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

FORM 10-Q

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

For the quarterly period ended June 30, 2025

001-12934
(Commission file number)

ImmuCell Corporation

(Exact name of registrant as specified in its charter)

Delaware	01-0382980
(State of Incorporation)	(I.R.S. Employer Identification No.)
56 Evergreen Drive, Portland, ME	04103
(Address of principal executive office)	(Zip Code)

(207) 878-2770
(Registrant's telephone number)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.10 par value per share	ICCC	The Nasdaq Capital Market

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

The number of shares of the registrant's common stock outstanding as of August 7, 2025 was 9,045,851.

ImmuCell Corporation

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Part 1. FINANCIAL INFORMATION
ITEM 1. UNAUDITED FINANCIAL STATEMENTS
BALANCE SHEETS
(Unaudited)

	As of June 30, 2025	As of December 31, 2024
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$5,998,494	$3,758,232
Trade accounts receivable	2,378,823	3,771,133
Inventory	8,294,426	7,112,623
Prepaid expenses and other current assets	464,566	400,762
Total current assets	17,136,309	15,042,750
Property, plant and equipment, net	24,882,998	25,349,019
Operating lease right-of-use asset	4,542,863	4,560,679
Goodwill	95,557	95,557
Intangible assets, net	9,552	19,104
Other assets	53,619	33,368
TOTAL ASSETS	$46,720,898	$45,100,477
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current portion of debt obligations	$1,535,439	$1,497,619
Current portion of operating lease liability	322,753	432,072
Accounts payable and accrued expenses	2,588,223	2,482,522
Total current liabilities	4,446,415	4,412,213
LONG-TERM LIABILITIES:		
Debt obligations, net of current portion	8,263,223	9,040,975
Operating lease liability, net of current portion	4,143,832	4,129,102
Total long-term liabilities	12,407,055	13,170,077
TOTAL LIABILITIES	16,853,470	17,582,290
CONTINGENT LIABILITIES AND COMMITMENTS (See Note 10)		
STOCKHOLDERS' EQUITY:		
Common stock, $0.10 par value per share, 15,000,000 and 15,000,000 shares authorized, 9,105,622 and 9,042,392 shares issued and 9,045,851 and 8,979,091 shares outstanding, as of June 30, 2025 and December 31, 2024, respectively.	910,563	904,240
Additional paid-in capital	41,302,488	40,916,155
Accumulated deficit	(12,214,863)	(14,163,726)
Treasury stock, at cost, 59,771 and 63,301 shares as of June 30, 2025 and December 31, 2024, respectively	(130,760)	(138,482)
TOTAL STOCKHOLDERS' EQUITY	29,867,428	27,518,187
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$46,720,898	$45,100,477

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

ImmuCell Corporation
STATEMENTS OF OPERATIONS
(Unaudited)

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30,	
	2025	**2024**	**2025**	**2024**
Product sales	$6,444,880	$5,472,890	$14,512,054	$12,730,467
Costs of goods sold	3,626,956	4,242,404	8,340,158	9,204,622
Gross margin	2,817,924	1,230,486	6,171,896	3,525,845
Product development expenses	831,858	1,030,502	1,588,705	2,293,053
Sales and marketing expenses	696,086	984,957	1,552,744	1,785,880
Administrative expenses	720,418	601,634	1,343,260	1,133,572
Operating expenses	2,248,362	2,617,093	4,484,709	5,212,505
NET OPERATING INCOME (LOSS)	569,562	(1,386,607)	1,687,187	(1,686,660)
Other (expenses) income, net	(65,778)	(143,679)	265,485	(280,154)
INCOME (LOSS) BEFORE INCOME TAXES	503,784	(1,530,286)	1,952,672	(1,966,814)
Income tax expense	1,904	1,340	3,809	2,680
NET INCOME (LOSS)	$501,880	($1,531,626)	$1,948,863	($1,969,494)
Basic weighted average common shares outstanding	9,031,282	7,810,037	9,006,082	7,780,450
Basic net income (loss) per share	$0.06	($0.20)	$0.22	($0.25)
Diluted weighted average common shares outstanding	9,031,282	7,810,037	9,006,082	7,780,450
Diluted net income (loss) per share	$0.06	($0.20)	$0.22	($0.25)

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

ImmuCell Corporation
STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Common Stock				Treasury Stock		
	Shares	Amount	Additional paid-in capital	Accumulated Deficit	Shares	Amount	Total Stockholders' Equity
During the Three-Month Period Ended June 30, 2025:							
BALANCE,							
March 31, 2025	9,045,924	$904,593	$40,944,476	($12,716,743)	63,301	($138,482)	$28,993,844
Net income	—	—	—	501,880	—	—	501,880
Exercise of stock options	—	—	(7,719)	—	(3,530)	7,722	3
At-The-Market Offering (ATM) of common stock, net of $24,905 of offering costs	59,698	5,970	299,017	—	—	—	304,987
Stock-based compensation	—	—	66,714	—	—	—	66,714
BALANCE,							
June 30, 2025	9,105,622	$910,563	$41,302,488	($12,214,863)	59,771	($130,760)	$29,867,428
During the Three-Month Period Ended June 30, 2024:							
BALANCE,							
March 31, 2024	7,814,165	$781,417	$36,438,349	($12,444,965)	63,301	($138,482)	$24,636,319
Net loss	—	—	—	(1,531,626)	—	—	(1,531,626)
At-The-Market Offering of common stock, net of $164,802 of offering costs	82,216	8,222	244,527	—	—	—	252,749
Stock-based compensation	—	—	98,021	—	—	—	98,021
BALANCE,							
June 30, 2024	7,896,381	$789,639	$36,780,897	($13,976,591)	63,301	($138,482)	$23,455,463
During the Six-Month Period Ended June 30, 2025:							
BALANCE,							
December 31, 2024	9,042,392	$904,240	$40,916,155	($14,163,726)	63,301	($138,482)	$27,518,187
Net income	—	—	—	1,948,863	—	—	1,948,863
Exercise of stock options	—	—	(7,719)	—	(3,530)	7,722	3
At-The-Market Offering of common stock, net of $67,880 of offering costs	63,230	6,323	275,123	—	—	—	281,446
Stock-based compensation	—	—	118,929	—	—	—	118,929
BALANCE,							
June 30, 2025	9,105,622	$910,563	$41,302,488	($12,214,863)	59,771	($130,760)	$29,867,428
During the Six-Month Period Ended June 30, 2024:							
BALANCE,							
December 31, 2023	7,814,165	$781,417	$36,357,239	($12,007,097)	63,301	($138,482)	$24,993,077
Net loss	—	—	—	(1,969,494)	—	—	(1,969,494)
At-The-Market Offering of common stock, net of $164,802 of offering costs	82,216	8,222	244,527	—	—	—	252,749
Stock-based compensation	—	—	179,131	—	—	—	179,131
BALANCE,							
June 30, 2024	7,896,381	$789,639	$36,780,897	($13,976,591)	63,301	($138,482)	$23,455,463

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

ImmuCell Corporation
STATEMENTS OF CASH FLOWS
(Unaudited)

	During the Six-Month Periods Ended June 30,	
	2025	**2024**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income (loss)	$1,948,863	($1,969,494)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation	1,334,646	1,328,659
Amortization of intangible assets	9,552	9,552
Amortization of debt issuance costs and debt discounts	21,612	21,054
Stock-based compensation	118,929	179,131
(Gain) loss on disposal of property, plant and equipment	(2,263)	14,557
Non-cash rent benefit	(76,773)	(74,871)
Changes in:		
Trade accounts receivable	1,392,310	234,933
Inventory	(1,181,803)	512,235
Prepaid expenses and other current assets	(63,804)	274,314
Other assets	(20,251)	19,976
Accounts payable and accrued expenses	(305,684)	450,239
Net cash provided by operating activities	3,175,334	1,000,285
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property, plant and equipment	(484,209)	(181,097)
Proceeds from sale of property, plant and equipment	29,232	4,500
Net cash used for investing activities	(454,977)	(176,597)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from At-The-Market Offering, gross	349,326	417,551
Debt principal repayments	(761,544)	(725,856)
Payments of debt issuance costs	—	(5,037)
Payments of equity offering costs	(67,880)	(164,802)
Proceeds from exercise of stock options	3	—
Net cash used for financing activities	(480,095)	(478,144)
NET INCREASE IN CASH AND CASH EQUIVALENTS	2,240,262	345,544
BEGINNING CASH AND CASH EQUIVALENTS	3,758,232	978,741
ENDING CASH AND CASH EQUIVALENTS	$5,998,494	$1,324,285

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

ImmuCell Corporation
STATEMENTS OF CASH FLOWS
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION
(Unaudited)

	During the Six-Month Periods Ended June 30,	
	2025	**2024**
CASH PAID FOR:		
Income taxes	$10,205	$5,905
Interest	$234,380	$270,068
NON-CASH ACTIVITIES:		
(Increase) decrease in capital expenditures included in accounts payable and accrued expenses	($411,385)	$12,005
Increase (decrease) in operating lease right-of-use asset and operating lease liability	$—	($17,012)

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

1. BUSINESS OPERATIONS

ImmuCell Corporation (the "Company", "we", "us", "our") was originally incorporated in Maine in 1982 and reincorporated in Delaware in 1987, in conjunction with an initial public offering of common stock. We are an animal health company whose purpose is to create scientifically proven and practical products that improve the health and productivity of dairy and beef cattle. We focus on the two most critical stages of dairy productivity, those being the first 30 days of life and the first 30 days of lactation. Our concentrated colostrum and purified Nisin technologies could offer unique animal health solutions during these periods when immunity is at its most vulnerable. As disclosed in Note 16, "Segment Information", one of our business segments is dedicated to Scours and the other is focused on Mastitis. We manufacture and market the **First Defense®** product line, providing **Immediate Immunity™** to prevent scours in newborn dairy and beef calves. Our product line offers three formats in two distinct platforms: veterinary biologics providing protection against *E. coli*, coronavirus, and rotavirus, and functional feed products delivering concentrated bioactive colostrum proteins. We are developing **Re-Tain®** – a treatment for subclinical mastitis in lactating dairy cows. Upon approval, it could represent a first-of-its-kind new animal drug, unrelated to human-use antibiotics. The governing regulatory authorities are Center for Veterinary Biologics, U.S. Department of Agriculture and American Association of Feed Control Officials for **First Defense®**, and Center for Veterinary Medicine, U.S. Food and Drug Administration for **Re-Tain®**. We are subject to certain risks including dependence on key individuals and third-party providers of critical goods and services, competition from other larger companies, the successful sale of existing products and the development of new viable products with appropriate regulatory approvals, where applicable. A combination of the conditions, trends and concerns related to or arising from tariffs, inflation, rising interest rates and potential recessionary conditions in the United States and/or internationally, could have a corresponding negative effect on our business and operations. We are experiencing price increases in key components, supportive services, transportation and other supplies that are causing our costs of goods sold to increase. We experienced contamination events in our production process, beginning in the third quarter of 2022 and through April of 2024, as disclosed previously. We implemented a production slowdown during 2023 to remediate this problem, which led to the recognition of lower sales and gross margin. We have experienced just one further contamination event since April of 2024, which occurred during the second quarter of 2025.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Presentation

We have prepared the accompanying unaudited financial statements reflecting all adjustments (which are of a normal recurring nature) that are, in our opinion, necessary in order to ensure that the financial statements are not misleading. We follow accounting standards set by the Financial Accounting Standards Board (FASB). The FASB sets Generally Accepted Accounting Principles (GAAP) that we follow to ensure we accurately report our financial condition, results of operations, earnings per share and cash flows. References to GAAP in these footnotes are to the FASB *Accounting Standards Codification*™ (Codification). We believe that the disclosures are adequate to ensure that the information presented is not misleading.

(b) Cash and Cash Equivalents

We consider all highly liquid investment instruments that mature within three months of their purchase dates to be cash equivalents. Cash equivalents are principally invested in securities backed by the U.S. government. We hold no cash or cash equivalents in excess of Federal Deposit Insurance Corporation (FDIC) limits of $250,000 per financial institution per depositor.

(c) Trade Accounts Receivable

Accounts receivable are carried at the original invoice amount less an estimate made for credit losses, when applicable. Management determines the allowance for credit losses on a monthly basis by identifying troubled accounts and by using historical experience applied to an aging of accounts and other relevant factors. Accounts receivable are considered to be past due if a portion of the receivable balance is outstanding for more than 30 days. Past due accounts receivable are subject to an interest charge. It was not necessary to charge interest on past due accounts during the three-month or six-month periods ended June 30, 2025 or 2024 because the time past due was not significant, and there was no accrual for such interest charges as of June 30, 2025 or December 31, 2024. As of June 30, 2025 and December 31, 2024, we determined that no allowance for credit losses was necessary. Accounts receivable are written off when deemed uncollectible. No accounts receivable were written off during the three-month or six-month periods ended June 30, 2025 or 2024. Recoveries of accounts receivable previously written off are recorded as income when received. No such recoveries were recorded during the three-month or six-month periods ended June 30, 2025 or 2024. See Note 3.

(d) Inventory

Inventory includes raw materials, work-in-process and finished goods and is recorded at the lower of cost, on the first-in, first-out method, or net realizable value (determined as the estimated selling price in the normal course of business, less reasonably predictable costs of completion, disposal and transportation). Work-in-process and finished goods inventories include materials, labor and manufacturing overhead. At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence. Inventories that we consider excess or obsolete are written down to estimated net realizable value. Once inventory is written down and a new cost basis is established, it is not written back up. We believe that supplies and raw materials for the production of our products are available from more than one vendor or farm. Our policy is to maintain more than one source of supply for the components used in our products when feasible. See Note 4.

(e) Property, Plant and Equipment, net

We depreciate property, plant and equipment on the straight-line method by charges to operations and costs of goods sold in amounts estimated to expense the cost of the assets from the date they are first put into service to the end of the estimated useful lives of the assets. The facility we have constructed at 33 Caddie Lane to produce the Nisin Drug Substance (DS) for **Re-Tain®** (**Building 33**) is being depreciated over 39 years from when a Certificate of Occupancy was issued during the fourth quarter of 2017. We began depreciating the equipment for our Nisin DS facility when it was placed in service during the third quarter of 2018. Approximately 86% of these assets are being depreciated over 10 years. We began depreciating the leasehold improvements to our new **First Defense®** production facility at 175 Industrial Way (**Building 175A**) over the remainder of the 10-year lease term beginning when a Certificate of Occupancy was issued during the second quarter of 2020. During August of 2022, this lease term was extended to January of 2043 in connection with a new lease covering additional space at 175 Industrial Way (**Building 175B**). As a result, the net book value of these leasehold improvements as of August 31, 2022 is now being depreciated over the remainder of the extended lease term. Significant repairs to property, plant and equipment that benefit more than a current period are capitalized and depreciated over their useful lives. Insignificant repairs are expensed when incurred. See Notes 2(h) and 6 for additional disclosures.

(f) Operating Leases

We account for our real estate leases using a right-of-use model, which recognizes that at the date of commencement, a lessee has a financial obligation to make lease payments to the lessor for the right to use the underlying asset during the lease term and recognizes a corresponding right-of-use (ROU) asset related to this right. ROU assets and lease liabilities are recognized at the lease commencement date based on the present value of the future lease payments over the expected lease term. The ROU asset is also adjusted for any lease prepayments made, lease incentives received and initial direct costs incurred. For operating leases with lease payments that fluctuate over the lease term, the total lease costs are recognized on a straight-line basis over the lease term. Our leases, at times, may include options to extend the term of the lease. When it is reasonably certain that we will exercise the option, we include the impact of the option in the lease term for purposes of determining future lease payments. For all underlying classes of assets, we made an accounting policy election to not recognize assets or liabilities for leases with a term of twelve months or less and to account for all components in a lease arrangement as a single combined lease component. Short-term lease payments are recognized on a straight-line basis. Certain of our lease agreements include variable rent payments, consisting primarily of amounts paid to the lessor based on cost or consumption, such as maintenance and real estate taxes. These costs are recognized in the period in which the obligation is incurred. Because our leases do not specify an implicit rate, we use an incremental borrowing rate based on information available at the lease commencement date to determine the present value of the lease payments. We evaluate our ROU asset for impairment when events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. See Notes 2(h) and 11 for additional disclosures.

(g) Intangible Assets and Goodwill

We amortize intangible assets on the straight-line method by charges to costs of goods sold in amounts estimated to expense the cost of the assets from the date they are first put into service to the end of the estimated useful lives of the assets. We have recorded intangible assets related to customer relationships, non-compete agreements and developed technology, each with defined useful lives. Amounts paid in excess of the fair value of the net assets (including tax attributes) are recorded as goodwill under the acquisition method of accounting. We assess the impairment of intangible assets that have indefinite lives (when applicable) and goodwill (at the reporting unit level) on an annual basis (as of December 31st) and whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. We would record an impairment charge if such an assessment were to indicate that the fair value of such assets was less than the carrying value. Judgment is required in determining whether an event has occurred that may impair the value of goodwill or identifiable intangible assets. Factors that could indicate that an impairment may exist include significant under-performance relative to plan or long-term projections, significant changes in business

strategy and significant negative industry or economic trends. Although we believe intangible assets and goodwill are properly stated in the accompanying financial statements, changes in strategy or market conditions could significantly impact these judgments and require an adjustment to the recorded balance in the future. No goodwill impairments were recorded during the three-month or six-month periods ended June 30, 2025 or 2024. See Notes 2(h) and 7 for additional disclosures.

(h) Valuation of Long-Lived Assets

We periodically evaluate our long-lived assets, consisting principally of property, plant and equipment, operating lease right-of-use asset and amortizable intangible assets, for potential impairment. In accordance with the applicable accounting guidance for the treatment of long-lived assets, we review the carrying value of our long-lived assets or asset group that is held and used, including intangible assets subject to amortization, for impairment whenever events and circumstances indicate that the carrying value of the assets may not be recoverable. Under the held for use approach, the asset or asset group to be tested for impairment should represent the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. One example of an asset category we are carefully monitoring is property, plant and equipment related to **Re-Tain®**.

	Re-Tain® Assets as of June 30, 2025
Land	$448,201
Buildings and improvements	12,725,789
Laboratory and manufacturing equipment	9,769,049
Construction in progress	2,316,951
Total	25,259,990
Accumulated depreciation	(9,496,221)
Net book value	$15,763,769

No impairment was recognized during the three-month or six-month periods ended June 30, 2025 or 2024.

(i) Fair Value Measurements

In determining fair value measurements, we follow the provisions of Codification Topic 820, *Fair Value Measurements and Disclosures*. Codification Topic 820 defines fair value, establishes a framework for measuring fair value under GAAP and enhances disclosures about fair value measurements. The topic provides a consistent definition of fair value which focuses on an exit price, which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The topic also prioritizes, within the measurement of fair value, the use of market-based information over entity-specific information and establishes a three-level hierarchy for fair value measurements based on the nature of inputs used in the valuation of an asset or liability as of the measurement date. As of June 30, 2025 and December 31, 2024, the carrying amounts of cash and cash equivalents, accounts receivable, inventory, prepaid expenses and other current assets, other assets, accounts payable and accrued expenses approximate fair value because of their short-term nature. The amount outstanding under our bank debt facilities is measured at carrying value in our accompanying balance sheets. Our bank debt facilities are valued using Level 2 inputs. The three-level hierarchy is as follows:

Level 1 — Pricing inputs are quoted prices available in active markets for identical assets or liabilities as of the measurement date.

Level 2 — Pricing inputs are quoted prices for similar assets or liabilities, or inputs that are observable, either directly or indirectly, for substantially the full term through corroboration with observable market data.

Level 3 — Pricing inputs are unobservable for the assets or liabilities, that is, inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level of an asset or liability within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment. We also hold money market accounts in our bank account, which are classified as cash equivalents and measured at fair value. The fair value of these investments is based on their closing published net asset value.

We assess the levels of the investments at each measurement date, and transfers between levels are recognized on the actual date of the event or change in circumstances that caused the transfer in accordance with our accounting policy regarding the recognition of transfers between levels of the fair value hierarchy. During the six-month periods ended June 30, 2025 and 2024, there

were no transfers between levels. As of June 30, 2025 and December 31, 2024, our Level 1 assets measured at fair value by quoted prices in active markets consisted of cash and money market accounts. There were no assets or liabilities measured at fair value on a nonrecurring basis as of June 30, 2025 and December 31, 2024. The carrying values of our cash and money market accounts as of June 30, 2025 and December 31, 2024 approximated their fair market values. Due to inflation and the changing interest rate environment, the carrying values of our fixed rate bank debt as of June 30, 2025 and December 31, 2024 differed from its fair market values. These fair market values are reflected in the following tables:

	As of June 30, 2025			
	Level 1	**Level 2**	**Level 3**	**Total**
Assets:				
Cash and money market accounts	$5,998,494	$—	$—	$5,998,494
Liabilities:				
Bank debt	$—	$9,016,678	$—	$9,016,678

	As of December 31, 2024			
	Level 1	**Level 2**	**Level 3**	**Total**
Assets:				
Cash and money market accounts	$3,758,232	$—	$—	$3,758,232
Liabilities:				
Bank debt	$—	$9,465,500	$—	$9,465,500

(j) Concentration of Risk

Concentration of credit risk with respect to accounts receivable is principally limited to certain customers to whom we make substantial sales. To reduce risk, we routinely assess the financial strength of our customers and, therefore, believe that our accounts receivable credit risk exposure is limited. We maintain an allowance for potential credit losses when deemed necessary, but historically we have not experienced significant credit losses related to an individual customer or groups of customers in any particular industry or geographic area. Sales to significant customers that amounted to 10% or more of total product sales are detailed in the following table:

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30,	
	2025	**2024**	**2025**	**2024**
Company A	52%	44%	47%	45%
Company B	29%	33%	28%	34%
Total	81%	77%	75%	79%

Trade accounts receivable due from significant customers that amounted to 10% or more of our total trade accounts receivable are detailed in the following table:

	As of June 30, 2025	As of December 31, 2024
Company A	44%	57%
Company B	35%	21%
Total	79%	78%

(k) Revenue Recognition

We recognize revenue in accordance with Codification Topic 606, *Revenue from Contracts with Customers (ASC 606)*. ASC 606 is a single comprehensive model for companies to use in accounting for revenue arising from contracts with customers. The core principle is that we recognize the amount of revenue to which we expect to be entitled for the transfer of promised goods or services to

customers when a customer obtains control of promised goods or services in an amount that reflects the consideration we expect to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. We conduct our business with customers through valid purchase orders or sales orders which are considered contracts and are not interdependent on one another. A performance obligation is a promise in a contract to transfer a distinct product to the customer. The transaction price is the amount of consideration we expect to receive under the arrangement. Revenue is measured based on consideration specified in a contract with a customer. The transaction price of a contract is allocated to each distinct performance obligation and recognized when or as the customer receives the benefit of the performance obligation. Product transaction prices on a purchase or sales order are discrete and stand-alone. We recognize revenue when we satisfy a performance obligation in a contract by transferring control over a product to a customer when product ships to a customer. Amounts due are typically paid approximately 30 days from the time control is transferred. Shipping and handling costs associated with outbound freight are accounted for as a fulfillment cost in costs of goods sold. We do not bill for or collect sales tax because our sales are generally made to distributors and thus our sales to them are not subject to sales tax. We generally have experienced an immaterial amount of product returns. See Note 13 for additional disclosures.

(l) Expense Recognition

We do not incur costs in connection with product sales to customers that are eligible for capitalization. Advertising costs are expensed when incurred, which is generally during the month in which the advertisement is published. All product development expenses are expensed as incurred, as are all related patent costs. We capitalize costs to produce inventory during the production cycle, and these costs are charged to costs of goods sold when the inventory is sold to a customer or is deemed to be in excess or obsolete.

(m) Income Taxes

We account for income taxes in accordance with Codification Topic 740, *Income Taxes*, which requires that we recognize a current tax liability or asset for current taxes payable or refundable and a deferred tax liability or asset for the estimated future tax effects of temporary differences and carryforwards to the extent they are realizable. We consider future taxable income and feasible tax planning strategies in assessing the need for a valuation allowance against our deferred tax assets at the end of each quarter. If we determine that it is more likely than not that we will realize our deferred tax assets in the future in excess of the net recorded amount over a reasonably short period of time, a reduction of the valuation allowance would increase income in the period such determination was made. Likewise, if we determine that it is more likely than not that we will not realize all or part of our net deferred tax asset in the future, an increase to the valuation allowance would be charged to income in the period such determination was made.

Codification Topic 740-10 clarifies the accounting for income taxes by prescribing a minimum recognition threshold that a tax position must meet before being recognized in the financial statements. In the ordinary course of business, there are transactions and calculations where the ultimate tax outcome is uncertain. In addition, we are subject to periodic audits and examinations by the Internal Revenue Service and other taxing authorities. With few exceptions, we are no longer subject to income tax examinations by tax authorities for years before 2021. We have evaluated the positions taken on our filed tax returns and have concluded that no uncertain tax positions existed as of June 30, 2025 or December 31, 2024. Although we believe that our estimates are reasonable, actual results could differ from these estimates. See Note 15.

(n) Stock-Based Compensation

We account for stock-based compensation in accordance with Codification Topic 718, *Compensation-Stock Compensation*, which generally requires us to recognize non-cash compensation expense for stock-based payments using the fair-value-based method. The fair value of each stock option grant has been estimated on the date of grant using the Black-Scholes option pricing model. Accordingly, we recorded compensation expense pertaining to stock-based compensation of $66,714 and $98,021 during the three-month periods ended June 30, 2025 and 2024, respectively and $118,929 and $179,131 during the six-month periods ended June 30, 2025 and 2024, respectively. See Note 12.

(o) Net Income (Loss) Per Common Share

Net income (loss) per common share has been computed in accordance with Codification Topic 260-10, *Earnings Per Share*. The basic net income per share has been computed by dividing net income by the weighted average number of common shares outstanding during the period. The diluted net income per share has been computed by dividing net income by the weighted average number of shares outstanding during the period, plus all outstanding stock options with an exercise price that is less than the average market price of the common stock during the period, less the number of shares that could have been repurchased at this average market price, with the proceeds from the hypothetical stock option exercises and proceeds from unrecognized compensation. In no event can the diluted number of common shares outstanding be less than the weighted average number of common shares outstanding. The basic net (loss) per share has been computed by dividing the net (loss) by the weighted average number of common shares outstanding during the period. All stock options are excluded from the denominator in the calculation of dilutive earnings per

share when we are in a loss position because their inclusion would be anti-dilutive. Outstanding stock options that were not included in this calculation because the effect would be anti-dilutive amounted to 618,000 during both the three-month period and the six-month period ended June 30, 2024.

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30,	
	2025	2024	2025	2024
Net income (loss) attributable to stockholders	$501,880	($1,531,626)	1,948,863	($1,969,494)
Weighted average common shares outstanding - Basic	9,031,282	7,810,037	9,006,082	7,780,450
Dilutive impact of share-based compensation awards	—	—	—	—
Weighted average common shares outstanding - Diluted	9,031,282	7,810,037	9,006,082	7,780,450
Net income (loss) per share:				
Basic	$0.06	($0.20)	$0.22	($0.25)
Diluted	$0.06	($0.20)	$0.22	($0.25)

(p) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Although we regularly assess these estimates, actual amounts could differ from those estimates and are subject to change in the near term. Changes in estimates are recorded during the period in which they become known. Significant estimates include our valuation of inventory, certain other assets related to **Re-Tain®**, deferred tax assets and costs of goods sold.

(q) New Accounting Pronouncements Not Yet Adopted

In November of 2024, the FASB issued ASU 2024-03, *Disaggregation of Income Statement Expenses*, to provide disaggregated disclosures of specific expense categories underlying all relevant income statement expense line items on an annual and interim basis. The disclosure requirements will be applied on a prospective basis, with the option to apply it retrospectively. The effective date for the standard is for fiscal years beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027. Early adoption is permitted. We are evaluating ASU 2024-03 to determine its impact on our financial statements.

In December of 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which includes amendments that enhance income tax disclosures, primarily through standardization and disaggregation of income tax rate reconciliation categories and income taxes paid by jurisdiction. The amendments are effective for annual periods beginning after December 15, 2024, with early adoption permitted, and may be applied either prospectively or retrospectively. We are currently evaluating ASU 2023-09 to assess the impact on our financial statement disclosures and to determine the transition method in which the new guidance will be adopted.

3. TRADE ACCOUNTS RECEIVABLE

Trade accounts receivable amounted to $2,378,823 and $3,771,133 as of June 30, 2025 and December 31, 2024, respectively. No allowance for credit losses or product returns was recorded as of June 30, 2025 or December 31, 2024. We consider a broad range of information to estimate credit losses. Historically, we have experienced a very low level of credit loss expense, and most of our trade receivables are collected by the due date or within a few days of the due date. We anticipate no future events or conditions that would impact our ability to collect our accounts receivable. Because of the generally short duration from the balance sheet date to the date of collection, our collection rate is not expected to be significantly impacted by events occurring after the balance sheet date. The trade accounts receivable balances included $46,365 and $52,097 due from a related party as of June 30, 2025 and December 31, 2024, respectively. See Note 17.

4. INVENTORY

Inventory consisted of the following:

	As of June 30, 2025	As of December 31, 2024
Raw materials	$1,514,140	$1,356,228
Work-in-process	5,582,991	5,746,865
Finished goods	1,197,295	9,530
Total	$8,294,426	$7,112,623

5. PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets consisted of the following:

	As of June 30, 2025	As of December 31, 2024
Prepaid expenses	$419,653	$360,207
Other receivables	44,913	40,555
Total	$464,566	$400,762

6. PROPERTY, PLANT AND EQUIPMENT, net

Property, plant and equipment consisted of the following:

	Estimated Useful Lives (in years)	As of June 30, 2025	As of December 31, 2024
Laboratory and manufacturing equipment	3-10	$21,710,507	$21,234,259
Buildings and improvements	10-39	21,309,272	20,889,395
Office furniture and equipment	3-10	1,018,050	1,056,145
Construction in progress	n/a	2,595,063	2,693,904
Land	n/a	516,867	516,867
Property, plant and equipment, gross		47,149,759	46,390,570
Accumulated depreciation		(22,266,761)	(21,041,551)
Property, plant and equipment, net		$24,882,998	$25,349,019

As of June 30, 2025 and December 31, 2024, construction in progress consisted principally of payments toward the **First Defense**® production capacity expansion project and equipment needed to bring the formulation and aseptic filling for **Re-Tain**® in-house. The costs associated with property, plant and equipment disposals were $99,918 and $71,162 during the three-month periods ended June 30, 2025 and 2024, respectively and $136,405 and $71,162 during the six-month periods ended June 30, 2025 and 2024, respectively. Depreciation expense was $663,455 and $666,182 during the three-month periods ended June 30, 2025 and 2024, respectively, and $1,334,646 and $1,328,659 during the six-month periods ended June 30, 2025 and 2024, respectively.

7. INTANGIBLE ASSETS

Intangible assets of $191,040 were valued using the relief from royalty method and are being amortized to costs of goods sold over their useful lives, which are estimated to be 10 years. Intangible amortization expense was $4,776 during both of the three-month periods ended June 30, 2025 and 2024 and $9,552 during both of the six-month periods ended June 30, 2025 and 2024. The net value of these intangibles was $9,552 and $19,104 as of June 30, 2025 and December 31, 2024, respectively. Intangible asset amortization expense is estimated to be $19,104 during the year ending December 31, 2025.

Intangible assets as of June 30, 2025 consisted of the following:

	Gross Carrying Value	Accumulated Amortization	Net Book Value
Developed technology	$184,100	($174,895)	$9,205
Customer relationships	1,300	(1,235)	65
Non-compete agreements	5,640	(5,358)	282
Total	$191,040	($181,488)	$9,552

Intangible assets as of December 31, 2024 consisted of the following:

	Gross Carrying Value	Accumulated Amortization	Net Book Value
Developed technology	$184,100	($165,690)	$18,410
Customer relationships	1,300	(1,170)	130
Non-compete agreements	5,640	(5,076)	564
Total	$191,040	($171,936)	$19,104

8. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consisted of the following:

	As of June 30, 2025	As of December 31, 2024
Accounts payable – trade	$884,854	$934,883
Accounts payable – capital	420,139	8,754
Accrued payroll	1,053,746	1,195,703
Accrued professional fees	81,694	102,815
Accrued other	147,790	234,552
Income tax payable	—	5,815
Total	$2,588,223	$2,482,522

9. BANK DEBT

Loans #1 and #2: During the first quarter of 2020, we closed on a debt financing with Maine Community Bank (formerly known as Gorham Savings Bank) (MCB) aggregating $8,600,000, which was comprised of a $5,100,000 mortgage note (Loan #1) that bears interest at a fixed rate of 3.50% per annum (with a 10-year term and 25-year amortization schedule and a balloon principal payment of $3,145,888 due during the first quarter of 2030) and a $3,500,000 note (Loan #2) that bears interest at a fixed rate of 3.50% per annum (with a 7-year term and amortization schedule). The proceeds from the 2020 debt refinancing were used to repay all bank debt outstanding at the time of closing and to provide some additional working capital. During the first quarter of 2022, we closed on an additional $2,000,000 in mortgage debt, which bears interest at the fixed rate of 3.58% per annum. This was accomplished through an amendment of the original mortgage note (Loan #1) that increased the then outstanding principal balance from $4,233,957 to $6,233,957 bearing interest at the blended fixed rate of 3.53% per annum. This increased the balloon payment from $3,145,888 to $3,687,676 and extended the due date of the balloon payment from the first quarter of 2030 to the first quarter of 2032.

Line of Credit (LOC): Also during the first quarter of 2020, MCB extended a $1,000,000 LOC to us that is available, as needed, through September 11, 2025. Interest on borrowings against the LOC is variable at the National Prime Rate per annum. There was no outstanding balance under this LOC as of June 30, 2025 or December 31, 2024.

Loan #3: During the second quarter of 2020, we received a loan from the Maine Technology Institute (MTI) in the aggregate principal amount of $500,000. The first 2.25 years of this loan were interest-free with no interest accrual or required principal payments. Beginning during the fourth quarter of 2022, Loan #3 became subject to quarterly principal and interest payments at a fixed rate of 5% per annum over the final five years of the loan, through the third quarter of 2027 if not repaid before then.

Loan #4: During the fourth quarter of 2020, we closed on a $1,500,000 note with MCB that bears interest at a fixed rate of 3.50% per annum (with a 7-year term and amortization schedule). Proceeds of $624,167 were used to prepay a portion of the outstanding principal on our mortgage note (Loan #1), which reduced the outstanding balance to 80% of the most recent appraised value of the property securing the debt, which allowed MCB to release the $1,400,000 that had been held in escrow. The remaining proceeds were available for general working capital purposes.

Loan #5: On June 30, 2021, we executed definitive agreements covering a second loan from the MTI in the aggregate principal amount of $400,000, proceeds from which were received in July of 2021. The first two years of this loan were interest-free with no interest accrual or required principal payments. Principal and interest payments at a fixed rate of 5% per annum are due quarterly over the final 5.5 years of the loan, beginning during the third quarter of 2023 and continuing through the fourth quarter of 2028 if not repaid before then.

Loan #6: During the third quarter of 2023, we closed on a $2,000,000 term loan bearing interest at a fixed rate of 7% per annum from MCB. The Finance Authority of Maine (FAME) provided $1,000,000 of loan insurance to MCB. This loan is repayable under a 7-year amortization schedule with a balloon payment of $1,285,029 due during the third quarter of 2026.

Loan #7: Also during the third quarter of 2023, we closed on a $1,000,000 term loan bearing interest at a fixed rate of 8% per annum from FAME. The loan is repayable under a 7-year amortization schedule with a balloon payment of $649,267 due during the third quarter of 2026.

Loans #1, #2, #4, #6 and #7 are secured by liens on substantially all of our assets and are subject to certain restrictions and financial covenants. Loan #7 is subordinated to Loans #1, #2, #4 and #6. Reflecting our poor financial performance during 2023 and into the first nine months of 2024, the debt service covenant (DSC) requirements for the twelve-month periods ended December 31, 2023, June 30, 2024, September 30, 2024 and December 31, 2024 were waived pre-emptively by our lenders. We are required to meet a minimum DSC ratio of 1.35 for the year ending December 31, 2025 and annually thereafter. In connection with these credit facilities, we incurred aggregate debt issuance and debt discount costs of $173,305. The amortization of these debt issuance and debt discount costs is being recorded as a component of interest expense, included in other expenses, net, and is being amortized on a straight-line basis over the underlying terms of the notes. Loans #3 and #5 are unsecured and subordinated to our indebtedness to MCB and FAME. Failure to make timely payments of principal and interest, or otherwise to comply with the terms of the agreements of Loans #3 and #5, would entitle the MTI to accelerate the maturity of such debt and demand repayment in full. These loans may be prepaid without penalty at any time.

Debt proceeds received and principal repayments made (excluding our $1,000,000 line of credit) are reflected by loan during the periods as described in the tables below:

	During the Three-Month Period Ended June 30, 2025		During the Three-Month Period Ended June 30, 2024	
	Proceeds from Debt Issuance	Debt Principal Repayments	Proceeds from Debt Issuance	Debt Principal Repayments
Loan #1	$—	$59,262	$—	$57,148
Loan #2	—	132,019	—	127,382
Loan #3	—	25,091	—	23,875
Loan #4	—	54,958	—	53,026
Loan #5	—	17,354	—	16,513
Loan #6	—	62,456	—	58,143
Loan #7	—	30,299	—	28,264
Total	$—	$381,439	$—	$364,351

	During the Six-Month Period Ended June 30, 2025		During the Six-Month Period Ended June 30, 2024	
	Proceeds from Debt Issuance	Debt Principal Repayments	Proceeds from Debt Issuance	Debt Principal Repayments
Loan #1	$—	$119,068	$—	$114,346
Loan #2	—	263,073	—	253,791
Loan #3	—	49,873	—	47,455
Loan #4	—	109,554	—	105,666
Loan #5	—	34,494	—	32,822
Loan #6	—	124,434	—	115,613
Loan #7	—	61,048	—	56,163
Total	$—	$761,544	$—	$725,856

Principal payments (net of debt issuance and debt discount costs) due under bank loans outstanding as of June 30, 2025 (excluding our $1,000,000 line of credit) are reflected in the following table by the year that payments are due:

	During the Six-Month Period Ending December 31,	During the Years Ending December 31,					
	2025	2026	2027	2028	2029	Thereafter	Total
Loan #1	$120,727	$248,604	$257,649	$266,537	$276,720	$4,321,837	$5,492,074
Loan #2	267,671	549,881	140,416	—	—	—	957,968
Loan #3	51,128	106,146	83,143	—	—	—	240,417
Loan #4	111,450	228,965	240,432	—	—	—	580,847
Loan #5	35,362	73,415	77,156	81,086	—	—	267,019
Loan #6	128,587	1,418,532	—	—	—	—	1,547,119
Loan #7	63,674	715,341	—	—	—	—	779,015
Subtotal	778,599	3,340,884	798,796	347,623	276,720	4,321,837	9,864,459
Debt issuance cost	(10,147)	(13,580)	(5,420)	(3,513)	(3,513)	(7,834)	(44,007)
Debt discount cost	(10,446)	(11,344)	—	—	—	—	(21,790)
Total	$758,006	$3,315,960	$793,376	$344,110	$273,207	$4,314,003	$9,798,662

Subsequent to June 30, 2025, proceeds from a refinancing were used to pay off Loans #6 and #7 as detailed in Note 19. Principal payments due under the new Loan #8 are as follows: $132,784 during the six-month period ending December 31, 2025, $416,010 during the year ending December 31, 2026, $443,871 during the year ending December 31, 2027, $473,598 during the year ending December 31, 2028, $505,315 during the year ending December 31, 2029 and $355,541 thereafter.

10. CONTINGENT LIABILITIES AND COMMITMENTS

Our bylaws, as amended, in effect provide that the Company will indemnify its officers and directors against any liability arising from their responsibilities as officers and directors to the maximum extent permitted by Delaware law. In addition, we make similar indemnity undertakings with each director through a separate indemnification agreement with that director. The maximum payment that we may be required to make under such provisions is theoretically unlimited and is impossible to determine. We maintain directors' and officers' liability insurance, which may provide reimbursement to the Company for payments made to, or on behalf of, officers and directors pursuant to the indemnification provisions. Our indemnification obligations were grandfathered under the provisions of Codification Topic 460, *Guarantees.* Accordingly, we have recorded no liability for such obligations as of June 30, 2025 or December 31, 2024. Since our incorporation, we have had no occasion to make any indemnification payment to any of our officers or directors for any reason.

The development, manufacturing and marketing of animal health and nutrition products entails an inherent risk that liability claims will be asserted against us during the normal course of business. We are aware of no such claims against us as of the time of this filing on August 14, 2025. We believe that we have reasonable levels of liability insurance to support our operations.

We enter into agreements with third parties in the ordinary course of business under which we are obligated to indemnify such third parties from and against various risks and losses. The precise terms of such indemnities vary with the nature of the agreement. In many cases, we limit the maximum amount of our indemnification obligations, but in some cases those obligations may be theoretically unlimited. We have not incurred material expenses in discharging any of these indemnification obligations and based on our analysis of the nature of the risks involved, we believe that the fair value of the liabilities potentially arising under these agreements is minimal. Accordingly, we recorded no liabilities for such obligations as of June 30, 2025 or December 31, 2024.

We plan to purchase certain key parts (syringes) and services (formulation, aseptic filling and final packaging) pertaining to **Re-Tain®** Drug Product (DP), our Nisin-based intramammary treatment of subclinical mastitis in lactating dairy cows, exclusively from contractors. The contract for formulation, aseptic filling and final packaging of DP terminated on November 30, 2024. This contract was extended through March of 2026 for the purpose of final packaging of existing DP inventory, but this contract extension does not anticipate the production of new DP inventory. During 2019, we initiated an investment in the necessary equipment to perform the DP formulation and aseptic filling services in-house, but this investment has been paused at the present time.

Effective March 28, 2022, we entered into an Amended and Restated Separation and Deferred Compensation Agreement (the

"Deferred Compensation Agreement") with Mr. Brigham (our President and CEO) that superseded and replaced in its entirety a March of 2020 severance agreement between the Company and Mr. Brigham. Upon separation from the Company for any reason, Mr. Brigham's Deferred Compensation Agreement allows Mr. Brigham to be paid, among other amounts, all earned and unused paid time off. Accordingly, an expense of $222,379 for earned and unpaid sick time was accrued during the first quarter of 2022 and a related accrual of $239,369 and $230,162 was included in accounts payable and accrued expenses as of June 30, 2025 and December 31, 2024, respectively. Additionally, Mr. Brigham was paid $300,000 in deferred compensation during the first quarter of 2025 (which was accrued over the three-year period ending in December of 2024). This deferred compensation payment vested as to $300,000, $200,000 and $100,000 on January 1, 2025, 2024 and 2023, respectively. Deferred compensation of $0 and $300,000 was included in accounts payable and accrued expenses on the accompanying balance sheets as of June 30, 2025 and December 31, 2024, respectively. In addition, upon termination of Mr. Brigham's employment (a) by the Company other than for cause, (b) due to death or disability or (c) by Mr. Brigham for good reason, in each case as described and defined in the Deferred Compensation Agreement, the Company agrees to pay Mr. Brigham 100% of his then current annual base salary and a lump sum payment equal to the employer portion of the costs of continued health benefits for Mr. Brigham and his covered dependents for a twelve-month period following termination, and certain equity incentive awards granted to Mr. Brigham would continue to vest following such termination in accordance with the terms of the Deferred Compensation Agreement.

Incentive compensation agreements may be entered into with Mr. Brigham, Ms. Brockmann (our Vice President of Sales and Marketing) and Mr. Fiori (our Chief Financial Officer), which, at times, allow these executives to earn incentive compensation if certain regulatory and financial objectives are met during the year to which the agreement relates, as specified in their agreements. Amounts related to these incentive compensation agreements are accrued over the period they are earned (when it is probable that the amounts will be earned) based on our best estimate of the amounts expected to be earned.

In addition to the commitments discussed above, we had committed $97,000 for the **First Defense®** product line, $1,479,000 to the purchase of inventory, $301,000 to information technology services and $377,000 for other obligations as of June 30, 2025.

11. OPERATING LEASES

On September 12, 2019, we entered into a lease covering approximately 14,300 square feet of office and warehouse space with a possession date of November 15, 2019 and a commencement date of February 13, 2020. The property is located at 175 Industrial Way in Portland (**Building 175A**), which is a short distance from our headquarters and manufacturing facility at 56 Evergreen Drive (**Building 56**). We renovated this space to meet our needs in expanding our production capacity for the **First Defense®** product line. The original lease term was ten years with a right to renew for a second 10-year term and a right of first offer to purchase. At the time we entered into this lease, we were not reasonably assured that we would exercise this renewal option in place of other real estate options. For that reason, a 10-year period was reflected in the right-of-use (ROU) asset and lease liability on our balance sheet. During the third quarter of 2022, we committed to lease an additional 15,400 square feet of space at 175 Industrial Way (**Building 175B**), which is connected to the original space, over a 20-year term. The ROU asset and lease liability for the committed space at **Building 175B** was recorded as of April 1, 2023 after construction of the building shell was completed in accordance with the lease agreement. Monthly lease payments commenced as of August 1, 2023. In connection with the lease commitment for space at **Building 175B,** the term of the original lease for **Building 175A** was extended by approximately 13 years. On November 14, 2023, June 11, 2024 and September 20, 2024, we amended this lease further to provide for certain tenant improvements on the leased premises to be paid for by our landlord. These improvements provided heat to an unfinished space, provided additional warehouse space and created a new primary shipping and receiving facility. As a result of these three amendments and in consideration for the landlord agreeing to pay for the cost of those certain tenant improvements, we agreed to make additional rent payments of $20,000 per month from November of 2023 through June of 2025 and a one-time additional rent payment of $248,743 in July of 2025. Because of these modifications to the lease payments, the ROU asset and lease liability associated with the space at **Building 175B** were remeasured as of the modification dates. Our leases include variable non-lease components. Such payments primarily include common area maintenance charges. As of June 30, 2025, the balance of the operating lease ROU asset was $4,542,863 and the operating lease liability was $4,466,585. As of December 31, 2024, the balance of the operating lease ROU asset was $4,560,679 and the operating lease liability was $4,561,174. The calculated amount of the ROU asset and lease liability is impacted by the length of the lease term and the discount rate used for the present value of the minimum lease payments. We elected not to separate lease and non-lease components for all classes of underlying assets, and instead to account for them as a single lease component. Variable lease cost primarily represents variable payments such as real estate taxes and common area maintenance. The following tables describe our lease costs and other lease information:

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30,	
	2025	2024	2025	2024
Lease Cost				
Operating lease cost	$106,663	$106,880	$213,543	$213,759
Variable lease cost	23,869	19,431	39,754	29,151
Total lease cost	$130,532	$126,311	$253,297	$242,910
Operating Lease				
Cash paid for operating lease liabilities	$124,315	$144,315	$268,630	$288,630
Weighted average remaining lease term (in years)	17.6	18.6	17.6	18.6
Weighted average discount rate	6.6%	7.1%	6.6%	7.1%

Future lease payments required under non-cancelable operating leases in effect as of June 30, 2025 were as follows:

	Amount
During the Six-Month Period Ending December 31, 2025	$420,183
During the Years Ending December 31,	
2026	346,874
2027	353,812
2028	360,885
2029	368,397
Thereafter	5,792,962
Total lease payments (undiscounted cash flows)	7,643,113
Less: imputed interest (discount effect of cash flows)	(3,176,528)
Total operating liabilities	$4,466,585

12. STOCKHOLDERS' EQUITY

Common Stock Issuances

From February of 2016 to April of 2021, we sold the aggregate of 4,553,017 shares of common stock in six different transactions raising gross proceeds of $26,714,403 at the weighted average price of $5.87 per share. These funds have been essential to funding our business growth plans.

On April 9, 2024, our shelf registration on Form S-3 relating to the offer, issuance and sale by the Company of up to $20,000,000 of securities was declared effective by the Securities and Exchange Commission (SEC). Also on April 9, 2024, we entered into an At-The-Market (ATM) Agreement with Craig-Hallum Capital Group LLC, pursuant to which we may offer and sell up to $11,000,000 of shares of our common stock. Net proceeds through December 31, 2024 from 1,228,227 shares sold pursuant to the ATM Agreement (net of the upfront legal, accounting and other fees), less sales commissions of $139,562, were $4,356,188. Net proceeds during the six-month period ended June 30, 2025 from 63,230 shares sold pursuant to the ATM Agreement (net of legal, accounting and other fees), less sales commissions of $10,489, were $281,446.

Stock Option Plans

In June of 2010, our stockholders approved the 2010 Stock Option and Incentive Plan (the "2010 Plan") pursuant to the provisions of the Internal Revenue Code of 1986, under which employees and certain service providers may be granted options to purchase shares of the Company's common stock at no less than fair market value on the date of grant. At that time, 300,000 shares of common stock were reserved for issuance under the 2010 Plan and subsequently no additional shares have been reserved for the 2010 Plan. Vesting requirements are determined by the Compensation and Stock Option Committee of the Board of Directors on a case-by-case basis. All options granted under the 2010 Plan expire no later than 10 years from the date of grant. The 2010 Plan expired in June of 2020, after which date no further options can be granted under the 2010 Plan. However, options outstanding under the 2010 Plan at that time can be exercised in accordance with their terms. As of June 30, 2025 and December 31, 2024, there were 182,500 and 183,500 options outstanding under the 2010 Plan, respectively.

In June of 2017, our stockholders approved the 2017 Stock Option and Incentive Plan (the "2017 Plan") pursuant to the provisions of the Internal Revenue Code of 1986, under which employees and certain service providers may be granted options to

purchase shares of the Company's common stock at no less than fair market value on the date of grant. At that time, 300,000 shares of common stock were reserved for issuance under the 2017 Plan. An amendment to the 2017 Plan increasing the number of shares reserved for issuance under the 2017 Plan from 300,000 shares to 650,000 shares was approved by a vote of stockholders at the Annual Meeting of Stockholders in June of 2022. A further proposed amendment to the 2017 Plan increasing the number of shares reserved for issuance under the 2017 Plan from 650,000 shares to 900,000 shares was not approved by a vote of stockholders at the Annual Meeting of Stockholders in June of 2025. Vesting requirements are determined by the Compensation and Stock Option Committee of the Board of Directors on a case-by-case basis. All options granted under the 2017 Plan expire no later than 10 years from the date of grant. The 2017 Plan expires in March of 2027, after which date no further options can be granted under the 2017 Plan. However, options outstanding under the 2017 Plan at that time can be exercised in accordance with their terms. As of June 30, 2025 and December 31, 2024, there were 534,500 and 480,500 options outstanding under the 2017 Plan, respectively.

Activity under the stock option plans described above was as follows:

	2010 Plan	2017 Plan	Weighted Average Exercise Price	Aggregate Intrinsic Value[1]
Outstanding as of December 31, 2023	188,500	430,000	$6.82	($1,071,121)
Grants	—	86,000	$3.91	
Terminations/forfeitures[2]	(5,000)	(35,500)	$6.55	
Exercises	—	—	$—	
Outstanding as of December 31, 2024	183,500	480,500	$6.46	($870,558)
Grants	—	122,000	$5.49	
Terminations/forfeitures[2]	(1,000)	(53,000)	$7.03	
Exercises	—	(15,000)	$4.81	
Outstanding as of June 30, 2025	182,500	534,500	$6.29	$482,189
Vested as of June 30, 2025	182,500	185,500	$7.24	($101,213)
Vested and expected to vest as of June 30, 2025	182,500	534,500	$6.29	$482,189
Reserved for future grants	—	82,500		

[1] Intrinsic value is the difference between the fair market value of the underlying common stock as of the date indicated and as of the date of the option grant (which is equal to the option exercise price).
[2] Terminations and forfeitures are recognized when they occur.

The following table displays additional information about the stock option plans described above:

	Number of Shares	Weighted Average Fair Value at Grant Date	Weighted Average Exercise Price
Non-vested stock options outstanding as of June 30, 2025	349,000	$2.69	$5.29
Non-vested stock options outstanding as of December 31, 2024	344,000	$3.12	$6.25
Stock options granted during the six-month period ended June 30, 2025	122,000	$2.81	$5.49
Stock options that vested during the six-month period ended June 30, 2025	92,000	$4.38	$8.15
Stock options that were terminated or forfeited during the six-month period ended June 30, 2025	54,000	$3.68	$7.03

During the three-month and six-month periods ended June 30, 2025, one director exercised stock options covering 15,000 shares by the surrender of 11,470 shares of common stock with a fair market value of $72,146 at the time of exercise and the payment of $3.70 in cash. The aggregate intrinsic value of options exercised during the six-month period ended June 30, 2025, and the year ended December 31, 2024, approximated $22,200 and $0, respectively. No stock options were exercised during the three-month and six-month periods ended June 30, 2024. The weighted average remaining life of the options outstanding under the 2010 Plan and the 2017 Plan as of June 30, 2025 was approximately 4 years and 11 months. The weighted average remaining life of the options exercisable under these plans as of June 30, 2025 was approximately 3 years and 3 months. The exercise price of the options outstanding under these plans as of June 30, 2025, ranged from $3.60 to $10.04 per share. The weighted-average grant date fair values of options granted during the six-month periods ended June 30, 2025 and 2024 were $2.81 and $2.02 per share, respectively. As of

June 30, 2025, total unrecognized stock-based compensation related to non-vested stock options aggregated $514,375 which will be recognized over a weighted average remaining period of approximately 1 year and 9 months. The fair value of each stock option grant has been estimated on the date of grant using the Black-Scholes option pricing model, for the purpose discussed in Note 2(n), with the following weighted-average assumptions:

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30	
	2025	**2024**	**2025**	**2024**
Risk-free interest rate[(1)]	3.91%	4.24%	3.91%	4.24%
Dividend yield[(2)]	0%	0%	0%	0%
Expected volatility[(2)]	52%	50%	52%	50%
Expected life[(3)]	5.5 years	4.7 years	5.5 years	4.8 years

(1) The risk-free interest rate is based on U.S. Treasury yields for a maturity approximating the expected option term.
(2) The dividend yield and expected volatility are derived from averages of our historical data.
(3) The expected life is calculated utilizing the simplified method, which uses the mid-point between the vesting period and the contractual term as the expected life.

Common Stock Rights Plan

In September of 1995, our Board of Directors adopted a Common Stock Rights Plan (the “Rights Plan”) and declared a dividend of one common share purchase right (a “Right”) for each of the then outstanding shares of the common stock of the Company. Each Right entitled the registered holder to purchase from the Company one share of common stock at an initial purchase price of $70.00 per share, subject to adjustment. The description and terms of the Rights were set forth in a Rights Agreement between the Company and Equiniti Trust Company, LLC, as Rights Agent. At various times over the years, our Board of Directors, which has the authority to amend the Rights Plan, voted to authorize amendments to the Rights Plan to extend the expiration date of the Rights Plan. During 2024, our Board of Directors determined not to further extend the Rights Plan because these plans are generally considered not to be stockholder friendly. With no further extension, the Rights Plan expired as of September 19, 2024. No shares were issued under the Rights Plan while it was in effect.

13. REVENUE

We primarily offer the **First Defense®** product line to dairy and beef producers to prevent scours in newborn calves. This line offers two distinct platforms: veterinary biologics providing protection against *E. coli*, coronavirus, and rotavirus; and scours and functional feed products delivering concentrated bioactive colostrum proteins. Generally, our products are promoted to veterinarians as well as dairy and beef producers by our sales team and then sold through distributors. Our primary market is North America. We do sell into select international regions and may expand this international reach in the future. There were no material changes between the allocation and timing of revenue recognition during the three-month or six-month periods ended June 30, 2025 or 2024. We do not have any contract assets for which we have satisfied the performance obligations, but do not yet have the right to bill for, or contract liabilities such as customer advances. All trade receivables on our balance sheets are from contracts with customers. We incur no material costs to obtain contracts.

The following table presents our product sales disaggregated by geographic area:

	During the Three-Month Periods Ended June 30,				During the Six-Month Periods Ended June 30,			
	2025	**%**	**2024**	**%**	**2025**	**%**	**2024**	**%**
United States	$4,874,561	76%	$4,892,136	89%	$12,049,451	83%	$11,232,777	88%
Other	1,570,319	24%	580,754	11%	2,462,603	17%	1,497,690	12%
Total Product Sales	$6,444,880	100%	$5,472,890	100%	$14,512,054	100%	$12,730,467	100%

The following table presents our product sales disaggregated by major product category:

	During the Three-Month Periods Ended June 30,				During the Six-Month Periods Ended June 30,			
	2025	**%**	**2024**	**%**	**2025**	**%**	**2024**	**%**
First Defense® product line	$6,398,517	99%	$5,430,069	99%	$14,427,003	99%	$12,650,710	99%
Other animal health	46,363	1%	42,821	1%	85,051	1%	79,757	1%
Total Product Sales	$6,444,880	100%	$5,472,890	100%	$14,512,054	100%	$12,730,467	100%

14. OTHER INCOME (EXPENSES), NET

Other income (expenses) net, consisted of the following:

	During the Three-Month Periods Ended June 30,		During the Six-Month Periods Ended June 30,	
	2025	2024	2025	2024
Interest expense[(1)]	($124,795)	($142,386)	($252,723)	($288,388)
(Gain) loss on disposal of property, plant and equipment	7,128	(14,557)	2,263	(14,557)
Interest income	48,113	13,264	85,582	22,791
Insurance recoveries[(2)]	—	—	426,587	—
Other income	3,776	—	3,776	—
Other (expenses) income, net	($65,778)	($143,679)	$265,485	($280,154)

[(1)] Interest expense includes amortization of debt issuance and debt discount costs of $10,806 during both the three-month periods ended June 30, 2025 and 2024, and $21,612 and $21,054 during the six-month periods ended June 30, 2025 and 2024, respectively.
[(2)] The income from insurance recoveries resulted from claim benefits paid to us during the first quarter of 2025 under our business interruption policy related to product contamination losses incurred during late 2022 and through early 2024. This recovery does not include the $250,000 received on this claim during the third quarter of 2023.

15. INCOME TAXES

Our income tax expense aggregated $1,904 and $1,340 (amounting to less than 1% of our income (loss) before income taxes) during the three-month periods ended June 30, 2025 and 2024, respectively, and $3,809 and $2,680 (amounting to less than 1% of our income (loss) before income taxes) during the six-month periods ended June 30, 2025 and 2024, respectively. As of December 31, 2024, we had federal net operating loss carryforwards of $17,647,250 of which $16,055,226 do not expire and of which $1,592,024 expire in 2034 through 2037 (if not utilized before then) and state net operating loss carryforwards of $5,194,515 that expire in 2037 through 2038 (if not utilized before then). Additionally, we had federal general business tax credit carryforwards of $842,565 that expire in 2027 through 2044 (if not utilized before then) and state tax credit carryforwards of $777,459 that expire in 2025 through 2044 (if not utilized before then).

The provision for income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the estimated future tax effects of temporary differences between book and tax treatment of assets and liabilities and carryforwards to the extent they are realizable. During the second quarter of 2018, we assessed our historical and near-term future profitability and recorded $563,252 in non-cash income tax expense to create a full valuation allowance against our net deferred tax assets (which consist largely of net operating loss carryforwards and federal and state credits) based on applicable accounting standards and practices. At that time, we had incurred a net loss for six consecutive quarters, had not been profitable on a year-to-date basis since the nine-month period ended September 30, 2017 and projected additional net losses for some period going forward before returning to profitability. Should future profitability be realized at an adequate level, we would be able to release this valuation allowance (resulting in a non-cash income tax benefit) and realize these deferred tax assets before they expire. We will continue to assess the need for the valuation allowance at each quarter and, in the event that actual results differ from these estimates, or we adjust these estimates in future periods, we may need to adjust our valuation allowance. Currently, we adjust the valuation allowance at the end of each quarter to reduce the value of our deferred tax assets to zero.

Net operating loss carryforwards, credits, and other tax attributes are subject to review and possible adjustment by the Internal Revenue Service. Section 382 of the Internal Revenue Code contains provisions that could place annual limitations on the future utilization of net operating loss carryforwards and credits in the event of a change in ownership of the Company, as defined.

We file income tax returns in the U.S. federal jurisdiction and several state jurisdictions. We currently have no tax examinations in progress. We also have not paid additional taxes, interest or penalties as a result of tax examinations nor do we have any unrecognized tax benefits for any of the periods in the accompanying unaudited financial statements.

16. SEGMENT INFORMATION

Our business operations (being the development, manufacture and sale of products that improve the health and productivity of dairy and beef cattle) are described in Note 1. Pursuant to Codification Topic 280, *Segment Reporting*, we operate in the following two reportable business segments: i) Scours and ii) Mastitis. The Scours segment consists of the **First Defense®** product line. The core technology underlying the Scours segment is focused on polyclonal antibodies derived from hyperimmunized bovine colostrum. The Mastitis segment includes our products, **CMT** and **Re-Tain®**. **Re-Tain®** is projected to be the driver of this segment if approved

for sale. The core technology underlying the Mastitis segment is focused on a bacteriocin called Nisin. The category we define as "Other" includes unallocated administrative and overhead expenses and other products. The significant accounting policies of these segments are described in Note 2. Product sales are the primary factor we use in determining our reportable segments. Management monitors and evaluates segment performance from sales to net operating income (loss) closely. We are not organized by geographic region. No segments have been aggregated. The revenues and expenses allocated to each segment are in some cases direct and in other cases involve reasonable and consistent estimations by management. Each operating segment is defined as the component of our business for which financial information is available and evaluated regularly by our chief operating decision-maker in deciding how to allocate resources and in assessing performance. Our chief operating decision-maker is our President and CEO.

	During the Three-Month Period Ended June 30, 2025			
	Scours	**Mastitis**	**Other**	**Total**
Product sales	$6,398,517	$46,363	$—	$6,444,880
Costs of goods sold	3,589,893	37,063	—	3,626,956
Gross margin	2,808,624	9,300	—	2,817,924
Product development expenses	93,011	710,745	28,102	831,858
Sales and marketing expenses	634,846	61,240	—	696,086
Administrative expenses	—	—	720,418	720,418
Operating expenses	727,857	771,985	748,520	2,248,362
NET OPERATING INCOME (LOSS)	$2,080,767	($762,685)	($748,520)	$569,562

	During the Three-Month Period Ended June 30, 2024			
	Scours	**Mastitis**	**Other**	**Total**
Product sales	$5,430,069	$42,821	$—	$5,472,890
Costs of goods sold	4,198,849	43,555	—	4,242,404
Gross margin	1,231,220	(734)	—	1,230,486
Product development expenses	65,598	928,531	36,373	1,030,502
Sales and marketing expenses	855,513	129,444	—	984,957
Administrative expenses	—	—	601,634	601,634
Operating expenses	921,111	1,057,975	638,007	2,617,093
NET OPERATING INCOME (LOSS)	$310,109	($1,058,709)	($638,007)	($1,386,607)

	Scours	**Mastitis**	**Other**	**Total**
Total Assets as of June 30, 2025	$24,612,357	$15,924,755	$6,183,786	$46,720,898
Total Assets as of June 30, 2024	$23,240,545	$17,107,377	$1,507,536	$41,855,458
Depreciation and amortization expense during the three-month period ended June 30, 2025	$345,512	$314,175	$19,350	$679,037
Depreciation and amortization expense during the three-month period ended June 30, 2024	$342,362	$319,727	$19,676	$681,765
Capital Expenditures during the three-month period ended June 30, 2025	$151,808	$1,079	$2,271	$155,158
Capital Expenditures during the three month period ended June 30, 2024	$93,338	$17,403	$—	$110,741

	During the Six-Month Period Ended June 30, 2025			
	Scours	**Mastitis**	**Other**	**Total**
Product sales	$14,427,003	$85,051	$—	$14,512,054
Costs of goods sold	8,264,436	75,722	—	8,340,158
Gross margin	6,162,567	9,329	—	6,171,896
Product development expenses	186,496	1,339,657	62,552	1,588,705
Sales and marketing expenses	1,421,983	130,761	—	1,552,744
Administrative expenses	—	—	1,343,260	1,343,260
Operating expenses	1,608,479	1,470,418	1,405,812	4,484,709
NET OPERATING INCOME (LOSS)	$4,554,088	($1,461,089)	($1,405,812)	$1,687,187

	During the Six-Month Period Ended June 30, 2024			
	Scours	**Mastitis**	**Other**	**Total**
Product sales	$12,650,710	$79,757	$—	$12,730,467
Costs of goods sold	9,122,397	82,225	—	9,204,622
Gross margin	3,528,313	(2,468)	—	3,525,845
Product development expenses	95,093	2,131,473	66,487	2,293,053
Sales and marketing expenses	1,525,252	260,628	—	1,785,880
Administrative expenses	—	—	1,133,572	1,133,572
Operating expenses	1,620,345	2,392,101	1,200,059	5,212,505
NET OPERATING INCOME (LOSS)	$1,907,968	($2,394,569)	($1,200,059)	($1,686,660)

	Scours	**Mastitis**	**Other**	**Total**
Total Assets as of June 30, 2025	$24,612,357	$15,924,755	$6,183,786	$46,720,898
Total Assets as of June 30, 2024	$23,240,545	$17,107,377	$1,507,536	$41,855,458
Depreciation and amortization expense during the six-month period ended June 30, 2025	$698,034	$628,834	$38,942	$1,365,810
Depreciation and amortization expense during the six-month period ended June 30, 2024	$681,281	$638,445	$39,539	$1,359,265
Capital Expenditures during the six-month period ended June 30, 2025	$474,185	$7,752	$2,271	$484,208
Capital Expenditures during the six-month period ended June 30, 2024	$132,812	$48,285	$—	$181,097

17. RELATED PARTY TRANSACTIONS

David S. Tomsche (Chair of our Board of Directors) is a controlling owner of Leedstone Inc., a domestic distributor of our products (the **First Defense®** product line and **CMT**). His affiliated company purchased $462,003 and $270,867 of products from us during the six-month periods ended June 30, 2025 and 2024, respectively, all on terms consistent with those offered to other distributors of similar status. Our accounts receivable (subject to standard and customary payment terms) due from this affiliated company aggregated $46,365 and $52,097 as of June 30, 2025 and December 31, 2024, respectively.

18. EMPLOYEE BENEFITS

We have a 401(k) savings plan (the Plan) in which all employees completing one month of service with the Company are eligible to participate. Participants may contribute up to the maximum amount allowed by the Internal Revenue Service. We currently match 100% of the first 3% of each employee's salary that is contributed to the Plan and 50% of the next 2% of each employee's salary that is contributed to the Plan. Under this matching plan, we paid $41,868 and $48,579 into the Plan for the three-month periods ended June 30, 2025 and 2024, respectively, and $92,800 and $103,514 for the six-month periods ended June 30, 2025 and 2024, respectively.

19. SUBSEQUENT EVENTS

We have evaluated subsequent events through the time of filing on the date we have issued this Quarterly Report on Form 10-Q. During August of 2025, we refinanced some of our bank debt. The principal amount of approximately $1,525,852 outstanding as of the closing date under Loan #6 and the principal amount of approximately $768,209 outstanding as of the closing date under Loan #7 were both refinanced into one loan with a principal amount of $2,327,119 bearing interest at a fixed rate of 6.5% per annum. This interest rate is reduced from 7% on Loan #6 and from 8% on Loan #7. This refinancing removes the balloon principal payments that were due in July of 2026 under both Loans #6 and #7. Principal and interest payments under the new loan of approximately $45,533 per month are due over a five-year term ending during the third quarter of 2030. As of the time of this filing on August 14, 2025, there were no other material, reportable subsequent events.

ITEM 2 - MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

We focus on the two most critical stages of dairy productivity, those being the first 30 days of life and the first 30 days of lactation. Our concentrated colostrum and purified Nisin technologies offer unique animal health solutions during these periods when immunity is at its most vulnerable. We believe that both of our product lines could potentially present growth opportunities in the human health sector, alongside the animal health sector that we currently serve. The following discussion and analysis of our financial condition and results of operations should be read together with our unaudited financial statements and the related notes and other financial information included in this Quarterly Report on Form 10-Q (Quarterly Report). Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. One should review the Cautionary Note below for a discussion of some of the important factors that could cause actual results to differ materially from the results, objectives or expectations described in or implied by the forward-looking statements contained in the following discussion and analysis.

Cautionary Note Regarding Forward-Looking Statements (Safe Harbor Statement):

This Quarterly Report contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements can be identified by the fact that they do not relate strictly to historical or current facts and will often include words such as “expects”, “may”, “anticipates”, “aims”, “intends”, “would”, “could”, “should”, “will”, “plans”, “believes”, “estimates”, “targets”, “projects”, “forecasts”, “seeks” and similar words and expressions. Such statements include, but are not limited to, any forward-looking statements relating to: our plans, goals and strategies for our business; projections of future financial or operational performance; the timing and outcome of pending or anticipated applications for regulatory approvals and pending or anticipated regulatory inspections of our facilities and those of our contract manufacturers; future demand for our products; future adoption of **Re-Tain®** by dairy producers; growth in acceptance of our **First Defense®** product line by dairy and beef producers; the impact of international disputes (including Russia’s invasion of Ukraine and unrest in the Middle East) on the world economy including inflation and the price and availability of grain and oil; the impact of the global supply-chain disruptions on our ability to obtain, in a timely and cost-effective fashion, all the supplies and components we need to produce our products; the impact of inflation, tariffs and rising interest rates on our operating expenses and financial results; the scope and timing of ongoing and future product development work and commercialization of our products; future costs of product development efforts; future incidence rates of subclinical mastitis and producers’ level of interest in treating subclinical mastitis; the expected efficacy of new products; estimates about the market size for our products; future market share of and revenue generated by current products and products still in development; our ability to increase production output and reduce costs of goods sold per unit; the adequacy of our own manufacturing facilities or those of third parties with which we have contractual relationships to meet demand for our products on a timely basis; the impacts of backlogs on customer relationships; the efficacy of our contamination remediation efforts; whether or not we will experience future contamination events; the anticipated costs of (or time to complete) planned expansions of our manufacturing facilities and the adequacy of our funds available for these projects; the robustness of our manufacturing processes to meet future demand and related technical issues; estimates about our future production capacity, efficiency and yield; the salability of products currently held in inventory pending regulatory approval; future regulatory requirements relating to our products; future expense ratios and margins; the future consequences and effectiveness of our investments in our business; future compliance with, or waivers of, bank debt covenants; anticipated changes in our manufacturing capabilities and efficiencies; our future effectiveness in competing against competitors within both our existing and our anticipated product markets; projections about depreciation expense and its impact on income for book and tax return purposes; and any other statements that are not historical facts. These statements are intended to provide management's current expectation of future events as of the date of this earnings release, are based on management's estimates, projections, beliefs and assumptions as of the date hereof; and are not guarantees of future performance. Such statements involve known and unknown risks and uncertainties that may cause the Company's actual results, financial or operational performance or achievements to be materially different from those expressed or implied by these forward-looking statements, including, but not limited to, those risks and uncertainties relating to: difficulties or delays in development, testing, regulatory approval, production and marketing of our products (including the **First Defense®** product line and **Re-Tain®**), competition within our anticipated product markets, customer acceptance of our new and existing products, product performance, alignment between our manufacturing resources and product demand (including the consequences of backlogs), uncertainty associated with the timing and volume of customer orders as we come out of a prolonged backlog, adverse impacts of supply chain disruptions on our operations and customer and supplier relationships, commercial and operational risks relating to our current and planned expansion of production capacity, and other risks and uncertainties detailed from time to time in filings we make with the SEC, including our Quarterly Reports on Form 10-Q, our Annual Reports on Form 10-K and our Current Reports on Form 8-K. Such statements involve risks and uncertainties and are based on our current expectations, but actual results may differ materially due to various factors, including the risk factors summarized under **PART II: OTHER INFORMATION, ITEM 1A-RISK FACTORS**

and uncertainties otherwise referred to in this Quarterly Report. In addition, there can be no assurance that future risks, uncertainties or developments affecting us will be those that we anticipate. We undertake no obligation to update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

OUTLINE TO ITEM 2 – MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

- **Liquidity and Capital Resources**
- **Capital Expenditure Investments**
- **Production Contamination Events**
- **Results of Operations (Subsections a through i)**
- **Critical Accounting Policies and Estimates**

Liquidity and Capital Resources

In response to the strong customer demand for the **First Defense**® product line that we have been experiencing, we undertook significant investments in facilities, equipment and staffing necessary to double our production capacity. Despite delays in the installation of certain equipment, we completed these capacity-expanding investments around the end of 2022. In late 2022, we began experiencing production contamination events that became more frequent during 2023 and continued through April of 2024. Our efforts to address those events did ultimately succeed in restoring production and improved gross margins. Given the biological nature of our manufacturing process, the possibility of contamination is an inherent risk, as evidenced by the loss of one work in process lot of **First Defense**® in the second quarter of 2025. However, we do believe that our prior remediation efforts have improved our ability to monitor for and mitigate future contamination. We think the key to success is about optimizing and controlling critical process parameters and multiple production inputs and process steps.

Concurrently, we began reducing product development expenses during the second half of 2024, as we await approval of **Re-Tain**® by the Food and Drug Administration (FDA). After an investment of about 25 years and approximately $50 million in the development of this technology, we are eager to see this product through to regulatory approval and initial market acceptance. At the same time we are also in the very early stages of exploring potential strategic options, to offset some of our product development expenses.

Net cash provided by operating activities was $3.2 million during the six-month period ended June 30, 2025 in comparison to net cash provided by operating activities of $1 million during the six-month period ended June 30, 2024. This $2.2 million improvement in net cash provided by operating activities between the six-month periods was largely due to the $3.9 million increase in net income to $1.9 million during the six-month period ended June 30, 2025 from a net (loss) of ($2 million) during the six-month period ended June 30, 2024. This improvement in net income was supplemented by a $1.2 million increase in cash collected from accounts receivable that was net against the use of $2.4 million more cash used to purchase inventory and to pay accounts payable. Interest expense (including amortization of debt issuance and debt discount costs) was $253,000 and $288,000 during the six-month periods ended June 30, 2025 and 2024, respectively. Our debt bears interest at fixed rates, which on a blended basis amounts to 4.50% per annum. Under the bank debt refinancing that closed in August of 2025 (discussed in "Subsequent Events" in Note 19 to the accompanying unaudited financial statements) interest expense (excluding amortization of debt issuance and debt discount costs) will be approximately $442,000 and $365,000 during the years ending December 31, 2025 and 2026, respectively. Our total non-cash depreciation, amortization and stock-based compensation expense was $1.5 million during both of the six-month periods ended June 30, 2025 and 2024. We anticipate that depreciation expense (largely pertaining to **Re-Tain**®), while not affecting our cash flows from operations, will be a significant factor in reducing our net income, so we are seeking to arrange some form of strategic option to help offset these expenses. Further, as we fill the order backlog for **First Defense**®**,** we will require additional capital to fund an anticipated increase in inventory levels.

Net cash used for investing activities was $455,000 and $177,000 during the six-month periods ended June 30, 2025 and 2024, respectively, consisting of cash spent to fund the purchase of property, plant and equipment, net of proceeds from disposals of property, plant and equipment. To conserve cash, we deferred all large dollar capital expenditure projects. We are evaluating an investment of approximately $3 million to increase our annual production capacity for **First Defense**® from approximately $30 million or more to approximately $40 million or more.

Net cash used for financing activities was $480,000 and $478,000 during the six-month periods ended June 30, 2025 and 2024,

respectively, consisting largely of debt principal repayments. We had aggregate debt outstanding (net of debt issuance and debt discount costs) of approximately $9.8 million and $10.5 million as of June 30, 2025 and December 31, 2024, respectively. Under the bank debt refinancing that closed in August of 2025, debt principal repayments will aggregate approximately $1.5 million and $1.6 million during the years ending December 31, 2025 and 2026, respectively. During the first quarter of 2024, the availability of our $1 million line of credit, which bears interest at the National Prime Rate per annum, was extended until September 11, 2025. No draw on our line of credit was outstanding as of June 30, 2025 or December 31, 2024. See Note 9 to the accompanying unaudited financial statements for more information about our bank debt. During the second quarter of 2024, we entered into an At-The-Market (ATM) Agreement with Craig-Hallum Capital Group LLC, under which we may offer and sell up to $11 million of shares of our common stock. As of December 31, 2024, we had sold 1,228,227 shares under this ATM Offering conducted pursuant to the ATM Agreement. Net proceeds through December 31, 2024 (net of approximately $152,000 in upfront legal, accounting and other fees and approximately $140,000 in sales commissions) were approximately $4.4 million. There was only modest activity under the ATM Offering during the first six months of 2025, but we did incur professional fees to maintain the effectiveness of the program. From January 1, 2025 to August 7, 2025, we sold 63,230 shares under this ATM Offering generating net proceeds (net of approximately $57,000 in legal, accounting and other fees and approximately $11,000 in sales commissions) of approximately $281,000. The ATM Agreement gives our board the flexibility to evaluate the potential uses of the proceeds while considering the cost of dilution in real time. This vehicle provided a very productive financial bridge for us to fund our operations, while we worked to improve our gross margin and reduce product development expenses.

We project (based on our best estimates) that our existing cash and cash equivalents, together with gross margin anticipated to be earned from ongoing product sales will be sufficient to meet our currently planned working capital and capital expenditure requirements and to finance our ongoing business operations for at least the next 12 months (the period of time required to be addressed for such purposes by accounting disclosure standards). The table below summarizes the changes in selected key accounts (in thousands, except for percentages):

	As of June 30, 2025	As of December 31, 2024	Increase	
			Amount	%
Cash and cash equivalents	$5,998	$3,758	$2,240	60%
Net working capital	$12,690	$10,631	$2,059	19%
Total assets	$46,721	$45,100	$1,620	4%
Stockholders' equity	$29,867	$27,518	$2,349	9%
Common shares outstanding[(1)]	9,046	8,979	67	*

[(1)] There were 717,000 and 664,000 shares of common stock reserved for issuance for stock options that were outstanding as of June 30, 2025 and December 31, 2024, respectively.

* This amount is less than 1%.

Capital Expenditure Investments

We began significant investments to increase our production capacity for **First Defense®** product line during 2014. During 2018, it became clear that demand for **Tri-Shield First Defense®** was outpacing production. In response to this increasing demand, we began a series of additional investments during 2019 to increase our production capacity for the **First Defense®** product line from approximately $16.5 million to approximately $30 million or more per year (with an option to increase further to approximately $40 million in the future). When we describe the production capacity for the **First Defense®** product line in this Quarterly Report, it should be noted that the actual value of this capacity varies based on biological and process yields, product format mix, selling price and other factors. The additional investment in **First Defense®** has allowed us to significantly reduce the current backlog of **First Defense®** orders that had accumulated. Operating at very close to 100% of available capacity is not efficient or sustainable. Our objective is to be in position to operate without significant contaminations or disruptions at the capacity level we choose to cover sales with adequate buffer stock, which would allow more time for necessary preventative maintenance. We also need to meet or exceed our production yield assumptions to succeed. Our production process is complex and difficult to scale-up quickly. We remain deeply committed to meeting ongoing demand for **First Defense®**.

The first phase of the additional investments in **First Defense®** beginning in 2019 included significant renovations to a 14,300 square foot leased facility at **Building 175A**, some facility modifications at **Building 56** and the necessary production equipment (including Freeze-Dryer #3) to increase our liquid processing capacity by 100% and our freeze-drying capacity by 50%. This resulted in increasing the annual production capacity of the **First Defense®** product line (in terms of annual sales dollars) from approximately $16.5 million to approximately $23 million. Renovations of **Building 175A** to enable this expansion were completed during the second quarter of 2020. By moving our powder, gel filling and assembly operations from **Building 56** into this new space, we created space at **Building 56** for the installation of the expanded freeze-drying capacity. The new facilities are built to current Good

Manufacturing Practices (cGMP) regulations with efficient material and people flows. A site license approval for this new facility was issued by the United States Department of Agriculture (USDA) during the third quarter of 2020. During the second quarter of 2021, we completed the relocation of our gel formulation equipment from **Building 56** to **Building 175A**, which created the space necessary to double our liquid processing capacity at **Building 56**. We obtained site license approval of the expanded freeze-drying capacity (Freeze-Dryer #3) at **Building 56** from the USDA during the third quarter of 2021, and we obtained site license approval of the expanded liquid processing capacity at **Building 56** from the USDA during the third quarter of 2022. This investment also included equipment and vehicle purchases necessary to expand and improve our colostrum collection capabilities and logistics.

The second phase of the additional investments in **First Defense®** included the installation of Freeze-Dryer #4 to further increase the estimated annual production capacity of the **First Defense®** product line (in terms of annual sales dollars) by an additional 33% from approximately $23 million to approximately $30 million or more. As of July of 2023, we were up to four freeze-dryers, through the implementation of Freeze-Dryer #4. This investment also included equipment and facility modifications to scale-up and upgrade our vaccine manufacturing capacity and improve our quality laboratories at **Building 56** as well as the installation of new equipment to increase the throughput of our gel filling operations at **Building 175A**.

The third phase of the additional investments in **First Defense®** involved the construction of an additional 15,400 square feet of space adjacent to and connected to **Building 175A** at 175 Industrial Way (**Building 175B**) and will involve the purchase of new equipment to further increase our estimated annual **First Defense®** production capacity from approximately $30 million to approximately $40 million with options for further expansion. Given the long lead time required for investments like this, we initiated this project by entering into a lease amendment during the third quarter of 2022 covering a to-be-constructed building shell for approximately $250,000 per year. Construction of the building shell by our landlord was substantially complete as of April 1, 2023, and rent payments commenced as of August 1, 2023. We made this lease commitment because of the unique proximity of the land adjacent to our currently leased space and the high level of demand for properties of this type in the Portland market. We did not want to risk losing this opportunity to others. The anticipated benefits to us from this new lease include: i) space for the potential to install Freeze-Dryers #5, #6, #7 and #8 if justified by market demand in the future, ii) improved space and quality for our powder milling operations by separating our upstream processes (liquid processing) at **Building 56** from our clean downstream processes (milling, formulation, filling and packaging) at **Building 175A** and iii) much needed additional warehouse space. We have been running our equipment and staff close to 100% of capacity in order to fill the backlog of orders. One of our objectives is to create a more sustainable production schedule. Freeze-Dryer #5 is the key piece of equipment required to allow us to increase our estimated annual production capacity to above $30 million. Based on past experience, we are planning for approximately 18 months of lead time for fabrication, installation, qualification and implementation of Freeze-Dryer #5. However, due to the loss in gross margin during 2023 caused by the slowdown in production output necessary to remediate the product contamination events discussed below, we deferred most of this investment. Instead, we initiated the initial steps on a portion of this project with a reduced budget of approximately $700,000 at **Building 175B** during the third quarter of 2023. This work was completed during the first quarter of 2024, which provided additional warehousing space and allowed us to move all shipping and receiving functions out of **Building 56** to create more space for liquid processing at **Building 56**.

The primary purpose of the additional investments in **Re-Tain®** is to bring the formulation and aseptic filling capabilities for **Re-Tain®** DP into available space in our DS facility in order to lessen or eliminate our reliance on third-party DP manufacturing services as well as the build out of warehouse space at **Building 14** for packing and shipping facilities for **Re-Tain®**. We began initial installation of the filling equipment during the first quarter of 2022 and then paused this installation work to better preserve cash while awaiting regulatory approval.

The amount and timing of these additional investments in **First Defense®** and **Re-Tain®** that were initiated beginning in 2019 are detailed in the following table (in thousands):

Paid During the	First Defense®	Re-Tain®	Other	Total
Year Ended December 31, 2019	$279	$538	$574	$1,391
Year Ended December 31, 2020	2,938	581	554	4,073
Year Ended December 31, 2021	1,633	976	-	2,609
Year Ended December 31, 2022	3,498	430	47	3,975
Year Ended December 31, 2023	1,097	796	-	1,893
Year Ended December 31, 2024	410	54	2	466
Six-Month Period Ended June 30, 2025	474	8	2	484
Total Paid through June 30, 2025	10,329	3,383	1,179	14,891
Estimate to Complete[(1)]	4,000	2,000	-	6,000
Total Project Cost	$14,329	$5,383	$1,179	$20,891

[(1)] The investments of approximately $3 million of these funds to increase **First Defense®** production capacity from approximately $30 million to approximately $40 million per year and approximately $2 million to build an in-house aseptic filling facility for **Re-Tain®** have been deferred for the time being, due to cash constraints caused by production slowdowns implemented during 2023 to remediate certain contamination events. These estimated costs to complete are based on historic quotations and have not been updated or adjusted to account for inflation, project scope change and other factors.

Production Contamination Events

As our increased production capacity was coming online around the end of the third quarter of 2022, our standard in-process quality control testing detected a product contamination event likely related to our incoming raw material (which is sourced from many different cows at many different farms). We took immediate steps to address the contamination, and production ran without issue during the balance of the fourth quarter of 2022. Subsequently, as we began to operate at a higher level of capacity at the beginning of 2023, we were forced to slow down production again to remediate a second contamination event also likely related to our incoming raw material. We then ran for approximately six months without contamination and then experienced a smaller third contamination event in September of 2023 impacting two lots of work in progress inventory, likely related to process changes implemented to run our increased level of liquid processing. Although all of the incoming material utilized in this production phase had passed quality control testing, the product failed the quality control tests later in the production process. We experienced a fourth contamination event impacting three lots of Work-in-Process inventory during the first three and a half months of 2024. New remediation steps implemented in response to this fourth event during April of 2024 appear to have been productive. However, during the second quarter of 2025, we did experience a new contamination at a Work-in-Process stage of production. Despite our ongoing prevention efforts, our plans do anticipate that contamination events may arise from time to time with bioprocessing of this nature. Throughout these contamination events, all product that was sold to market met all in-process and final release testing under USDA-required quality standards.

As we look back at these prior contamination events, we believe that the root cause was associated with the rapid growth in our hyperimmunized colostrum supply and with processing challenges associated with rapidly increasing our production output. Our proprietary production process does allow us to create an effective product out of a non-aseptic starting raw material. Although these types of losses are expected to happen from time to time in the production of a biological product such as ours, we believe that the sudden and large contamination events were related in several different ways to our efforts to increase production output. We also believe we have mitigated the risk of large-scale reoccurrence of such losses by implementing various new quality control steps and manufacturing process and facility improvements. To meet our goals, we must run without significant equipment failures or contamination losses, and we must continue to improve our production yields.

The production contamination events and other production process losses experienced resulted in scrapped inventory valued as shown in the following table (in thousands):

	Approximate Cost of Work-in-Process Scrap	Approximate Retail Value of Finished Goods[(1)]
Year Ended December 31, 2022	$589	$2,193
Year Ended December 31, 2023	$527	$2,487
Year Ended December 31, 2024	$407	$1,766
Six-Month Period Ended June 30, 2025[(2)]	$208	$1,955

[(1)] This estimate approximates the retail value of this work-in-process inventory in the event that additional costs had been incurred to complete the production process to prepare it for sale utilizing the approximate product format mix and selling prices effective during the period.
[(2)] Total scrap costs for the six-month period ended June 30, 2025 were attributed to three major causes; approximately 40% was related to the installation of a new piece of production equipment, approximately 33% was related to operator error, and approximately 27% was related to equipment processing failures.

We continue to optimize our investments to increase production capacity and to implement the corrective actions taken in response to these contamination events. Although we produced far less than we needed during 2023 and 2024, we believe that our remediation efforts have allowed us to steadily ramp back up to full production capacity. The lessons from the remediation of the contamination events have improved our production processes going forward. We have implemented several important improvements at the source farm level including more product and environmental testing, more training of farm staff and better enforcement of our protocols. While we never release product to the market that does not pass our in-process and final quality control release tests, we had allowed product to advance in the production process at risk, while the in-process quality control tests were being performed. We no longer advance product to the next stage before complete in-process quality control test results for the current stage are reviewed. Although this adds time to the overall production cycle, we believe that it has helped us reduce the chance and cost of further contaminations. We reached our goal to exceed $30 million in annualized production output with sales of $8.1 million and $7.8 million during the quarters ended March 31, 2025 and December 31, 2024, respectively. Notwithstanding the challenges that contamination events have posed for us, we are excited to have reached both our estimated annualized full capacity of $30 million or more for **First Defense®** (with an option to increase our estimated full capacity to approximately $40 million or more per year in the future subject to the additional capital investments, as discussed above) while, at the same time, advancing to the final stages of a very significant FDA product development initiative with **Re-Tain®**.

We pursued an insurance claim under our business interruption policy to offset at least some portion of the losses that we incurred from the contamination events discussed above. Although not a total recovery of our financial losses, we did settle our insurance claim during the first quarter of 2025 and received an insurance payout of approximately $427,000, which is in addition to the $250,000 that we previously received during the third quarter of 2023 under this claim.

Results of Operations

a) Product Sales

After an extended period of backlog that depleted the distribution chain, distributor inventories have been replenished and we have started to intentionally build up our own buffer stocks. Our top priorities moving forward are recovering lost business and reestablishing our growth trajectory. We will continue to prioritize our efforts to increase and stabilize supply of **First Defense®**. We do not solely benchmark our sales expectations off trailing twelve-month sales results. Instead, we look at the sales of competitive products to assess the size of the addressable market and plan for growth when projecting our future production capacity needs. As we increased our production output, sales during the year ended December 31, 2024 increased to $26.5 million in comparison to $17.5 million during the year ended December 31, 2023. By increasing production capacity and mitigating contamination events, we were able to significantly increase sales during the most recent periods compared to the year prior. Eliminating the order backlog has been a critical business objective for some time now. During the first half of 2025, we transitioned from significant drop shipping to critical customers to again shipping direct to distribution. Refilling the distribution pipeline after an extended backlog likely provided a temporary boost to sales. Because this inventory rebuild is not expected to recur, we may experience a softening in outbound sales during the second half of 2025. Our primary focus remains on recovering from the market disruption caused by prolonged supply shortages and capturing increased market share – an area that continues to represent a significant growth opportunity.

We captured an 18% increase in sales revenue during the second quarter of 2025 compared to the second quarter of 2024. Domestic sales during the quarter ended June 30, 2025 were essentially flat, and international sales increased by 170%, in comparison to the quarter ended June 30, 2024. International sales aggregated 24% and 11% of total sales during the quarters ended June 30, 2025 and 2024, respectively. The quarterly sales results are summarized in the following table (in thousands, except for percentages):

	During the Three-Month Periods Ended June 30,		Increase	
	2025	2024	Amount	%
Total Product Sales	$6,445	$5,473	$972	18%

We captured a 14% increase in sales revenue during the six-month period ended June 30, 2025 compared to the six-month period ended June 30, 2024. Domestic sales during the six-month period ended June 30, 2025 increased by 7%, and international sales increased by 64%, in comparison to the six-month period ended June 30, 2024. International sales aggregated 17% and 12% of total sales during the six-month periods ended June 30, 2025 and 2024, respectively. The sales results for these six-month periods are

summarized in the following table (in thousands, except for percentages):

	During the Six-Month Periods Ended June 30,		Increase	
	2025	2024	Amount	%
Total Product Sales	$14,512	$12,730	$1,782	14%

We captured a 25% increase in sales revenue during the nine-month period ended June 30, 2025 compared to the nine-month period ended June 30, 2024. Domestic sales during the nine-month period ended June 30, 2025 increased by 16%, and international sales increased by 107%, in comparison to the nine-month period ended June 30, 2024. International sales aggregated 17% and 10% of total sales during the nine-month periods ended June 30, 2025 and 2024, respectively. The sales results for these nine-month periods are summarized in the following table (in thousands, except for percentages):

	During the Nine-Month Periods Ended June 30,		Increase	
	2025	2024	Amount	%
Total Product Sales	$22,263	$17,826	$4,437	25%

We captured a 22% increase in sales revenue during the twelve-month period ended June 30, 2025 compared to the twelve-month period ended June 30, 2024. Domestic sales during the twelve-month period ended June 30, 2025 increased by 13%, and international sales increased by 99%, in comparison to the twelve-month period ended June 30, 2024. International sales aggregated 16% and 10% of total sales during the twelve-month periods ended June 30, 2025 and 2024, respectively. The sales during these twelve-month periods are summarized in the following table (in thousands, except for percentages):

	During the Twelve-Month Periods Ended June 30,		Increase	
	2025	2024	Amount	%
Total Product Sales	$28,275	$23,223	$5,052	22%

Sales of the **First Defense®** product line made up 99% of our total sales during the three-month, six-month, nine-month and twelve-month periods ended June 30, 2025 and 2024. Our sales are generally seasonal with highest demand expected during the first quarter of each year. The compound annual growth rate (CAGR) of our total product sales was 52%, 14% and 16% during the year, five-year and six-year periods ended December 31, 2024, respectively.

We obtained USDA approval of **Tri-Shield First Defense®** (the trivalent format of our product delivered via a gel tube, which provides broader protection to calves) near the end of 2017. Around the time of this new product format launch, total product sales during the years ended December 31, 2017 and 2018 were $10.4 million and $11 million, respectively. **Tri-Shield®** requires two separate liquid production processes for each dose manufactured and sold (in contrast to the bivalent product formats that require just one) making it more expensive to produce, but this product is priced at a significant premium to our traditional bivalent bolus format and is largely responsible for our sales growth. This new product format has become the highest revenue contributor, as demonstrated in the table below (in thousands, except for percentages):

	During the Three-Month Periods Ended June 30,				During the Six-Month Periods Ended June 30,			
	2025	% of Total	2024	% of Total	2025	% of Total	2024	% of Total
Tri-Shield®	$4,525	70%	$3,591	66%	$10,194	70%	$7,645	60%
Other	1,920	30	1,882	34	4,318	30	5,085	40
Total Product Sales	$6,445	100%	$5,473	100%	$14,512	100%	$12,730	100%

We likely lost some business beginning in late 2022, as a result of the backlog. During the first quarters of 2023 and 2024, the impact of tight supplies hit even harder, leaving our customers without product during their busiest calving season. Our inability to timely meet the needs of our customers resulted in the loss of some customers who sought alternative scours management products during this period of short supply, and some of these customers may not resume purchasing our product now that we have eliminated the backlog. While we worked to allocate product directly to certain large customers during this period of short supply, we likely lost some customers that could not procure product. Our sales team has resumed more normal sales growth initiatives now, in response to the increasing product supply. We will work to regain end-user customers that we may have lost while we were short on product and will aggressively compete for new business. As we emerge from an extended period of time on backlog, we anticipate higher than normal sales fluctuations quarter to quarter. What is most important to us at this time is that we achieve sales growth over the longer periods of time, even if we experience some quarter-to-quarter fluctuations.

Valuation of the backlog is a non-GAAP estimate that is based on purchase orders on hand at the time that could not be met because of a lack of available inventory. We have historically reported this figure because it reflects the orders on our books presently that we cannot ship. Over time, the backlog has become a less reliable indicator for several reasons, such as aging orders which may be cancelled or customer placement of larger than usual orders to establish their place in line, perhaps in reaction to our previously ongoing backlog situation. We were able to reduce this backlog modestly to approximately $9.1 million as of March 31, 2024 and then reduce it further to approximately $8.9 million as of June 30, 2024. We were able to reduce this backlog further to approximately $7.3 million as of September 30, 2024 and then further to $4.4 million as of December 31, 2024. The increased level of sales during the six-month period ended June 30, 2025 helped us decrease the backlog to less than $100,000 as of June 30, 2025. We had no significant backlog of orders as of August 7, 2025.

We also sell our own **CMT**, which is used to detect somatic cell counts in milk. Sales of **CMT** aggregated less than 1% of our total product sales during the periods reported. Sales of **CMT** were approximately $46,000 and $43,000 during the quarters ended June 30, 2025 and 2024, respectively. Sales of **CMT** were approximately $85,000 and $80,000 during the six-month periods ended June 30, 2025 and 2024, respectively. Sales of **CMT** were approximately $184,000 and $172,000 during the trailing twelve-month periods ended June 30, 2025 and 2024, respectively.

Effective January 1, 2022, we increased our selling price of the **First Defense®** product line by approximately 5% and **CMT** by approximately 7%. Effective January 1, 2023, we increased our selling price of the **First Defense®** product line by approximately 4% (a range of 2% to 8%) and **CMT** by approximately 5%. Effective November 15, 2023, we increased our selling price of the **First Defense®** product line by approximately 8%. Also, effective November 15, 2023, we increased our selling price for **CMT** by approximately 12%. Effective January 1, 2025, we increased our selling price of the **First Defense®** product line by approximately 6% (a range of 5% to 7.5%). At the same time, we also increased our selling price for **CMT** by approximately 7%.

b) Gross Margin

The change in our gross margin (product sales less costs of goods sold) and our gross margin as a percentage of product sales during the three-month, six-month, nine-month and trailing twelve-month periods ended June 30, 2025 and 2024 are summarized in the following tables (in thousands, except for percentages):

	During the Three-Month Periods Ended June 30,		**Increase**	
	2025	**2024**	**Amount**	**%**
Gross margin	$2,818	$1,230	$1,587	129%
Percent of product sales	44%	22%	21%	94%

	During the Six-Month Periods Ended June 30,		**Increase**	
	2025	**2024**	**Amount**	**%**
Gross margin	$6,172	$3,526	$2,646	75%
Percent of product sales	43%	28%	15%	54%

	During the Nine-Month Periods Ended June 30,		**Increase**	
	2025	**2024**	**Amount**	**%**
Gross margin	$9,004	$4,784	$4,220	88%
Percent of product sales	40%	27%	14%	51%

	During the Trailing Twelve-Month Periods Ended June 30,		**Increase**	
	2025	**2024**	**Amount**	**%**
Gross margin	$10,587	$6,050	$4,537	75%
Percent of product sales	37%	26%	11%	44%

Gross margin percentage of product sales adjusted to remove scrap is a non-GAAP estimate that is based on the removal of specific manufacturing scrap costs from total costs and recalculating the gross margin as a percentage of product sales. Gross margin percentage of product sales adjusted to remove scrap for the three-month periods ended June 30, 2025, and 2024 were 47% and 28%, respectively. Gross margin percentage of product sales adjusted to remove scrap for the six-month periods ended June 30, 2025, and 2024 were 44% and 31%, respectively.

During the second quarter of 2025, we experienced our first new production contamination event since April of 2024, resulting in scrapped inventory with a value of approximately $82,000. Also during the second quarter of 2025, we incurred additional production process losses aggregating approximately $125,000. If we had avoided this aggregate scrap cost of approximately

$208,000, our gross margin during the second quarter of 2025 would have been approximately 47% in comparison to the reported value of 44%.

We contracted to purchase hyperimmunized colostrum from more than 39,000 cows during the year ended December 31, 2024 and more than 19,000 cows during the six-month period ended June 30, 2025. This amounted to more than 777,000 liters of hyperimmunized colostrum during the year ended December 31, 2024 and more than 371,000 liters of hyperimmunized colostrum during the six-month period ended June 30, 2025. While our biological and process yields continue to be variable, we have seen a favorable improvement to our finished goods yield recently. The **Tri-Shield®** product format is more complex (i.e., three antibodies versus two antibodies for **Dual-Force®**) making it more costly to produce, and both the bivalent and trivalent gel product formats are more expensive to produce than the bolus format. These new formats earn a higher selling price and are creating sales growth for us. A number of other factors contribute to the variability in our costs, resulting in some fluctuations in gross margin percentages from quarter to quarter and from year to year. We also invest to sustain compliance with cGMP regulations in our production processes. Increasing production can be more expensive in the initial stages. Additionally, the biological yields from our raw material are always variable, which affects our costs of goods sold in a similar way. Just as our customers' cows respond differently to commercial dam-level vaccines, depending on the time of year and immune competency, our source cows have similar biological variances in response to our proprietary vaccines. As is the case with any vaccine program, animals respond less effectively to their first exposure to a new vaccine, and thereafter the effectiveness of their immune response improves in response to subsequent immunizations. While this variability impacts our costs of producing inventory, one of the key commercial benefits of our **First Defense®** product line is that we compensate for the variability in a cow's immune response by standardizing each dose of finished product. This ensures that every calf is equally protected, which is something that our competitors' products, which are vaccines, cannot offer. We continue to work on processing and yield improvements and other opportunities to reduce costs, while enhancing process knowledge and robustness.

The disruption in output during 2023 and 2024 due to contamination events did not allow us to benefit from spreading our fixed costs over higher volumes as we normally do. In more recent quarters, we've benefitted from process improvements. We were able to increase our gross margin as a percentage of product sales to 44%, 42% and 37% during the most recent quarters ended June 30, 2025, March 31, 2025 and December 31, 2024, respectively. The following table displays the relationship between sales and gross margin during recent periods (in thousands except for percentages):

	Product Sales	Gross Margin Dollars	Gross Margin Percentage
Year Ended December 31, 2021	$19,243	$8,656	45%
Year Ended December 31, 2022	$18,568	$7,649	41%
Year Ended December 31, 2023	17,472	3,869	22%
Decrease during 2023 under 2022	$1,096	$3,780[(1)]	19%
Year Ended December 31, 2024	$26,493	$7,941	30%
Six-Month Period Ended June 30, 2025	$14,512	$6,172	43%[(2)]

[(1)] This $3.8 million decrease in gross margin earned resulted in a very sudden, material and unexpected decrease in our available cash.
[(2)] This gross margin percentage compares to 37%, 42% and 44% during the three-month periods ended December 31, 2024, March 31, 2025 and June 30, 2025, respectively.

As demonstrated in the table below, Work-in-Process inventory as a percentage of total inventory has ranged from 57% to 81%, and the dollar value of Work-in-Process inventory has changed significantly since December 31, 2021. The hyperimmunized colostrum we purchase for use in the production of **First Defense®** is the largest component of Work-in-Process inventory. As we began to increase our production capacity, we also increased the supplier base that we work with in order to increase the availability of this critical ingredient. As certain contamination events discussed above slowed the implementation of our increased capacity, we accumulated more colostrum than originally planned. While this is a good safety measure to have in place to ensure that we do not run short of colostrum, we do expect to reduce this use of cash as we move forward with our increased production rate. We have expanded the **First Defense®** line to include a functional feed platform alongside our established USDA-approved products. Currently manufactured by a contract manufacturing organization (CMO), the functional feed line requires fewer processing steps and thereby retains more colostral fat and bioactive proteins. It is specifically designed to meet the needs of large dairies and calf ranches seeking a cost-effective solution. We expect this will help us turn some of this inventory into cash. The change in Work-in-Process inventory is demonstrated in the following table (in thousands, except for percentages):

As of	Frozen Colostrum	Other	Work-in-Process Inventory	% of Total Inventory
December 31, 2021	$1,032	$870	$1,902	62%
December 31, 2022	$2,418	$1,051	$3,469	57%
December 31, 2023	$3,811	$2,004	$5,815	74%
December 31, 2024	$3,591	$2,156	$5,747	81%
March 31, 2025	$3,395	$2,361	$5,756	78%
June 30, 2025	$3,546	$2,037	$5,583	67%

c) Product Development Expenses and Development Strategy

Overview: The majority of our product development expenses pertain to the development of **Re-Tain®**. During the quarter ended June 30, 2025, product development expenses decreased by 19%, or $199,000, to $832,000 in comparison to $1 million during the quarter ended June 30, 2024. Product development expenses aggregated 13% and 19% of product sales during the quarters ended June 30, 2025 and 2024, respectively. Product development expenses included non-cash depreciation and stock-based compensation expenses of $362,000 and $377,000 during the three-month periods ended June 30, 2025 and 2024, respectively. Approximately $331,000 and $342,000 of these non-cash expenses were comprised of depreciation expenses pertaining largely to our DS facility and equipment for **Re-Tain®** during the quarters ended June 30, 2025 and 2024, respectively. We began depreciating this asset when the Certificate of Occupancy for the new construction was issued during the fourth quarter of 2017, but sales of our new product cannot be realized until we achieve FDA approval. During the six-month period ended June 30, 2025, product development expenses decreased by 31%, or $704,000, to $1.6 million in comparison to $2.3 million during the six-month period ended June 30, 2024. Product development expenses aggregated 11% and 18% of product sales during the six-month periods ended June 30, 2025 and 2024, respectively. Product development expenses included non-cash depreciation and stock-based compensation expenses of $727,000 and $744,000 during the six-month periods ended June 30, 2025 and 2024, respectively. Approximately $667,000 and $683,000 of these non-cash expenses were composed of depreciation expenses pertaining largely to our DS Facility and equipment for **Re-Tain®** during the six-month periods ended June 30, 2025 and 2024, respectively.

Product development expenses (excluding depreciation expense of $1.4 million) were $3 million during the year ended December 31, 2023 when we were in production mode. Product development expenses (excluding depreciation expense of $1.4 million) were $2.5 million during the year ended December 31, 2024, representing a 16%, or $477,000, reduction from the 2023 expense (excluding depreciation). Beginning during the second half of 2024, we implemented an aggressive idle of product development expenses pertaining to **Re-Tain®** after the production of inventory that we will utilize for Investigational Product use was completed. It has been our further objective to reduce product development expenses (excluding depreciation) to approximately $2.1 million (of which **Re-Tain®** development expenses are expected to be approximately $1.7 million) during the year ending December 31, 2025, which would be an 18%, or approximately $462,000, decrease from the 2024 level. During the six-month period ended June 30, 2025 product development expenses (excluding depreciation) were reduced to $922,000 (of which **Re-Tain®** development expenses were $671,000) in comparison to $1.6 million (of which **Re-Tain®** development expenses were $1.4 million) during the six-month period ended June 30, 2024. This aggressive idle strategy (as opposed to a complete shut down) allows us to continue our pursuit of FDA approval while reducing our cash spend and ensuring no adverse impact to critical equipment. If we come off of aggressive idle strategy, we have a plan to bring the DS plant back to full production mode in approximately two to three months, subject to available funding. At the same time, we are exploring strategic options for this product. Initial market acceptance and perhaps the interest of a partner could justify the resumption of production in our DS plant and help us find a new DP filling solution.

During the third quarter of 2016, the City of Portland approved a Tax Increment Financing (TIF) credit enhancement package that reduces the real estate taxes on **Building 33** (our DS production facility for **Re-Tain®**) by 65% over the eleven-year period beginning on July 1, 2017 and ending June 30, 2028 and by 30% during the year ending June 30, 2029, at which time the rebate expires. During the second quarter of 2017, the TIF was approved by the Maine Department of Economic and Community Development. The value of the tax savings will increase (decrease) in proportion to any increases (decreases) in the assessment of the building for city real estate tax purposes or the City's tax rate. The following table discloses how much of the new taxes we have generated is being relieved by the TIF

of how much we are paying:

Assessed Value	Twelve-Month Period Ended	Total New Taxes Generated by the Project	Less: TIF Credit	Net Amount Paid by ImmuCell
$1.7 million @ April 1, 2017	June 30, 2018	$36,000	$22,000	$13,000
$4.0 million @ April 1, 2018	June 30, 2019	90,000	58,000	32,000
$4.0 million @ April 1, 2019	June 30, 2020	94,000	60,000	34,000
$4.0 million @ April 1, 2020	June 30, 2021	94,000	60,000	34,000
$4.3 million @ April 1, 2021	June 30, 2022	55,000	36,000	20,000
$4.3 million @ April 1, 2022	June 30, 2023	58,000	37,000	21,000
$4.3 million @ April 1, 2023	June 30, 2024	61,000	39,000	22,000
$4.3 million @ April 1, 2024	June 30, 2025	64,000	41,000	23,000
Total		$552,000	$353,000	$199,000

Re-Tain® *Development Objective:* Our product, **Re-Tain®**, upon anticipated FDA approval, could represent a first-of-its-kind new animal drug, unrelated to human-use antibiotics. As we work to change the way that mastitis is managed in the dairy industry, we aim to demonstrate that our bacteriocin, Nisin A, which is designed specifically for subclinical mastitis, can provide producers the freedom to change when and how mastitis is treated. **Re-Tain®** is not a broad-spectrum antibiotic used in human health. Rather, it consists of a highly targeted active ingredient without an FDA-required milk discard or pre-slaughter withdrawal label restrictions. The high milk discard costs associated with traditional antibiotic treatments lead producers to treat mastitis only after clinical signs develop. We expect that **Re-Tain®** will be a first-of-its-kind product, giving producers the ability to get ahead of mastitis before clinical signs develop so the best cows stay at their best performance level and in the herd longer. Our product has been subject to the FDA's phased review process since 2004. We received our first major Technical Section Complete Letter from the FDA during the third quarter of 2008, and we received our fourth major Technical Section Complete Letter from the FDA during the third quarter of 2018. The remaining fifth major Technical Section, named Chemistry, Manufacturing and Controls (CMC), is related to commercial manufacturing.

Re-Tain® *Development Status*: Approval by the FDA of our New Animal Drug Application (NADA) for **Re-Tain®** is required before any sales of the product can be initiated. The NADA is comprised of five principal Technical Sections. Each Technical Section can be reviewed and approved separately. By statute, each Technical Section submission is generally subject to one or more six-month review cycles by the FDA. Upon review and assessment by the FDA that all requirements for a Technical Section have been met, the FDA may issue a Technical Section Complete Letter. The current status of our work on these submissions to the FDA is as follows:

1) Environmental Impact: During the third quarter of 2008, we received the Environmental Impact Technical Section Complete Letter from the FDA. During the second quarter of 2021, we received further clarification through a new Environmental Impact Technical Section Complete Letter covering the current dosage regimen and labeling.

2) Target Animal Safety: During the second quarter of 2012, we received the Target Animal Safety Technical Section Complete Letter from the FDA.

3) Effectiveness: During the first quarter of 2013, we received the Effectiveness Technical Section Complete Letter from the FDA. The anticipated product label (which remains subject to FDA approval) carries claims for the treatment of subclinical mastitis associated with *Streptococcus agalactiae*, *Streptococcus dysgalactiae*, *Streptococcus uberis*, and coagulase-negative staphylococci in lactating dairy cattle.

4) Human Food Safety: The active ingredient, Nisin A, is an antibacterial peptide that was designated as Generally Regarded as Safe (GRAS) over 40 years ago for use in many foods to prevent the growth of pathogens. Nisin degrades in the gastrointestinal tract to amino acids, which further supports its safety. The Nisin we produce is more than 96% pure, which is much more pure than any Nisin used in food preservation applications. During the third quarter of 2018, the FDA issued a Human Food Safety Technical Section Complete Letter confirming, among other things, that there will be no FDA-required milk discard or pre-slaughter withdrawal label restrictions on our label, based on its analysis of our safety and Nisin residue data. Achieving this critical differentiating feature for our product encouraged us to continue the significant product development investment necessary to bring **Re-Tain®** to market. During the second quarter of 2021, we updated this Technical Section Complete Letter with FDA approval of the official analytical method to measure Nisin in milk. When **Re-Tain®** was first being developed, it was more common for producers to know if their milk would go exclusively to the fluid milk market instead of being further processed with cultures to produce cheese and yogurt. Presently, it is much more difficult to know this with much certainty. This change in milk distribution practices makes it difficult to

treat sick cows without considering the negative impact that milk from cows treated with **Re-Tain®** may have on starter cultures. The remaining hurdle to market launch was focused on the commercial manufacture of the Drug Substance and Drug Product. Details of this effort are described in the next four paragraphs.

5) Chemistry, Manufacturing and Controls (CMC): The CMC Technical Section is complex and comprehensive. Having previously achieved the four different Technical Section Complete Letters from the FDA discussed above, approval of the CMC Technical Section is the fifth and final significant step required before **Re-Tain®** product sales can be initiated in the United States. Implementing DS production, which is a required component of the CMC Technical Section, has been the lengthiest part of this project. We previously entered into an agreement with a multi-national pharmaceutical ingredient manufacturer for our commercial-scale supplies of DS. However, we determined during 2014 that the agreement did not offer us the most advantageous supply arrangement in terms of either cost or long-term dependability. As a result, we presented this product development opportunity to a variety of large and small animal health companies. While such a corporate partnership could have provided access to a much larger sales and marketing team and allowed us to avoid the large investment in a commercial-scale production facility, we concluded that a partner would have taken an unduly large share of the gross margin from all future product sales of **Re-Tain®**. During the third quarter of 2014, we completed an investment in facility modifications and processing equipment necessary to produce our DS at pilot-scale at **Building 56**. This small-scale facility was used to: i) expand our process knowledge and controls, ii) establish operating ranges for critical process parameters, iii) conduct product stability studies, iv) optimize process yields and v) determine the cost of production. We believe these efforts have reduced the risks associated with our investment in the commercial-scale DS production facility. Having raised equity during 2016 and 2017, we were able to move away from these earlier partnering strategies and assume control over the commercial-scale manufacturing process in our own facility. During the fourth quarter of 2015, we acquired land near our existing Portland facility for the construction of a new commercial-scale DS production facility. We commenced construction of this facility during the third quarter of 2016 and completed construction during the fourth quarter of 2017. Equipment installation and qualification was initiated during the third quarter of 2017 and completed during the third quarter of 2018. Total construction and equipment costs aggregated approximately $20.8 million. We began the process of making several rounds of CMC submissions during 2019. The FDA notified us during the second quarter of 2024 that the inspectional observation at our DS facility had been cleared.

Our DS manufacturing facility and our potential future DP manufacturing facility (or that of a DP contract manufacturer for us) are subject to ongoing FDA inspections. Early during the first quarter of 2024, the FDA conducted its third pre-approval inspection of our DS facility. This resulted in the issuance of one deficiency as identified on the FDA's Form 483. During the first quarter of 2024, we successfully responded to this inspectional observation and achieved "Voluntary Action Indicated" status. The remaining critical path milestone is for our contract manufacturer to resolve the deficiencies at their DP facility, which work is currently underway.

In early January of 2025, we made a Non-Administrative NADA submission that included our fourth submission of the CMC Technical Section, together with the minor technical sections covering All Other Information and Product Labeling. We implemented this filing strategy to eliminate the need for an Administrative NADA submission covering All Other Information and Product Labeling at the end of the application process, which would then be subject to an additional 60-day review at that time. By statute, this CMC Technical Section submission was subject to a review period of up to 180 days. We expect the FDA to complete its review only after it clears the inspectional observations at the DP facility of our contract manufacturer. Our contract manufacturer responded to the FDA with their corrective actions in late April of 2025. We are awaiting a response from the FDA. This still appears to be the critical path constraint to product approval. Because the inspectional observations at the facilities of our contract manufacturer were not cleared before the end of the 180-day review period, we requested an amendment and were granted another 180-day review period.

We originally concluded that the fastest route to FDA approval and market launch would be with the services of a contract manufacturer, reducing our risk by benefiting from their demonstrated expertise in aseptic filling. From 2010 to the present, we have worked with a contract manufacturer under several amended contract manufacturing agreements covering the DP formulation, aseptic filling and final packaging services. This contract manufacturer filled DP for our Investigational Product use before the filling contract expired during the fourth quarter of 2024. This contract continues through March of 2026 with regards to labeling and packaging services. We are investigating alternatives to aseptically fill additional DP inventory. Our potential alternative third-party options for the formulation and aseptic filling services are narrowed considerably because our product cannot be formulated or filled in a facility that also processes traditional antibiotics (i.e. beta lactams). If we decide to resume our in-house strategy or enter into a new contract manufacturing agreement, we would anticipate FDA approval of this facility (which is a requirement for commercial manufacturing) would take approximately two years, allowing for two six-month review cycles, subject to the timing of our installation and validation work. This would be a post-approval submission. If we decide to fund and complete our potential future DP manufacturing facility, we anticipate it would have enough formulation and aseptic filling capacity to exceed the expected production capacity of our DS facility, which is approximately $10 million in annual sales. This production capacity estimate is based on our assumptions as to product pricing and ongoing yield improvement initiatives. The DP formulation and aseptic filling operation, if

completed, would be located in existing facility space that we had intended to utilize to double our DS production capacity if warranted by sales volumes following market launch. This integrated manufacturing capability for **Re-Tain®** would substantially reduce our dependence on third parties.

Other Product Development Initiatives: Our next most important product development initiative has been focused on other improvements, line extensions or additions to our **First Defense®** product line. The bolus format of **First Defense®** and **Tri-Shield First Defense®** have been listed with the Organic Materials Research Institute (OMRI) since 2013 and 2019, respectively. This means they can be used on organic farms. During the third quarter of 2024, the gel tube format of **First Defense®** also became OMRI listed. In 2025, we expanded our line to include a functional feed platform utilizing our hyperimmunized colostrum technology, as discussed above. We made our first sales of this product format during the second quarter of 2025. During the third quarter of 2024, we entered into a research agreement with the Mayo Clinic, a non-profit, educational, research and healthcare institution, to explore potential applications of Nisin in certain human surgical situations. This data has been published and was presented at the ASM Microbe Conference in Los Angeles in June of 2025. While we do not see a clear commercial path forward at this time, we are conducting a follow-up study to better assess the potential for Nisin in this application. Subject to the availability of resources, we intend to begin new development projects that are aligned with our core competencies and market focus. We also remain interested in acquiring, on suitable terms, other new products and technologies that fit with our sales focus on the dairy and beef industries, subject to the availability of the needed funding.

d) Sales and Marketing Expenses and Selling Strategy

We see ourselves as the “non-Pharma” pharma company. Rather than offering variations of “copy-cat” technology like vaccines and antibiotics, we have taken the path less traveled by developing first-of-their-kind products fueled by novel active ingredients such as polyclonal antibodies derived from hyperimmunized colostrum (for **First Defense®**) and bacteriocins (for **Re-Tain®**). While we expect that **Re-Tain®** could be a significant market disrupter, we project the **First Defense®** market could be larger.

During the quarter ended June 30, 2025, sales and marketing expenses decreased by 29%, or $289,000, to $696,000 in comparison to $985,000 during the quarter ended June 30, 2024, amounting to 11% and 18% of product sales during the quarters ended June 30, 2025 and 2024, respectively. Sales and marketing expenses included non-cash depreciation and stock-based compensation expenses of $18,000 and $44,000 during the quarters ended June 30, 2025 and 2024, respectively. During the six-month period ended June 30, 2025, sales and marketing expenses decreased by 13%, or $233,000 to $1.6 million in comparison to $1.8 million during the six-month period ended June 30, 2024, amounting to 11% and 14% of product sales during the six-month periods ended June 30, 2025 and 2024, respectively. Sales and marketing expenses included non-cash depreciation and stock-based compensation expenses of $29,000 and $88,000 during the six-month period ended June 30, 2025 and 2024, respectively. Our current budgetary guideline is to keep sales and marketing expenses under 20% of total sales. We continue to leverage the efforts of our small sales force by using animal health distributors.

The **First Defense®** product line serves dairy and beef producers by protecting their calf crop from scours, the leading cause of pre-weaning mortality and morbidity. When calves are healthy during this crucial development period right after birth, they mature into more productive milking cows and more efficient beef generators. Our primary competition in this category is vaccines that are also regulated for effectiveness and safety by the USDA. However, animal responses to vaccines are inherently variable. COVID breakthrough infections in humans reminded us that a vaccine does not guarantee immunity. That is true for our competitors as well. In the most controlled research settings, only 80% of animals respond to a vaccine. This leaves 20% of the calf crop unprotected when the scour prevention program relies on vaccines. Those unprotected calves can be disease carriers. Not only are they more susceptible to death or likely to require life-saving treatment (sometimes with antibiotics), but they also shed pathogens into the environment creating a greater disease pressure for their herd mates. The **First Defense®** product line removes the inconsistency inherent with vaccine protection. We sell the only USDA-licensed products in the scour prevention category that are therapeutic multi-valent polyclonal antibodies. This technology eliminates a producer’s reliance on a variable vaccine response to generate antibodies and, instead, can protect every calf equally with a measured dose of antibody-driven immunity against both bacterial and viral scour pathogens. In 2025, we expanded our line to include a functional feed platform utilizing our hyperimmunized colostrum technology which contains colostral fat and bioactive proteins. It is specifically designed to meet the needs of large dairies and calf ranches seeking a cost-effective solution.

During the years ended December 31, 2024 and 2023, we treated more calves than our next largest calf-level competitive product, which is a vaccine administered to the newborn at birth. Compared to the dam-level competitive products (which are vaccines given to the cow pre-calving), we are second in sales dollars to the market leader. Despite these successes, there remains significant opportunity to displace more competition within North America. There is also opportunity to grow our sales by expanding into international markets. We are being strategic in how we invest in international market development in order not to divert our limited resources away from achieving domestic growth, which is often more efficient to obtain.

We believe **Re-Tain®** has the potential to enhance mastitis management by shifting the industry approach from treating at the clinical stage to intervening earlier – at the subclinical stage – while cows are still producing saleable milk. **Re-Tain®** is being developed specifically to treat subclinical mastitis in lactating dairy cows and, upon anticipated FDA approval, could represent a first-of-its-kind new animal drug that is unrelated to antibiotics used in human medicine. While milk prices vary, the cost of the milk discard associated with traditional antibiotics ranges from approximately $53.00 (for 4 days of milk at 70 pounds per day at the Class III milk price average of $18.89 per hundredweight during 2024) to approximately $145.00 (for 11 days of milk at 70 pounds per day at the Class III milk price average of $18.89 per hundredweight during 2024) per treated animal. It is generally current practice to treat mastitis only when the disease has progressed to the clinical stage where the milk from an infected cow cannot be sold, leaving most subclinical infections untreated. We expect producers to be more motivated to identify and treat cows at the subclinical stage with **Re-Tain®**. This creates a substantial animal welfare benefit. By treating mastitis early at the subclinical level, producers could preserve optimal milk yields. We also believe that animals infected with subclinical mastitis often progress to the clinical disease state requiring antibiotic treatment and milk discard and can experience higher abortion rates. The success of this product will depend largely on our ability to implement treatment protocols in a way that the Nisin that we deliver to treated cows does not interfere with starter cultures that are used in some milk processing methods to make cheese or yogurt, for example, from the milk of cows treated with **Re-Tain®**. We hope that milk processors will engage in this evaluation with us in order to help the dairy industry improve the health of certain sick cows (that often go untreated) while, at the same time, improving the quality of milk that is a vital food component for people around the world. We believe that treating subclinically infected cows could enhance best practices in the industry. It is very common practice for cows to be treated with traditional antibiotics that are also used in the prevention of certain diseases in humans. This overuse of antibiotics allows for the growth of pathogens that are resistant to these antibiotics. Because our active ingredient (Nisin) is not used in human healthcare, **Re-Tain®** would not contribute to the significant public health concern.

Our product could help the industry address important sustainability objectives. The over-use of antibiotics that are medically important to human healthcare is a growing public health concern of our society and an active issue with the FDA, largely because of the growing evidence that this over-use contributes to antibiotic resistance and the rise of “superbugs”. Sustainability objectives require that less antibiotics be used in food producing animals, yet a new FDA-approved drug to treat mastitis has not been developed in years. Our product improves sustainability by utilizing a bacteriocin as an alternative to traditional antibiotics that are used in human medicine. In the big picture, we are introducing an entirely new class of antimicrobial as an animal drug, a bacteriocin, that does not promote resistance against antibiotics used in human medicine, making it more socially responsible. The industry could keep treating this very significant disease with traditional antibiotics, but it takes innovation to bring a bacteriocin like Nisin to market. **Re-Tain®** would offer a needed alternative to these traditional antibiotics, while at the same time improving the quantity and quality of milk produced by treated cows. We believe our product fits very well with where the industry is going to be in the coming years.

While mindful of being prudent with how much cash we invested in inventory that would have short expiry dating if market launch were delayed, we did build DS inventory during 2022 and 2023 to support potential initial sales of **Re-Tain®**. Over the second half of 2025, we plan to test market acceptance of **Re-Tain®** in collaboration with Michigan State University through Investigational Product use with inventory on hand that now has a relatively short shelf life. We do not anticipate the Investigational Product use to generate sales or gross margin. Although the FDA in 2018 granted a zero milk-discard period for **Re-Tain®**, we are introducing a short discard period in these studies out of an abundance of caution. This is due to the possibility that Nisin levels – while considered safe for adult human consumption – could impact certain milk processing applications. If we determine that a milk discard period is required by milk processors at launch, we expect it to be significantly shorter than those associated with traditional antibiotics currently on the market. Discarded milk is often fed to calves, and we believe that this discarded milk would be much healthier for calves than antibiotic-laden milk. It is our objective to complete the study and data analysis during the first quarter of 2026. Our go-to-market strategy for **Re-Tain®** has evolved in response to FDA approval delays and cash constraints. A full commercial launch will not proceed until three key conditions are met: 1) FDA approval is obtained; 2) a validated aseptic fill solution for DP is in place; and 3) adequate cash is available to produce commercial inventory. In the meantime, we are focused on three key projects: 1) conducting in-field demonstration trials under Investigational Product use status, which could provide valuable insights into how producers perceive this product’s benefits and integrate the product into their herd health protocols; 2) evaluating strategic options that could offset some cash requirements and enable a mass-market launch of **Re-Tain®**; and 3) investigating alternative uses for the **Re-Tain®** manufacturing plant and equipment. This disciplined approach is intended to protect shareholder value, ensure regulatory compliance and support a successful market entry.

e) Administrative Expenses

During the quarter ended June 30, 2025, administrative expenses increased by 20%, or $119,000, to $720,000 in comparison to $602,000 during the quarter ended June 30, 2024. Administrative expenses amounted to 11% of product sales during both of the quarters ended June 30, 2025 and 2024. Administrative expenses included non-cash depreciation and stock-based compensation expenses of $52,000 and $55,000 during the quarters ended June 30, 2025 and 2024, respectively. During the six-month period ended

June 30, 2025, administrative expenses increased by 18%, or $210,000, to $1.3 million in comparison to just over $1.1 million during the six-month period ended June 30, 2024. Administrative expenses amounted to 9% of product sales during both of the six-month periods ended June 30, 2025 and 2024. Administrative expenses included non-cash depreciation and stock-based compensation expenses of $103,000 and $101,000 during the six-month periods ended June 30, 2025 and 2024, respectively. With the growth of our **First Defense®** product line and the continued development of **Re-Tain®**, our operations have become increasingly complex. Over the years, we have relied on a small management staff to handle the banking, legal, audit and other tasks associated with being a publicly-held company. Going forward, we see the need for greater depth in our management team, and in April of 2025, we added a Chief Financial Officer with prior public company experience, bringing our administrative team to five employees. During June of 2025, we announced a CEO succession planning process that could increase our administrative expenses further starting in the fourth quarter of 2025. Prior to 2014, we had limited our investment in investor relations spending. Beginning in the second quarter of 2014, we initiated an investment in a more active investor relations program. Recently, this initiative has pivoted to a virtual meeting format, which is less expensive. At the same time, we continue to provide full disclosure of the status of our business and financial condition in three quarterly reports and one annual report each year, as well as in Current Reports on Form 8-K when legally required or deemed appropriate by management. We believe these efforts have helped us access the capital markets to fund our growth objectives.

f) Net Operating Income (Loss)

During the quarter ended June 30, 2025, our net operating income was $570,000 in contrast to a net operating (loss) of ($1.4 million) during the quarter ended June 30, 2024. The $1.9 million swing from net operating loss to net operating income was largely caused by a $1.6 million increase in gross margin and a $369,000 net reduction in operating expenses. During the six-month period ended June 30, 2025, our net operating income was $1.7 million in contrast to a net operating (loss) of ($1.7 million) during the six-month period ended June 30, 2024. The $3.9 million swing from net operating loss to net operating income was largely caused by a $2.6 million increase in gross margin and a $728,000 net reduction in operating expenses.

g) Other Income (Expenses), net

During the quarter ended June 30, 2025, other expenses, net, aggregated $66,000 in comparison to other expenses, net, of $144,000 during the quarter ended June 30, 2024. Interest expense decreased to $125,000 during the quarter ended June 30, 2025 from $142,000 during the quarter ended June 30, 2024. Non-cash amortization of debt issuance and debt discount costs (which is included as a component of interest expense) was $11,000 during both of the quarters ended June 30, 2025 and 2024. Interest income was $48,000 and $13,000 during the quarters ended June 30, 2025 and 2024, respectively. During the six-month period ended June 30, 2025, other income, net, aggregated $265,000 in contrast to other (expenses), net, of ($280,000) during the six-month period ended June 30, 2024. Interest expense decreased to $253,000 during the six-month period ended June 30, 2025 from $288,000 during the six-month period ended June 30, 2024. Non-cash amortization of debt issuance and debt discount costs (which is included as a component of interest expense) was $22,000 and $21,000 during the six-month periods ended June 30, 2025 and 2024, respectively. With the bank debt refinancing that closed in August of 2025 (discussed in “Subsequent Events” in Note 19 to the accompanying unaudited financial statements), our interest expense (excluding non-cash amortization of debt issuance and debt discount costs) will be approximately $442,000 and $365,000 during the years ending December 31, 2025 and 2026, respectively. Interest income was $86,000 and $23,000 during the six-month periods ended June 30, 2025 and 2024, respectively. Other income included an insurance recovery of $427,000 during the quarter ended March 31, 2025. No such recovery was recorded during the quarter ended June 30, 2025 or during the six-month period ended June 30, 2024.

h) Income (Loss) Before Income Taxes

During the quarter ended June 30, 2025, our income before income taxes was $504,000 in contrast to a (loss) before income taxes of ($1.5 million) during the quarter ended June 30, 2024. During the six-month period ended June 30, 2025, our income before income taxes was $2 million in contrast to a (loss) before income taxes of ($2 million) during the six-month period ended June 30, 2024.

i) Income Taxes and Net Income (Loss)

During the quarters ended June 30, 2025 and 2024, we recorded income tax expense of $1,900 and $1,300, respectively, which is comprised of minimum state tax liabilities. Our net income of $502,000, or $0.06 per diluted share, during the quarter ended June 30, 2025 was in contrast to a net (loss) of ($1.5 million), or ($0.20) per basic share, during the quarter ended June 30, 2024. The $2 million swing from a net loss to net income was largely the result of a $1.6 million increase in gross margin, a $369,000 decrease in operating expenses and a $78,000 decrease in other expenses. During the six-month periods ended June 30, 2025 and 2024, we recorded income tax expense of $3,800 and $2,700, respectively, which is comprised of minimum state tax liabilities. Our net income of $1.9 million, or $0.22 per diluted share, during the six-month period ended June 30, 2025 was in contrast to a net (loss) of ($2 million), or ($0.25) per basic share during the six-month period ended June 30, 2024. The $3.9 million swing from a net loss to net

income was largely the result of a $2.6 million increase in gross margin, a $728,000 decrease in operating expenses and a $546,000 swing from other expenses, net, to other income, net.

We have substantial net operating loss carryforwards that will largely offset future income tax liabilities. As of December 31, 2024, our federal net operating loss carryforward was $17.6 million. As of December 31, 2024, our state net operating loss carryforward was $5.2 million. On December 22, 2017, the Tax Cuts and Jobs Act was signed into law. This legislation made significant changes in the U.S. tax laws, including a reduction in the corporate tax rates, changes to net operating loss carryforwards and carrybacks, and a repeal of the corporate alternative minimum tax. The legislation reduced the U.S. corporate tax rate from 34% to 21%. Our income tax rate differs from this statutory tax rate primarily because we are currently providing for a full valuation allowance against our deferred tax assets. While we are recording this full valuation allowance, we are not recognizing the benefit of our tax losses.

In addition to the results discussed above from our Statements of Operations, we believe it is important to consider our Statements of Cash Flows in the accompanying unaudited financial statements and the discussion under **Liquidity and Capital Resources** above to assess the cash generating ability of our operations.

Critical Accounting Policies and Estimates

The unaudited financial statements are presented on the basis of accounting principles that are generally accepted in the United States. All professional accounting standards that were effective and applicable to us as of June 30, 2025 have been taken into consideration in preparing the financial statements. The preparation of financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates. Significant estimates include our valuation of inventory, certain other assets related to **Re-Tain®**, deferred tax assets and costs of goods sold. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We have chosen to highlight certain policies that we consider critical to the operations of our business and understanding of our financial statements. These critical accounting estimates have been consistently applied.

We sell products that provide **Immediate Immunity™** to newborn dairy and beef cattle. We recognize revenue in accordance with the five step model in ASC 606. These include the following: i) identification of the contract with the customer, ii) identification of the performance obligations in the contract, iii) determination of the transaction price, iv) allocation of the transaction price to the separate performance obligations in the contract and v) recognition of revenue associated with performance obligations as they are satisfied. We recognize revenue at the time of shipment (including to distributors) for substantially all products, as title and risk of loss pass to the customer on delivery to the common carrier after concluding that collectability is reasonably assured. We do not bill for or collect sales tax because our sales are generally made to distributors and thus our sales to them are not subject to sales tax. We generally have experienced an immaterial amount of product returns.

Inventory includes raw materials, work-in-process and finished goods and is recorded at the lower of cost, on the first-in, first-out method, or net realizable value (determined as the estimated selling price in the normal course of business, less reasonably predictable costs of completion, disposal and transportation). Work-in-process and finished goods inventories include materials, labor and manufacturing overhead. Valuing inventory is a critical accounting policy because of the estimates and assumptions used by management to determine its cost accounting and because of the variability of the cost per dose due to fluctuations in the biological yield.

ITEM 3 - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable

ITEM 4 - CONTROLS AND PROCEDURES

Disclosure Controls and Procedures: Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosures. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our

management, with the participation of the individuals who serve as our President and Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act)) as of June 30, 2025. Based on this evaluation, those officers concluded that our disclosure controls and procedures were effective as of that date.

Changes in Internal Controls over Financial Reporting: Our President and Chief Executive Officer, our Chief Financial Officer, our Director of Finance and Administration and our Finance and Administration Associate periodically evaluate any change in internal control over financial reporting which has occurred during the prior fiscal quarter. We have concluded that there was no change in our internal control over financial reporting that occurred during the quarter ended June 30, 2025 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II: OTHER INFORMATION

ITEM 1 - LEGAL PROCEEDINGS

In the ordinary course of business, we may become subject to lawsuits, investigations and claims. Although we cannot predict with certainty the ultimate resolution of any such lawsuits, investigations and claims against us, we do not believe that any pending or threatened legal proceedings to which we are or could become a party will have a material adverse effect on our business, results of operations, or financial condition.

ITEM 1A - RISK FACTORS

OUTLINE TO ITEM 1A - RISK FACTORS

- **Financial Risks**
- **Product Risks**
- **Regulatory Risks**
- **Economic Risks Pertaining to the Dairy and Beef Industries**
- **Small Size of the Company**
- **Global Risks**
- **Risks Pertaining to Common Stock**
- **Other Risks**

Financial Risks

Gross margin on product sales: One of our goals is to achieve a gross margin as a percentage of total sales of approximately 45% or more (including depreciation expense) after the initial launch of new products. Depreciation expense will be a larger component of costs of goods sold for **Re-Tain®** than it is for the **First Defense®** product line. The estimated gross margin for **Re-Tain®** is still to be determined and will be heavily influenced by production and sales volume in the early years after commercial launch. This may materially influence the achievement of our gross margin goals, at least for some period of time. Many factors discussed in this Quarterly Report (including contaminations, process yields, inflation, cost increases, supply-chain disruptions and the rising price of commodities and supplies) impact our costs of goods sold. There is a risk that we are not able to achieve our gross margin goal, which would adversely affect our operating results and could impact our future operating plans. We missed our gross margin goal during the years ended December 31, 2024 and 2023 with realized gross margins equal to 30% and 22% of product sales, respectively. We achieved a gross margin of 43% of product sales during the six-month period ended June 30, 2025. There is a risk that our plans to maintain or improve our gross margin may not be realized due to cost increases, production yield losses, future manufacturing contamination events, production equipment failures, price inelasticity or any combination of these factors. In addition, such negative events, depending on their severity, could deplete our cash reducing our ability to fund our business.

Exposure to interest rates and debt service obligations: Future rises in interest rates could negatively affect the operating costs of dairy and beef producers and thus put further financial pressure on an already stressed business sector, which could indirectly, but materially and adversely, affect our business. Increases in interest rates since 2020 have had only limited effect on our direct cost of borrowing. Our mortgage debt outstanding as of June 30, 2025 was $5.5 million bearing interest at the fixed rate of 3.53% per annum. Our equipment loans outstanding as of June 30, 2025 were $1.5 million bearing interest at the fixed rate of 3.50% per annum. The

outstanding balance on the two State of Maine loans as of June 30, 2025 was approximately $507,000 bearing interest at the fixed rate of 5% per annum. The $3 million in debt that we borrowed during the third quarter of 2023 (which had an outstanding balance of approximately $2.3 million as of June 30, 2025) bears interest at the blended fixed rate of 7.33% per annum illustrating the effect of rising interest rates. Our outstanding debt as of June 30, 2025 aggregating $9.9 million (gross of debt issuance and debt discount costs) bears interest at the blended fixed rate of 4.50% per annum. Increasing interest rates would negatively impact the cost of any future borrowings. This was experienced on the new debt facilities aggregating $3 million that we closed during the third quarter of 2023. The additional debt we incurred to fund our growth objectives has significantly increased our total debt service costs. Under the bank debt refinancing that closed in August of 2025 (discussed in "Subsequent Events" in Note 19 to the accompanying unaudited financial statements), we are obligated to make principal and interest payments aggregating approximately $2 million during both of the years ending December 31, 2025 and 2026. See Note 9 to the accompanying unaudited financial statements for more details about our debt outstanding at June 30, 2025. A decline in sales or gross margin, coupled with this debt outstanding at June 30, 2025 service burden, could impair our ability to fund our capital and operating needs and objectives.

Debt covenants: Our debt with Maine Community Bank (formerly Gorham Savings Bank) and the Finance Authority of Maine is subject to certain financial covenants. We are required to meet a minimum debt service coverage (DSC) ratio of 1.35. Our actual DSC ratios were 0.73, (1.10), 0.44, 2.68 and 2.03 for the years ended December 31, 2024, 2023, 2022, 2021 and 2020, respectively. After being allowed several compliance waivers, our next compliance obligation is for the year ending December 31, 2025. For the trailing twelve-month period ended June 30, 2025, our DSC ratio was 2.64. There is no assurance that we will be able to achieve the required DSC ratio going forward. If we are unable to do so or reach a favorable agreement with our lenders regarding that requirement (including an amendment to or waiver of such requirement), we would be in violation of that covenant, which could result in unfavorable amendments to the terms of our bank debt (including a possible bank requirement to prepay our debt) or have other adverse impacts on our business and results of operations.

Currency exchange fluctuation: We do not believe that currency exchange rates have had a significant effect on our revenues and expenses. However, future increases in the value of the U.S. dollar could affect our customers and the demand for our products. We hope to increase the level of our future sales of products outside the United States. The cost of our products to international customers could be affected by currency fluctuations. The decline of the U.S. dollar against other currencies could make our products less expensive to international customers. Conversely, a stronger U.S. dollar could make our products more costly for international customers. A weaker U.S. dollar makes international purchases more expensive for us.

Inflation, supply disruptions, tax rates and economic downturns: Inflation is having a material and adverse impact on almost all supplies we purchase and labor we hire and retain. Continuing or increasing inflationary trends could materially reduce our gross margin on product sales if we are unable or unwilling to impose offsetting price increases on our customers. The extent and duration of the negative impact on the economics of our customers and on the demand for our products going forward are very difficult to assess. The Class III milk price has been volatile since the onset of the pandemic. Market conditions have improved somewhat, but this volatility remains a concern. Additionally, like most input costs, the cost of grain and other feed is rising, which puts a strain on the profitability of our customers. There is also economic uncertainty for beef producers, as the supply chain is interrupted or otherwise adversely affected due to closures of processing plants and reduced throughput. This is a very unusual situation for farmers who work so hard to improve production quality and efficiency in order to help feed a growing population with high-quality and cost-effective proteins. The pandemic created risk and continues to create uncertainty and challenges for us and has created or contributed to global supply-chain disruptions and has affected international trade, while creating a worldwide health and economic crisis. Stock market valuations remain very volatile. Inflation has increased significantly, and tax rates may increase. There is a risk of a period of economic downturn, the severity and duration of which are difficult to know. Prior to the pandemic and the responsive federal economic stimulus programs, many feared the United States had taken on too much national debt. Now the debt load is significantly higher. A combination of the conditions, trends and concerns summarized above could have a corresponding negative effect on our business and operations, including the supply of the colostrum we purchase to produce our **First Defense®** product line, the demand for our products in the U.S. market and our ability to penetrate or maintain a profitable presence in international markets.

Projection of net income (loss): Generally speaking, our financial performance can differ significantly from management projections, due to numerous factors that are difficult to predict or that are beyond our control. Weaker than expected sales of the **First Defense®** product line could lead to operating losses or less profits. The timing of FDA approval of **Re-Tain®** will continue to have a material impact on our net income (loss). This is why we have been reducing product development expenses, while seeking a potential partner to fund some or all of these expenses, and evaluating alternative uses of **Re-Tain®** related assets.

*Risks associated with our funding strategy for **Re-Tain®**:* The inability to have adequate cash and liquidity to support the commercialization of **Re-Tain®** is a risk to our business. Having completed the construction and equipping of the DS production facility at a cost of approximately $20.8 million, we will continue to incur product development expenses to operate and maintain this

facility until commercialization, or achieve some other strategic option. We are reducing these expenses now that production of inventory for Investigational Product use is complete. Further, our agreement to have DP filled by our current contract manufacturer expired in November of 2024. However, this agreement does provide for ongoing product labeling and packaging through the first quarter of 2026. We would need to secure a new DP manufacturing agreement, or bring the process in-house, to fill more inventory after that, which would require significant capital.

Uncertainty of market size and product sales estimates: Estimating the size of the total addressable market and future sales growth potential for our **First Defense®** product line is based on our experience and understanding of market dynamics but is inherently subjective. Estimating the size of the market for any new product, such as **Re-Tain®**, involves more uncertainties than do projections for established products. We do not know whether, or to what extent, our products will achieve, maintain or increase market acceptance and profitability. Some of the uncertainties surrounding **Re-Tain®** include its impact on cheese starter cultures, the product's effectiveness against currently prevalent pathogens, market acceptance, the effect of a premium selling price on market penetration, cost of manufacture, competition from new and existing products sold by substantially larger competitors with greater market reach and promotional resources and other risks described under "Product Risks" – "Sales risks pertaining to **Re-Tain®**" below. Since **Re-Tain®** is a novel approach to treating mastitis, there are many uncertainties with regards to how quickly and to what extent we can develop the subclinical mastitis treatment market. We believe that polypeptide antimicrobial technology may be viewed positively (relative to traditional antibiotics). If realized, this may offset some of these risks and result in better overall market acceptance.

Net deferred tax assets: The realizability of our net deferred tax assets is a subjective estimate that is contingent upon many variables. During the second quarter of 2018, we recorded a full valuation allowance against our net deferred tax assets that significantly increased our net loss in comparison to other periods. This non-cash expense could be reversed, and this valuation allowance could be reduced or eliminated, if warranted by our actual and projected profitability in the future. We will continue to assess the need for the valuation allowance each quarter.

Product Risks

Product risks generally: We set objectives for our products that we believe we can achieve, but the achievement of such goals is not a certainty. The sale of our products is subject to production, financial, efficacy, regulatory, competitive and other market risks. Elevated standards to achieve and maintain regulatory compliance required to sell our products continue to evolve. Failure to achieve acceptable biological yields from our production processes can materially increase our costs of goods sold and reduce our production output, leading to lower margins and/or an order backlog that could adversely affect our customer relationships and operating results. **First Defense®** is sold at a premium to competitive products, and we expect that **Re-Tain®** would require a significant price premium relative to competitive products. There is no assurance that we will continue to achieve market acceptance of the **First Defense®** product line, or achieve and sustain market acceptance of **Re-Tain®**, at a profitable price level or that we can continue to manufacture our products at a low enough cost to result in a sufficient gross margin to justify their continued manufacture and sale.

Contamination events, equipment failures and gross margin from our production process: As described above, we experienced certain contamination events and equipment failures in our production process that resulted in scrapped inventory and a slowdown of our production process, which had a significant negative impact on our operating results. We are at risk of further such production contaminations or equipment failures resulting in more scrapped inventory. Additional contamination events or equipment failures causing significantly less production output, depending on their severity, could deplete our cash resulting in an inability to fund our business operations.

*Sales risks pertaining to **Re-Tain®**:* Actual or prospective **Re-Tain®** customers may decide to discontinue, reduce or avoid usage of **Re-Tain®** due to the following risks:

1) A rejection of a tank of milk by a positive milk inhibitor test because too much of the milk in a bulk tank is comprised of milk from cows being treated with **Re-Tain®**, when tested randomly for inhibitors by a milk hauler, which could create legal liability.

2) A failed or stalled cheese tank could occur when a Nisin susceptible cheese starter culture is exposed to Nisin residues in milk from treated cows.

3) Producers' current practice generally is to treat clinical mastitis only, which has the visual indicator of abnormal milk. In order to gain market penetration for **Re-Tain®**, we will need to change that practice and increase awareness of the importance of treating subclinical disease. This will require the producers' ability and willingness to diagnose without visual indicators. This diagnoses can be done with somatic cell testing or using **CMT**. Users of **Re-Tain®** could have unsatisfactory treatment outcomes if they lack the equipment needed to measure and monitor somatic cell counts (SCC) of the herd or individual cows (for which data is needed). This risk limits our access to treatment cows because about 40% of farms do not presently have access to this kind of testing

at the cow level and thus may not be good candidates for the use of **Re-Tain®**.

4) Lower than anticipated, or uneconomic, treatment cure rates could be experienced because: i) the product is administered to cows that we would not identify as the best treatment candidates based on SCC data, ii) the product is administered to cows that are infected with pathogens outside of our label claims or iii) cure rates in pending investigational trials yield unclear profit improvements for dairy producers.

5) Future off-label use of our product in cows infected with clinical mastitis before we have run the required studies and achieved a label claim extension for this disease state, could result in negative treatment outcomes and potential legal liability.

6) Producers either do not choose to use it or might use it improperly, rather than follow our label instructions to administer one dose after each of three consecutive milkings, or they may limit use within the herd in an abundance of caution to avoid the negative outcomes described above.

*Reliance on sales of the **First Defense®** product line:* We presently are reliant on the market acceptance of the **First Defense®** product line to generate product sales and fund our operations. Our business cannot cover expenses without sufficient gross margin earned on sales of the **First Defense®** product line. Future profitability is thus largely contingent upon the gross margin we earn from **First Defense®**, together with prudent management of product development expenses.

Concentration of sales: Sales of the **First Defense®** product line aggregated 99% of our total product sales during both of the years ended December 31, 2024 and 2023, and 99% of total product sales during both of the six-month periods ended June 30, 2025 and 2024. Our primary customers for the majority of our product sales (86% and 91% during the years ended December 31, 2024 and 2023, respectively, and 83% and 88% during the six-month periods ended June 30, 2025 and 2024, respectively), are in the U.S. dairy and beef industries. The concentration of our sales from one product into just two markets (the dairy and beef markets) is a risk to our business. The animal health distribution segment has been aggressively consolidating over the last few years, with larger distributors acquiring smaller distributors. A large portion of our product sales (77% and 79% during the years ended December 31, 2024 and 2023, respectively, and 75% and 79% during the six-month periods ended June 30, 2025 and 2024, respectively), was made to two large distributors. A large portion of our trade accounts receivable (79% and 78% as of June 30, 2025 and December 31, 2024, respectively) was due from these two distributors. We have a good history with these distributors, but the concentration of sales and accounts receivable with a small number of customers does present a risk to us, including risks related to such customers experiencing financial difficulties or altering the basis on which they do business with us in a manner unfavorable to us.

Production capacity constraints: We invested $9.9 million from 2019 to December 31, 2024 to increase our annual production capacity (in terms of annual sales dollars) for the **First Defense®** product line from approximately $16.5 million to approximately $30 million or more based on current selling prices and estimated production yields. We are evaluating plans to further increase our production capacity. While previous capacity expansion investments have proceeded very close to budget, there is a risk of cost overruns in our ongoing projects and any future production expansions that we may undertake, and a risk that we will not be able to achieve our production capacity growth objectives on a timely basis, resulting in a continuing or increasing shortfall in supply to the market. The inability to meet market demand for our products is a risk to our business. The historically large backlog of orders presents a risk that we may have lost customers during this period that are not easily regained now that production output is meeting or exceeding sales demand. Our long-term capital plan to continue to expand the **First Defense®** product line requires ongoing review of equipment capacity and utilization across the manufacturing value stream at **Building 56** and our leased facilities at **Building 175A** and **175B**, as well as assessment of costs, functional obsolescence and reliability of equipment. This review and assessment could identify a need to fund unexpected equipment maintenance or replacement costs.

Product liability: The manufacture and sale of our products entails a risk of product liability. Our exposure to product liability is mitigated to some extent by the fact that our products are directed towards the animal health market. We have maintained product liability insurance in an amount which we believe is reasonable in relation to our potential exposure in this area. We have no history of claims of this nature being made.

Regulatory Risks

*Regulatory requirements for the **First Defense®** product line:* The USDA-approved formats of our **First Defense®** product line are sold in the United States subject to a product license from the Center for Veterinary Biologics, USDA, which was first obtained in 1991, with subsequent approvals of line extensions in 2017 and 2018. As a result, our operations are subject to periodic inspection by the USDA, and we are at risk of an unfavorable outcome from such inspections. The potency of serial lots is directly traceable to the original serial used to obtain the product performance claims (the Reference Standard). Due to the unique nature of the label claims, host animal re-testing is not required as long as periodic laboratory analyses continue to support the stability of the stored Reference Standard. To date, these analyses have demonstrated strong stability. However, if the USDA were not to approve requalification of

the Reference Standard, additional clinical studies could be required to meet regulatory requirements and allow for continued sales of the product, which could interrupt sales and adversely affect our operating results. Territories outside of the United States may require additional regulatory oversight that we may not be able to meet with our current facilities, processes and resources. There is a risk that we will become subject to regulatory actions in the future, including actions that result in our inability to ship product. In these cases, the resulting interruption in sales could have a material and adverse effect on our operating results.

*Regulatory requirements for **Re-Tain®**:* Commercial introduction of this product in the United States requires us to obtain FDA approval. Completing the process of obtaining FDA approval of the pending NADA involves risk. The regulatory development process timeline has been extensive (approximately 18 years from when the product rights were returned to us by a former partner in 2007) and has involved multiple commercial production strategies and multiple submissions of the CMC Technical Section. We received an Incomplete Letter from the FDA regarding this CMC Technical Section during the third quarter of 2022 that clarified the required path to product approval. During May of 2024, we received an Incomplete Letter from the FDA in response to our November of 2023 re-submission. We are working with a qualified contract manufacturer for alignment of the required validations and DP manufacture and have met with the FDA to clarify filing strategy and requirements. Early during the first quarter of 2024, the FDA conducted another pre-approval inspection of our DS facility. This resulted in the issuance of one deficiency as identified on the FDA's Form 483. Since then, we have cleared the inspectional observation with the FDA. However, our efforts continue to be subject to inspection and approval by the FDA and other factors outside of our control, and there remains a risk that the required FDA approvals of our product and facilities could be further delayed or not obtained. The facility of our contract manufacturer is subject to similar inspectional obligations and is currently working to resolve certain inspectional observations at their facility. International regulatory approvals would be required for sales of **Re-Tain®** outside of the United States, and there is a risk that these approvals would be or become too costly to pursue or be delayed or not obtained.

Regulatory requirements limiting access to suppliers and customer base: Maine, where our principal executive office and manufacturing facilities are located, has adopted product reporting and phase-out requirements for per- and polyfluoroalkyl substances (PFAS). Maine's statute establishes a phased ban for products that contain intentionally added PFAS, with all products (subject to certain exceptions) other than cooling, heating, ventilation, air conditioning or refrigeration equipment being banned by 2032 unless the Maine Department of Environmental Protection (DEP) has determined that the use of PFAS within the product is a "currently unavoidable use." Beginning January 1, 2032, the sale of products containing intentionally added but "currently unavoidable" PFAS also is banned if the manufacturer of such products has failed to report to the DEP information concerning the presence of PFAS in those products. The phased bans may limit our ability to use or access supplies and may limit those customers to whom we may sell our products. The U.S. Environmental Protection Agency also has adopted a PFAS reporting law, which requires that importers of articles that contain PFAS report the presence of such substances to the extent such information is known or reasonably ascertainable. This reporting requirement may limit our ability to import supplies.

Economic Risks Pertaining to the Dairy and Beef Industries

Immigration: In 2025, the U.S. government began stepping up immigration enforcement and deportation efforts, resulting in a rising rate of deportations of people who are in our country illegally. Many farms in the U.S. employ migrants as a significant portion of their workforce. Significant deportations of these individuals could have a negative impact on the operations of our customers and of our source farms.

The industry data referred to below is compiled from USDA databases.

Cattle count: The January count of all cattle and calves in the United States had steadily declined from 97,000,000 as of January 1, 2007 to 88,500,000 as of January 1, 2014. Then this figure increased each year, reaching 94,800,000 as of January 1, 2019 before declining to 93,800,000 as of both January 1, 2020 and January 1, 2021. This count continued to decline to 92,100,000 as of January 1, 2022 and to 88,800,000 as of January 1, 2023 and to 87,200,000 as of January 1, 2024. This count dropped to 86,700,000 as of January 1, 2025. The cattle count has not been this low since it was 82,100,000 in 1951. Reflecting seasonal trends, this figure was equal to 102,000,000, 101,000,000, 98,600,000, 95,400,000 and 94,200,000 as of July 1, 2020, 2021, 2022, 2023 and 2025, respectively. The USDA did not make this data point available as of July 1, 2024. A significant decline in the cattle count could negatively affect the size of our addressable market.

Herd size: Prior to 1957, there were over 20,000,000 cows in the U.S. dairy herd. Prior to 1986, there were over 10,000,000 cows in the U.S. dairy herd. From 1998 through 2021, the size (annual average) of the U.S. dairy herd ranged from the low of 9,011,000 in 2004 to the high of 9,448,000 in 2021. This average declined to 9,402,000 during the year ended December 31, 2022 and then declined to 9,386,000 during the year ended December 31, 2023. This average declined slightly to 9,342,000 during the year ended December 31, 2024, and then it increased to 9,429,000 during the first six-months of 2025. A significant decline in the herd size could negatively affect the size of our addressable market.

Milk cow price: In 2015, the annual average price for a milk cow hit $1,993, which was an all time high. Since then, this annual

average value steadily declined to $1,205 during 2019 before increasing to $1,300 during 2020 and to $1,363 during 2021. This price for 2022 increased significantly to an average of $1,598, which is a 17% increase over 2021. The 2023 average price of $1,763 represents a 10% increase over prior year. This price for 2024 increased to an average of $2,243, which is a 27% increase over 2023. In April of 2025, this price increased by 23% over the 2024 average to $2,765. A significant decline in the milk cow price could negatively affect the size of our addressable market.

Milk price: The dairy market has been unstable for several reasons including as a result of the pandemic. The price paid to producers for milk has been very volatile. This market volatility, and the resulting impact on our primary end users, could negatively impact our ability to maintain and grow sales at a profitable level. The Class III milk price (an industry benchmark that reflects the value of product used to make cheese) is an important indicator because it defines our customers' revenue level. This annual average milk price level (measured in dollars per hundred pounds of milk) reached its highest point (since these prices were first reported in 1980) during 2014 at $22.34 (peaking at $24.60 in September of 2014), which price level has never been repeated. During the year ended December 31, 2020, this average milk price was equal to $18.16, but it was extremely volatile during the year due largely to disruption in demand related to the COVID-19 pandemic. The one-month fluctuation of 73% from a low of $12.14 in May of 2020 to $21.04 in June of 2020 set an all-time record for variability. The average price for 2021 decreased by 6% to $17.08. This price average increased by 29% to $21.96 during the year ended December 31, 2022. The average price decreased by 22% to $17.02 during the year ended December 31, 2023. This average price increased by 11% to $18.89 during the year ended December 31, 2024. This average price decreased by 1% to $18.76 during the seven months ended July 31, 2025. The annual fluctuations in this milk price level are demonstrated in the following table:

Average Class III Milk Price During the Years Ended December 31,		(Decrease) Increase
2014	$22.34	
2015	$15.80	(29%)
2016	$14.87	(6%)
2017	$16.17	9%
2018	$14.61	(10%)
2019	$16.96	16%
2020	$18.16	7%
2021	$17.08	(6%)
2022	$21.96	29%
2023	$17.02	(22%)
2024	$18.89	11%

Feed Costs: The actual level of milk prices may be less important than its level relative to feed costs. One measure of this relationship is known as the milk-to-feed price ratio, which represents the amount of feed that one pound of milk can buy. An increase in feed costs also has a negative impact on the beef industry and therefore could have a resulting negative impact on our business and results of operations. This ratio varies farm-to-farm based on individual operating parameters. Since this ratio reached 3.24 in 2005, it has not exceeded 3.00. This ratio averaged 1.74 for 2021, amounting to a significant decline of 25% from the 2020 average of 2.32. This average has not been lower since 2012. During 2022, this ratio improved by 9% to 1.90. This ratio dropped by 12% to 1.67 during the year ended December 31, 2023. This ratio increased to 2.48 during the year ended December 31, 2024, representing an increase of 49%. This ratio decreased to 2.47 during the six-months ended June 30, 2025, representing a decrease of 1% over 2024. The following table demonstrates the annual volatility:

Average Milk-To-Feed Price Ratio During the Years Ended December 31,		(Decrease) Increase
2014	2.54	
2015	2.14	(16%)
2016	2.26	6%
2017	2.42	7%
2018	2.05	(15%)
2019	2.25	10%
2020	2.32	3%
2021	1.74	(25%)
2022	1.90	9%
2023	1.67	(12%)
2024	2.48	49%

Volatility of the dairy market: While the number of cows in the U.S. herd and the production of milk per cow directly influence the supply of milk, the price for milk is also influenced by very volatile international demand for milk products. Given our focus on the dairy and beef industries, the volatile market conditions and the resulting financial insecurities of our primary end users are risks to our ability to maintain and grow sales at a profitable level. These factors also heighten the challenge of selling premium-priced animal health products (such as **Tri-Shield®** and **Re-Tain®**) into the dairy market. Additionally, some important trading partners of the U.S. impose tariff and non-tariff barriers to their importation of U.S. dairy products. During 2025, U.S. trade negotiators have increased efforts to reduce such barriers. It presently is unclear whether or to what extent those efforts will result in increased U.S. exports of dairy products, or otherwise affect international demand for milk.

Small Size of the Company

Dependence on key personnel: We are a small company with approximately 76 employees (including 7 part-time employees) presently. As such, we rely on certain key employees to support multiple operational functions, with limited redundancy in capacity and skillset. The loss of any of these key employees could adversely affect our operations until a qualified replacement is hired and trained, which could be even more challenging in the present difficult labor market. Our competitive position will be highly influenced by our ability to attract, retain and motivate key scientific, manufacturing, managerial and sales and marketing personnel. The cost of attracting and retaining the needed additional personnel in this current job market and inflationary environment could adversely affect our margins and profitability.

Reliance on outside party to provide certain services under contract for us: We are exposed to additional regulatory compliance risks through the subcontractors that we choose to work with to produce **Re-Tain®**, who also need to satisfy certain regulatory requirements in order to provide us with the products and services we need. One example of this outside reliance is our DP contract manufacturer. Because our contract manufacturer notified us of its intent to terminate its supply agreement with us, we initiated an investment of approximately $4 million during 2022 to construct and equip our own DP formulation and aseptic filling capability for **Re-Tain®** in our existing DS facility. Due to the loss in gross margin during 2023 caused by the slowdown in production output necessary to remediate product contamination events, we decided to defer spending of approximately $2 million of these funds for the near term. The objective of this investment is to end our reliance on an outside party to perform these services for us. Actual project costs could exceed our current estimates. Completion of this project could be delayed due to a number of factors outside our control, including delays in equipment fabrication, equipment delivery or facility construction. In addition, there is a risk that we fail to achieve regulatory approval of the new facility or that such approval is delayed or requires significant additional expenditures to obtain. We are evaluating alternatives for DP supply going forward, which include the resumption of the investment in our own in-house DP services (when prudent based on our cash reserves) or another contract manufacturing agreement or a further extension with our current contractor. We anticipate a supply interruption after the Investigational Product use of **Re-Tain®** after the DP supply provided from our contract manufacturer is consumed and until new supply from a new contract manufacturing agreement or our own formulation and aseptic filling facility is implemented.

Competition from others: Many of our competitors are significantly larger and more diversified in the relevant markets than we are and have substantially greater financial, marketing, manufacturing and human resources and more extensive product development and sales/distribution capabilities than we do, including greater ability to withstand adverse economic or market conditions and declining revenues and/or profitability. Elanco, Merck and Zoetis, among other companies, sell products that compete directly with the **First Defense®** product line in preventing scours in newborn calves. The scours product sold by Zoetis sells for approximately half the price of our product, although it does not have an *E. coli* claim (which ours does). With **Tri-Shield®**, we can compete more effectively against vaccines that are given to the mother cow (dam) to improve the quality of the colostrum that she produces for the newborn calf. Elanco, Merck and Zoetis, among other companies, provide these dam vaccine products to the market. More recently, we have seen some opportunistic “me too” products enter the market without USDA claims while we were on short supply. There are many companies competing in the mastitis treatment market, most notably Boehringer Ingelheim, Merck and Zoetis. The mastitis products sold by these large companies are well established in the market and are priced lower than what we expect for **Re-Tain®**, but all of them involve traditional antibiotics and are sold subject to a requirement to discard milk during and for a period of time after treatment. There is no assurance that our products will compete successfully in these markets. We may not be aware of other companies that compete with us or intend to compete with us in the future.

Global Risks

Tariffs and Trade Policies: Changes in tariffs or cross-border trade policies could affect our ability to expand sales of our products into foreign markets. The businesses of some of our U.S. dairy and beef customers could be significantly affected by changes in tariffs, immigration or trade policies, thus negatively affecting demand for our products. Additionally, tariffs on products and materials that we import could increase our costs of goods sold.

International Conflicts: International conflicts, including ongoing wars in Ukraine and the Middle East, give rise to uncertainties and stress on the global economy, which in turn can affect the demand for our products and our costs of operation.

Climate change: Our business, and our activities and the activities of our customers and suppliers, could be disrupted by climate change. Potential physical risks from climate change may include altered distribution and intensity of rainfall, prolonged droughts or flooding, increased frequency of wildfires and other natural disasters, rising sea levels, and a rising heat index, any of which could cause negative impacts to our business and those of our customers and suppliers. Increased temperatures and rising water levels may negatively impact our dairy and beef livestock customers by increasing the prevalence of parasites and diseases that affect food animals. The physical changes caused by climate change may also prompt changes in regulations or consumer preferences which in turn could have negative consequences for our and our customers' businesses. Climate change may negatively impact our business and our customers' operations. In addition, concerns regarding greenhouse gas emissions and other potential environmental impacts of livestock production have led to some consumers opting to limit or avoid consuming animal products. If such events affect our customers' businesses, they may purchase fewer of our products, and our revenues may be negatively impacted. In addition, increased frequency of natural disasters and adverse weather conditions may disrupt our manufacturing processes or our supply chain. These disruptions may have a material adverse effect on our business, financial condition, results of operations and/or cash flows.

Bovine diseases: The potential for epidemics of bovine diseases such as Highly Pathogenic Avian Influenza (HPAI), Foot and Mouth Disease, Bovine Tuberculosis, Brucellosis and Bovine Spongiform Encephalopathy (BSE) presents a risk to us and our customers. We have seen a severe negative impact of bird flu on the U.S. poultry flock causing a significant increase in the price of eggs. We have seen a cross-over to cows in the dairy industry. Documented cases of BSE in the United States have led to an overall tightening of regulations pertaining to ingredients of animal origin, especially bovine. The **First Defense®** product line is manufactured from concentrated bovine colostrum, which is not considered a BSE risk material. Future regulatory action to increase protection of the human food supply could affect the **First Defense®** product line, although presently we do not anticipate that this will be the case.

Risks Pertaining to Common Stock

Stock market valuation and liquidity: Our common stock trades on The Nasdaq Capital Market (Nasdaq: ICCC). Our average daily trading volume (which was 26,339 shares per day during the 20-day period ended August 7, 2025) is lower, our bid/ask stock price spread can be larger and our share price can be more volatile than what other companies experience. Those factors could result in investors facing difficulty selling their stock for proceeds that they may expect or desire. Our share price as of August 7, 2025 was $6.14. Most companies in the animal health sector have market capitalization values that greatly exceed our market capitalization of approximately $55.5 million as of August 7, 2025. Our product sales during the twelve-month period ended June 30, 2025 were $28.3 million. This means that our market capitalization as of August 7, 2025 was equal to approximately 2 times our sales during the twelve-month period ended June 30, 2025.

Certain provisions might discourage, delay or prevent a change in control of our Company or changes in our management: Provisions of our certificate of incorporation, our bylaws or Delaware law may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions include:

- limitations on the removal of directors;
- advance notice requirements for stockholder proposals and nominations;
- the ability of our Board of Directors to alter or repeal our bylaws;
- Section 203 of the Delaware General Corporation Law, which prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder (generally defined as a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder) unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and anti-takeover measures could depress the trading price of our common stock or limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our Company, thereby reducing the likelihood of obtaining a premium for our common stock in an acquisition.

No expectation to pay any dividends or repurchase stock for the foreseeable future: We do not anticipate paying any dividends to, or repurchasing stock from, our stockholders for the foreseeable future. Instead, we expect to use cash to fund product

development costs and investments in our facilities and production equipment, and to increase our working capital. Stockholders must be prepared to rely on market sales of their common stock after price appreciation to earn an investment return, which may never occur. Any determination to pay dividends or repurchase stock in the future will be made at the discretion of our Board of Directors and will depend on our financial condition, results of operations, contractual restrictions, restrictions imposed by applicable laws, current and anticipated needs for liquidity and other factors our Board of Directors deems relevant.

Possible dilution: We have accessed, and may access in the future, the capital markets. We have, from time to time, issued additional common stock under an ATM Offering in order to fund our operations, as described elsewhere in this Quarterly Report.

Other Risks

Access to raw materials and contract manufacturing services: Our objective is to maintain more than one source of supply for the components used to manufacture and test our products that we obtain from third parties. However, we may experience difficulty in efficiently acquiring essential supplies. We have significantly increased the number of farms from which we purchase colostrum for the **First Defense®** product line. A significant reduction in farm capacity could make it difficult for us to produce enough inventory to meet customer demand. The specific antibodies that we purify from colostrum for the **First Defense®** product line are not readily available from other sources. We are and will be dependent on our manufacturing facilities and operations in Portland, Maine, along with contract manufactures in some cases, for the production of the **First Defense®** product line and **Re-Tain®**. We will be dependent on one manufacturer for the supply of syringes for **Re-Tain®**. We were dependent on our contract manufacturer for the DP formulation and aseptic filling for supply of our Nisin DP through 2024. At present, we have no such agreement in place for future DP supply. Any facility used to perform these services will be subject to FDA inspection and approval, the outcome and timing of which are not within our control. We anticipate that this FDA approval process would take at least two years. The potential alternative options for these services are narrowed considerably because our product cannot be formulated or filled in a facility that also processes traditional antibiotics (i.e., beta lactams). Any significant damage to or other disruption in the services at any of these third-party facilities or our own facilities (including due to lack of financing, regulatory issues or non-compliance) would adversely affect the production of inventory and result in significant added expenses and loss of potential future sales. We anticipate a supply interruption after our Investigational Product use initiative is complete. The extent of the interruption will be subject to the supply timeline from a new contract manufacturing agreement or from our own formulation and aseptic filling facility for DP.

Failure to protect intellectual property: The protection and enforcement of our intellectual property rights may require the expenditure of significant financial, managerial and operational resources. We rely on trademark, copyright and patent law, trade secret protection, agreements and other methods with our employees and others to protect our proprietary rights. However, we may be unable to adequately protect our intellectual property rights or prevent third parties from infringing or misappropriating our intellectual property rights. We may not be able to obtain registration for all intellectual property we seek to register, and effective intellectual property protection may not be available in every country in which our products are sold. In some cases, we have chosen (and may choose in the future) not to seek patent protection for certain products or processes. Instead, we have sought (and may seek in the future) to maintain the confidentiality of any relevant proprietary technology through trade secrets, operational safeguards and contractual agreements. Reliance upon trade secrets, rather than patent protection may cause us to be vulnerable to competitors who successfully replicate (knock off) our manufacturing techniques and processes. Further, our confidentiality agreements may not effectively prevent disclosure of our proprietary information, technologies and processes and may not provide an adequate remedy in the event of unauthorized disclosure of such information. Others may independently develop similar trade secrets or technology or obtain access to our unpatented trade secrets or proprietary technology. Others may have filed patent applications and may have been issued patents involving products or technologies potentially useful to us or necessary for us to commercialize our products or achieve our business goals. If that were to be the case, there can be no assurance that we will be able to obtain licenses to such patents on terms that are acceptable to us. Any of our intellectual property rights may be challenged by others or invalidated through administrative process or litigation. Third parties may claim in the future, that we have infringed their intellectual property rights, which could result in significant costs and potential damages and license requirements. We may initiate claims or litigation against others for infringement, misappropriation or violation of our intellectual property rights or other proprietary rights or to establish the validity of such rights. However, we may be unable to discover or determine the extent of any infringement, misappropriation or other violation of our intellectual property rights and other proprietary rights. In addition, we may be unable to prevent third parties from infringing upon, misappropriating or otherwise violating our intellectual property rights and other proprietary rights.

Increasing dependence on the continuous and reliable operation of our information technology systems: We rely on information systems throughout our company. Any disruption of these systems or significant security breaches could adversely affect our business. Although we maintain information security policies and employ system backup measures and engage in information system redundancy planning and processes, such policies, measures, planning and processes, as well as our current disaster recovery plan may be ineffective or inadequate to address all eventualities. As information systems and the use of software and related applications by us, our business partners, suppliers, and customers become more cloud-based, we become inherently more susceptible

to cyberattacks. There has been an increase in global cybersecurity vulnerabilities and threats, including more sophisticated and targeted cyber-related attacks that pose a risk to the security of our information systems and networks and the confidentiality, availability and integrity of data and information. There are reports of increased activity by hackers and scammers. Any such attack or breach could compromise our networks and the information stored thereon could be accessed, publicly disclosed, lost, or stolen. While we have invested in our data and information technology infrastructure (including working with an information security technology consultant to assess and enhance our security systems and procedures, and periodically training our employees in such systems and procedures), there can be no assurance that these efforts will prevent a system disruption, attack, or security breach and, as such, the risk of system disruptions and security breaches from a cyberattack remains. We have not experienced any material adverse effect on our business or operations as a consequence of any such attack or breach but may incur increasing costs in performing the tasks described above. Given the unpredictability of the timing, nature and scope of such disruptions and the evolving nature of cybersecurity threats, which vary in technique and sources, if we or our business partners or suppliers were to experience a system disruption, attack or security breach that impacts any of our critical functions, or our customers were to experience a system disruption, attack or security breach via any of our connected products and services, we could potentially be subject to production downtimes, operational delays or other detrimental impacts on our operations. Furthermore, any access to, public disclosure of, or other loss of data or information, including any of our (or our customers' or suppliers') confidential or proprietary information or personal data or information, as a result of an attack or security breach could result in governmental actions or private claims or proceedings, which could damage our reputation, cause a loss of confidence in our products and services, damage our ability to develop (and protect our rights to) our proprietary technologies and have a material adverse effect on our business, financial condition, results of operations or prospects. While this exposure is common to all companies, larger companies with greater resources may be better able to mitigate this risk than we can.

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

None

ITEM 6 – EXHIBITS

Exhibit 10.1+	Incentive Compensation Agreement between the Company and Timothy C. Fiori, dated as of April 4, 2025 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on April 7, 2025).
Exhibit 10.2	Loan Agreement between the Company and Maine Community Bank dated as of August 7, 2025 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on August 12, 2025).
Exhibit 10.3	Promissory Note Executed by the Company in favor of Maine Community Bank dated as of August 7, 2025 (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on August 12, 2025).
Exhibit 31.1*	Certification of the President and Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 31.2*	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 32.1*	Certification of the President and Chief Executive Officer pursuant to Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
Exhibit 32.2*	Certification of the Chief Financial Officer pursuant to 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-the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.

+Management contract or compensatory plan or arrangement.
*Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ImmuCell Corporation
Registrant

Date: August 14, 2025

By:/s/ Michael F. Brigham
Michael F. Brigham
President and Chief Executive Officer

Date: August 14, 2025

By:/s/ Timothy C. Fiori
Timothy C. Fiori
Chief Financial Officer

Exhibit 31.1

CERTIFICATION PURSUANT TO REQUIRED BY RULE 13a-14(a)

I, Michael F. Brigham, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ImmuCell Corporation (the Company);

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 Company as of, and for, the periods presented in this report;

4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the Company is made known to me by others within the Company, 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 my 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 Company's disclosure controls and procedures and presented in this report my 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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent function):

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 Company'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 Company's internal control over financial reporting.

Date: August 14, 2025

/s/ Michael F. Brigham
Michael F. Brigham
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO REQUIRED BY RULE 13a-14(a)

I, Timothy C. Fiori, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ImmuCell Corporation (the Company);

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 Company as of, and for, the periods presented in this report;

4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the Company is made known to me by others within the Company, 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 my 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 Company's disclosure controls and procedures and presented in this report my 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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent function):

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 Company'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 Company's internal control over financial reporting.

Date: August 14, 2025

/s/ Timothy C. Fiori
Timothy C. Fiori
Chief Financial Officer

Exhibit 32.1
CERTIFICATION PURSUANT TO SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES- OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of ImmuCell Corporation (the "Company") for the quarter ended June 30, 2025, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael F. Brigham, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

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

This certification is provided pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K ("Item 601(b)(32)") promulgated under the Securities Act of 1933, as amended (the "Securities Act"), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed "filed" for the purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

/s/ Michael F. Brigham
Michael F. Brigham
President and Chief Executive Officer
August 14, 2025

A signed original of this written statement required by Section 906 has been provided to ImmuCell Corporation and will be retained by ImmuCell Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2
CERTIFICATION PURSUANT TO SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES- OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of ImmuCell Corporation (the "Company") for the quarter ended June 30, 2025, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Timothy C. Fiori, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

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

This certification is provided pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K ("Item 601(b)(32)") promulgated under the Securities Act of 1933, as amended (the "Securities Act"), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed "filed" for the purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

/s/ Timothy C. Fiori
Timothy C. Fiori
Chief Financial Officer
August 14, 2025

A signed original of this written statement required by Section 906 has been provided to ImmuCell Corporation and will be retained by ImmuCell Corporation and furnished to the Securities and Exchange Commission or its staff upon request.