Risk Factors Comparison 2024-04-01 to 2023-03-07 Form: 10-K

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The following are certain risk factors that could affect our business, financial condition, and results of operations. You should carefully consider the risks described below, together with the other information contained in this Annual Report on Form 10 - K, including our consolidated financial statements and the related notes. 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 Annual Report on Form 10 - K 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 and elsewhere in this Annual Report on Form 10 - K. See " Cautionary Note Regarding Forward- Looking Statements " for information relating to these forward- looking statements. Risks Relating to our Business and ~~Operations~~ **Future Plans** 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 December 31, ~~2022~~ **2023** , we have incurred cumulative net losses of approximately $ ~~193~~ **221** million. These losses reflect our personnel, research and development, production and marketing costs. **Our** ~~We expect revenues to grow modestly in 2023, however, 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 and with our operations as a publicly traded company. There is substantial doubt about our ability to continue as a going concern. Since inception, we have incurred cumulative net losses and negative cash flows from operations and expect that this will continue for the foreseeable future. As of December 31, 2023, we had $ 9. 2 million in cash, cash equivalents, and restricted cash.** 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 a timely basis, on acceptable terms, or at all. This raises substantial doubt about our ability to continue as a going concern within one year after the date hereof. The accompanying 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. Until such time as we reach profitability, we will require additional financing to fund our operations and execute our business plan. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us. Our current** 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~~ **partially constructed** Ohio farm. **Its** ~~We have begun~~ construction ~~of this farm and its construction~~ , and others in the future, ~~is~~ **are** contingent on ~~a number of significant uncertainties~~ **our ability to raise capital** , **without which** ~~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 range between $ 375 million and $ 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~~ . 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~~ **in** 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 **estimate** ~~may not be able to obtain the approvals and permits~~ that **the total project cost for the Ohio farm, including construction, land, insurance and ancillary costs** will be ~~necessary~~ in ~~order~~ **the range of $ 485 million** to ~~construct~~ **$ 495 million, substantially above** our ~~facilities~~ **previously disclosed estimate, although this figure could continue to change** as **we finalize the design, finalize bids from contractors and continue** ~~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~~ **For example, at least partially due** to **recent inflationary pressures, subcontractors** ~~obtain FDA approval to grow our GE Atlantic salmon in the facility. If we experience delays in obtaining the required approvals and permits~~ for **certain goods and services at** our **Ohio** ~~farms~~ - **farm** ~~, our~~ **have submitted**

bids above the levels that we expected ~~construction completion date, commercial stocking and first sale of our GE Atlantic salmon may be delayed~~ . **As a result of** ~~If we are unable to obtain the~~ **these** ~~required approvals~~ **increases,** and ~~permits~~ **increased interest rates, we have raised our estimate** for ~~our farms, we will not be able to construct~~ the ~~farms. In addition~~ **total cost for the project** , ~~federal, state~~ and **we** ~~local governmental requirements could substantially increase~~ **increased the amount** ~~our costs, which could materially harm our results~~ of ~~operations and~~ **proposed debt** ~~financial~~ **financing** ~~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 **. These recent increases in the construction cost estimate have caused us to put construction on pause until we can evaluate the completion cost estimate and our financing strategy. 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. There can be no assurance that additional funds will be available on a timely basis, on acceptable terms, or at all, or that such funds, if raised, would be sufficient to enable us to continue to implement our business strategy. We require new financing to provide liquidity for working capital and to fund the construction of our farm in Pioneer, Ohio. To meet this need, we have engaged an investment bank to pursue a range of funding and strategic alternatives, including the recently announced sale process for our Indiana farm, potential debt financing secured by our unencumbered assets and potential joint venture partnerships or other strategic transactions. There is no guarantee that additional funds will be available on a timely basis, on acceptable terms, or at all, or that such funds, if raised, would be sufficient to enable us to continue to implement our business strategy. 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. In addition, we may not be able to sell our Indiana farm for the price that we expect or on the timeline that we expect or at all. Furthermore, if we sell the Indiana farm for a price that is less than the book value of its assets, we will incur a loss on the sale. If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our commercialization plans or harm our research and development efforts, and we may be unable to sell or develop our own products. Our success depends substantially on the efforts and abilities of our officers and other key employees. The loss of any key members of our management, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products and executing on our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among aquaculture, biotechnology, and other technology- based businesses, or due to the unavailability of personnel with the particular qualifications or experience necessary for our business. For production positions, effective training will be needed for new hires due to the overall lack of industry experience in land- based aquaculture in North America. If we are not able to attract, train, and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that could adversely affect our ability to meet the demands of our customers in a timely fashion, adequately staff existing or new production facilities, or support our internal research and development programs. In particular, our production facilities require individuals experienced or trained in RAS- based aquaculture, and our product development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced production staff, scientists, and other technical personnel from numerous companies and academic and other research institutions may limit our ability to attract and retain such personnel on acceptable terms. If we lose key vendors, including those necessary to complete the construction of our Ohio farm, or are unable to engage additional vendors, it could delay our construction or commercialization plans. The completion of the construction of our Ohio farm depends on our construction and equipment vendors' willingness to continue to support the project once we are ready to resume construction. Due to the rising project cost estimate, we paused construction activities in July 2023, while we pursue additional financing. There can be no guarantee that our vendors will be available or willing to reengage construction activities on the project when we have completed our financing and are ready to resume construction. If our vendors are not ready to resume construction activities, or if we need to engage new vendors, it could delay our construction and commercialization plans. We require approvals and permits to construct and operate our farms, and any delay or denial of those approvals or permits could potentially delay or halt certain operations and commercial efforts. 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. Delays or conditions imposed in obtaining the required approvals and permits for our farms, have delayed and may further delay our**

expected construction completion, commercial stocking and first sale dates and / or lead to further cost increases. 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. Increases in interest rates have increased our expected borrowing costs and may also affect our ability to obtain working capital through borrowings, such as bank credit lines and public or private sales of debt securities. We will seek to raise part of the funding necessary for construction of our Ohio farm, and other future farms, through debt financing. Increases in interest rates will increase the cost of our indebtedness for construction financing and may also affect our ability to obtain working capital through borrowings, such as bank credit lines and public or private sales of debt securities. This may result in lower liquidity, increased expense and difficulty in financing our expansion plans, reduced working capital and other adverse impacts on our business. Delays and defects may prevent the commencement of farm operations . 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. ~~Recent increases in interest rates have increased our expected borrowing costs for the construction of our planned farm in Pioneer, Ohio, and may also affect our ability to obtain working capital through borrowings such as bank credit lines and public or private sales of debt securities, which may result in lower liquidity, increased expense and difficulty in financing our expansion plans, reduced working capital and other adverse impacts on our business. All of our currently outstanding interest- bearing debt is financed at fixed rates, except for our loan with First Farmers Bank and Trust, which has a rate reset in July 2025. We will seek to raise part of the funds necessary for construction of our planned farm in Pioneer, Ohio, and other future farms, through debt financing. Continued increases in interest rates has already, and will further increase the cost of new indebtedness and, after the rate reset, servicing our outstanding indebtedness with First Farmers Bank and Trust, and could materially and adversely affect our expansion plans, results of operations, financial condition, liquidity and cash flows.~~ Rising inflation rates could negatively impact our revenues and profitability **. Rising inflation rates could negatively impact our revenues and profitability** if increases in the prices of our products or a decrease in consumer spending results in lower sales. In addition, if our costs increase and we are not able to pass along these price increases to our customers, our net income would be adversely affected, and the adverse impact may be material. Inflation rates, particularly in the United States, have increased ~~recently~~ to levels not seen in years. Increased inflation ~~has and~~ may ~~continue to~~ result in increased construction costs for new farms, increased operating costs (including our labor costs), reduced liquidity, and limitations on our ability to access credit or otherwise raise debt and equity capital ~~. In addition, the United States Federal Reserve has raised, and may again raise, interest rates in response to concerns about inflation~~ . Increases in interest rates, especially if coupled with reduced government spending and volatility in financial markets, may have the effect of further increasing economic uncertainty and heightening these risks ~~. In an inflationary environment, we may be unable to raise the sales prices of our products and services at or above the rate at which our costs increase, which would reduce our profit margins and have a material adverse effect on our financial results. We also may experience lower than expected sales and potential adverse impacts on our competitive position if there is a decrease in consumer spending. A reduction in our revenue would be detrimental to our financial condition and could also have an adverse impact on our future growth~~ . The financing of our Ohio farm through the placement of municipal bonds may require restrictive debt covenants that could limit our control over the farm' s operation and restrict our ability to utilize a portion of any cash that the farm generates. We anticipate using both **equity** ~~cash on hand~~ and debt to finance the construction and initial working capital for our Ohio farm. Debt financing will likely contain certain customary restrictive covenants that require us to maintain certain operating ratios and may restrict our use of any cash that is generated by the farm. The amount of debt used to finance the project may be significant and may require the use of a trustee to oversee the project funds and to monitor the project' s performance and adherence to any restrictive covenants. Failure to meet the restrictive covenants over a period of time could result in more oversight by the trustee and a loss of some of our control over the operation, or in the extreme by the trustee stepping in to manage the farm' s operation. **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.** Our term loan agreement with First Farmers Bank and Trust in the amount of $ 4 million contains certain customary restrictive covenants that limit our ability, including without limitation, to incur additional indebtedness and liens, merge with other companies or consummate certain changes of control, acquire other companies, engage in new lines of business and make certain investments, as well as financial covenants requiring us to maintain certain ratios with respect to our operations. Our ability to comply with these covenants may be affected by events beyond our control, and we may not be able to meet those covenants. A breach of any of these covenants could result in a default under the term loan agreement, which could cause all of the outstanding indebtedness under our term loan to become immediately due and payable. In that event, we would be required to disclose the default in our public filings, which could have an adverse effect on the price of our shares of common stock. These covenants could also limit our ability to seek capital through the incurrence of new indebtedness or, if we are unable to meet our obligations, require us to repay any outstanding amounts with sources of capital we may otherwise use to fund our business, operations and strategy. ~~with~~ **if they are unsuccessful.If appropriate opportunities become available,we may**

acquire businesses,assets,technologies,or products to enhance our business in the future.In connection with any future acquisitions, ~~investments or mergers,~~ we could: ? issue additional equity securities,which would dilute ~~the ownership interest and voting power of~~ our current ~~stockholders~~ **shareholders** ; ? incur substantial debt to fund the acquisitions;or ? assume significant liabilities.Acquisitions ~~,investments or mergers~~ involve numerous risks,including: ? difficulties integrating the purchased operations,technologies,or products; ? unanticipated costs and other liabilities; ? diversion of management' s attention from our core business; ? adverse effects on existing business relationships with current and / or prospective customers and / or suppliers; ? risks associated with entering markets in which we have no or limited prior experience;and ? potential loss of key employees.We do not have extensive experience in managing the integration process,and we may not be able to successfully integrate any businesses,assets,products,technologies,or personnel that we might acquire in the future without a significant expenditure of operating,financial,and management resources.The integration process could divert management time from focusing on operating our business,result in a decline in employee morale,or cause retention issues to arise from changes in compensation,reporting relationships,future prospects,or the direction of the business. ~~Certain transactions~~ **Acquisitions also** may require us to record goodwill and non- amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges,incur amortization expenses related to certain intangible assets,and incur large and immediate write- offs and restructuring and other related expenses,all of which could harm our **operating results** Ethical, legal, and social concerns about genetically engineered products could limit or prevent the use of our products and limit our revenues. Our technologies include the use of genetic engineering. Public perception about the safety and environmental hazards of, and ethical concerns over, genetically engineered products could influence public acceptance of our technologies and products. Activist groups opposing the genetic engineering of organisms have in the past pressured a number of retail food outlets and grocery chains to publicly state that they will not carry genetically engineered Atlantic salmon, and they could file lawsuits to prevent the production and sale of our products. If we are not able to overcome the ethical, legal, and social concerns relating to genetic engineering, products using our technologies may not be accepted in the marketplace, and demand for our products could fall short of what we expect. These concerns could also result in increased expenses, regulatory scrutiny, delays, or other impediments to implementation of our business plan. The subject of genetically engineered products has received negative publicity, which has aroused public debate. This adverse publicity could lead to lawsuits against the production, distribution, and sale of genetically engineered products; greater regulation of those products; and trade restrictions on their importation. Further, there is a concern that products produced using our technologies could be perceived to cause adverse events, which could also lead to negative publicity. We may have limited success in gaining consumer acceptance of our products. There is an active and vocal group of opponents to genetically engineered products who wish to ban or restrict the technology and who, at a minimum, hope to sway consumer perceptions and acceptance of this technology. Their efforts include regulatory legal challenges and labeling campaigns for genetically engineered products, as well as application of pressure to multiple channels of distribution including, but not limited to distributors, food service operators, and consumer retail outlets seeking a commitment not to carry genetically engineered Atlantic salmon. We may not be able to overcome the negative consumer perceptions that these organizations have instilled against our products. Our business is affected by the quality and quantity of the salmon that we harvest. We sell our products in a highly competitive market. Our ability to successfully sell our products, and the price that we receive, is highly dependent on the quality of the salmon that we produce. A number of factors can negatively affect the quality of the salmon that we sell, including the quality of our broodstock, water conditions in our farms, the food and additives consumed by our fish, population levels in the tanks, and the amount of time that it takes to bring a fish to harvest, including transportation and processing. We have experience operating RAS facilities and raising salmon, and while we actively monitor these factors using rigorous standard operating procedures, we cannot always ensure optimal growing conditions. Although fish grown in RAS production systems are not subject to the disease and parasite issues that can affect salmon grown in ocean pens, there is the potential for organisms that are ubiquitous to freshwater environments to become pathogenic if the fish are subjected to stressful conditions or there is an issue with biomass management. We maintain high standards for the quality of our product and if we determine that a harvest has not met such standards, we may be required to reduce our inventory and write down the value of the harvest to reflect net realizable value. Sub- optimal conditions could lead to smaller harvests and or lower quality fish. Conversely, if we experience better than expected growth rates, we may not be able to process and bring our fish to market in a timely manner, which may result in overcrowding that can cause negative health impacts and / or require culling our fish population. Further, if our salmon is perceived by the market to be of lower quality than other available sources of salmon or other fish, we may experience reduced demand for our ~~product~~ **products** and may not be able to sell our products at the prices that we expect or at all ~~. For example, we concluded 2020 with a conventional Atlantic salmon harvest that met our high standards for nutrition, taste and texture. However, unlike our GE Atlantic salmon, the conventional salmon did not achieve the same high level of color consistency, due in part to the maturity of the male population and the quality of the ingredients in the feed. We identified and successfully addressed the source of the color inconsistency in the conventional salmon, and our production plans call for only raising our all- female GE Atlantic salmon moving forward~~ . As we continue to expand our operations and build new farms, we potentially may face additional challenges with maintaining the quality of our products. We cannot guarantee that we will not face quality issues in the future, any of which could cause damage to our reputation, and a loss of consumer confidence in our products, which could...... and a loss of consumer or customer confidence in our products, which could have a material adverse effect on our business results and the value of our brands. We may experience a significant fish mortality event in our broodstock or our production facilities that could impact the price of our common stock. In recent periods, other companies in the land- based aquaculture industry have experienced fish mortality events that resulted in a decline in their share price. It is possible that our operations could experience a significant fish mortality event due to, among other causes, disease, pathogens, human error, intentional malfeasance, a weather event, loss of access to electricity or water, or damage to our farms, or other factors beyond our control. If we were to have a significant fish mortality event, this could lead to a reduction in production harvests, loss of broodstock, loss of revenue, increased production costs, and public relations damage, the result of which could impact the price of our common stock. A shutdown, material damage to any...... and the value of our brands. The loss of our GE Atlantic salmon broodstock could result in the loss of our commercial technology. Our GE Atlantic salmon, or more specifically the breeding population of live fish, or broodstock, themselves, is a product of our combined intellectual property, which includes our trade secrets related to creating and maintaining the broodstock. Destruction of our salmon broodstock by whatever means ~~would~~ **could** result in a significant delay to our operations while the broodstock was replenished. Live animals are subject to disease that may, in some cases, prevent or cause delay in the export of eggs to our farms. Disease organisms may be present **but** undetected and transferred inadvertently. In addition, our broodstock is kept at a limited number of facilities, and damage to or failure of critical systems at any one of those facilities could lead to the loss of a substantial percentage of our broodstock. Such events may cause loss of revenue, increased costs, or both. ~~The~~ **Though the** broodstock ~~, however,~~ could be reinstated, in whole or in part, using our technology and stored breeding reserves ~~. Business~~ , ~~political, or economic disruptions or global health concerns, such as~~ the ~~COVID- 19 pandemic, could seriously harm our current or planned business and increase our costs~~ - **cost** and **time required to do so** ~~expenses. Broad- based business or economic disruptions, political instability, or global health concerns~~ could adversely affect our **operating results** ~~current or planned production, sale, distribution, research and development, and expansion. For example, the COVID- 19 pandemic and its related adverse public health developments, including orders to shelter- in- place, travel restrictions, and mandated business closures adversely affected workforces, organizations, customers, economies,~~ and financial **condition** markets globally, leading to an economic...... in the United States could be reduced . Atlantic salmon farming is subject to disease outbreaks, which can increase the cost of production and / or reduce production harvests. Salmon farming systems, particularly conventional, open sea- cage systems, are vulnerable to disease introduction and transmission, primarily from the marine environment or adjacent culture systems. The economic impact of disease to these production systems can be significant, as farmers must incur the cost of preventative measures, such as vaccines and antibiotics, and then, if the fish become infected, the cost of lost or reduced harvests. Although we produce and grow our GE Atlantic salmon in land- based, closed containment facilities, we are still at risk for potential disease outbreaks. We have implemented biosecurity measures in our facilities intended to prevent or mitigate disease impact, but there can be no assurance that any measures will be 100 % effective. A shutdown,material damage to any of our farms,or lack of availability of power,fuel,oxygen,eggs,water,or other key components needed for our operations,could result in our prematurely harvesting fish,a loss of a material percentage of our fish in production,a delay in our commercialization plans,and a material adverse effect on our operations,business results,reputation,and the value of our brands.At present,we have farms in Albany,Indiana,and Prince Edward Island,Canada.As an interruption in the power,fuel,oxygen supply,water quality systems,or other critical infrastructure of an aquaculture facility for more than a short period of time can lead to the loss of a large number of fish,any shutdown of or damage to either of our farms — for example,due to weather or other natural disaster,shortages of key components to our operations due to a pandemic,reduction in water supply,contamination of our aquifers,interruption in services beyond our backup capacity,or human interference — could require us to prematurely harvest some or all of the fish at that farm or could result in a loss of a material percentage of our fish in production.In addition,any transportation- related or other accidents that may result in a spill of hazardous materials near our farms,which may contaminate the land and / or groundwater,may result in a loss of a material percentage of our fish and other material adverse effects on our operations. We ~~in a loss of a material percentage of our fish and other material adverse effects on our operations.We~~ also are dependent on egg availability and being able to ship genetically engineered Atlantic salmon eggs from Canada to the United States for production.If we had a disruption in our ability to produce our eggs in Canada or ship our eggs to the United States,due to border closings or some other event that would prevent us from importing the eggs to the United States,we would not be able to continue to stock our Indiana Farm with genetically engineered Atlantic salmon eggs.We cannot guarantee that any of these disruptions might not occur in the future,any of which could cause loss of salmon to sell,damage to our reputation,loss of consumer confidence in our products and company,and lost revenues,all of which could have a material adverse effect on our business results and the value of our brands. ~~Security breaches,cyber~~ **The successful development of our business depends on our ability to efficiently and cost** - ~~attacks~~ **effectively produce and sell salmon at large commercial scale.Although we have over two decades of experience in successfully raising Atlantic salmon in** ~~and~~ **land - based systems,we have only begun to produce them at commercial scale.Our business plans depend on our ability to increase our production capacity through** ~~other~~ -- **the** ~~disruptions~~ **development of larger farms.We have limited experience constructing,ramping up,and managing such large,commercial- scale facilities,and we may not have anticipated all of the factors or costs that** could **affect** ~~compromise our information,expose us to fraud or~~ **our** ~~liability~~ **production** , **harvest,sale,and delivery of salmon at such a scale.** ~~or~~ **For example** ~~interrupt our operations~~ , ~~which would cause~~ our **salmon** ~~business and reputation to suffer.In the ordinary course of our business,we use our servers and networks to store sensitive data,including our proprietary business and financial information;general business information regarding our customers,suppliers,and business partners;and personally identifiable information of our employees;and to operate our farm equipment.The security of our network and the storage and maintenance of sensitive information is critical to our operations.Despite our security measures,our information technology and infrastructure~~ may ~~be vulnerable~~ **not perform as expected when raised at very large commercial scale,we** may encounter ~~difficulties managing~~ **operational challenges for which we are unable to identify a workable solution, control deficiencies may surface, our vendors may experience capacity constraints,** ~~our~~ - **or** ~~growth or~~ our production cost and timeline projections may prove to be inaccurate.Any of these could decrease process efficiency,create delays,and increase our costs.We are also subject to volatility in market demand and prices,such as the disruption to the salmon market and the resulting reduction in market prices for salmon that occurred during the COVID- 19 pandemic.In addition,competitive pressures,customer volatility and the possible inability to secure established and ongoing customer partnerships and contracts,may result in a lack of buyers for our fish.Customers of our fish may not wish to follow our terms and conditions of sale,potentially resulting in a violation of labeling or disclosure laws,improper food handling,nonpayment for product,and similar issues.The competitive landscape for salmon may create challenges in securing competitive pricing for our salmon to reach our competitive goals.In addition,it is possible that we may not be able to service our customers to meet their expectations regarding fish quality,ongoing harvest supply availability,order processing fill rate,on time or correct deliveries,potential issues with third **-** party processors,and other factors,which could impact our relationships with customers,our reputation,and our business results. **If** ~~We remain dependent on third parties for the processing,distribution,and sale of~~ our products **become contaminated,we may be subject to product liability claims and product recalls** , which could adversely affect our ~~business. We could face a period of rapid growth following expansion of our production capability, which may place significant pressure on our management, sales, operational, and~~ financial **results** ~~resources. The execution of our business plan~~ and **damage** our **reputation** ~~future success will depend, in part, on our ability to manage current and planned expansion and on our ability to continue to implement and improve our operational management~~ . ~~Any failure to manage the planned growth~~ **Food safety issues (both actual and perceived)** may have a ~~significant have a~~ negative impact on,the reputation of and demand for,our products.In addition to the need to comply with relevant food safety regulations,it is of critical importance that our products are safe and perceived as safe and healthy in all relevant markets.Our products may be subject to contamination by foreign materials or disease- producing organisms or pathogens,such as Listeria monocytogenes,Salmonella and E.coli.These organisms and pathogens are found generally in the environment and there is a risk that one or more,as a result of food processing,could be present in our products.These organisms and pathogens also can be introduced to our products as a result of improper handling at the further- processing,foodservice or consumer level.These risks may be controlled,but may not be eliminated,by adherence to good manufacturing practices and finished product testing.We have little,if any,control over handling procedures once our products have been shipped for distribution.Even an inadvertent shipment of contaminated products may be a violation of law and may lead to increased risk of exposure to product liability claims,increased scrutiny and penalties,including but not limited to,injunctive relief and plant closings,by federal and state regulatory agencies,and adverse publicity,which could exacerbate the associated negative consumer reaction.Any of these occurrences may **have an** adverse effect on our ~~our~~ financial results and the value of our brands.In addition,we may be required to recall some of our products if they spoil,become contaminated,are tampered with or are mislabeled.A widespread product recall could result in significant losses due to the costs of a recall,the destruction of product inventory and lost sales due to the unavailability of product for a period of time.Such a product recall also could result in adverse publicity,damage to our reputation,and a loss of consumer confidence in our products,which could have a material adverse effect on **our** business **results and the value of our brands. Security breaches** , **cyber- attacks and other disruptions could compromise our information, expose us to fraud or liability, or interrupt our operations, which would cause our business and reputation to suffer. In the ordinary course of our business, we use third- party, cloud- based servers and networks to store sensitive data, including our proprietary business and financial information; general business information regarding our customers, suppliers, and business partners; and personally identifiable information of our employees; and to operate our farm equipment. The security of our network and the storage and maintenance of sensitive information is critical to our operations. Despite our security measures, our and our third- party providers' information technology and infrastructure are subject and vulnerable to cyber- attacks by hackers, such as social engineering / phishing, malware (including ransomware), malfeasance by insiders, human or technological error, and as a result of bugs, misconfigurations or exploited vulnerabilities in software or hardware. A breach of our or our third- parties' security could compromise our and / or their networks, and the information stored could be accessed, manipulated, publicly disclosed, lost, or stolen. Any such access, manipulation, disclosure, or loss of information could result in errors in our records, fraudulent use of our financial information or theft of assets, legal claims or proceedings (such as class actions), regulatory investigations and enforcement actions, liability under laws that protect the privacy of personal information (including fines and penalties), theft of our intellectual property, damage to our reputation and / or significant system restoration or remediation and future compliance costs. In addition, our systems could be the subject of denial of service or other interference, which could disrupt our operations and commercial transactions. There can also be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our systems and information. In addition, with the continued automation of our farm operations, there is the possibility of exposure to critical assets or sensitive information loss stemming from a cyber-attack on communication interfaces with third- party providers, which could adversely impact our farm operations. Any of the foregoing could adversely affect our business, revenues, and competitive position. We remain dependent on third parties for the processing, distribution, and sale of our products. At present, we rely on third parties to process our fish, deliver them to seafood vendors, and ultimately sell them to consumers. While we carefully select processors or other intermediaries in the supply chain, any failure on their part to maintain quality standards or proper food handling processes could subject us to product liability claims, product recalls, increased scrutiny from regulators, and loss of consumer confidence in the safety and quality of our products. Seafood vendors may reject our products due to their particular product or volume requirements, extract pricing concessions that reduce our margins, or fail to adequately promote and sell our products. Our reliance on third parties could therefore result in a reduction in our revenues, an increase in our costs, delays in commercialization, additional regulatory requirements, or negative public opinion that could impact future sales and growth. We may be required to write- down the value of our inventory if its net realizable value is less than its accumulated cost at the end of a reporting period. Our fish in process inventory is a biological asset and is stated on our balance sheet at the lower of cost or net realizable value, where net realizable value is calculated as the estimated market price less the estimated costs of processing, packaging and transportation. Any adjustments to the carrying value of inventory are reported as a component of production costs on our income statement. Such adjustments**

may be material in any given period and could adversely affect our financial condition **and results of operations. Until such time as our net realizable value is consistently in excess of inventory costs** , ~~trading~~ **our inventory may be subject to significant market value risk.Risks Relating to the Industry and Macro Environment Business,political,or economic disruptions or global health concerns could seriously harm our current or planned business and increase our costs and expenses.Broad- based business or economic disruptions,political instability,or global health concerns could adversely affect our current or planned production,sale,distribution,research and development,and expansion.For example,the COVID- 19 pandemic and its related adverse public health developments,including orders to shelter- in- place,travel restrictions,and mandated business closures adversely affected workforces,organizations,customers,economies,and financial** markets globally,leading to an economic downturn and increased market volatility.It also disrupted the normal operations of many businesses,including ours.Global health concerns like the COVID- 19 pandemic could in themselves result in social,economic,and labor instability in the countries in which we or the third parties with whom we engage operate.The COVID- 19 pandemic and government measures taken in response had a significant impact,both direct and indirect,on businesses and commerce,as worker shortages occurred.These impacts included the shortage of packaging workers and transportation suppliers that we experienced,leading to slower and more expensive harvests and increased culling activity;supply chain disruptions;facility and production suspensions;and demand for certain goods and services,such as medical services and supplies spiked,while demand for other goods and services,including salmon in the institutional sales chain that includes restaurants fell,with a resulting drop in the prices for those goods and services.We were impacted by the reduction in food service demand for salmon due to the pandemic in the form of significantly lower than expected sales and a reduction in the value of our inventory.We cannot predict the scope and severity of business,political or economic disruptions or global health concerns.If we or any of the third parties with whom we engage,including suppliers,distributors,service providers,regulators,and overseas business partners,experience shutdowns or other disruptions again in the future,our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted,our anticipated revenues could decrease,and our costs and expenses could continue to rise as a result of our efforts to address such disruptions. **Adverse developments** ~~Industry volatility can affect~~ **affecting** ~~our earnings,especially due to fluctuations in commodity prices of salmon.Profitability in~~ the ~~salmon~~ **financial services** industry ~~is materially affected by the commodity price of salmon,and to a lesser extent,alternative proteins.These prices are determined by supply and demand factors and can fluctuate by season.For example,the COVID- 19 pandemic impacted market demand for salmon,which resulted in market prices falling by up to 40 % for certain product presentations.Conversely,given the long grow- out cycle for raising salmon,disruptions in production can depress market supply and result in price increases.If we lose key personnel~~ ,including **events** ~~key management personnel,or are unable to attract and retain additional personnel,it could delay our~~ - **or** ~~commercialization plans or harm~~ **concerns involving liquidity,defaults** ~~our~~ - **or** ~~research~~ **non-** performance **by financial institutions or transactional counterparties** , **could adversely affect our business, financial condition or results of operations. Events involving limited liquidity, defaults, non- performance or other adverse developments that affect financial institutions, transactional counterparties or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past** and **may in the future lead to market- wide liquidity problems. Most recently, on March 10, 2023, Silicon Valley Bank, now a division of the First Citizens Bank, was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation (“ FDIC ”) as receiver. Similarly, on March 8, 2023, Silvergate Capital Corp. announced its decision to voluntarily liquidate its assets and wind down its operations. Our access to funding sources and other credit arrangements in amounts adequate to finance or capitalize our current and projected future business operations could be significantly impaired by factors that affect us, the financial services industry or economy in general. These factors could include, among others, events such as liquidity constraints or failures, the ability to perform obligations under various types of financial, credit or liquidity agreements or arrangements, disruptions or instability in the financial services industry or financial markets, or concerns or negative expectations about the** prospects **for companies in the financial services industry. In addition, investor concerns regarding the U. S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any decline in available funding or access to our cash and liquidity resources could, among other risks, adversely impact our ability to meet our operating expenses or financial obligations or fulfill our other obligations, result in breaches of our contractual obligations or result in violations of federal or state wage and hour laws. Any of these impacts, or any other impacts resulting from the factors described above or other related or similar factors, could have material adverse impacts on our liquidity and our business, financial condition or results of operations** . We **currently have cash and cash equivalents deposited in Citizens Bank, N. A. representing 85 % of our total amounts and significantly in excess of federally insured levels. If any of the financial institutions in which we have deposited funds ultimately fails, we** may ~~pursue strategic acquisitions~~ **lose our uninsured deposits at such financial institutions,** and ~~investments that~~ **/ or we may be required to move our accounts to another financial institution, which could cause operational difficulties, such as delays in making payments to our partners and employees, which** could have an adverse ~~impact~~ **effect** on our business if they are unsuccessful. If appropriate...... of which could harm our operating results and financial condition. ~~and our costs and expenses could continue to rise as a result of our efforts to address such disruptions.~~ Industry volatility can affect our earnings,especially due to fluctuations in commodity prices of salmon.Profitability in the salmon industry is materially affected by the commodity price of salmon,and to a lesser extent,alternative proteins.These prices are determined by supply and demand factors and can fluctuate by season.For example,the COVID- 19 pandemic impacted market demand for salmon,which resulted in market prices falling by up to 40 %

for certain product presentations.Conversely,given the long grow- out cycle for raising salmon,disruptions in production can depress market supply and result in price increases. ~~If we lose key personnel,including key management personnel,~~ **Atlantic salmon farming is restricted in certain states.Concerns regarding the possible environmental impact from our GE Atlantic salmon have led some states to impose legislative and regulatory restrictions** or ~~are unable to attract~~ **bans on its farming.** In addition, **some states, such as Alaska, have enacted restrictions on Atlantic salmon farming generally. While** we **currently believe** ~~may acquire companies~~ that ~~have insufficient internal financial controls~~ **many states offer excellent potential sites for our salmon production farms** , ~~which~~ **if additional states adopt similar restrictions, or otherwise prohibit the rearing of our GE Atlantic salmon in those states, the number of potential sites available to us for production farms in the United States** could ~~impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may~~ be **reduced** ~~adversely affected~~ . We have entered into agreements that require us to pay a significant portion of our future revenue to third parties. In 2009, we received a grant from the Atlantic Canada Opportunities Agency to fund a research program. A total of C $ 2. 9 million was made available under the grant, and we received the entire amount through December 31, 2015. If we begin to generate revenue from any of the products from the research program, we must commence repayment of the outstanding loan in the form of a 10 % royalty. These payments could negatively impact our ability to support our operations. Revenues from sales of our GE Atlantic salmon are not subject to the royalty . Our financial condition or results of......, financial position, and cash flows . We have received government research grants and loans in the past, but such grants and loans may not be available in the future. We have in the past received government assistance in the form of research grants and loans to partially fund various research projects, including projects involving our GE Atlantic salmon. There can be no assurance that additional government assistance will be available in the future to help offset the cost of our research activities, in which case we would need to fund our research projects entirely from our available cash resources, which may be limited. This could delay progress on future product development and introduction. In addition, we may be subject to audit by the government agencies that provided research assistance to ensure that the funds were used in accordance with the terms of the grant or loan. Any audit of the use of these funds would require the expenditure of funds and result in the diversion of management' s attention .Our financial condition or results of operations may be adversely affected by international business risks,including exchange rate ~~fluctuations~~ **fluctuation** .The majority of our employees,including our research personnel,are currently located outside of the United States.As a consequence of the international nature of our business,we are exposed to risks associated with international operations.For example,we are based in the United States and present our financial statements in U.S.dollars,and the majority of our cash resources are held in U.S.dollars or in Canadian dollars.Some of our future expenses and revenues are expected to be denominated in currencies other than in U.S.dollars.Other risks include possible governmental restrictions of the movement of funds,limitation of contractual rights,or expropriation of assets without fair compensation.Therefore,movements in exchange rates to translate to foreign currencies and other international operational risks may have a negative impact on our reported results of operations,financial position,and cash flows . Our ability to use net operating losses and other tax attributes to offset future taxable income may be subject to certain limitations. In general, under Sections 382 and 383 of the U. S. Tax Code (the " Code "), a corporation that undergoes an " ownership change " is subject to limitations on its ability to utilize its pre- change net operating losses (" NOLs "), tax credits, or other tax attributes to offset future taxable income or taxes. For these purposes, an ownership change generally occurs where the aggregate stock ownership of one or more stockholders or groups of stockholders who owns at least 5 % of a corporation' s stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. In addition to limitations imposed by the 2017 Tax Cuts and Jobs Act, a portion of our NOLs are subject to substantial limitations arising from previous ownership changes, and, if we undergo another ownership change, our ability to utilize NOLs could be further limited by Sections 382 and 383 of the Code. In addition, future changes in our stock ownership, many of which are outside of our control, could result in an ownership change under Sections 382 and 383 of the Code. Our NOLs may also be impaired under state law. Accordingly, we may not be able to utilize a material portion of our NOLs. Furthermore, our ability to utilize our NOLs is conditioned upon our attaining profitability and generating U. S. federal and state taxable income. Risks Relating to Regulated Products Our ability to generate revenue to support our operations depends on maintaining regulatory approvals for our GE Atlantic salmon and our farm sites and obtaining new approvals for farm sites and the sale of our products in other markets, the receipt of which is uncertain. As a genetically engineered animal for human consumption, our GE Atlantic salmon required approval from the FDA in the United States and the Ministers of Health and Environment in Canada before it could be produced, sold, or consumed in those countries. Our FDA approval covers the production of our eggs in our hatchery in Canada and the grow- out of our eggs in our facilities in Indiana and Rollo Bay. FDA approvals will be needed for each additional facility we plan to operate. Additionally, we will require local regulatory approvals in other countries in which we hope to operate. There is no guarantee that we will receive or be able to maintain regulatory approvals from the FDA or other regulatory bodies or that there will not be a significant delay before approval. There is also no guarantee that any approvals granted will not be subject to onerous obligations in relation to matters such as production or labeling, or that any regulator will not require additional data prior to approval, which may be costly and time- consuming to acquire. The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other agencies on which our operations may rely is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for new applications to be reviewed and / or approved by necessary government agencies, which would adversely affect our business. For example, in May 2021, the FDA released its Resiliency Roadmap for FDA Inspectional Oversight, which described the prioritization process for FDA inspections and oversight. We believe that our

GE Atlantic salmon would be treated as a " tier 2- higher priority " product, but not a " tier 1- mission critical " product. This designation could potentially impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. We will be required to continue to comply with FDA and foreign regulations. Even with the approval of our NADA and other regulatory applications for our GE Atlantic salmon, we must continue to comply with FDA and other regulatory requirements not only for manufacturing, but also for labeling, advertising, record keeping, and reporting to the FDA and other regulators of adverse events and other information. Failure to comply with these requirements could subject us to administrative or judicial enforcement actions, including but not limited to product seizures, injunctions, civil penalties, criminal prosecution, refusals to approve new products, or withdrawal of existing approvals, as well as increased product liability exposure, any of which could have a material adverse effect on our business, financial condition, or results of operations. The markets in which we intend to sell our products are subject to significant regulations. In addition to our FDA approval for the sale and consumption of our GE Atlantic salmon in the United States, we are also subject to state and local regulations and permitting requirements, which could impact or delay the commercialization and commencement of revenue generation from the sale of our salmon. International sales also are subject to rules and regulations promulgated by regulatory bodies within foreign jurisdictions. There can be no assurance that foreign, state, or local regulatory bodies will approve the sale and consumption of our product in their jurisdiction. We may incur significant costs complying with environmental, health, and safety laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities. Our operations are subject to a variety of federal, state, local, and international laws and regulations governing, among other matters, the use, generation, manufacture, transportation, international shipment, storage, handling, disposal of, and human exposure to our products in both the United States and overseas, including regulation by governmental regulatory agencies, such as the FDA and the U. S. Environmental Protection Agency. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with these laws and regulations. Additional laws and regulations could be adopted in the future further regulating our business. We may become subject to increasing regulation, changes in existing regulations, and review of existing regulatory decisions. Regulations pertaining to genetically engineered animals are still developing and could change from their present state. In addition, new legislation could require new regulatory frameworks, changes in existing regulation, or re- evaluation of prior regulatory decisions. For example, despite the FDA' s final determination that our GE Atlantic salmon may be sold without being labeled as a genetically engineered product, a provision added to the 2016 Omnibus Appropriations Act required the FDA to issue final guidance for such labeling. The FDA was therefore obligated to maintain an Import Alert starting in January 2016 that prohibited import of our GE Atlantic salmon until such guidance was finalized or the provision was no longer effective. On March 8, 2019, several months after the USDA promulgated its final rule establishing the Disclosure Standard, which included disclosure requirements for bioengineered foods, including our GE Atlantic salmon, the FDA lifted the Import Alert. Similarly, in July 2017, a bill was introduced in the United States Senate that could have, had it become law, required labeling unique to, as well as re- examination of the environmental assessments used by the FDA in its 2015 approval of the NADA for our GE Atlantic salmon. While this bill was reintroduced in January 2019 without the requirement for re- examination of those environmental assessments, any such legislatively imposed review of a completed regulatory process could result in new restrictions on, or delays in, commercialization of our product in the United States. We could be subject to increasing or more onerous regulatory hurdles as we attempt to commercialize our product, which could require us to incur significant additional capital and operating expenditures and other costs in complying with these laws and regulations. Our regulatory burdens could also increase if our GE Atlantic salmon are found, or believed, to grow to a larger final size than conventional Atlantic salmon. In addition, the 2020 Appropriations Act, which was signed into law in December 2019, **and reintroduced and passed in 2021, 2022 and 2023,** contained an amendment that requires that any bioengineered animal approved by FDA prior to the effective date of the Disclosure Standard shall include the words ' ' genetically engineered' ' prior to the existing acceptable market name. While the Company believes that this labeling requirement is unnecessary and redundant to the requirement of the Disclosure Standard, it will comply with all applicable laws. Additional regulatory and lawmaking activity within the United States and abroad could increase our costs and / or delay or prevent the production and sales of our GE Atlantic salmon. We or regulatory agencies approving ~~of~~ our products may be sued by non- governmental organizations and others who are opposed to the development or commercialization of genetically engineered products. There are many organizations in the United States and elsewhere that are fundamentally opposed to the development of genetically engineered products. These groups have a history of bringing legal action against companies attempting to bring new biotechnology products to market. On December 23, 2013, an application was filed by two NGOs with the Canadian Federal Court seeking judicial review to declare invalid the decision by the Canadian Minister of the Environment to publish in the Canadian Gazette a Significant New Activity Notice (" SNAN ") with respect to our GE Atlantic salmon. Though the Canadian Federal Court dismissed this challenge, the petitioners filed an appeal of the ruling, which was subsequently dismissed by the Canadian Federal Court of Appeal on October 21, 2016. On March 30, 2016, a coalition of non- governmental organizations filed a complaint in the United States District Court for the Northern District of California against the FDA, the United States Fish and Wildlife Service, and related individuals for their roles in the approval of our GE Atlantic salmon. Subsequently, the Fish and Wildlife Service was dismissed from the case, and AquaBounty joined the case as an intervenor to protect AquaBounty' s interests. The coalition, including the Center for Food Safety and Friends of the Earth, ~~claims~~ **claimed** that the FDA had no statutory authority to regulate genetically engineered animals, and, if it did, ~~that~~ the agency failed to **adequately** analyze and implement measures to mitigate ecological, environmental, and socioeconomic risks that could impact wild salmon and the environment, including the risk that our GE Atlantic salmon could escape and threaten endangered wild salmon stocks. In December 2019 **,** the court found that FDA had authority / jurisdiction over genetically engineered animals and in November 2020, the judge remanded the Environmental Assessment (the approval) to FDA on National Environmental Protection Act (NEPA) and Endangered Species Act (ESA) grounds. In April 2021, **the** FDA / US Department of Justice filed a notice of appeal relating to several claims in that case, and subsequently withdrew the appeal, and the date to file appeals in the case has expired. The court decision from the Northern District of California does not have a current business impact on AquaBounty' s egg production in Prince Edward Island, Canada, AquaBounty' s salmon production in Albany, Indiana, or AquaBounty' s sales of its fish. The term " genetically engineered " will need to be included as part of the acceptable market name for our GE Atlantic salmon, and bioengineering disclosures will need to be provided at the retail level, in accordance with USDA regulations. These disclosures could negatively impact consumer acceptance. Until the passage of the National Bioengineered Food Disclosure Law in July 2016, which contained the requirement to establish the Disclosure Standard, our GE Atlantic salmon did not need to be labeled as containing a bioengineered product, because it had been deemed to be " substantially equivalent " to the conventional product. However, because some states either passed or considered new laws specifying varying requirements for labeling products sold at the retail level that contain bioengineered ingredients, the United States Congress passed the National Bioengineered Food Disclosure Law in July 2016, requiring **the** USDA to establish a mandatory standard for disclosing foods that are or may be bioengineered. USDA issued the National Bioengineered Food Disclosure Standard in December 2018. AquaBounty includes the bioengineered logo on its GE Atlantic salmon packaging, in accordance with the Disclosure Standard. In addition, the 2020 Appropriations Act, which was signed into law in December 2019, which was reintroduced and passed in 2021 ~~and~~ **,** 2022 **and 2023** , contained an amendment that requires that any bioengineered animal approved by FDA prior to the effective date of the Disclosure Standard shall include the words ' ' genetically engineered' ' prior to the existing acceptable market name. While the Company believes that this labeling requirement is unnecessary and redundant to the requirement of the Disclosure Standard, it complies with all applicable laws. Labeling requirements could cause consumers to view the label as either a warning or as an indication that GE Atlantic salmon is inferior to conventional Atlantic salmon, which could negatively impact consumer acceptance of our product. Risks Relating to Intellectual Property Competitors and potential competitors may develop products and technologies that make ours obsolete or garner greater market share than ours. We do not believe that we have a direct competitor for bioengineered, growth- enhanced Atlantic salmon. However, the market for Atlantic salmon is dominated by a group of large, multinational corporations with entrenched distribution channels. Competitors may be able to reduce the grow-out times for their conventional sea- cage and RAS farming operations, thus lowering our competitive advantages and reducing their costs. Our ability to compete successfully will depend on our ability to demonstrate that our GE Atlantic salmon is superior to and / or less expensive than other products available in the market. Certain of our competitors may be better funded than we are and / or benefit from government support and other incentives that are not available to us. At least in part due to these financial advantages, our competitors may be able to develop competing and / or superior products and compete more aggressively and sustain that competition over a longer period of time than we can. As more companies develop new intellectual property in our markets, a competitor could acquire ~~patent~~ **patents** or other rights that may limit our ability to successfully market our product. If our technologies or products are stolen, misappropriated, or reverse engineered, others could use the technologies to produce competing technologies or products. Third parties, including our collaborators, contractors, and others involved in our business often have access to, and may require that we grant ~~interests~~ **interest** in, our technologies. If our technologies or products were stolen, misappropriated, or reverse engineered, or if we are forced to grant broad interests in our technologies, they could be used by other parties that may be able to reproduce our technologies or products using our technologies for their own commercial gain. If this were to occur, it would be difficult for us to challenge this type of use, especially in countries with limited intellectual property protection. In addition, third parties granted interests in our technologies could seek to prevent or limit our use or commercialization of those technologies based on claims of partial ownership. Our ability to compete may be negatively impacted if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights. Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property in the United States and abroad for our technologies and resultant products and potential products. We have adopted a strategy of seeking patent protection in the United States and abroad with respect to certain of the technologies used in or relating to our products; however, the patent to the technology covering our GE Atlantic salmon, which we license under a global, perpetual, royalty- free, non- exclusive license from Genesis Group, Inc., an affiliate of Memorial University of Newfoundland, and an affiliate of the Hospital for Sick Children of Toronto, expired in August 2013. We expect to protect our proprietary technology in regard to our GE Atlantic salmon through a combination of in- house know- how and the deterrence of the regulatory process that would need to be completed for a competing product to be commercialized, which we believe provides us with a competitive advantage. There can be no guarantee that this strategy will be successful. We also rely on trade secrets to protect our technologies, particularly in cases when we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect, and we may not be able to adequately protect our trade secrets or other proprietary or licensed information. While we require our employees, academic collaborators, consultants, and other contractors to enter into confidentiality agreements with us, if we cannot maintain the confidentiality of our proprietary and licensed technologies and other confidential information, our ability and that of our licensor to receive patent protection, and our ability to protect valuable information owned or licensed by us may be imperiled. Enforcing our intellectual property rights may be difficult and unpredictable. Enforcing our intellectual property rights can be expensive and time consuming, and the outcome of such efforts can be unpredictable. If we were to initiate legal proceedings against a third party to enforce a patent covering one of our technologies, the defendant could counterclaim that our patent is invalid and / or unenforceable or assert that the patent does not cover its manufacturing processes, manufacturing components, or products. Furthermore, in patent litigation in the United States, defendant counterclaims alleging both invalidity and unenforceability are commonplace. Although we may believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith, the outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity of our patent rights, we cannot be certain, for example, that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and / or unenforceability, we would not be able to exclude others from practicing the inventions claimed therein. Such a loss of patent protection could have a material adverse impact on our business. Even if our patent rights are found to be valid and enforceable, patent claims that survive litigation may not cover commercially valuable products or prevent competitors from importing or marketing products similar to our own, or using manufacturing processes or manufacturing components similar to those used to produce the products using our technologies. Although we believe that we have obtained assignments of patent rights from all inventors, if an inventor did not adequately assign their patent rights to us, a third party could obtain a license to the patent from such inventor. This could preclude us from enforcing the patent against such **a** third party. We may not be able to enforce our intellectual property rights throughout the world. The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, often do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bioengineering. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate. Risks Relating to our Common Stock The price of our shares of common stock is likely to be volatile. The share price of publicly traded emerging companies can be highly volatile and subject to wide fluctuations. The prices at which our common stock is quoted and the prices which investors may realize will be influenced by a large number of factors, some specific to our company and operations and some that may affect the quoted land- based fish farming industry, the biotechnology sector, or quoted companies generally. These factors could include variations in our operating results, publicity regarding the process of obtaining regulatory approval to commercialize our products, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, overall market or sector sentiment, legislative changes in our sector, the performance of our research and development programs, large purchases or sales of our common stock, currency fluctuations, legislative changes in the bioengineering environment, future sales of our common stock or the perception that such sales could occur and general economic conditions. Certain of these events and factors are outside of our control. Stock markets have from time to time experienced severe price and volume fluctuations, which, if recurring, could adversely affect the market prices for our common stock. ~~NASDAQ~~ **We** may ~~delist~~ **not be able to maintain** our **listing** ~~securities from quotation~~ on ~~its exchange~~ **Nasdaq,** which could limit investors' ability **or willingness** to make transactions in our securities and subject us to additional trading restrictions. ~~Our~~ **Even though our** ~~Common~~ **common** ~~Stock~~ **stock** is traded on ~~the~~ Nasdaq **, we cannot assure you that we will be able to comply with standards necessary to maintain such listing, which may result in our common** ~~Stock~~ **stock being delisted from** ~~Market LLC ("~~ Nasdaq ~~")~~ **. If our common stock were no longer listed on Nasdaq** , **investors would experience impaired liquidity for our common stock, not only in the number of shares that could be bought and sold at** a ~~national~~ **given price, which might be depressed by the relative illiquidity, but also through delays in the timing of transactions and reduction in media coverage. For example, investors might only be able to trade on one of the over- the- counter markets. In addition, we could face significant material adverse consequences, including: ? a limited availability of market quotations for our** securities ~~exchange~~ **; ? a limited amount of news and analyst coverage for us; and ? a decreased ability to issue additional securities or obtain additional financing in the future** . On October 31, 2022, we received a letter (the " Notice ") from Nasdaq notifying us that, because the closing bid price for our common stock ~~, par value $ 0. 001 per share (the " Common Stock "),~~ had been below $ 1. 00 per share for the previous 30 consecutive business days, it no longer complied with the minimum bid price requirement for continued listing on ~~the~~ Nasdaq ~~Capital Market~~ . The Notice had no immediate effect on our listing **or** on the ~~Nasdaq Capital Market or on the~~ trading of our ~~Common~~ **common** ~~Stock~~ **stock** . The Notice provided us with a compliance period of 180 calendar days, or until May 1, 2023, to regain compliance. ~~If at~~ **We were subsequently granted** ~~any~~ - **an additional** ~~time during this~~ 180 ~~-~~ **calendar** ~~day~~ **days , or until October 30, 2023, to regain** compliance ~~period~~ **with** the ~~closing~~ **minimum $ 1. 00** bid price ~~of our Common Stock is at least $ 1. 00~~ per share **requirement** for ~~a~~ **continued listing on Nasdaq. To improve the price level of our common stock so that we could regain compliance with the** minimum ~~of 10 consecutive business days, then Nasdaq may provide us with written confirmation of compliance and the matter will be closed. We intend to monitor the closing~~ bid price **requirement, on October 12, 2023, our stockholders approved a reverse stock split** of ~~the~~ **our** ~~Common~~ **common** ~~Stock~~ **stock** ~~and may~~ , **and our Board** ~~if appropriate, evaluate various courses~~ of ~~action to~~ **Directors approved a split ratio of 1- for- 20. The reverse stock split was implemented on October 16, 2023 and on October 30, 2023, we received a notice from Nasdaq confirming that we had** ~~regain~~ **regained** compliance **with the minimum bid price requirement** . There can be no assurance that we will ~~regain compliance or otherwise~~ maintain compliance with the ~~other~~ listing requirements. If we fail **in the future** to ~~maintain~~ **comply with Nasdaq listing rules, it could lead to the delisting of our common stock from Nasdaq** ~~an~~ **and** ~~effective system of internal control~~ **our common stock trading, if at all, only on the** over ~~financial reporting, we~~ **- the- counter markets. Our share price and our ability to raise additional funds** may **depend on our success in growing, or our perceived ability to grow, our GE Atlantic salmon successfully and profitably at commercial scale. We have** not **yet demonstrated that we can grow** ~~be able to accurately report our financial results or~~ **our** ~~prevent fraud~~ **GE Atlantic salmon successfully or profitably at commercial scale** . **If we** ~~Effective internal controls over financial reporting~~ are ~~necessary~~ **unsuccessful in growing our salmon to harvest size, achieving our quality standards and selling the fish in the market at a profit from our commercial- scale facilities,** ~~for~~ - **or** ~~us~~ **are perceived as being unable** to ~~provide reliable financial reports~~ **do so prior to commercial- scale harvest** and **sale** , ~~together~~ **we may lose credibility** with ~~adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their~~ -- **the investor community and** ~~implementation, could cause us to fail to meet our reporting obligations. In~~

~~addition, any testing by us conducted in connection with Section 404 of the Sarbanes- Oxley Act, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify~~ other **funding sources** ~~areas for further attention or improvement. Ineffective internal controls could also cause investors to lose confidence in our reported financial information~~ , which could ~~have a negative~~ **negatively impact** ~~effect on~~ the ~~trading~~ price of our common stock **and our ability to raise additional funds** . An active trading market for our common stock may not be sustained. Although our common stock is currently **listed and** traded on ~~The~~ Nasdaq ~~Capital Market~~ , an active trading market for our common stock may not be maintained. If an active market for our common stock is not maintained, it may be difficult for ~~shareholders~~ **stockholders** to sell shares of our common stock. An inactive trading market may impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration ~~. If securities or industry analysts do not publish research or reports, or publish inaccurate or unfavorable research or reports about our business, our share price and trading volume could decline. The U. S. trading market for our shares of common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If we obtain securities or industry analyst coverage, and one or more of the analysts who covers us downgrades our shares of common stock, changes their opinion of our shares, or publishes inaccurate or unfavorable research about our business, our share price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our shares of common stock could decrease, and we could lose visibility in the financial markets, which could cause our share price and trading volume to decline. Our share price and our ability to raise additional funds may depend on our success in growing, or our perceived ability to grow, our GE Atlantic salmon successfully and profitably at commercial scale. We have not yet demonstrated that we can grow our GE Atlantic salmon successfully or profitably at commercial scale. If we are unsuccessful in growing our salmon to harvest size, achieving our quality standards and selling the fish in the market at a profit from our commercial- scale facilities, or are perceived as being unable to do so prior to commercial- scale harvest and sale, we may lose credibility with the investor community and other funding sources, which could negatively impact the price of our common stock and our ability to raise additional funds. There can be no assurance that additional funds will be available on a timely basis, on favorable terms, or at all, or that such funds, if raised, would be sufficient to enable us to continue to implement our business strategy. 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~~ . We are a " smaller reporting company " and a " non- accelerated filer " and we cannot be certain if applicable scaled disclosure requirements will make our shares of common stock less attractive to investors. As a " smaller reporting company, " we ~~may elect~~ **elected** to comply with scaled disclosure requirements relative to companies that are not smaller reporting companies, including but not limited to, reduced disclosure obligations regarding executive compensation in our filings with the SEC. Under current SEC rules, we will continue to qualify as a " smaller reporting company " for so long as (i) we have a public float (i. e., the aggregate market value of common equity held by non- affiliates) of less than $ 250 million or (ii) our annual revenue is less than $ 100 million during the most recently completed fiscal year and the aggregate market value of our common stock held by non- affiliates is less than $ 700 million. In addition, under current SEC rules, we are not an " accelerated filer " and ~~so~~ **, therefore, are** not required to include an auditor attestation of the effectiveness of our internal control over financial reporting in this Annual Report on Form 10- K. We cannot predict if investors will find our shares of common stock to be less attractive because we **rely and** may **in the future continue to** rely on these exemptions. If some investors find our shares of common stock less attractive as a result, there may be a less active trading market for our shares of common stock, and our share price may be more volatile. We may issue preferred stock with terms that could dilute the voting power or reduce the value of our common stock. While we have no specific plan to issue preferred stock, our certificate of incorporation authorizes us to issue, without the approval of our ~~shareholders~~ **stockholders** , one or more series of preferred stock having such designation, relative powers, preferences (including preferences over our common stock respecting dividends and distributions), voting rights, terms of conversion or redemption, and other relative, participating, optional, or other special rights, if any, of the shares of each such series of preferred stock and any qualifications, limitations, or restrictions thereof, as our Board of Directors may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. For example, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of the common stock. Provisions in our corporate documents and Delaware law could have the effect of delaying, deferring, or preventing a change in control of us, even if that change may be considered beneficial by some of our ~~shareholders~~ **stockholders** . The existence of some provisions of our certificate of incorporation or our bylaws or Delaware law could have the effect of delaying, deferring, or preventing a change in control of us that a ~~shareholder~~ **stockholder** may consider favorable. These provisions include: ? providing that the number of members of our ~~board~~ **Board of Directors** is limited to a range fixed by our by- laws; ? establishing advance notice requirements for nominations of candidates for election to our Board of Directors or for proposing matters that can be acted on by ~~shareholders~~ **stockholders** at ~~shareholder~~ **stockholder** meetings; and ? authorizing the issuance of " blank check " preferred stock, which could be issued by our Board of Directors to issue securities with voting rights and thwart a takeover attempt. As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the General Corporation Law of the State of Delaware. Section 203 prevents some

~~shareholders~~ **stockholders** holding more than 15 % of our voting stock from engaging in certain business combinations unless the business combination or the transaction that resulted in the ~~shareholder~~ **stockholder** becoming an interested ~~shareholder~~ **stockholder** was approved in advance by our Board of Directors, results in the ~~shareholder~~ **stockholder** holding more than 85 % of our voting stock (subject to certain restrictions), or is approved at an annual or special meeting of ~~shareholders~~ **stockholders** by the holders of at least 66 2 / 3 % of our voting stock not held by the ~~shareholder~~ **stockholder** engaging in the transaction. Any provision of our certificate of incorporation or our bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our ~~shareholders~~ **stockholders** to receive a premium for their shares of our common stock and affect the price that some investors are willing to pay for our common stock ~~. The financial reporting obligations of being a public company in the United States are expensive and time consuming and place significant additional demands on our management. The obligations of being a public company in the United States place additional demands on our management and require significant expenditures, including costs resulting from public company reporting obligations under the Securities Exchange Act of 1934, as amended (the " Exchange Act "); the rules and regulations regarding corporate governance practices, including those under the Sarbanes- Oxley Act and the Dodd Frank Wall Street Reform and Consumer Protection Act; and the listing requirements for the Nasdaq Capital Market. Our management and other personnel devote a substantial amount of time to ensure that we comply with all of these requirements. Any changes that we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all. These rules and regulations make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. These factors also could make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors, particularly to serve on our Audit Committee and Compensation Committee, or as executive officers~~ . We do not anticipate paying cash dividends in the foreseeable future, and, accordingly, ~~shareholders~~ **stockholders** must rely on stock appreciation for any return on their investment. We have never declared or paid cash dividends on our common stock. We do not anticipate paying cash dividends in the foreseeable future and intend to retain all of our future earnings, if any, to finance the operations, development, and growth of our business. There can be no assurance that we will have sufficient surplus under Delaware law to be able to pay any dividends at any time in the future. As a result, absent payment of dividends, only appreciation of the price of our common stock, which may never occur, will provide a return to ~~shareholders~~ **stockholders** . You may also have to sell some or all of your shares of our common stock in order to generate cash flow from your investment in us. **29**