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

Form 10-Q

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

For the quarterly period ended June 30, 2023

or

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

For the transition period from ____________________ to ____________________

Commission File Number: 001-36426

AquaBounty Technologies, Inc.
(Exact name of the registrant as specified in its charter)

Delaware	**04-3156167**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

**2 Mill & Main Place, Suite 395
Maynard, Massachusetts 01754
(978) 648-6000**

(Address and telephone number of the registrant's principal executive offices)

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common Stock, par value $0.001 per share	**AQB**	**The NASDAQ Stock Market LLC**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") 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 x No o

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or such shorter period that the registrant was required to submit such files).

Yes x No o

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

Large accelerated filer	o	Accelerated filer	o	Non-accelerated filer	x	Smaller reporting company	x
						Emerging growth company	o

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 x

At July 31, 2023, the registrant had 71,358,249 shares of common stock, par value $0.001 per share ("Common Shares") outstanding.

AquaBounty Technologies, Inc.
FORM 10-Q
For the Quarterly Period Ended June 30, 2023

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Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than present and historical facts and conditions contained in the Quarterly Report on Form 10-Q, are forward looking statements, including statements regarding the implementation and likelihood of achieving our business plan; statements regarding future capital requirements, revenue, expenses and operating results, as well as the impact of inflation; our plans for development of new farms and renovations to existing farms (including costs, timing, locations, third-party involvement and output therefrom); our cash position and ability to raise additional capital to finance our activities and the terms of such financing; and statements regarding compliance with the listing rules of Nasdaq. We sometimes use the words “anticipate,” “believe,” “can,” “could,” “estimate,” “expect,” “intend,” “is designed to,” “may,” “might,” “plan,” “potential,” “predict,” “objective,” “should,” or the negative of these and similar expressions to identify forward-looking statements.

We have based these forward-looking statements on our current expectations, assumptions, estimates, and projections. While we believe these expectations, assumptions, estimates, and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks, uncertainties, and other factors, many of which are outside of our control, which could cause our actual results, performance, or achievements to differ materially from any results, performance, or achievements expressed or implied by such forward-looking statements. Among the important factors that could cause actual results to differ materially from those indicated by such forward-looking statements are: our ability to continue as a going concern; the potential for delays and increased costs related to construction of our new farms and renovations to existing farms; a failure to raise additional capital to finance our activities on acceptable terms; an inability to produce and sell our products in sufficient volume and at acceptable cost and prices; any inability to protect our intellectual property and other proprietary rights and technologies; the effects of changes in applicable laws, regulations and policies; our ability to secure any necessary regulatory approvals; the degree of market acceptance of our products our failure to retain and recruit key personnel; the price and volatility of our common stock; our ability to regain compliance or otherwise maintain compliance with the listing requirements of, and remain listed on, the Nasdaq Capital Market; and other risks identified in our public filings with the Securities and Exchange Commission (“SEC”), including the section titled “Risk Factors” in this Quarterly Report on Form 10-Q, our most recently filed Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, as updated by our subsequent filings with the SEC. New risks emerge from time to time, and it is not possible for us to predict all such risks. Given these risks and uncertainties, may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you are cautioned not to place undue reliance on such forward-looking statements.

These forward-looking statements are made only as of the date of this Quarterly Report on Form 10-Q. We do not undertake and specifically decline any obligation to update any such statements or to publicly announce the results of any revisions to any such statements to reflect future events or developments unless required by federal securities law.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

AquaBounty Technologies, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ **42,842,280**	$ 101,638,557
Inventory	**2,353,616**	2,276,592
Prepaid expenses and other current assets	**3,375,949**	2,133,583
Total current assets	**48,571,845**	106,048,732
Property, plant and equipment, net	**160,174,487**	106,286,186
Right of use assets, net	**205,565**	222,856
Intangible assets, net	**211,287**	218,139
Restricted cash	**1,000,000**	1,000,000
Other assets	**52,793**	64,859
Total assets	$ **210,215,977**	$ 213,840,772
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ **20,875,113**	$ 12,000,592
Accrued employee compensation	**943,248**	1,021,740
Current debt	**2,406,147**	2,387,231
Other current liabilities	**4,586**	20,830
Total current liabilities	**24,229,094**	15,430,393
Long-term lease obligations	**200,979**	203,227
Long-term debt, net	**6,441,077**	6,286,109
Total liabilities	**30,871,150**	21,919,729
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value, 150,000,000 shares authorized at June 30, 2023 and December 31, 2022; 71,345,649 and 71,110,713 shares outstanding at June 30, 2023 and December 31, 2022, respectively	**71,346**	71,111
Additional paid-in capital	**385,691,274**	385,388,684
Accumulated other comprehensive loss	**(401,002)**	(516,775)
Accumulated deficit	**(206,016,791)**	(193,021,977)
Total stockholders' equity	**179,344,827**	191,921,043
Total liabilities and stockholders' equity	$ **210,215,977**	$ 213,840,772

See accompanying notes to these condensed interim consolidated financial statements.

AquaBounty Technologies, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenues				
Product revenues	**$ 788,430**	$ 1,069,706	**$ 1,186,276**	$ 2,032,587
Costs and expenses				
Product costs	**3,790,878**	3,250,106	**7,350,118**	6,525,796
Sales and marketing	**194,254**	349,917	**392,539**	597,489
Research and development	**178,394**	208,292	**301,311**	375,481
General and administrative	**3,067,533**	2,831,930	**6,068,015**	5,208,166
Total costs and expenses	**7,231,059**	6,640,245	**14,111,983**	12,706,932
Operating loss	**(6,442,629)**	(5,570,539)	**(12,925,707)**	(10,674,345)
Other expense				
Interest expense	**(65,789)**	(74,694)	**(132,063)**	(149,982)
Other (expense) income, net	**(328)**	109,191	**62,956**	176,559
Total other (expense) income	**(66,117)**	34,497	**(69,107)**	26,577
Net loss	**$ (6,508,746)**	$ (5,536,042)	**$ (12,994,814)**	$ (10,647,768)
Other comprehensive income (loss):				
Foreign currency translation gain (loss)	**111,346**	(153,602)	**115,773**	(70,697)
Unrealized gain on marketable securities	**—**	121,796	**—**	7,731
Total other comprehensive income (loss)	**111,346**	(31,806)	**115,773**	(62,966)
Comprehensive loss	**$ (6,397,400)**	$ (5,567,848)	**$ (12,879,041)**	$ (10,710,734)
Basic and diluted net loss per share	**$ (0.09)**	$ (0.08)	**$ (0.18)**	$ (0.15)
Weighted average number of Common Shares - basic and diluted	**71,344,025**	71,068,671	**71,256,782**	71,036,562

See accompanying notes to these condensed interim consolidated financial statements.

AquaBounty Technologies, Inc.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(Unaudited)

	Common stock issued and outstanding	Par value	Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total
Balance at December 31, 2021	71,025,738	$ 71,026	$ 384,852,107	$ (255,588)	$ (170,864,782)	$ 213,802,763
Net loss					(5,111,726)	(5,111,726)
Other comprehensive loss				(31,160)		(31,160)
Share based compensation	83,963	84	211,244			211,328
Balance at March 31, 2022	71,109,701	$ 71,110	$ 385,063,351	$ (286,748)	$ (175,976,508)	$ 208,871,205
Net loss					(5,536,042)	(5,536,042)
Other comprehensive loss				(31,806)		(31,806)
Exercise of options for common stock	1,012	1	1,537			1,538
Share based compensation			107,280			107,280
Balance at June 30, 2022	71,110,713	$ 71,111	$ 385,172,168	$ (318,554)	$ (181,512,550)	$ 203,412,175

	Common stock issued and outstanding	Par value	Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total
Balance at December 31, 2022	**71,110,713**	**$ 71,111**	**$ 385,388,684**	**$ (516,775)**	**$ (193,021,977)**	**$ 191,921,043**
Net loss					**(6,486,068)**	**(6,486,068)**
Other comprehensive income				**4,427**		**4,427**
Share based compensation	**228,225**	**228**	**196,413**			**196,641**
Balance at March 31, 2023	**71,338,938**	**$ 71,339**	**$ 385,585,097**	**$ (512,348)**	**$ (199,508,045)**	**$ 185,636,043**
Net loss					**(6,508,746)**	**(6,508,746)**
Other comprehensive income				**111,346**		**111,346**
Share based compensation	**6,711**	**7**	**106,177**			**106,184**
Balance at June 30, 2023	**71,345,649**	**$ 71,346**	**$ 385,691,274**	**$ (401,002)**	**$ (206,016,791)**	**$ 179,344,827**

See accompanying notes to these condensed interim consolidated financial statements.

AquaBounty Technologies, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Six Months Ended June 30,	
	2023	**2022**
Operating activities		
Net loss	**$ (12,994,814)**	$ (10,647,768)
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	**1,066,476**	988,292
Share-based compensation	**302,825**	318,608
Other non-cash charge	**9,408**	14,860
Changes in operating assets and liabilities:		
Inventory	**(74,789)**	(661,090)
Prepaid expenses and other assets	**(1,225,343)**	(2,883,505)
Accounts payable and accrued liabilities	**748,443**	1,705,335
Accrued employee compensation	**(78,492)**	(91,140)
Net cash used in operating activities	**(12,246,286)**	(11,256,408)
Investing activities		
Purchases of and deposits on property, plant and equipment	**(46,586,998)**	(30,472,704)
Maturities of marketable securities	**—**	120,047,915
Purchases of marketable securities	**—**	(47,621,291)
Other investing activities	**(3,263)**	12,500
Net cash (used in) provided by investing activities	**(46,590,261)**	41,966,420
Financing activities		
Proceeds from issuance of debt	**394,156**	42,338
Repayment of term debt	**(359,704)**	(318,600)
Proceeds from the exercise of stock options and warrants	**—**	1,538
Net cash provided by (used in) financing activities	**34,452**	(274,724)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	**5,818**	(1,387)
Net change in cash, cash equivalents and restricted cash	**(58,796,277)**	30,433,901
Cash, cash equivalents and restricted cash at beginning of period	**102,638,557**	89,454,988
Cash, cash equivalents and restricted cash at end of period	**$ 43,842,280**	$ 119,888,889
Reconciliation of cash, cash equivalents and restricted cash reported in the consolidated balance sheet:		
Cash and cash equivalents	**$ 42,842,280**	$ 118,888,889
Restricted cash	**1,000,000**	1,000,000
Total cash, cash equivalents and restricted cash	**$ 43,842,280**	$ 119,888,889
Supplemental disclosure of cash flow information and non-cash transactions:		
Interest paid in cash	**$ 124,430**	$ 141,490
Property and equipment included in accounts payable and accrued liabilities	**$ 18,682,066**	$ 3,758,842

See accompanying notes to these condensed interim consolidated financial statements.

AquaBounty Technologies, Inc.
Notes to the condensed consolidated financial statements
(unaudited)

1. Nature of business and organization

AquaBounty Technologies, Inc. (the "Parent" and, together with its wholly owned subsidiaries, the "Company") was incorporated in December 1991 in the State of Delaware for the purpose of conducting research and development of the commercial viability of a group of proteins commonly known as antifreeze proteins. In 1996, the Parent obtained the exclusive licensing rights for a gene construct (transgene) used to create a breed of farm-raised Atlantic salmon that exhibit growth rates that are substantially faster than conventional Atlantic salmon. In 2015, the Parent obtained regulatory approval from the U.S. Food and Drug Administration for the production and sale of its genetically engineered AquAdvantage salmon product ("GE Atlantic salmon") in the United States and in 2016, the Parent obtained regulatory approval from Health Canada for the production and sale of its GE Atlantic salmon product in Canada. In 2021, the Parent obtained regulatory approval from the National Biosafety Technical Commission for the sale of its GE Atlantic salmon product in Brazil. In 2021, the Company began harvesting and selling its GE Atlantic salmon in the United States and Canada.

2. Going Concern Uncertainty

Since inception, the Company has incurred cumulative operating losses and negative cash flows from operations and expects that this will continue for the foreseeable future. As of June 30, 2023, the Company has $43.8 million in cash and cash equivalents, and restricted cash, a significant portion of which is required to fund its current liabilities and other contractual obligations.

The Company's ability to continue as a going concern is dependent upon its ability to raise additional capital and there can be no assurance that such capital will be available in sufficient amounts or on terms acceptable to the Company. This raises substantial doubt about the Company's ability to continue as a going concern within one year after the date that the accompanying condensed consolidated financial statements are issued. The accompanying condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business and do not include any adjustments that might result from the outcome of this uncertainty.

3. Basis of presentation

The unaudited interim condensed consolidated financial statements include the accounts of AquaBounty Technologies, Inc. and its wholly owned direct subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation.

The unaudited interim condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("GAAP") consistent with those applied in, and should be read in conjunction with, the Company's audited financial statements and related notes for the year ended December 31, 2022. The unaudited interim condensed consolidated financial statements reflect all adjustments, consisting only of normal recurring adjustments, which are, in the opinion of management, necessary for a fair presentation of the Company's financial position as of June 30, 2023, results of operations and cash flows for the interim periods presented, and are not necessarily indicative of results for subsequent interim periods or for the full year. The unaudited interim condensed consolidated financial statements do not include all of the information and notes required by GAAP for complete financial statements, as allowed by the relevant U.S. Securities and Exchange Commission ("SEC") rules and regulations; however, the Company believes that its disclosures are adequate to ensure that the information presented is not misleading.

Inventories

Inventories are mainly comprised of feed, eggs, fry, fish in process and fish for sale. Fish in process inventory is a biological asset that is measured based on the estimated biomass of fish on hand. The Company has established a standard procedure to estimate the biomass of fish on hand using counting and sampling techniques. The Company measures inventory at the lower of cost or net realizable value ("NRV"), where NRV is defined as the estimated market price, less the estimated costs of processing, packaging and transportation. The Company considers fish that has been harvested and transported from its farm to be fish for sale.

Revenue recognition

The Company is comprised of one reporting segment and generates revenue from the sale of its products. Revenue is recognized when the customer takes physical control of the goods, in an amount that reflects the consideration that the Company expects to receive in exchange for the goods. Revenue excludes any sales tax collected and includes any estimate of future credits.

During the period ended June 30, 2023, the Company recognized the following product revenue:

	Three Months Ended June 30, 2023		
	U.S.	Canada	Total
GE Atlantic salmon	$ 754,310	$ -	$ 754,310
Non-GE Atlantic salmon eggs	-	-	-
Non-GE Atlantic salmon fry		33,527	33,527
Other revenue	-	593	593
Total Revenue	$ 754,310	$ 34,120	$ 788,430

	Six Months Ended June 30, 2023		
	U.S.	Canada	Total
GE Atlantic salmon	$ 1,146,738	$ -	$ 1,146,738
Non-GE Atlantic salmon eggs	-	730	730
Non-GE Atlantic salmon fry		34,257	34,257
Other revenue	-	4,551	4,551
Total Revenue	$ 1,146,738	$ 39,538	$ 1,186,276

During the period ended June 30, 2022, the Company recognized the following product revenue:

	Three Months Ended June 30, 2022		
	U.S.	Canada	Total
GE Atlantic salmon	$ 812,415	$ 207,854	$ 1,020,269
Non-GE Atlantic salmon eggs	-	46,692	46,692
Non-GE Atlantic salmon fry	-	(8,712)	(8,712)
Other revenue	-	11,457	11,457
Total Revenue	$ 812,415	$ 257,291	$ 1,069,706

	Six Months Ended June 30, 2022		
	U.S.	Canada	Total
GE Atlantic salmon	$ 1,601,392	$ 339,714	$ 1,941,106
Non-GE Atlantic salmon eggs	-	46,692	46,692
Non-GE Atlantic salmon fry	-	33,095	33,095
Other revenue	-	11,694	11,694
Total Revenue	$ 1,601,392	$ 431,195	$ 2,032,587

During the period ended June 30, 2023 and 2022, the Company had the following customer concentration of revenue:

	Three Months Ended June 30,	
	2023	2022
Customer A	45%	39%
Customer B	23%	18%
Customer C	12%	14%
All other	20%	29%
Total of all customers	100%	100%

	Six Months Ended June 30,	
	2023	2022
Customer A	48%	37%
Customer B	23%	19%
Customer C	13%	12%
All other	16%	32%
Total of all customers	100%	100%

Net loss per share

Basic and diluted net loss per share available to common stockholders has been calculated by dividing net loss by the weighted average number of shares of common stock outstanding during the year. Basic net loss per share is based solely on the number of shares of common stock outstanding during the year. Fully diluted net loss per share includes the number of shares of common stock issuable upon the exercise or vesting of equity instruments with an exercise price less than the fair value of the common stock. Since the Company is reporting a net loss for all periods presented, all potential shares of common stock are considered anti-dilutive and are excluded from the calculation of diluted net loss per share.

The following potentially dilutive securities have been excluded from the calculation of diluted net loss per share, as their effect is anti-dilutive:

	Three Months Ended June 30,	
Weighted Average Outstanding	**2023**	**2022**
Stock options	**978,350**	869,683
Warrants	**-**	418,441
Unvested stock awards	**531,996**	185,611

	Six Months Ended June 30,	
Weighted Average Outstanding	**2023**	**2022**
Stock options	**909,612**	800,930
Warrants	**36,989**	418,441
Unvested stock awards	**393,368**	145,440

Accounting Pronouncements

Management does not expect any recently issued, but not yet effective, accounting standards to have a material effect on its results of operations or financial condition.

4. Risks and uncertainties

The Company is subject to risks and uncertainties common in the biotechnology and aquaculture industries. Such risks and uncertainties include, but are not limited to: (i) results from current and planned product development studies and trials; (ii) decisions made by the FDA or similar regulatory bodies in other countries with respect to approval and commercial sale of any of the Company's proposed products; (iii) the commercial acceptance of any products approved for sale and the Company's ability to produce, distribute, and sell for a profit any products approved for sale; (iv) the Company's ability to obtain the necessary patents and proprietary rights to effectively protect its technologies; and (v) the outcome of any collaborations or alliances entered into by the Company.

Concentration of credit risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash and cash equivalents. This risk is mitigated by the Company's policy of maintaining all balances with highly rated financial institutions and investing cash equivalents with maturities of less than 90 days. The Company's cash balances may at times exceed insurance limitations. The Company holds cash balances in bank accounts located in Canada to fund its local operations. These amounts are subject to foreign currency exchange risk, which is minimized by the Company's policy to limit the balances held in these accounts. Balances in Canadian bank accounts totaled $436 thousand and $518 thousand as of June 30, 2023 and December 31, 2022, respectively. The Company also holds cash equivalent investments in a highly liquid investment account at a major financial institution. As of June 30, 2023 and December 31, 2022 the cash equivalent investment balance was $0 and $10.6 million, respectively.

5. Inventory

Major classifications of inventory are summarized as follows:

		June 30, 2023	December 31, 2022
Feed	**$**	**298,608**	366,957
Eggs and fry		**62,980**	22,140
Fish in process		**1,802,187**	1,869,387
Fish for sale		**189,841**	18,108
Inventory	**$**	**2,353,616**	2,276,592

6. Property, plant and equipment

Major classifications of property, plant and equipment are summarized as follows:

		June 30, 2023		December 31, 2022
Land	**$**	**2,974,834**	$	2,968,561
Building and improvements		**15,707,344**		15,535,904
Construction in process		**133,079,715**		78,806,762
Equipment		**17,777,275**		17,259,301
Office furniture and equipment		**222,429**		258,972
Vehicles		**108,170**		106,074
Total property and equipment	**$**	**169,869,767**	$	114,935,574
Less accumulated depreciation and amortization		**(9,695,280)**		(8,649,388)
Property, plant and equipment, net	**$**	**160,174,487**	$	106,286,186

Depreciation expense was $1.1 million and $975 thousand, for the six months ended June 30, 2023 and 2022, respectively.

As of June 30, 2023, construction in process included $127.2 million, $4.0 million, and $1.9 million for construction related to the Ohio, Rollo Bay and Indiana farm sites, respectively. The Company is contractually committed for an additional $26.1 million as of June 30, 2023 for these projects.

7. Debt

The current material terms and conditions of debt outstanding are as follows:

	Interest rate	Monthly repayment	Maturity date		June 30, 2023		December 31, 2022
ACOA AIF Grant	0%	Royalties	-	**$**	**2,167,437**	$	2,119,476
ACOA term loan #1	0%	C$3,120	Feb 2027		**103,635**		115,158
ACOA term loan #2	0%	C$4,630	Sep 2029		**262,039**		276,743
ACOA term loan #3	0%	C$6,945	Dec 2025		**157,227**		184,500
Kubota Canada Ltd	0%	C$1,142	Jan 2025		**16,381**		21,077
DFO term loan	0%	C$16,865	Jan 2034		**1,281,556**		854,885
Finance PEI term loan	4%	C$16,313	Nov 2023		**1,753,766**		1,752,547
First Farmers Bank & Trust term loan	5.375%	$56,832	Oct 2028		**3,149,614**		3,401,019
Total debt				**$**	**8,891,655**	$	8,725,405
less: debt issuance costs					**(44,431)**		(52,065)
less: current portion					**(2,406,147)**		(2,387,231)
Long-term debt, net				**$**	**6,441,077**	$	6,286,109

Estimated principal payments remaining on debt outstanding are as follows:

		Total
2023 remaining	$	2,083,332
2024		736,916
2025		836,570
2026		804,550
2027		814,531
Thereafter		3,615,756
Total	$	8,891,655

In September 2020, the Canadian Subsidiary entered into a Contribution Agreement with the Department of Fisheries and Ocean's Atlantic Fisheries Fund, whereby it is eligible to receive up to C$1.9 million ($1.4 million) to finance new equipment for its Rollo Bay farm (the "DFO Term Loan"). On March 28, 2023, the Canadian Subsidiary borrowed an additional C$539,718 ($394,156) under the DFO Term Loan. Borrowings are interest free and monthly repayments commence in August 2024, with maturity in January 2034.

In August 2020, the Indiana Subsidiary entered into a term loan agreement with First Farmers Bank and Trust ("FFBT") in the amount of $4 million, which is secured by the assets of the Indiana subsidiary and a corporate guarantee. The agreement contains certain financial and non-financial covenants, which if not met, could result in an event of default pursuant to the terms of the loan. At June 30, 2023, the Indiana subsidiary was in compliance with its loan covenants.

The Company recognized interest expense of $132 thousand and $150 thousand for the six months ended June 30, 2023 and 2022, respectively, on its interest-bearing debt.

8. Leases

Lease expense for the six months ended June 30, 2023 and 2022, amounted to $44 thousand and $43 thousand, respectively. The weighted average remaining lease term of the Company's operating leases was 26 years. Lease payments included in operating cash flows totaled $45 thousand and $42 thousand for the six months ended June 30, 2023 and 2022, respectively. The table below summarizes the outstanding lease liabilities at June 30, 2023 and December 31, 2022:

	Lease Liability			
		June 30, 2023		**December 31, 2022**
Total leases	**$**	**205,565**	$	224,058
Less: current portion		**(4,586)**		(20,831)
Long-term leases	**$**	**200,979**	$	203,227

Remaining payments under leases are as follows:

Year		Amount
2023 remaining	$	8,486
2024		17,481
2025		18,006
2026		18,546
2027		19,103
Thereafter		564,225
Total lease payments		645,847
Less: imputed interest		(440,282)
Total operational lease liabilities	$	205,565

9. Stockholders' equity

Warrants

At June 30, 2023 and December 31, 2022, there were zero and 418,441 warrants outstanding, respectively, which were issued in conjunction with a public equity offering in January 2018. All outstanding warrants expired on January 17, 2023.

Share-based compensation

At June 30, 2023, the Company has reserved 1,535,703 and 711,068 shares of common stock issuable upon the exercise of outstanding stock options and unvested stock awards, respectively under its 2006 and 2016 Equity Incentive Plans. An additional 1,362,607 shares of common stock are reserved for future equity awards under the 2016 Equity Incentive Plan.

Unvested Stock Awards

A summary of the Company's unvested stock awards for the six months ended June 30, 2023, is as follows:

	Shares		Weighted average grant date fair value
Unvested at December 31, 2022	199,454	$	1.86
Granted	785,417		0.53
Vested	(253,925)		1.27
Forfeited	(19,878)		1.34
Unvested at June 30, 2023	711,068	$	0.62

During the six months ended June 30, 2023 and 2022, the Company expensed $225 thousand and $230 thousand, respectively, related to the stock awards. At June 30, 2023, the balance of unearned share-based compensation to be expensed in future periods related to the stock awards is $354 thousand. The period over which the unearned share-based compensation is expected to be earned is approximately 2 years.

Stock options

The Company's option activity is summarized as follows:

	Number of options		Weighted average exercise price
Outstanding at December 31, 2022	840,110	$	3.58
Issued	732,966		0.36
Exercised	—		—
Forfeited	(28,370)		0.51
Expired	(9,003)		7.50
Outstanding at June 30, 2023	1,535,703	$	2.08
Exercisable at June 30, 2023	732,465	$	3.73

Unless otherwise indicated, options issued to employees, members of the Board of Directors, and non-employees are vested daily over one to three years and are exercisable for a term of ten years from the date of issuance. There were 732,966 stock options granted during the six months ended June 30, 2023.

The total intrinsic value of all options outstanding was $0 at June 30, 2023 and December 31, 2022. The total intrinsic value of exercisable options was $0 at June 30, 2023 and December 31, 2022.

The following table summarizes information about options outstanding and exercisable at June 30, 2023:

Weighted average exercise price of outstanding options	Number of options outstanding	Weighted average remaining estimated life (in years)	Number of options exercisable
< $1.00	708,259	10.0	15,779
$1.49 - $2.50	712,322	6.6	608,922
$5.44 - $9.60	47,735	6.9	40,377
$10.80 - $23.40	67,387	2.7	67,387
	1,535,703		732,465

Total share-based compensation on stock options amounted to $78 thousand and $88 thousand for the six months ended June 30, 2023 and 2022, respectively. At June 30, 2023, the balance of unearned share-based compensation to be expensed in future periods related to unvested share-based awards was $329 thousand. The period over which the unearned share-based compensation is expected to be earned is approximately 2 years.

10. Commitments and contingencies

The Company recognizes and discloses commitments when it enters into executed contractual obligations with other parties. The Company accrues contingent liabilities when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

The Company is subject to legal proceedings and claims arising in the normal course of business. Management believes that final disposition of any such matters existing at June 30, 2023, will not have a material adverse effect on the Company's financial position or results of operations.

11. Income Taxes

The Company estimates an annual effective tax rate of 0% for the year ending December 31, 2023 as the Company incurred losses for the six months ended June 30, 2023 and is forecasting additional losses through the remainder of the year ending December 31, 2023, resulting in an estimated net loss for both financial statement and tax purposes for the year ending December 31, 2023. Therefore, no federal or state income taxes are expected and none have been recorded at this time. Income taxes have been accounted for using the liability method.

Due to the Company's history of losses since inception, there is not enough evidence at this time to support that the Company will generate future income of a sufficient amount and nature to utilize the benefits of its net deferred tax assets. Accordingly, the deferred tax assets have been reduced by a full valuation allowance, since the Company does not currently believe that realization of its deferred tax assets is more likely than not.

As of June 30, 2023, the Company had no unrecognized income tax benefits that would reduce the Company's effective tax rate if recognized.

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

The following "Management's Discussion and Analysis of Financial Condition and Results of Operations" should be read in conjunction with the unaudited financial information and the notes thereto included in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2022, which was filed on March 7, 2023.

Overview

We believe that we are a distinctive brand in the field of land-based aquaculture, leveraging decades of technology expertise to deliver innovative solutions that address food insecurity and climate change issues, while improving efficiency and sustainability. We provide fresh Atlantic salmon to nearby markets by raising our fish in carefully monitored land-based fish farms through a safe, secure and sustainable process. Our land-based Recirculating Aquaculture System farms, including our grow-out farm located in Indiana in the United States and our broodstock and egg production farm located on Prince Edward Island in Canada, are close to key consumption markets and are designed to prevent disease and to include multiple levels of fish containment to protect wild fish populations. We are raising nutritious salmon that is free of antibiotics and other contaminants and provides a solution with a reduced carbon footprint without the risk of pollution to marine ecosystems as compared to traditional sea-cage farming. Our primary product is our GE Atlantic salmon, which received FDA approval in 2015 as the first genetically engineered animal available for sale for human consumption. We commenced commercial activities in 2021 with operations in the United States and Canada. We are actively engaged in genetic, genomic, fish health and fish nutrition research, which drive continuous improvement in our operations and may lead to new, disruptive technologies and products that could further expand our competitive offerings.

Inflation

Recently elevated global inflation rates continue to impact all areas of our business. We are experiencing higher costs for farming supplies, transportation costs, wage rates, and other direct operating expenses, as well as for capital expenditures related to the construction of our farm in Ohio. We expect inflation to continue to negatively impact our results of operations for the near-term.

Revenue

We currently generate product revenue through the sales of our GE Atlantic salmon, conventional Atlantic salmon eggs and fry, and salmon byproducts. We measure our harvest volume of GE Atlantic salmon in terms of metric tons ("mt") of live weight taken out of the water. We believe that our future revenues will depend upon the number and capacity of grow-out farms we have in operation and the market acceptance we achieve.

Product Costs

Product costs include the labor and related costs to grow out our fish, including feed, oxygen, and other direct costs; overhead; and the cost to process and ship our products to customers. A portion of production costs is absorbed into inventory as fish in process to the extent that these costs do not exceed the net realizable value of the fish biomass. The costs that are not absorbed into inventory, as well as any net realizable value inventory adjustments, are classified as product costs. Our product costs also include the labor and related costs to maintain our salmon broodstock.

Sales and Marketing Expenses

Our sales and marketing expenses currently include salaries and related costs for our sales personnel and consulting fees for market-related activities. We expect our sales and marketing expenses to increase as our production output and revenues grow.

Research and Development Expenses

We recognize research and development expenses as they are incurred. Our research and development expenses consist primarily of:

- salaries and related overhead expenses for personnel in research and development functions;
- fees paid to contract research organizations and consultants who perform research for us;
- costs related to laboratory supplies used in our research and development efforts; and
- costs related to the operation of our field trials.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for employees in executive, corporate, and finance functions. Other significant general and administrative expenses include corporate governance and public company costs, regulatory affairs, rent and utilities, insurance, and legal services.

Other Expense

Interest expense includes the interest on our outstanding loans and the amortization of debt issuance costs. Other income includes interest income, less bank charges, fees, miscellaneous gains or losses on asset disposals and realized gains or losses on investments.

Results of Operations

Comparison of the three months ended June 30, 2023, to the three months ended June 30, 2022

The following table summarizes our results of operations for the three months ended June 30, 2023 and 2022, together with the changes in those items in dollars and as a percentage (all dollar amounts in thousands):

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Dollar Change	% Change
	(unaudited)			
Product revenue	$ **788**	$ 1,070	(282)	(26)%
Operating expenses:				
Product costs	**3,791**	3,250	541	17%
Sales and marketing	**194**	350	(156)	(45)%
Research and development	**178**	208	(30)	(14)%
General and administrative	**3,068**	2,832	236	8%
Operating loss	**6,443**	5,570	873	16%
Total other expense (income)	**66**	(34)	100	(294)%
Net loss	$ **6,509**	$ 5,536	973	18%

Product Revenue

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Change	% Change
	(unaudited)			
Harvest of GE Atlantic salmon (mt)	**159**	129	30	23%
Product revenue				
GE Atlantic salmon revenue	$ **755**	$ 1,020	$ (265)	(26)%
Non-GE Atlantic salmon revenue	**33**	38	(5)	(13)%
Other revenue	**-**	12	(12)	(100)%
Total product revenue	$ **788**	$ 1,070	$ (282)	(26)%

The decrease in revenue during the current period was due primarily to a decrease in market prices for Atlantic salmon and partly due to the product mix. Additionally, sales of conventional eggs and fry from the Rollo Bay farm were lower in the current period due to the timing of shipments. We expect revenues for the remainder of 2023 to be impacted by normal seasonal demand and fluctuating market prices.

Product Costs

Product costs for the three months ended June 30, 2023, were up from the corresponding period in 2022, due to a higher level of biomass at the Indiana farm, personnel costs, outside services, feed costs, and other direct supplies.

Sales and Marketing Expenses

Sales and marketing expenses for the three months ended June 30, 2023, were down from the corresponding period in 2022 due to decreases in marketing programs.

Research and Development Expenses

Research and development expenses for the three months ended June 30, 2023 were down from the corresponding period in 2022 primarily due to decreased technical services and lab costs.

General and Administrative Expenses

General and administrative expenses for the three months ended June 30, 2023, were up from the corresponding period in 2022 due to an increase in state excise tax liabilities, legal fees, audit fees and personnel costs, offset by recruitment fees.

Total Other Expense

Total other expense is comprised of interest on debt and bank charges, less interest income for the three months ended June 30, 2023, 2023 and 2022.

Comparison of the six months ended June 30, 2023, to the six months ended June 30, 2022

The following table summarizes our results of operations for the six months ended June 30, 2023 and 2022, together with the changes in those items in dollars and as a percentage (all dollar amounts in thousands):

	Six Months Ended June 30,		Dollar	%
	2023	**2022**	**Change**	**Change**
	(unaudited)			
Product revenue	$ **1,186**	$ 2,033	(847)	(42)%
Operating expenses:				
Product costs	**7,350**	6,526	824	13%
Sales and marketing	**392**	598	(206)	(34)%
Research and development	**301**	375	(74)	(20)%
General and administrative	**6,068**	5,208	860	17%
Operating loss	**12,925**	10,674	2,251	21%
Total other expense (income)	**69**	(26)	95	(365)%
Net loss	$ **12,994**	$ 10,648	2,346	22%

Product Revenue

	Six Months Ended June 30,			%
	2023	**2022**	**Change**	**Change**
	(unaudited)			
Harvest of GE Atlantic salmon (mt)	**225**	262	(37)	(14)%
Product revenue				
GE Atlantic salmon revenue	**$ 1,147**	$ 1,941	$ (794)	(41)%
Non-GE Atlantic salmon revenue	**35**	80	(45)	(56)%
Other revenue	**4**	12	(8)	(67)%
Total product revenue	**$ 1,186**	$ 2,033	$ (847)	(42)%

The decrease in revenue during the current period was due primarily to a combination of a decrease in harvest volume at our Indiana farm, as repairs were made to its processing building, and the transition of our Rollo Bay farm from production grow-out to broodstock maintenance. Additionally, sales of conventional eggs and fry from the Rollo Bay farm were lower in the current period due to the timing of shipments. We expect revenues for the remainder of 2023 to be impacted by normal seasonal demand and fluctuating market prices.

Product Costs

Product costs for the six months ended June 30, 2023, were up from the corresponding period in 2022, due to a higher level of biomass at the Indiana farm, personnel costs, outside services, feed costs and other direct supplies.

Sales and Marketing Expenses

Sales and marketing expenses for the six months ended June 30, 2023, were down from the corresponding period in 2022 due to decreases in marketing programs.

Research and Development Expenses

Research and development expenses for the six months ended June 30, 2023 were down from the corresponding period in 2022 primarily due to the receipt of provincial government grant funds in support of local hiring. Gross research and development expenses for the current period, excluding the grant funds were $414 thousand versus $400 thousand in the corresponding period in 2022.

General and Administrative Expenses

General and administrative expenses for the six months ended June 30, 2023, were up from the corresponding period in 2022 due to an increase in state excise tax liabilities, legal fees, audit fees and personnel costs offset by a decrease in recruitment costs.

Total Other Expense

Total other expense is comprised of interest on debt and bank charges, less interest income for the six months ended June 30, 2023, 2023 and 2022.

Cash Flows

The following table sets forth the significant sources and uses of cash for the periods set forth below (in thousands):

	Six Months Ended June 30,		Dollar Change	% Change
	2023	**2022**		
	(unaudited)			
Net cash (used in) provided by:				
Operating activities	$ **(12,246)**	$ (11,256)	(990)	9%
Investing activities	**(46,590)**	41,966	(88,556)	(211)%
Financing activities	**34**	(275)	309	(112)%
Effect of exchange rate changes on cash	**6**	(1)	7	(700)%
Net change in cash	$ **(58,796)**	$ 30,434	(89,230)	(293)%

Cash Flows from Operating Activities

Net cash used in operating activities during the six months ended June 30, 2023, was primarily comprised of our $13.0 million net loss, offset by non-cash depreciation and stock compensation charges of $1.4 million and increased by working capital uses of $630 thousand. Net cash used in operating activities during the six months ended June 30, 2022, was primarily comprised of our $10.6 million net loss, offset by non-cash depreciation and stock compensation charges of $1.3 million and increased by working capital uses of $1.9 million.

Spending on operations increased in the current period due to increases in state excise tax liabilities, legal fees, audit fees, compensation costs and production activities at our Indiana farm site. Cash used by working capital decreased in the current period due to decreases in uses for receivables and inventory, which was partly offset by decreased sources from accounts payable and accrued expenses.

Cash Flows from Investing Activities

During the six months ended June 30, 2023, we used $46.6 million for construction activities at our farm sites and the purchase of equipment. During the same period in 2022, we used $30.5 million for construction activities at our farm sites and the purchase of equipment, offset by cash provided by the net sale of marketable securities of $72.4 million.

Cash Flows from Financing Activities

During the six months ended June 30, 2023, we received $394 thousand from new debt and made $360 thousand in debt repayments. During the same period in 2022, we received $42 thousand from new debt and made $319 thousand in debt repayment.

Future Capital Requirements

Since inception, we have incurred cumulative net operating losses and negative cash flows from operations and we expect this to continue for the foreseeable future. As of June 30, 2023, we have $43.8 million in cash and cash equivalents, and restricted cash, a significant portion of which is required to fund our current liabilities and other contractual obligations. Our ability to continue as a going concern is dependent upon our ability to raise additional capital, and there can be no assurance that such capital will be available in sufficient amounts on terms acceptable to us, or at all. This raises substantial doubt about our ability to continue as a going concern within one year after the date that the accompanying condensed consolidated financial statements are issued.

In 2020, we entered into a term loan agreement with First Farmers Bank and Trust in the amount of $4 million, which is secured by the assets of our Indiana subsidiary and a corporate guarantee. The agreement contains certain financial and non-financial covenants, which if not met, could result in an event of default pursuant to the terms of the loan. At June 30, 2023, the Indiana subsidiary was in compliance with its loan covenants.

Until such time, if ever, as we can generate positive operating cash flows, we may finance our cash needs through a combination of equity offerings, debt financings, government or other third-party funding, strategic alliances, and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of holders of our common stock will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of holders of our common stock. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional funds through government or other third-party funding; marketing and distribution arrangements; or other collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates or to grant licenses on terms that may not be favorable to us.

If we are unable to generate additional funds in the future through financings, sales of our products, government grants, loans, or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations is based on our consolidated financial statements, which we have prepared in accordance with GAAP. The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We evaluate these estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

There have been no material changes to these estimates, or the policies related to them, during the six months ended June 30, 2023. For a full discussion of these estimates and policies, see "Critical Accounting Policies and Estimates" within "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2022.

Smaller Reporting Company Status

We are a "smaller reporting company," meaning that the market value of our stock held by non-affiliates is less than $700 million and our annual revenue was less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million.

As a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The following sections provide quantitative information on our exposure to interest rate risk and foreign currency exchange risk. We make use of sensitivity analyses, which are inherently limited in estimating actual losses in fair value that can occur from changes in market conditions.

Interest Rate Risk

Our primary exposure to market risk is interest rate risk associated with debt financing that we utilize from time to time to fund operations or specific projects. The interest on this debt is usually determined based on a fixed rate and is contractually set in advance. As of June 30, 2023, and December 31, 2022, we had $4.9 million and $5.1 million, respectively, in interest-bearing debt instruments on our consolidated balance sheet. All of our interest-bearing debt is at fixed rates, except for our loan with First Farmers' Bank and Trust which has a rate reset in July 2025.

Foreign Currency Exchange Risk

Our functional currency is the U.S. Dollar. The functional currency of our Canadian subsidiary is the Canadian Dollar, and the functional currency of our U.S. and Brazil subsidiaries is the U.S. Dollar. For the Canadian subsidiary, assets and liabilities are translated at the exchange rates in effect at the balance sheet date, equity accounts are translated at the historical exchange rate, and the income statement accounts are translated at the average rate for each period during the year. Net translation gains or losses are adjusted directly to a separate component of other comprehensive loss within shareholders' equity.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the quarter ended June 30, 2023, the Company's disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act and are effective in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) for the quarter ended June 30, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are not party to any legal proceedings the outcome of which, we believe, if determined adversely to us, would individually or in the aggregate have a material adverse effect on our future business, consolidated results of operations, cash flows, or financial position. We may, from time to time, be subject to legal proceedings and claims arising from the normal course of business activities.

Item 1A. Risk Factors

As disclosed in "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022, which was filed on March 7, 2023, there are a number of risk factors that could affect our business, financial condition, and results of operations. The following risk factors are either new or have changed materially from those set forth in our Annual Report on Form 10-K for the year ended December 31, 2022 or our 10-Q for the quarter ended March 31, 2023. In evaluating our business, you should carefully review the risks described in our Annual Report on Form 10-K, including our consolidated financial statements and related notes, and in other reports we file with the Securities and Exchange Commission. We cannot assure you that any of the events discussed in the risk factors below will not occur. These risks could have a material and adverse impact on our business, results of operations, financial condition, or prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

This Quarterly Report on Form 10-Q also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below, elsewhere in this Quarterly Report on Form 10-Q, and in our Annual Report on Form 10-K. See “Cautionary Note Regarding Forward-Looking Statements” for information relating to these forward-looking statements.

We have a history of net losses and will likely incur future losses and may not achieve or maintain profitability.

In the period from incorporation to June 30, 2023, we have incurred cumulative net losses of approximately $206 million. These losses reflect our personnel, research and development, production and marketing costs. Our ability to realize revenues and the timing thereof are not certain, and achieving revenues does not assure that we will become profitable. We anticipate incurring additional losses until such time that we can generate significant increases to our revenues, and/or reduce our operating costs and losses. The size of our future net losses will depend, in part, on the rate of future expenditures and our ability to significantly grow our business and increase our revenues. We expect to continue to incur substantial and increased expenses as we grow our business. We also expect a continued increase in our expenses associated with our operations as a publicly traded company.

As of June 30, 2023, we had $43.8 million in cash and cash equivalents, and restricted cash, a significant portion of which is required to fund current liabilities and other contractual obligations. Our ability to continue as a going concern is dependent upon our ability to raise additional capital and there can be no assurance that such capital will be available in sufficient amounts, on terms acceptable to us, or at all. As a result of the going concern uncertainty, there is an increased risk that our investors could lose some or all of their investment in our company.

Our business plans include the need for substantial additional capital and without it we may not be able to implement our strategy as planned or at all.

Our strategy depends on our ability to develop and construct additional farms, including our planned Ohio farm. We have begun construction of this farm and its construction, and others in the future, is contingent on a number of significant uncertainties, including those described below. As a result, we may be unable to construct such facilities as planned or at all. We may not be able to obtain the financing necessary to complete construction of our proposed facilities. We estimate that the total project cost for the Ohio farm, including construction, land, insurance and ancillary costs will significantly exceed our previous estimate of $375 million to $395 million, although this figure is likely to continue to change as we finalize the design, finalize bids from contractors and continue with construction. For example, at least partially due to recent inflationary pressures, subcontractors for certain goods and services at our Ohio farm have submitted bids above the levels that we expected. As a result of these increases, and increased interest rates, we have raised our estimate for the total cost for the project and we increased the amount of proposed debt financing. However, there can be no guarantee that our attempts will be successful, and macro-economic conditions could worsen, which could result in further cost increases and further financing and construction-related delays. Recent increases in the construction cost estimate has caused us to put construction on pause until we can evaluate the completion cost estimate and our financing strategy.

We do not have the financial resources required to fully finance the construction of the Ohio farm. We will seek to raise part of these necessary funds through debt financing. Recent increases to interest rates have increased the borrowing costs for this financing, and any further increases before the financing is complete could further increase such costs. Volatility and/or declines in equity markets in general, and for our securities, may cause equity financing to be unavailable on acceptable terms or at all. We may also need further funding if there are delays in construction or increased construction costs at our construction site in Ohio. We may finance unanticipated construction costs by issuing equity securities or debt. The delay or failure of regulatory bodies to approve our construction plans, disruption and volatility in the financial markets, tighter credit markets and a downturn in the seafood market may negatively impact our ability to obtain financing. We may not have access to the required funding, or funding may not be available to us on acceptable terms.

We may not be able to obtain the approvals and permits that will be necessary in order to construct and operate our facilities as planned. We will need to obtain a number of required permits in connection with the hydrology, construction and operation of our farms, which is often a time-consuming process. We will also need to obtain FDA approval to grow our GE Atlantic salmon in the facility. If we experience delays in obtaining the required approvals and permits for our farms, our expected construction completion date, commercial stocking and first sale of our GE Atlantic salmon may be delayed. If we are unable to obtain the required approvals and permits for our farms, we will not be able to construct the farms. In addition, federal, state and local governmental requirements could substantially increase our costs, which could materially harm our results of operations and financial condition.

We have encountered cost increases in the expected construction cost of the Ohio farm, and may encounter further unanticipated difficulties and cost overruns in constructing this farm and other future farms. Preparing cost and timing estimates for complex RAS farms is inherently difficult and subject to change based on a number of factors that we have experienced to date and may experience in the future, including design changes, increasing inflationary pressure on costs of materials and labor, the impact of health epidemics such as COVID-19, construction delays, dependence on contractors, the impact of increasing interest rates on financing costs, customer requirements and unexpected complications. As a result, we may encounter unanticipated difficulties and the construction and development of our proposed farms may be more costly or time-consuming than we anticipate.

Delays and defects may cause our costs to increase to a level that would make one or more of our farms too expensive to construct or unprofitable. We may suffer significant delays or cost overruns at our farms that could prevent us from commencing operations as expected as a result of various factors. These factors include shortages of workers or materials, construction and equipment cost escalation, transportation constraints, adverse weather, unforeseen difficulties or labor issues, or changes in political administrations at the federal, state or local levels that result in policy change towards genetically engineered foods in general or our products and farms in particular. Defects in materials or workmanship could also delay the commencement of operations of our planned farms, increase production costs or negatively affect the quality of our products. Due to these or other unforeseen factors, we may not be able to proceed with the construction or operation of our farms in a timely manner or at all.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

EXHIBIT INDEX

Exhibit Number	Exhibit Description
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1+	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL instance document.
101.SCH	XBRL taxonomy extension schema document.
101.CAL	XBRL taxonomy extension calculation linkbase document.
101.LAB	XBRL taxonomy label linkbase document.
101.PRE	XBRL taxonomy extension presentation linkbase document.
101.DEF	XBRL taxonomy extension definition linkbase document.
104	Cover Page Interactive Data File-the cover page interactive data file does not appear in the Interactive Data File because the XBRL tags are embedded within the Inline XBRL document.

* Incorporated herein by reference as indicated.

† Management contract or compensatory plan or arrangement.

\+ The certification furnished in Exhibit 32.1 hereto is deemed to accompany this Form 10-Q and will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. Such certification will not be deemed to be incorporated by reference into any filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

Signatures

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

AQUABOUNTY TECHNOLOGIES, INC.

August 1, 2023

/s/ Sylvia Wulf
Sylvia Wulf
President, Chief Executive Officer, and Director
(Principal Executive Officer)

/s/ David A. Frank
David A. Frank
Chief Financial Officer and Treasurer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 31.1

Certification

I, Sylvia Wulf, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AquaBounty Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

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

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

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

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

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

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

Date: August 1, 2023

/s/ Sylvia Wulf
Sylvia Wulf
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

Certification

I, David A. Frank, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AquaBounty Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

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

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

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

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

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

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

Date: August 1, 2023

/s/ David A. Frank
David A. Frank
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

The following certification is being made to the Securities and Exchange Commission solely for purposes of Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350). This certification is not to be deemed a part of the Report, nor is it deemed to be “filed” for any purpose whatsoever.

In accordance with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002 (18 USC 1350), each of the undersigned hereby certifies, to his knowledge, that:

(i) the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023, which this statement accompanies, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(ii) the information contained in the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023, fairly presents, in all material respects, the financial condition and results of operations of AquaBounty Technologies, Inc.

Dated as of this 1st day of August, 2023.

/s/ Sylvia Wulf	/s/ David A. Frank
Sylvia Wulf	David A. Frank
Chief Executive Officer	*Chief Financial Officer*
(Principal Executive Officer)	(Principal Financial Officer)