and market-based awards are adjusted for forfeitures as incurred.

Results of operations

The following discussion of the financial condition and results of operations should be read in conjunction with the accompanying Unaudited Condensed Consolidated Financial Statements and the related footnotes thereto.

Revenues

Total revenue for three and **nine** months ended **September 30, 2023** **March 31, 2024** and **2022** **2023** consisted of the following:

		Three Months Ended September 30,				Nine Months Ended September 30,			
		Three Months Ended March 31,		Three Months Ended March 31,		Three Months Ended March 31,		Three Months Ended March 31,	
(In thousands, except percentages)									
(In thousands, except percentages)	(In thousands, except percentages)	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
Product revenue	Product revenue								
Product revenue									
Freezer and thaw									
Freezer and thaw	Freezer and thaw	\$ 13,188	\$ 15,326	\$ (2,138)	(14) %	\$ 39,417	\$ 49,331	\$ (9,914)	(20) %
Cell processing	Cell processing	13,338	18,082	\$ (4,744)	(26) %	51,004	48,336	\$ 2,668	6 %
Cell processing									
Biostorage services									
Biostorage services	Biostorage services	365	260	\$ 105	40 %	1,099	560	\$ 539	96 %
Service revenue	Service revenue								
Service revenue									
Biostorage services									
Biostorage services	Biostorage services	4,186	4,312	\$ (126)	(3) %	12,166	11,099	\$ 1,067	10 %
Freezer and thaw	Freezer and thaw	192	18	\$ 174	NM	877	18	\$ 859	NM
Freezer and thaw									
Rental revenue									
Rental revenue									
Rental revenue	Rental revenue								
Biostorage services	Biostorage services	2,059	2,749	\$ (690)	(25) %	5,975	8,156	\$ (2,181)	(27) %
Biostorage services									
Biostorage services									

Total revenue	Total revenue	\$ 33,328	\$ 40,747	\$ (7,419)	(18) %	\$ 110,538	\$ 117,500	\$ (6,962)	(6) %
Total revenue									
Total revenue									

Product revenue

Product revenue was \$26.9 million for the three months ended September 30, 2023 March 31, 2024, representing a decrease of \$6.8 million, or 20% 21%, compared with the same period in 2022, and was \$91.5 million for the nine months ended September 30, 2023, representing a decrease of \$6.7 million, or 6.8%, compared with the same period in 2022. The decrease for the three months ended September 30, 2023 March 31, 2024 is primarily driven by decreases in sales within our ULT freezer and thaw and cell processing product lines compared to the same period in 2022, while the decrease for the nine months ended September 30, 2023 can be attributed to decreases in sales within our ULT freezer and thaw product line. Decreases in cell processing product revenues are largely driven by an overall decrease in capital expenditure investment from the broader biopharma markets in addition to our customers destocking inventory levels compared to the prior year.

Product revenue from our freezer and thaw products decreased by \$2.1 million and \$9.9 million \$4.0 million, or 14% and 20% 33%, in the three and nine months ended September 30, 2023 March 31, 2024 compared with the same period in 2022. The decrease can be attributed to a decrease in sales of our ULT freezer line compared to the prior year, year by our biggest distributor.

Product revenue from our cell processing products decreased by \$4.7 million \$2.8 million, or by 26% 15%, during the three months ended September 30, 2023, and increased by \$2.7 million, or by 6%, in the nine months ended September 30, 2023, respectively, March 31, 2024 compared with the same periods period in 2022. The decrease in revenue from cell processing products is driven by customers reducing safety stock levels and an overall a decrease in capital expenditure investment from biotech funding that began in the broader biopharma markets, later part of 2023.

Product revenue from our biostorage services increased by \$0.1 million and \$0.5 million, or 40% and 96% 29%, in the three and nine months ended September 30, 2023 March 31, 2024, respectively, compared with the same periods period in 2022. The increases relate to larger volumes of consumables sold from our evo product line.

Service revenue

Service revenue was \$4.4 million and \$13.0 million \$5.1 million for the three and nine months ended September 30, 2023 March 31, 2024, respectively, representing an increase of \$48 thousand and \$1.9 million \$0.6 million, or 1% and 17% 14%, compared with the same periods period in 2022. The increase relates primarily to the expansion of service revenues revenue generated by SciSafe storage services.

Rental revenue

Rental revenue was \$2.1 million and \$6.0 million \$1.8 million for the three and nine months ended September 30, 2023 March 31, 2024, respectively, representing a decrease an increase of \$0.7 million and \$2.2 million \$0.2 million, or 25% and 27% 12%, compared with the same periods period in 2022. The decrease can be attributed to the expiration of an agreement increase is associated with a major customer for the storage of material inputs in the COVID-19 vaccine during the prior year, revenue from new customers.

Costs and operating expenses

Total costs and operating expenses for three and nine months ended September 30, 2023 March 31, 2024 and 2022 2023 were composed of the following:

	Three Months Ended September 30,				Nine Months Ended September 30,				
	Three Months Ended March 31,	Three Months Ended March 31,	Three Months Ended March 31,						
(In thousands, except percentages)									
(In thousands, except percentages)									
(In thousands, except percentages)	(In thousands, except percentages)	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change

Cost of product, rental, and service revenue	Cost of product, rental, and service revenue	\$ 21,679	\$ 27,009	\$ (5,330)	(20) %	\$ 73,036	\$ 77,649	\$ (4,613)	(6) %
Cost of product, rental, and service revenue									
Cost of product, rental, and service revenue									
General and administrative									
General and administrative									
General and administrative	General and administrative	12,513	11,916	\$ 597	5 %	42,757	35,098	\$ 7,659	22 %
Sales and marketing	Sales and marketing	7,256	5,278	\$ 1,978	37 %	20,045	15,601	\$ 4,444	28 %
Sales and marketing									
Sales and marketing									
Research and development	Research and development	5,402	3,425	\$ 1,977	58 %	14,397	10,634	\$ 3,763	35 %
Asset impairment charges									
Research and development									
Research and development									
Intangible asset amortization	Intangible asset amortization	1,356	2,513	\$ (1,157)	(46) %	4,266	8,236	\$ (3,970)	(48) %
Intangible asset amortization									
Intangible asset amortization									
Acquisition costs									
Acquisition costs									
Acquisition costs									
Change in fair value of contingent consideration									
Change in fair value of contingent consideration									
Change in fair value of contingent consideration	Change in fair value of contingent consideration	(1,580)	2,346	\$ (3,926)	NM	(1,778)	(3,348)	\$ 1,570	NM
Total operating expenses	Total operating expenses	\$ 62,111	\$ 52,487	\$ 9,624	18 %	\$ 168,208	\$ 213,770	\$ (45,562)	(21) %
Total operating expenses									
Total operating expenses									

Cost of product, rental, and service revenue

Cost of revenue decreased \$5.3 million and \$4.6 million \$4.5 million for the three and nine months ended September 30, 2023 March 31, 2024, or 20% and 6% 19%, respectively, compared to the same periods period in 2022, 2023, due primarily to decreases in sales across multiple product lines compared to the prior year.

Cost of revenue inclusive of intangible amortization related to acquired technology was 67% and 68% 62% as a percentage of revenue for the three and nine months ended September 30, 2023 March 31, 2024, respectively, compared to 67% and 69% 65% as a percentage of revenue for the three and nine months ended September 30, 2022, respectively, March 31, 2023. The decrease in cost of revenue inclusive of intangible amortization related to acquired technology for the nine three months ended September 30, 2023 March 31, 2024 is a result of a favorable product mix in our media product line and a greater concentration of higher margin revenue as a percentage of total revenue, offset by increases in addition to decreases in personnel expenses, including stock-based compensation expenses, and an increase in inventory reserve compared to the prior year, expenses.

General and administrative expenses

General and administrative ("G&A") expense consists primarily of personnel-related costs, including non-cash expenses, stock-based expense for administrative personnel and members of the board of directors, compensation, professional fees, such as accounting and legal, consulting fees, and corporate insurance.

G&A expenses for the three and nine months ended September 30, 2023 increased \$0.6 million and \$7.7 million March 31, 2024 decreased \$1.9 million, or 5% and 22% 13%, respectively, compared with the same periods period in 2022, 2023. The increase decrease reflects increased a decrease in headcount compared to the prior year, driving

increases decreases in personnel expenses from stock-based compensation and increases in professional services fees. We additionally experienced one-time increases in severance costs compared to the prior year.

We expect G&A expense to decrease in future periods due to the ongoing initiative to divest the freezer product lines from our current product portfolio.

compensation.

Sales and marketing expenses

Sales and marketing expense ("S&M") consists primarily of salaries and other personnel-related costs, including non-cash stock-based expense, for sales stock based compensation, consulting, advertising, and marketing personnel, consulting fees, trade show costs, travel expenses, sales commissions, and advertising costs, expense.

S&M expense for the three and nine months ended September 30, 2023 increased \$2.0 million and \$4.4 million March 31, 2024 decreased \$1.4 million, or 37% and 28% 22%, respectively, compared with the same periods period in 2022, 2023. The increase decrease is primarily due to one-time increases in severance costs in addition to increased marketing and advertising fees associated with sales expansion efforts.

We expect S&M expense to a decrease in future periods due headcount compared to the ongoing initiative to divest the freezer product lines prior year, driving decreases in personnel expenses from our current product portfolio. stock-based compensation.

Research and development expenses

Research and development ("R&D") expense consists primarily of salaries and other personnel-related costs, including non-cash stock-based compensation expense, for consulting, research supplies, and development personnel, consulting fees, and external product development service costs. milestone expenses related to third party research agreements.

R&D expense for the three and nine months ended September 30, 2023 increased \$2.0 million and \$3.8 million March 31, 2024 decreased \$0.6 million, or 58% and 35% 15%, respectively, compared with the same period in 2022, 2023. The increase decrease is primarily due to a \$1.0 million write-off of R&D supplies decrease in headcount compared to the prior year, driving decreases in personnel expenses from the Freezer Business, one-time increases in severance costs, and stock-based compensation, offset by research milestone payments.

We expect payments in relation to our R&D expense to decrease equity investment in future periods due to the ongoing initiative to divest the freezer product lines from our current product portfolio.

Asset impairment charges

Relates to the non-cash write-down of both property and equipment and definite-lived intangible assets that resulted from a quantitative fair value assessment performed as of September 30, 2023. Macroeconomic conditions and the announcement of efforts to divest the Freezer Business resulted in assessing the associated long-lived assets for impairment. For more information on the nature of the impairment charges assessed, see Note 3. PanTHERA.

Intangible asset amortization expense

Intangible asset amortization expense consists of charges related to the amortization of intangible assets associated with the acquisitions of Astero, SAVSU, CBS, SciSafe, Global Cooling, and Sexton in which we acquired definite-lived intangible assets.

Change in fair value of contingent consideration

Change in fair value of contingent consideration consists of changes in estimated fair value of our potential earnouts related to our SciSafe acquisition. The benefit recognized in the three and nine months ended September 30, 2023 March 31, 2023 relates primarily to changes in our estimated probability of achieving budgeted operational results earnout targets set forth within our contingent consideration arrangement, as certain contingent consideration arrangements are payable in BioLife's shares.

the purchase agreements.

Other income (expense) income

Total other income and expenses for the three and nine months ended September 30, 2023 March 31, 2024 and 2022, 2023 were composed of the following:

(In thousands, except percentages)	Three Months Ended September 30,			Nine Months Ended September 30,				
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
Change in fair value of investments	\$ —	\$ 697	\$ (697)	NM	\$ —	\$ 697	\$ (697)	NM

Gain on settlement of Global Cooling escrow									
Interest expense, net	\$	(476)	\$	(15)	\$	(461)	NM	\$	5,115
Other income		242		142		100	NM		1,027
Total other (expense) income, net	\$	(234)	\$	824	\$	(1,058)	(128)%	\$	4,837
									717
									\$ 4,120
									575 %

Change in fair value of investments

Reflects the change in fair value of the Company's equity investments.

Gain on settlement of Global Cooling escrow

Reflects the non-cash gain associated with our settlement of an indemnification in connection with our acquisition of Global Cooling, and subsequent release to us of certain shares of our common stock from the third-party escrow account established in connection with that transaction. For additional information, see Note 13.

(In thousands, except percentages)	Three Months Ended		
	March 31,		
	2024	2023	\$ Change
Interest expense, net	\$ (207)	\$ (411)	\$ 204
Other income	245	394	\$ (149)
Total other income (expense), net	\$ 38	\$ (17)	\$ 55
			324 %

Interest expense, net

Interest expense, net incurred during the three and nine months ended September 30, 2023 March 31, 2024 related primarily to the term loan Term Loan (as defined in Note 13: Long-term debt, to the Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q) obtained in September 2022, financed insurance premiums, and a loan assumed the Global Cooling Amended Term Notes (as defined in Note 13: Long-term debt, to the acquisition of Global Cooling, Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q). We also earn interest on cash held in our money market account. Increases Decreases in interest expenses expense, net during the three and nine months ended September 30, 2023 March 31, 2024 can also be attributed to the increases in interest rates set income generated by our cash management strategy while interest expenses remained consistent compared to the United States Federal Reserve, causing the variable interest component on our 2022 term loan to be exposed to increasing interest rates, same period in 2023.

Liquidity and capital resources

On September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, we had \$42.2 million \$46.1 million and \$64.1 million \$52.3 million in cash, cash equivalents, and available-for-sale securities, respectively. We also have the ability to borrow up to an additional \$10.0 million under our 2022 term loan 3. See Note 14: Long-term debt for additional details on borrowing requirements under 2022 term loan 3. Additionally, on October 19, 2023

On April 17, 2024, we entered into a Securities Purchase Agreement with Casdin whereby the Company sold, consummated the Global Cooling Divestiture. The Company provided \$4.9 million in cash funding to effectuate the transaction and Casdin purchased, 927,165 shares estimates it will pay \$2.4 million to the brokers, attorneys, and other external parties. In addition, the Company expects to recognize \$10.7 million in expenses in connection with the Global Cooling Divestiture, of common stock which \$5.2 million will be paid from cash from operations in the second quarter, for meeting certain post-closing requirements, costs to sell Global Cooling, the assumption of certain liabilities and debt, and severance expenses

related to the RIF implemented on the business of Global Cooling, which reduced the Company's workforce by 47 employees. These expenses are expected to be recognized during the second quarter of 2024. For additional information on the details of the Company at a share price of \$11.19 per share for an aggregate purchase price of \$10,374,976, infusing additional capital into Transaction and its related costs, see Item I, Note 19: Subsequent events to the Company. Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Based on our current expectations with respect to our future revenue and expenses, we believe that our current level of cash, cash equivalents, and other liquid assets will be sufficient to meet our liquidity needs for at least the next twelve months from the date of the filing of this Quarterly Report on Form 10-Q. However, the Company may choose to raise additional capital through a debt or equity financing for strategic purposes. Additional capital, if required, may not be available on reasonable terms, if at all.

Cash flows

**Nine Months
Ended
September 30,**

**Three Months Ended
March 31,**

**(In thousands, except
percentages)**

**(In thousands, except
percentages)**

(In thousands, except percentages)	(In thousands, except percentages)	\$			2023	\$ Change
		2023	2022	Change		
Operating activities	Operating activities	\$(14,809)	\$(16,345)	\$ 1,536		
Investing activities	Investing activities	13,880	(43,223)	\$ 57,103		
Financing activities	Financing activities	750	\$ 16,941	\$(16,191)		
Net decrease in cash and cash equivalents	Net decrease in cash and cash equivalents	\$ (179)	\$(42,627)	\$ 42,448		

Net cash used in operating activities

Net cash used by operating activities was **\$14.8 million** **\$4.5 million** during the **nine three** months ended **September 30, 2023** **March 31, 2024** compared to **\$16.3 million** **\$2.7 million** during the **nine three** months ended **September 30, 2022** **March 31, 2023**. The **decrease** **increase** in cash used by operating activities was primarily due to the **result of a decline in revenue in addition to the timing of collection and disbursement of working capital related items in accounts receivable, prepaid expenses, inventories, accounts payable, and accounts payable, accrued expenses.**

Net cash provided by (used in) used in (provided by) investing activities

Net cash provided used by investing activities totaled **\$13.9 million** **\$0.2 million** during the **nine three** months ended **September 30, 2023** **March 31, 2024** compared to **\$43.2 million** **used \$2.9 million** provided by investing activities for the **nine three** months ended **September 30, 2022** **March 31, 2023**. The increase in cash provided used by investing activities was primarily driven by **\$42.5 million** a **decrease of \$8.9 million** in maturities of our investments in available-for-sale marketable securities made throughout compared to the **year ended December 31, 2022** **prior year**. This was offset by **\$22.7 million** a **decrease of \$3.5 million** in **investments made in additional available-for-sale marketable securities in addition to \$8.5 million of property and equipment and assets held for rent purchases** **purchases and a decrease of \$1.8 million in investments made in available-for-sale marketable securities.**

Net cash provided by used in financing activities

Net cash provided used by financing activities totaled **\$0.8 million** **\$1.0 million** during the **nine three** months ended **September 30, 2023** **March 31, 2024**, compared to **\$16.9 million** **\$0.6 million** used in financing activities during the **nine three** months ended **September 30, 2022** **March 31, 2023**. The **decrease** **increase** in cash provided used by financing activities was primarily the result of **increases in payments on the proceeds of Company's equipment loans and financed insurance premiums** compared to the **\$20.0 million term loan** executed during the **nine months ended September 30, 2022** with no similar financing transaction taking place during the **nine months ended September 30, 2023**.

Off-balance sheet arrangements

As of September 30, 2023, we did not have any off-balance sheet arrangements, prior year.

Contractual obligations

Our material cash requirements include contractual and other obligations which we previously disclosed within the financial statements and Management Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report. Other than the contractual obligation listed below, there have been no significant changes to these obligations in the three months ended **September 30, 2023** **March 31, 2024**.

Purchase obligations

Purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum, or variable pricing provisions and the approximate timing of the transactions. As of **September 30, 2023** **March 31, 2024**, our total short-term obligations were **\$14.3** **\$10.0 million**.

Item 3. Quantitative and qualitative disclosures about market risk

Interest rate risk

Our exposure to market risk for changes in interest rates relates primarily to our long-term debt. Our long-term debt primarily bears interest at a fixed rate, with a variable component subject to an interest rate ceiling. Fluctuations in interest rates therefore do not materially impact our consolidated financial statements from long-term debt. For additional information, see Note **14.13, Long-term debt** to the Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Foreign currency exchange risk

For a discussion of market risks related to foreign currency exchange rates, refer to Item 7A, "Quantitative and Qualitative Disclosures about Market Risk" in our Annual Report. During the **nine****three** months ended **September 30, 2023****March 31, 2024**, there were no material changes or developments that would materially alter the market risk assessment of our exposures to foreign currency exchange rates performed as of **December 31, 2022****December 31, 2023**.

Item 4. Controls and procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q were not effective, due to the material weaknesses in our internal **controls****control** over financial reporting. As previously reported, we identified material weaknesses in our internal **controls****control** over financial reporting as of **December 31, 2022****December 31, 2023** with regard to (i) inappropriately designed entity-level controls impacting the control environment, risk assessment procedures, and monitoring activities to prevent or detect material misstatements to the consolidated financial statements attributed to an insufficient number of qualified resources and inadequate oversight and accountability over the performance of controls, ineffective identification and assessment or risks impacting internal control over financial reporting, and ineffective monitoring controls; (ii) information system logical access within certain key financial systems; (iii) **ineffective** accounting **policies** and procedures and related controls over **complex****certain** financial statement areas; (iv) **inadequate risk assessment**, accounting policies, procedures and related controls performed over **revenue recognition** and the procure to pay **processes**; and (v) **inadequate risk assessment**, accounting procedures, or maintenance of effectively designed and implemented accounting policies, procedures, and related controls, over the **revenue recognition** and measurement of **indirect tax liabilities** **processes** in the consolidated financial statements in accordance with the applicable financial reporting requirements.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended **September 30, 2023****March 31, 2024** that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Control

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within **BioLife Solutions** the Company have been detected.

Remediation

We are continuing to implement remediation plans outlined in our **Part II, Item 9A** of Annual Report. We also may implement additional changes to our internal control over financial reporting as may be appropriate in the course of remediating the material weaknesses. Management, with the oversight of the Audit Committee of the Board, will continue to take steps necessary to remedy the material weaknesses to reinforce the overall design and capability of our control environment.

PART II: Other information

Item 1. LEGAL PROCEEDINGS

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We are not currently aware of any such proceedings or claims that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations.

Item 1A. RISK FACTORS

The matters discussed in this Quarterly Report on Form 10-Q include forward-looking statements that involve risks or uncertainties. These statements are neither promises nor guarantees, but are based on various assumptions by management regarding future circumstances, over many of which BioLife has little or no control. A number of important risks and uncertainties, including those identified under **During the caption "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the period** **three** **months** **ended**

December 31, 2022 and in subsequent filings, could cause our actual results to differ materially from those in the forward-looking statements. There are March 31, 2024, there were no material changes to the risk factors described in Part I, Item 1A of our Annual Report on Form 10-K for the period ended December 31, 2022. Report.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

Item 3. DEFAULTS UPON SENIOR SECURITIES

None.

Item 4. MINE SAFETY DISCLOSURES

None.

Item 5. OTHER INFORMATION

Rule 10b5-1 Trading Plans

During our fiscal quarter ended September 30, 2023 March 31, 2024, certain of our officers (as defined in Rule 16a-1(f) under the Exchange Act) and directors entered into contracts, instructions, or written plans for the purchase or sale of our securities that are intended to satisfy the conditions specified in Rule 10b5-1(c) under the Securities and Exchange Act of 1934, as amended ("Rule 10b5-1(c)"), for an affirmative defense against liability for trading in securities on the basis of material nonpublic information. We refer to these contracts, instructions, and written plans as "Rule 10b5-1 trading plans" and each one as a "Rule 10b5-1 trading plan." The following table identifies and provides the material terms of the Rule 10b5-1 trading plans intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) adopted or terminated by our officers and directors during the three months ended September 30, 2023 March 31, 2024.

Name and Position	Plan Adoption / Termination	Plan Adoption / Termination Date	Expiration Date	Number of Shares to be Purchased (Sold) / Terminated under Plan
Aby J. Mathew, EVP & Chief Scientific Officer ⁽¹⁾	Termination Adoption	August 17, 2023 March 13, 2024	December 31, 2023 2024	123,404 (123,404)

(1) On August 17, 2023, Aby J. Mathew, EVP & Chief Scientific Officer, terminated the remaining portion of his 10b5-1 Plan originally adopted on November 15, 2022 for the sale of up to 263,404 shares of the Company's common stock until December 31, 2023. The trading arrangement was in place solely for the potential exercise of vested stock options and for sales intended to satisfy tax obligations payable due to the vesting and settlement of certain restricted stock awards. Since the adoption of the 10b5-1 Plan, 140,000 shares of the Company's common stock were sold out of the original 263,404 shares.

Item 6. Exhibits

Exhibit No.	Description
10.1	Form of Amendment to Employment Terms (incorporated by reference to Exhibit 10.1 to the Company's report on Form 8-K filed August 16, 2023)
31.1	Certification Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended
32.1#	Certifications of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2#	Certifications of Principal 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**	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 Taxonomy 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 with applicable taxonomy extension information contained in Exhibits 101)
#	The information in Exhibits 32.1 and 32.2 shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act (including this Quarterly Report on Form 10-Q), unless the Company specifically incorporates the foregoing information into those documents by reference.
**	In accordance with Rule 402 of Regulation S-T, this interactive data file is deemed not filed or part of this Quarterly Report on Form 10-Q for purposes of Sections 11 or 12 of the Securities Act or Section 18 of the Exchange Act and otherwise is not subject to liability under these sections.

SIGNATURES

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

BIOLIFE SOLUTIONS, INC.

Date: [November 9, 2023](#) [May 10, 2024](#)

/s/ Troy Wichterman

Troy Wichterman

Chief Financial Officer

(Duly authorized officer and principal financial and accounting officer)

[4439](#)

EXHIBIT 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR RULE 13d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Roderick de Greef, certify that:

- I have reviewed this quarterly report on Form 10-Q of BioLife Solutions, 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 controls 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.

Date: **November 9, 2023** **May 10, 2024**

/s/ Roderick de Greef

Roderick de Greef

Chief Executive Officer and Chairman of the Board

EXHIBIT 31.2

**CERTIFICATION PURSUANT TO
RULE 13a-14(a) or RULE 13d-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934**

I, Troy Wichterman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of BioLife Solutions, 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 controls 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.

Date: **November 9, 2023** **May 10, 2024**

/s/ Troy Wichterman

Troy Wichterman
Chief Financial Officer

EXHIBIT 32.1

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

In connection with the Quarterly Report of BioLife Solutions, Inc. (the "Company") on Form 10-Q for the period ending **September 30, 2023** **March 31, 2024**, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Roderick de Greef, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: **November 9, 2023** **May 10, 2024**

/s/ Roderick de Greef

Roderick de Greef
Chief Executive Officer and Chairman of the Board

EXHIBIT 32.2

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

In connection with the Quarterly Report of BioLife Solutions, Inc. (the "Company") on Form 10-Q for the period ending **September 30, 2023** **March 31, 2024**, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Troy Wichterman, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as

adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: **November 9, 2023** **May 10, 2024**

/s/ Troy Wichterman

Troy Wichterman

Chief Financial Officer

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