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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2015

OR

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

For the transition period from _____ to _____

Commission file number: 001-37383

Arcadia Biosciences, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**81-0571538**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
202 Cousteau Place, Suite 105 Davis, CA	**95618**
(Address of Principal Executive Offices)	**(Zip Code)**

(530) 756-7077
(Registrant's Telephone Number, Including Area Code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

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

As of June 17, 2015, the number of outstanding shares of the registrant's common stock, par value $0.001 per share, was 43,581,694.

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Arcadia Biosciences, Inc.

FORM 10-Q FOR THE QUARTER ENDED MARCH 31, 2015

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ITEM 1. FINANCIAL STATEMENTS

Arcadia Biosciences, Inc.

Condensed Consolidated Balance Sheets

(In thousands, except share data)

	March 31, 2015 (Unaudited)	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 11,278	$ 16,571
Accounts receivable	150	1,042
Unbilled revenue	170	380
Inventories — current	521	424
Prepaid expenses and other current assets	254	278
Total current assets	12,373	18,695
Property and equipment, net	663	728
Inventories — noncurrent	2,101	2,149
Cost method investment	500	500
Other noncurrent assets	3,783	2,817
Total assets	$ 19,420	$ 24,889
Liabilities, redeemable and convertible preferred stock and stockholders' deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 3,381	$ 3,197
Amounts due to related parties	78	56
Promissory notes — current	1,082	1,055
Convertible promissory notes	3,281	4,551
Unearned revenue — current	1,255	830
Derivative liabilities related to convertible promissory notes	2,979	1,580
Total current liabilities	12,056	11,269
Promissory notes — noncurrent	588	869
Note payable to related party	8,000	8,000
Unearned revenue — noncurrent	3,075	3,636
Other noncurrent liabilities	3,000	3,000
Total liabilities	26,719	26,774
Redeemable convertible preferred stock, no par value—10,553,770 shares authorized as of March 31, 2015 and December 31, 2014; 9,822,283 issued and outstanding as of March 31, 2015 and December 31, 2014; aggregate liquidation preferences of $35,254 as of March 31, 2015	35,793	34,098
Convertible preferred stock, no par value—94,586,346 shares authorized as of March 31, 2015 and December 31, 2014; 93,540,163 issued and outstanding as of March 31, 2015 and December 31, 2014; aggregate liquidation preferences of $93,540 as of March 31, 2015	48,783	48,783
Stockholders' deficit:		
Convertible preferred stock, no par value—94,586,346 shares authorized as of March 31, 2015 and December 31, 2014; 93,540,163 issued and outstanding as of March 31, 2015 and December 31, 2014; aggregate liquidation preferences of $93,540 as of March 31, 2015	—	—
Common stock, no par value, 140,000,000 shares authorized as of March 31, 2015 and December 31, 2014; 2,077,782 and 2,074,030 shares issued and outstanding at March 31, 2015 and December 31, 2014, respectively	—	—
Additional paid-in capital	27,898	29,204
Accumulated deficit	(119,773)	(113,970)
Total stockholders' deficit	(91,875)	(84,766)
Total liabilities, redeemable and convertible preferred stock and stockholders' deficit	$ 19,420	$ 24,889

See accompanying notes to the unaudited condensed consolidated financial statements.

Arcadia Biosciences, Inc.

Condensed Consolidated Statements of Operations and Comprehensive Loss

(Unaudited)

(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2015	2014
Revenues:		
Product	$ 81	$ 134
License	158	176
Contract research and government grants	576	1,067
Total revenues (which includes $23 and $23 from related parties — Note 8)	815	1,377
Operating expenses:		
Cost of product revenues	56	91
Research and development	1,832	1,983
Selling, general and administrative	2,638	1,885
Total operating expenses	4,526	3,959
Loss from operations	(3,711)	(2,582)
Interest expense	(467)	(384)
Other expense, net	(1,396)	(21)
Net loss before income taxes and equity in loss of unconsolidated entity	(5,574)	(2,987)
Income tax provision	(229)	(93)
Equity in loss of unconsolidated entity	—	(396)
Net loss and comprehensive loss	(5,803)	(3,476)
Accretion of redeemable convertible preferred stock to redemption value	(1,695)	—
Deemed dividend to warrant holder	(197)	—
Net loss attributable to common stockholders	$ (7,695)	$ (3,476)
Net loss per share attributable to common stockholders:		
Basic and diluted	$ (3.71)	$ (1.69)
Weighted-average number of shares used in per share calculations:		
Basic and diluted	2,075,407	2,056,559

See accompanying notes to the unaudited condensed consolidated financial statements.

Arcadia Biosciences, Inc.

Condensed Consolidated Statements of Cash Flows

(Unaudited)

(In thousands)

	Three Months Ended March 31,	
	2015	**2014**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (5,803)	$(3,476)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	72	94
Equity in loss of unconsolidated entity	—	396
Stock-based compensation	387	201
Common stock warrants issued for services	—	56
Change in fair value of derivative liabilities related to convertible promissory notes	1,399	21
Accretion of debt discount	141	150
Changes in operating assets and liabilities:		
Accounts receivable	892	550
Amounts due from related parties	—	100
Unbilled revenue	210	(191)
Inventories	(49)	(424)
Prepaid expenses and other current assets	24	—
Other noncurrent assets	8	—
Accounts payable and accrued expenses	235	533
Amounts due to related parties	22	5
Unearned revenue	(136)	(141)
Net cash used in operating activities	(2,598)	(2,126)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Cost method investment in Bioceres	—	(700)
Purchases of property and equipment	(7)	—
Net cash used in investing activities	(7)	(700)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Capital lease payments	—	(19)
Payments for deferred offering costs	(1,238)	—
Proceeds from issuance of common stock	2	—
Proceeds from issuance of redeemable convertible preferred stock and common stock warrants, net of issuance costs	—	884
Payments on notes payable and convertible promissory notes	(1,452)	(359)
Net cash (used in) provided by financing activities	(2,688)	506
Net decrease in cash and cash equivalents	(5,293)	(2,320)
Cash and cash equivalents — beginning of period	16,571	2,835
Cash and cash equivalents — end of period	$11,278	$ 515
Noncash investing and financing activities:		
Change in deferred offering costs included in accounts payable and accrued expenses	$ (264)	$ —
Accretion of redeemable convertible preferred stock	$ 1,695	$ —
Deemed dividend to warrant holder	$ 197	$ —

See accompanying notes to the unaudited condensed consolidated financial statements.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements

1. Significant Accounting Policies

Organization

Arcadia Biosciences, Inc. (the "Company" or "we" or "our" or "us"), was incorporated in the state of Arizona in 2002 and maintains its headquarters in Davis, California, with additional facilities in Seattle, Washington; Phoenix, Arizona; and American Falls, Idaho. The Company was reincorporated in Delaware in March 2015.

The Company pursues agriculture-based biotechnology business opportunities that improve the environment and human health. The Company is an agricultural biotechnology trait company with an extensive and diversified portfolio of late-stage crop productivity and product quality traits addressing multiple crops that supply the global food and feed markets. Its traits are focused on high-value enhancements that increase crop yields by enabling plants to more efficiently manage environmental and nutrient stresses, and that enhance the quality and value of agricultural products.

In February 2012, the Company formed Verdeca LLC ("Verdeca", see Note 3), which is jointly owned with Bioceres, Inc. ("Bioceres USA"), a U.S. wholly owned subsidiary of Bioceres, S.A. ("Bioceres"), an Argentine corporation. Bioceres is an agricultural investment and development cooperative. Verdeca was formed to develop and deregulate soybean varieties using both partners' agricultural technologies.

Reverse Stock Split

In April 2015, the Company's board of directors approved a certificate of amendment of the Company's amended and restated certificate of incorporation to effect a reverse split of the Company's issued and outstanding common stock at a one-for-four ratio. In May 2015, the Company's stockholders approved the certificate of amendment, and on May 8, 2015, the Company filed the certificate of amendment with the Secretary of State of Delaware to effect the reverse split. The par value and authorized shares of common stock and convertible preferred stock were not adjusted as a result of the reverse split. All issued and outstanding common stock, options to purchase common stock and per share amounts contained in the financial statements have been retroactively adjusted to reflect the reverse stock split for all periods presented. The financial statements have also been retroactively adjusted to reflect a proportional adjustment to the conversion ratio for each series of redeemable convertible preferred stock and convertible preferred stock that will be effected in connection with the reverse stock split.

Initial Public Offering

In May 2015, the Company completed an initial public offering ("IPO"), and subsequently in June 2015, the Company completed the sale of additional shares upon exercise of the underwriters' over-allotment option. In connection with the IPO, the Company sold 8,528,306 shares of common stock at $8.00 per share, which raised approximately $58.3 million in proceeds, net of underwriting discounts and commissions and offering expenses, as further discussed in Note 9 "Subsequent Events."

Unaudited Interim Financial Information

The interim condensed consolidated balance sheet as of March 31, 2015, and the condensed consolidated statements of operations and comprehensive loss, and cash flows for the three months ended March 31, 2015 and 2014 are unaudited. The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"), and following the requirements of the Securities and Exchange Commission ("SEC") for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. GAAP can be condensed or omitted. These financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments that are necessary for a fair statement of our financial information. The results of operations for the three months ended March 31, 2015 are not necessarily indicative of the results to be expected for the year ending December 31, 2015 or for any other future annual or interim period. The condensed consolidated balance sheet as of December 31, 2014 included herein was derived from the audited consolidated financial statements as of that date. These financial statements should be read in conjunction with the Company's audited consolidated financial statements included in the prospectus dated May 14, 2015 that forms a part of the Company's Registration Statement on Form S-1, filed with the SEC pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
(continued)

Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and Verdeca LLC. All intercompany balances and transactions have been eliminated in consolidation. The Company uses a qualitative approach in assessing the consolidation requirement for variable interest entities ("VIEs"). This approach focuses on determining whether the Company has the power to direct the activities of the VIE that most significantly affect the VIE's economic performance and whether the Company has the obligation to absorb losses, or the right to receive benefits, that could potentially be significant to the VIE. For all periods presented, the Company has determined that it is the primary beneficiary of Verdeca, which is a VIE. The Company evaluates its relationships with the VIEs upon the occurrence of certain significant events that affect the design, structure or other factors pertinent to the primary beneficiary determination.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions in the Company's condensed consolidated financial statements and notes thereto. Significant estimates and assumptions made by management included the determination of the provision for income taxes, costs to complete government grants and research contracts, and the development period of revenue-generating technologies and the estimation of inventory reserves. Management bases its estimates on historical experience and on various other market-specific and relevant assumptions that management believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Deferred Offering Costs

Deferred offering costs, which consist of direct incremental legal, consulting, banking and accounting fees relating to the Company's IPO, are capitalized. The deferred offering costs will be offset against IPO proceeds upon the consummation of the offering. The Company has recorded $3.7 million and $2.8 million of deferred offering costs in other noncurrent assets on the condensed consolidated balance sheet as of March 31, 2015 and December 31, 2014, respectively.

Net Loss per Share

Basic net loss per share, which excludes dilution, is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share reflects the potential dilution that could occur if securities or other contracts to issue common stock, such as stock options, convertible promissory notes, convertible preferred stock, redeemable convertible preferred stock and warrants, result in the issuance of common stock which share in the losses of the Company. Certain potential shares of common stock have been excluded from the computation of diluted net loss per share as their effect would be anti-dilutive. Such potentially dilutive shares are excluded when the effect would be to reduce the loss per share. The Company's convertible preferred stock are considered to be participating securities as they are entitled to participate in undistributed earnings with shares of common stock. Due to net losses, there is no impact on earnings per share calculation in applying the two-class method since the participating securities have no legal requirement to share in any losses.

SONOVA® GLA Safflower Oil Inventory

Proprietary safflower plants are grown, producing seed with high gamma linolenic acid (GLA) content. This seed is used for subsequent plantings or processed, and sold as GLA oil. Amounts inventoried consist primarily of fees paid to contracted cooperators to grow the crops and costs to process and store harvested seed. Inventory costs are tracked on a lot-identified basis, valued at the lower of cost or market, and are included as cost of product revenues when sold. The Company provides for inventory reserves when conditions indicate that the selling price may be less than cost due to physical deterioration, obsolescence, changes in price levels, or other factors. Additionally, the Company provides reserves for excess and slow-moving inventory on hand that is not expected to be sold within a reasonable period to reduce the carrying amount to its estimated net realizable value. The reserves are based upon estimates about future demand from the Company's customers and distributors and market conditions. The Company had inventory reserves of $1.7 million as of March 31, 2015 and December 31, 2014 relating to reserves recorded in 2014 primarily as a result of changes in conditions of specific customers and regulatory delays for the use of its Sonova products by certain new industries.

The inventories—current line item in the balance sheet consists of the cost of oil inventory forecasted to be sold in the next 12 months, as of the balance sheet date. The inventories—noncurrent line item consists of oil and seed inventory expected to be used in production or sold beyond the next 12 months, as of the balance sheet date.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
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Raw materials inventories consist primarily of seed production costs incurred by our contracted cooperators. Finished goods inventories consist of GLA oil that is available for sale. Inventories are categorized as follows (in thousands):

	March 31, 2015	December 31, 2014
Raw materials	$ 1,062	$ 1,004
Finished goods	1,560	1,569
Inventories	$ 2,622	$ 2,573

Fair Value of Financial Instruments

Fair value accounting is applied for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the consolidated financial statements on a recurring basis. Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, which are directly related to the amount of subjectivity, associated with the inputs to the valuation of these assets or liabilities are as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.
- Level 2 inputs are observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 inputs are unobservable inputs for the asset or liability.

The carrying values of the Company's financial instruments, including cash equivalents, accounts receivable, and accounts payable, approximated their fair values due to the short period of time to maturity or repayment.

The carrying values of the Company's promissory notes, convertible promissory notes, and notes payable approximate their fair values as of March 31, 2015 and December 31, 2014 as the market rates currently available to the Company and other assumptions have not changed significantly.

The Company's money market funds are highly liquid and considered Level 1 assets. As of March 31, 2015 and December 31, 2014, the Company had $11.0 million and $16.2 million in money market funds that are included in cash and cash equivalents on the consolidated balance sheets.

The Company's Level 3 liabilities measured and recorded on a recurring basis consist of derivative liabilities related to the convertible promissory note. The following table sets forth a summary of the changes in the fair value and other adjustments of these derivative liabilities (in thousands):

	Three Month Ended March 31,	
	2015	2014
Beginning balance	$ 1,580	$ 1,192
Change in fair value and other adjustments	1,399	21
Ending balance	$ 2,979	$ 1,213

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, *Revenue from Contracts with Customers*, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard will be effective for the Company on January 1, 2017, which is the effective date for public companies. On April 1, 2015 the FASB voted in favor of proposing a one year delay of the effective date and to permit companies to voluntarily adopt the

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
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new standard as of the original effective date. Early application is not permitted. The standard permits the use of either the retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standard on its ongoing financial reporting.

In August 2014, the FASB issued ASU 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which provides guidance on determining when and how to disclose going-concern uncertainties in the consolidated financial statements. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date the consolidated financial statements are issued. An entity must provide certain disclosures if "conditions or events raise substantial doubt about the entity's ability to continue as a going concern." The ASU applies to all entities and is effective for annual periods ending after December 15, 2016, and interim periods thereafter, with early adoption permitted. The Company does not anticipate a material change to its consolidated financial statements upon the adoption of this ASU. However, it will be required to evaluate and determine if further disclosure is necessary at each balance sheet date.

In February 2015, the FASB issued ASU 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis*. The amendments significantly change the consolidation analysis required under U.S. GAAP. Reporting entities will need to reevaluate all their previous consolidation conclusions. The new standard will be effective for the Company on January 1, 2016. The Company does not anticipate that the adoption of this ASU will materially change the presentation of its consolidated financial statements.

2. Investment in Unconsolidated Entity

Limagrain Cereal Seeds LLC

The Company owns a 35% ownership position in Limagrain Cereal Seeds, LLC ("LCS.") The remaining 65% of LCS is owned by Vilmorin & Cie, a major global producer and marketer of field crop and vegetable seeds and affiliate of Groupe Limagrain ("Limagrain"), through its wholly owned subsidiary, Vilmorin USA ("VUSA"). LCS improves and develops new wheat and barley varieties utilizing genetic and breeding resources, as well as advanced technologies from Limagrain and the Company. Funding for LCS comes from an initial pro rata equity investment from each partner and with subsequent financing in the form of debt from VUSA. As of December 31, 2014, the debt balance was $13.5 million with a maturity date of January 15, 2015. The maturity date was extended to July 15, 2015 and an additional $1.0 million was funded by VUSA in January 2015, also due July 15, 2015. While it is the Company's expectation that VUSA will provide LCS with additional debt financing as needed, should additional capital in the form of equity be necessary to support the operations of LCS, the Company has the option to fund its pro rata share of such cash or elect to have its ownership percentage diluted. As of March 31, 2015 and December 31, 2014, the Company's investment in LCS has been reduced to $0 as a result of its equity method loss pick-up.

3. Variable Interest Entity

In February 2012, the Company formed Verdeca LLC, which is jointly owned with Bioceres, Inc. ("Bioceres"), a U.S. wholly owned subsidiary of Bioceres, S.A., an Argentine corporation. Bioceres, S.A. is an agricultural investment and development company owned by approximately 230 shareholders, including some of South America's largest soybean growers. Verdeca was formed to develop and license soybean traits using both partners' agricultural technologies.

Both the Company and Bioceres incur expenses in support of specific agreed activities on behalf of Verdeca, as defined by joint work plans, which apply fair market value to each partner's activities. Verdeca is not the primary obligor for these activities performed by the Company or Bioceres. Unequal contributions of services are equalized by the partners through cash payments. An agreement executed in conjunction with the formation of Verdeca specifies that if Bioceres determines it requires cash to fund its contributed services (subject to certain annual limits), Bioceres, S.A. may elect to sell shares of its common stock to the Company for an amount not exceeding $5.0 million in the aggregate over a four-year period. The Company determined that its commitment to purchase common stock in Bioceres, S.A. as a means to provide capital to Verdeca resulted in a de facto agency relationship between the Company and Bioceres. The Company considers qualitative factors in assessing the primary beneficiary which include understanding the purpose and design of the VIE, associated risks that the VIE creates, activities that could be directed by the Company, and the expected relative impact of those activities on the economic performance of the VIE. Based on an evaluation of these factors, the Company concluded that it is the primary beneficiary of Verdeca.

As a result of the agreement to fund future contributions by Bioceres, the Company purchased common stock of Bioceres, S.A. in the amount of $500,000 in January 2013. Additional common stock purchases were made in the amount of $700,000 in January 2014, $250,000 in April 2014, and $500,000 in August 2014. The Company's remaining maximum commitment to purchase stock in

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
(continued)

Bioceres, S.A. under the original funding agreement amounted to $2.0 million for 2014 and $1.2 million for 2015. In September 2014, the Company and Bioceres, S.A. entered into an agreement to reduce the annual commitment for 2014 to $500,000 from the original $2.0 million and to eliminate the 2015 commitment amount of $1.2 million. In consideration for these amendments, the Company surrendered 1,832 shares of Bioceres, S.A. held by the Company. The Company recorded an expense of $1.5 million related to this agreement, which is classified as research and development expense in the consolidated statement of operations for the year ended December 31, 2014.

In addition, the Company has a right to require Bioceres, S.A. to repurchase any shares of common stock then owned by the Company upon the occurrence of certain events specified in the agreement, and similarly, Bioceres, S.A. has the right to require the Company to sell back any shares of common stock owned by the Company under certain circumstances. Under the terms of the joint development agreement, the Company has incurred direct expenses and allocated overhead in the amount of $163,000 and $346,000 for the three months ended March 31, 2015 and 2014, respectively.

4. Debt

Long-term Debt

Long-term debt consisted of the following (in thousands):

	March 31, 2015	December 31, 2014
Note payable to related party	$ 8,000	$ 8,000
Promissory note	1,670	1,924
Total	9,670	9,924
Less current portion	(1,082)	(1,055)
Long-term portion	$ 8,588	$ 8,869

In July 2012, a 36-month $8.0 million term note was executed with Moral Compass Corporation (“MCC”), the Company’s largest stockholder, and is subordinate to the promissory notes and convertible promissory notes. The interest rate on the loan was prime plus 2%, with interest only paid monthly in arrears. The principal was due in full at maturity in July 2015. On November 10, 2014, the Company and MCC entered into an amendment to the $8.0 million term loan under which the maturity date was extended to the first to occur of the following dates: (i) April 1, 2016, (ii) the date of an Event of Default, or (iii) a date designated by MCC, by notice to the Company, no earlier than the 20th day following consummation by the Company of an equity financing with gross proceeds to the Company of at least $50 million. In addition, the interest rate remained at prime plus 2% through December 31, 2014, and was amended to increase to 11% per annum thereafter until maturity. The balance of the note, inclusive of accrued interest, was approximately $8.0 million as of March 31, 2015 and December 31, 2014. Accrued interest of $75,000 and $36,000 are recorded in amounts due to related parties on the balance sheet as of March 31, 2015 and December 31, 2014, respectively. This term note was paid off in full in April 2015, as discussed in Note 9 “Subsequent Events.”

Promissory notes were executed with an unrelated party in August 2013 and November 2013 in the amounts of $2.0 million and $1.1 million, respectively. The interest rate on the notes was 10% with principal and interest due in 36 equal monthly installments over the course of their respective three-year terms. Monthly principal and interest on the $2.0 million note was $65,000. Monthly principal and interest on the $1.1 million note is $35,000. The balance of the promissory notes, inclusive of accrued interest, was $1.7 million as of March 31, 2015. These notes were paid off in full in April 2015, as discussed in Note 9 “Subsequent Events.”

Convertible Promissory Notes

A note and warrant purchase agreement was executed in September 2013, with Mahyco International Pte Ltd., (“Mahyco”), a licensee of the Company’s technologies. The Company issued two notes under this agreement in the amounts of $0.5 million in September 2013 and $4.5 million in December 2013, both of which are subordinate to the promissory notes. The interest on the notes is prime plus 2%, compounded monthly over the course of the five-year terms ending September and December 2018 and is payable on the maturity dates. At any time during the term, the lender may convert all or part of the outstanding balance of the note (including principal and accrued but unpaid interest) into common stock of the Company at $16.52 per share.

At its option, Mahyco may offset future fee payments to the Company against the outstanding balance of the note (including principal and accrued but unpaid interest). Mahyco has the right to demand immediate settlement of a portion of the outstanding balance of the

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
(continued)

convertible promissory note, the amount of which shall be mutually agreed by the Company and the lender prior to such settlement. The Company recorded a derivative liability for the initial fair value of the settlement obligation. The derivative liability is valued using the binomial lattice option-pricing method. The lender has the right, at its option, to place another $5.0 million of convertible debt with the Company during the five-year term. The Company recorded a derivative liability for the initial fair value of the Company's obligation to issue the additional $5.0 million of convertible promissory notes. The derivative liability was valued using the Monte Carlo simulation method. Changes in the fair value of the derivative liabilities are recorded to other income (expense), net in the condensed consolidated statement of operations.

The Company also issued to the lender a warrant to purchase 75,666 shares of common stock at an exercise price of $16.52. The warrant was issued in December 2013, vested immediately and remains exercisable throughout the five-year term. The fair value of the common stock warrant on the date of issuance was estimated using an option-pricing valuation model. The Company allocated the gross proceeds to the derivative liabilities based on their initial fair values and the remainder of the proceeds to the convertible promissory note and warrants on a relative fair value basis. The amount allocated to the common stock warrant was recorded as a debt discount to be amortized as interest expense over the estimated term of the loan agreement using the effective interest rate method. The Company recognized interest expense related to the convertible promissory note of $0.2 million both for the three months ended March 31, 2015 and 2014. In March 2015, the parties amended the warrant to clarify the meaning of a reorganization event. The Company accounted for the amendment as a modification with the incremental increase in fair value of $0.2 million as of the amendment date, which was accounted for as a deemed dividend to the warrant holder.

5. Stock-Based Compensation

2006 Stock Incentive Plan

In 2006, the Company authorized the 2006 Stock Plan ("2006 Plan"), which provides for the granting of stock options to executives, employees, and other service providers. The 2006 Plan was adopted on May 2, 2006, with an effective date of January 1, 2006, and, as amended, provides for 4,500,000 shares to be authorized under the Plan. The options typically vest over a four-year service period and have a contractual period of 10 years. Unvested options automatically become exercisable if the Company undertakes an initial public offering or other changes in control, as defined in the option agreements.

A summary of activity under the Plan is as follows (in thousands, except exercise price):

	Shares Subject to Outstanding Options	Weighted-Average Exercise Price Per Share	Aggregate Intrinsic Value
Outstanding — Balance at December 31, 2014	3,759,839	$ 3.00	$ 12,499
Options granted	307,493	7.20	
Options exercised	(3,750)	0.44	
Options cancelled	(1,410)	7.88	
Outstanding — Balance at March 31, 2015	4,062,172	$ 3.31	$ 16,360
Options vested and exercisable — March 31, 2015	3,665,002	$ 2.84	$ 16,337

As of March 31, 2015, there was $1.7 million of unrecognized compensation cost related to unvested stock-based compensation grants that will be recognized over the weighted-average remaining recognition period of 2.39 years.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
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The fair value of stock option awards to employees was estimated at the date of grant using a Black-Scholes option-pricing model with the following weighted-average assumption:

	Three Month Ended March 31,	
	2015	2014
Expected term (years)	5.52 years	—
Expected volatility	95% - 104%	—
Risk-free interest rate	1.61% - 1.66%	—
Dividend yield	—	—

The weighted-average, estimated grant-date fair value of employee stock options granted during the three months ended March 31, 2015 was $1.13.

6. Income Taxes

Income tax expense during interim periods is based on applying an estimated annual effective income tax rate to year-to-date income, plus any significant unusual or infrequently occurring items which are recorded in the interim period. The computation of the annual estimated effective tax rate at each interim period requires certain estimates and significant judgment including, but not limited to, the expected operating income for the year, projections of the proportion of income earned and taxed in various jurisdictions, permanent and temporary differences, and the likelihood of recovering deferred tax assets generated in the current year. The accounting estimates used to compute the provision for income taxes may change as new events occur, more experience is obtained, additional information becomes known or as the tax environment changes.

The interim financial statement provision for income taxes expense is different from the amounts computed by applying the United States federal statutory income tax rate of 34%. The following is a reconciliation of the statutory federal income tax rate to the Company's effective tax rate:

	Three Months Ended March 31,	
	2015	2014
Expected income tax provision at the federal statutory rate	34.0%	34.0%
State taxes, net of federal benefit	4.9%	4.9%
Change in valuation allowance	(38.9)%	(38.5)%
Nondeductible expenses	—	(0.4)%
Withholding taxes	(4.1)%	(2.8)%
Income tax provision	(4.1)%	(2.8)%

As of March 31, 2015, there have been no material changes to our uncertain tax positions disclosures as provided in Note 12 of the consolidated financial statements as of and for the year ended December 31, 2014 and 2013.

7. Net Loss per Share

Basic net loss per share is calculated by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period and excludes any dilutive effects of stock-based awards and warrants. Diluted net loss per share attributable to common stockholders is computed giving effect to all potentially dilutive common shares, including common stock issuable upon exercise of stock options and warrants and conversion of convertible promissory notes, redeemable convertible preferred stock and convertible preferred stock. As the Company had net losses for the three months ended March 31, 2015 and 2014, all potentially dilutive common shares were determined to be anti-dilutive.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
(continued)

Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were as follows:

	Three Months Ended March 31,	
	2015	2014
Convertible preferred stock	23,385,029	23,385,029
Redeemable convertible preferred stock	8,938,094	8,938,094
Options to purchase common stock	4,062,172	3,678,342
Warrants to purchase common stock	1,336,894	1,336,894
Convertible notes	312,156	296,225
Total	38,034,345	37,634,584

8. Related-Party Transactions

The Company's related parties include MCC, Blue Horse Labs, Inc. ("BHL"), and Limagrain. BHL is deemed a related party as a result of its existing contractual relationship with the Company and because a Director of the Company also serves as the Treasurer of BHL and as an Officer and Director of MCC, the Company's controlling stockholder as of March 31, 2015.

Transactions with related parties are reflected in the condensed consolidated financial statements under amounts due to or from related parties and notes payable to related party. Outlined below are details of agreements between the Company and its related parties:

A term note was executed with MCC in July 2012 for $8.0 million (see Note 4). The principal balance is included in the March 31, 2015 and December 31, 2014 consolidated balance sheets as notes payable to related party and the related accrued interest is included in amounts due to related parties. This note was paid off in full in April 2015, as discussed in Note 9 "Subsequent Events."

Under a license agreement executed in 2003 and amended in 2009, BHL receives a single-digit royalty from the Company when revenue has been collected on product sales or for license payments from third parties which involve certain intellectual property developed under research funding from BHL. Royalty fees due to BHL were $3,000 and $21,000 as of March 31, 2015 and December 31, 2014, respectively, and are included in the consolidated balance sheets as amounts due to related parties.

License agreements were executed with Limagrain, a stockholder of the Company, in September 2009 and February 2011. The agreements license certain of the Company's traits to Limagrain and include up-front license fees, annual license fees, milestone fees and value-sharing payments. The Company recognized $23,000 of revenue under these agreements in each of the three months ended March 31, 2015 and 2014. No amounts were due from Limagrain as of March 31, 2015 and December 31, 2014.

9. Subsequent Events

In April 2015, the Company entered into a loan and security agreement, under which the Company incurred an aggregate principal amount of $20.0 million in term loan borrowings (the "Term Loans"). The Company is required to make interest-only payments under the Term Loans from the drawdown date through October 31, 2016. After this date, it is required to make equal monthly payments so that all outstanding principal amounts and accrued interest will be repaid by November 1, 2018. As part of the loan and security arrangement, the Company also issued the lenders warrants to purchase shares of its common stock which were only exercisable in the event that an IPO was not completed prior to September 30, 2015 and such warrants have now terminated as of the completion of the Company's IPO as further discussed below.

In April 2015, the Company's board of directors approved a certificate of amendment to the Company's amended and restated certificate of incorporation to effect a reverse split of the Company's issued and outstanding common stock at a one-for-four ratio. In May 2015, the Company's stockholders approved the certificate of amendment, and on May 8, 2015, the Company filed the certificate of amendment with the Secretary of State of Delaware to effect the reverse split.

In April 2015, the Company paid off its term note with MCC, repaying the principal balance of $8.0 million and accrued interest and prepayment fee of $148,000, and paid off its promissory notes with an unrelated party, repaying the aggregate outstanding principal balance of $1.6 million and accrued interest and prepayment fee of $44,000.

Arcadia Biosciences, Inc.

Notes to Condensed Consolidated Financial Statements
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Initial Public Offering

On May 20, 2015, the Company completed an IPO of its common stock and on June 17, 2015, the Company completed the sale of additional shares upon exercise of the underwriters' over-allotment option. In connection with its IPO, the Company issued and sold 8,528,306 shares of its common stock, at a price to the public of $8.00 per share. As a result of the IPO, the Company received approximately $58.3 million in net proceeds, after deducting underwriting discounts and commissions of $4.8 million and offering expenses of approximately $5.1 million. At the closing of the IPO, all of the outstanding shares of convertible preferred stock and redeemable convertible preferred stock were automatically converted into 32,972,792 shares of common stock. Following the IPO, there were no shares of preferred stock outstanding. In connection with the IPO, the Company amended and restated its Amended and Restated Certificate of Incorporation to change the authorized capital stock to 400,000,000 shares designated as common stock and 20,000,000 shares designated as preferred stock, all with a par value of $0.001 per share. The condensed financial statements, including share and per share amounts, do not give effect to the IPO.

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

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our unaudited condensed consolidated financial statements and related notes included in Part I, Item 1 of this report. This discussion and other parts of this report contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section of this report entitled "Risk Factors."

Special note regarding forward-looking statements

This report contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in the forward-looking statements. The statements contained in this report that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements are often identified by the use of words such as, but not limited to, "anticipate," "believe," "can," "continue," "could," "estimate," "expect," "intend," "may," "plan," "project," "seek," "should," "strategy," "target," "will," "would" and similar expressions or variations intended to identify forward-looking statements. These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section titled "Risk Factors" included under Part II, Item 1A below. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Overview

We are a leading agricultural biotechnology trait company with an extensive and diversified portfolio of late-stage yield and product quality traits addressing multiple crops that supply the global food and feed markets. Our traits are focused on high-value enhancements that increase crop yields by enabling plants to more efficiently manage environmental and nutrient stresses, and that enhance the quality and value of agricultural products. Our traits increase value not only for farmers, but also for users of agricultural products. Our target market is the $39.4 billion global seed market. Our goal is to increase the value of this market significantly by increasing yields in the more than $1.0 trillion market for the five largest global crops, and to capture a portion of the increased value. There currently are more than 50 products in development incorporating our traits and there are 13 in advanced stages of development or on the market.

Our crop yield traits are being utilized by our commercial partners to develop higher yielding seeds for the most widely grown global crops, including wheat, rice, soybean, and sugarcane, as well as for other crops such as cotton, turf, and trees. Our business model positions us at the nexus of basic research and commercial product development, as we apply our strong product development and regulatory capabilities to collaborate with, and leverage the skills and investments of, upstream basic research institutions and downstream commercial partners. We believe our approach significantly reduces our risk and capital requirements, while simplifying and expediting the product development process. We also believe that our collaboration strategy leverages our internal capabilities, enabling us to capture much higher value than would otherwise be the case, and enabling our commercial partners to develop and commercialize products more cost-effectively.

We were incorporated in 2002 to pursue agricultural-based biotechnology business opportunities that improve the environment and human health, and in 2004, we entered into our first collaboration agreement with a potential commercial partner. In 2009, we completed the U.S. Food and Drug Administration, or FDA, regulatory process for our Sonova brand gamma linolenic acid safflower oil, called Sonova 400 GLA safflower oil, just six years after we began developing the trait under a research and commercial agreement with Abbott. We introduced this product commercially in late 2010, and in 2014, we introduced Sonova Ultra GLA safflower oil, a more concentrated version of our Sonova 400 GLA safflower oil. We refer to these products as our Sonova products.

We have formed strategic partnerships and developed strong relationships with global agricultural leaders for development and commercialization of our traits in major crops and consumer products. Our collaborators include subsidiaries or affiliates of Limagrain (Vilmorin & Cie), Mahyco (Maharashtra Hybrid Seeds Company Limited), Dow AgroSciences, DuPont Pioneer (E.I. du Pont de Nemours and Company), SES Vanderhave, Genective (a joint venture between Limagrain and KWS SAAT), Scotts, U.S. Sugar, Abbott, Ardent Mills, Bioceres, and others. Additionally, in order to increase our participation in the value of two major crops, wheat and soybean, we have formed two joint ventures. Limagrain Cereal Seeds LLC is our joint venture with Limagrain for the development and commercialization of wheat products for North America. Verdeca LLC is our joint venture with Bioceres for the

development and deregulation of soybean traits globally. In April 2015, Verdeca LLC entered into a collaboration agreement with Dow AgroSciences under which the parties will collaborate on the development and deregulation of soybean traits on a global basis. We may elect to enter into future collaboration agreements and joint ventures based on our evaluation of the potential opportunities.

The process of developing and commercializing innovative traits and seed products requires significant time and investment. Our business model focuses on creating value by leveraging collaborator investments and capabilities upstream in basic research, and downstream in product development and commercialization. We bridge the gap between basic research and commercial development, reducing risk and adding value as a result. We reduce risk and avoid most of the costs associated with basic research by acquiring trait technologies that have already completed initial feasibility screening, thus achieving proof of concept, through basic research carried out elsewhere. We further develop these technologies by optimizing function and validating performance through intensive field trial testing in multiple crops. We then form collaborations with major seed and consumer product companies that develop and commercialize products incorporating our traits. As a result of our expertise and this additional development work, we are positioned to capture significantly greater payments in our downstream license and collaboration agreements than we believe is otherwise typical in our industry.

In certain instances, we may also work to complete the regulatory process to support the commercial launch of products containing our traits. We would do this in order to obtain a greater share of the economics of the commercial product. We intend to pace any regulatory investments so that we only make such investments after the performance risk for the seed trait has been significantly reduced through extensive field testing. We may pursue regulatory investments in these instances if we believe that they will result in a highly positive rate of return due to increased payments from our commercial partners or joint ventures.

Our commercial strategy aims to balance our near-term revenue goals with long-term value capture. Our trait license agreements with our commercial partners contain two main types of financial components:

- A set of pre-commercialization payments from our commercial partners that are linked to their pursuit of technical and regulatory milestones under a well-defined diligence plan. The pre-commercialization payments typically include upfront and annual license fees, as well as multiple payments for key technical and development milestones such as demonstration of greenhouse efficacy, demonstration of field efficacy, regulatory submission, regulatory approval, and commercial launch. Under most of our license agreements, failure of our commercial partners to adhere to the diligence plan may result in a reduction, or elimination, of their license rights. The combination of diligence requirements and milestone payments motivates our commercial partners to develop and commercialize products containing our traits, while providing us with revenue to fund our development programs.
- Once a product containing one or more of our traits is commercialized, we are entitled to receive a portion of the revenue that it generates for our commercial partner. For seeds incorporating valuable traits, farmers typically pay either a premium for the seed or a trait fee. This premium or trait fee represents the additional value generated for our commercial partner by our trait(s), and we receive a percentage of this additional value. Typically, our share of this value ranges from 15 to 20%, and it can increase to a range of 37 to 50% under certain agreements if we elect to co-invest in product development and/or deregulation. We expect that our participation in joint ventures will provide us with an opportunity to recognize additional value from our traits.

While we seek patent protection on our technologies and traits, we have structured our commercial agreements so that we receive a percentage of additional commercial value whether or not patent protection is in effect at any particular time or place. Nearly all of our agreements provide that access to our traits, and our right to receive a share of commercial value, continue for a set number of years after products containing our traits are commercialized. While the exclusive rights afforded by patents may enable our commercial partners to realize greater commercial value attributable to our traits, our right to receive a portion of that increased commercial value is not dependent on the existence of patent rights in a particular geography.

Most of our agreements include the grant of exclusive rights to a particular trait for use in a particular crop within a defined geography. To date, we have not granted exclusive rights to all of our traits for use in a particular crop to a single partner and, likewise, we have not granted exclusive rights to utilize a particular trait in all crops to a single partner. Our approach to selecting commercial partners involves careful consideration of their market channels and capabilities to ensure that they are well matched to the trait, crop, and geography that form the foundation of our commercial relationship.

The process of discovering, developing, and commercializing a seed trait through either genetic modification or advanced breeding involves multiple phases and takes an average of 13 years from discovery to commercialization. The length of the process may vary depending on both the complexity of the trait and the type of crop involved. This long product development cycle is in large part attributable to the limitations of natural growing seasons and the impact on the time it takes to breed commercial seed products. For genetically modified, or GM, seeds, there is also a rigorous and lengthy regulatory process that operates in parallel to the later stages of the seed breeding process.

Since our inception, we have devoted substantially all of our efforts to research and development activities, including the discovery, development, and testing of our traits and products in development incorporating our traits. To date, we have not generated revenues from sales of commercial products, other than limited revenues from our Sonova products, and we do not anticipate generating any revenues from commercial product sales other than from sales of our Sonova products for at least the next three to five years. We do receive revenues from fees associated with the licensing of our traits to commercial partners. Our long-term business plan and growth strategy is based in part on our expectation that revenues from products that incorporate our traits will comprise a significant portion of our future revenues.

We have never been profitable and had an accumulated deficit of $119.8 million as of March 31, 2015. We incurred net losses of $5.8 million and $3.5 million for the three months ended March 31, 2015 and 2014, respectively. We expect to incur substantial costs and expenses before we obtain any revenues from the sale of seeds incorporating our traits. As a result, our losses in future periods could become even more significant, and we may need substantial additional funding to support our operating activities and we may not be able to obtain such funding on favorable terms, if at all.

Components of Our Statements of Operations Data

Revenues

We derive our revenues from product revenues, licensing agreements, contract research agreements, and government grants. We expect that over the next several years, a substantial majority of our revenues will consist of license revenues, including milestone payments, and contract research and government grant revenues until our product revenues increase with the introduction of our seed trait products to the market, if and when they are commercially available. Further, we expect that our license revenues will vary as we enter into new license agreements and with the timing of milestone payments and recognition of deferred upfront license fees under existing license agreements.

Product Revenues

Our product revenues to date have consisted solely of sales of our Sonova products. We generally recognize revenue from product sales upon delivery to our third-party distributors or customers. Our revenues will fluctuate depending on the timing of orders from our customers and distributors. Because some of our large customers and distributors order in bulk irregularly, our product revenues may fluctuate significantly from period to period.

License Revenues

Our license revenues consist of up-front, nonrefundable license fees, annual license fees, and subsequent milestone payments that we receive under our research and license agreements. In the future, if and when products are commercialized based on our traits, we will recognize revenues based on our share of commercial value. We generally recognize nonrefundable up-front license fees and guaranteed, time-based payments as revenue proportionally over the expected development period. We recognize annual license fees proportionally over the related term subject to cancellation provisions.

We recognize milestone payments as revenue when the related performance criteria are achieved. Milestones typically consist of significant stages of development for our traits in a potential commercial product, such as achievement of specific technological targets, completion of field trials, filing with regulatory agencies, completion of the regulatory process, and commercial launch of a product containing our traits. Given the seasonality of agriculture and time required to progress from one milestone to the next, achievement of milestones is inherently uneven, and our license revenues are likely to fluctuate significantly from period to period.

Contract Research and Government Grant Revenues

Contract research revenues consist of amounts earned from performing contracted research primarily related to breeding programs or the genetic engineering of plants for third parties. We generally recognize revenue as these services are provided. Contract research revenues can vary from period to period based on the scheduling of contract research projects and the timing of completion of services provided. In addition, in certain cases, we are entitled to receive a portion of the revenues generated from sales of products that incorporate our seed traits. Products expected to result from such contract research are in various stages of the product development cycle and we do not expect to generate any revenues from the sale of any such products for at least the next three to five years.

We receive payments from government entities in the form of government grants. Government grant revenues are recognized as eligible research and development expenses are incurred. Our obligation with respect to these agreements is to perform the research on a best-efforts basis. Given the nature and uncertain timing of receipt of government grants and timing of eligible research and development expenses, such revenues are likely to fluctuate significantly from period to period.

Operating Expenses

Cost of Product Revenues

Cost of product revenues relates to sale of our Sonova products and consists of in-licensing and royalty fees as well as the cost of raw materials, including inventory and third-party services costs related to procuring, processing, formulating, packaging, and shipping our Sonova products.

Research and Development Expenses

Research and development expenses consist of costs incurred in the discovery, development, and testing of our products and products in development incorporating our traits. These expenses consist primarily of employee salaries and benefits, fees paid to subcontracted research providers, fees associated with in-licensing technology, land leased for field trials, chemicals and supplies, and other external expenses. These costs are expensed as incurred. Additionally, we are required from time to time to make certain milestone payments in connection with the development of technologies in-licensed from third parties. We expense these milestone payments at the time the milestone is achieved and deemed payable. We expect our research and development expenses to increase on an absolute dollar basis for the foreseeable future, although our research and development expenses may increase significantly if we choose to accelerate certain research and development programs or if we elect to take a greater role in the regulatory process with respect to one or more of our seed traits or products in development incorporating our seed traits. Our research and development expenses may also fluctuate from period to period as a result of the timing of various research and development projects.

Selling, General, and Administrative Expenses

Selling, general, and administrative expenses consist primarily of employee salaries and benefits, professional service fees, and overhead costs. We expect our selling, general, and administrative expenses to increase substantially for the foreseeable future as a result of operating as a public company after the completion of our initial public offering in May 2015, although our selling, general, and administrative expenses may fluctuate from period to period.

Interest Expense

Interest expense consists of interest costs related to our outstanding borrowings of promissory notes and convertible promissory notes payable to related and non-related parties. We expect our interest expense to increase in 2015 due to the April 2015 drawdowns under our loan and security agreement.

Other Expense, Net

Other expense, net, consists of changes in the fair value of our derivative liabilities related to our convertible promissory notes, and interest income on our cash and cash equivalents.

Equity in Loss of Unconsolidated Entity

We use the equity method to account for our investment in Limagrain Cereal Seeds LLC, or LCS, a joint venture we formed with an affiliate of Limagrain and in which we hold a 35% interest. We account for LCS as an unconsolidated entity, as we exercise significant influence but do not have a controlling interest.

Results of operations

Comparison of the three months ended March 31, 2015 and 2014

	Three Months Ended March 31,		Increase /	% Increase /
	2015	2014	(Decrease)	(Decrease)
	(In thousands except percentage)			
Revenues:				
Product	$ 81	$ 134	$ (53)	-40%
License	158	176	(18)	-10%
Contract research and government grants	576	1,067	(491)	-46%
Total revenues	815	1,377	(562)	-41%
Operating expenses:			—	
Cost of product revenues	56	91	(35)	-38%
Research and development	1,832	1,983	(151)	-8%
Selling, general and administrative	2,638	1,885	753	40%
Total operating expenses	4,526	3,959	567	14%
Loss from operations	(3,711)	(2,582)	(1,129)	44%
Interest expense	(467)	(384)	(83)	22%
Other expense, net	(1,396)	(21)	(1,375)	*
Net loss before income taxes and equity in loss of unconsolidated entity	(5,574)	(2,987)	(2,587)	87%
Income tax provision	(229)	(93)	(136)	*
Equity in loss of unconsolidated entity	—	(396)	396	*
Net loss	$ (5,803)	$ (3,476)	$ (2,327)	67%

* *Not meaningful*

Revenues

Product revenues accounted for 10% of our total revenues in both the first quarter of 2015 and the first quarter of 2014. Our product revenues from sales of our Sonova products decreased by $53,000, or 40%, in the quarter-to-quarter comparison, primarily as a function of the early timing of orders for Sonova in fiscal year 2014.

License revenues accounted for 19% and 13% of our total revenues for the quarters ended March 31, 2015 and 2014, respectively. Our license revenues decreased by $18,000, or 10%, in the first quarter of 2015 compared to revenues in the first quarter of 2014. This modest decrease in license revenues was primarily a factor of changes in the amortization rate of upfront license fees, in accordance with our quarterly review of expected development periods for these agreements. Because the achievement of milestones is inherently uneven, our license revenues are likely to fluctuate in the comparison from quarter-to-quarter.

Contract research and government grant revenues comprise a significant portion of our total revenues, accounting for 71% and 77% of our total revenues for the first quarters of 2015 and 2014, respectively. Our contract research and government grant revenues decreased by $0.5 million, or 46%, in the first three months of 2015 compared to grant revenues in the first three months of 2014. The decrease reflected the successful completion of a contract research project and a government grant project during 2014, for which related revenues were included in the first quarter ended March 31, 2014. Contract research and government grant revenues can vary from quarter-to-quarter depending on the timing of contract research projects and the completion of services provided, and the timing of receipt of government grants and eligible research and development expenses.

Cost of Product Revenues

Cost of product revenues decreased by $35,000, or 38%, in the first quarter of 2015 compared to the first quarter of 2014 consistent with the decrease in product revenues from sales of our Sonova products.

Research and Development

Research and development expenses decreased by $151,000, or 8%, in the first quarter of 2015 compared to the first quarter of 2014. The decrease was primarily driven by the timing of subcontracted activities in support of government grant revenues.

Selling, General, and Administrative

Selling, general, and administrative expenses increased by $0.8 million, or 40%, in the first quarter of 2015 compared to the first quarter of 2014. The increase was primarily due to the timing of audit services and additional consulting fees incurred in preparation of being a public company, as well as stock compensation expense associated with the options granted in the three months ended March 31, 2015.

Interest Expense

Interest expense was $0.5 million for the three month ended March 31, 2015, an increase of $0.1 million compared to $0.4 million for the three month ended March 31, 2014. The increase was primarily due to an increase in the interest rate on the note payable to related party.

Other Expense, Net

Other expense, net for the three month ended March 31, 2015 primarily consisted of the increase in fair value of the derivative liabilities related to our convertible promissory notes.

Seasonality

We and our commercial partners operate in different geographies around the world and conduct field trials that are used for data generation, which must be conducted during the appropriate growing seasons for particular crops and markets. Often, there is only one crop-growing season per year for certain crops and markets. Similarly, climate conditions and other variables on which sales of our products are dependent may vary from season to season and year to year. In particular, weather conditions, including natural disasters such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought, or fire, may affect the timing and outcome of field trials, which may delay milestone payments and the commercialization of products incorporating our seed traits. In the future, sales of commercial products that incorporate our seed traits will vary based on crop growing seasons and weather patterns in particular regions.

The level of seasonality in our business overall is difficult to evaluate at this time due to our relatively early stage of development, our relatively limited number of commercialized products, our expansion into new geographical markets, and our introduction of new products and traits.

Liquidity and Capital Resources

Since our inception, we have funded our operations primarily with the net proceeds from private placements of equity and debt securities, as well as proceeds from the sale of our Sonova products and payments under license agreements, contract research agreements, and government grants. Our principal use of cash is to fund our operations, which are primarily focused on progressing our agricultural yield and product quality seed traits through the regulatory process and to commercialization. This includes conducting replicated field trials, coordinating with our partners on their development programs, and collecting, analyzing, and submitting field trial data to regulatory authorities. As of March 31, 2015, we had cash and cash equivalents of $11.3 million.

In April 2015, we obtained additional debt financing in the form of a senior secured term loan facility as described below. We borrowed the entire $20.0 million under this facility on the closing date. With the proceeds from the term loan facility, we paid off our term note with MCC consisting of the principal balance of $8.0 million and accrued interest and prepayment fee of $148,000, and paid off our promissory notes with an unrelated party consisting of the aggregate outstanding principal balance of $1.6 million and accrued interest and prepayment fee of $44,000.

In May 2015, we completed our initial public offering. In connection with this offering, we issued and sold 8,528,306 shares of common stock at a price to the public of $8.00 per share and received approximately $58.3 million in net proceeds, after deducting underwriting discounts and commissions of $4.8 million and offering expenses of approximately $5.1 million.

Our principal uses of cash are to fund our operations. We believe that our existing cash and cash equivalents as of March 31, 2015, along with proceeds from the initial public offering and our senior secured term loan facility, will be sufficient to meet our anticipated cash requirements for at least the next 12 months.

We may seek to fund our operations through additional debt or equity financings, if necessary. We may also consider entering into additional partner arrangements or pursuing additional government grants. Our sale of additional equity could result in additional dilution to our stockholders. Our incurrence of additional debt would result in increased debt service obligations, and the instruments governing our debt could provide for additional operating and financing covenants that would restrict our operations. If we are not

able to secure adequate additional funding, we may be forced to reduce our spending, extend payment terms with our suppliers, liquidate assets, or suspend or curtail planned development programs. Any of these actions could materially harm our business, results of operations and financial condition.

Term Note, Related Party

In July 2012, we entered into a 36-month unsecured term note with Moral Compass Corporation, our controlling stockholder, in the amount of $8.0 million. The interest rate on the loan was prime plus 2%, with interest paid monthly in arrears, and the principal was due in full at maturity in July 2015. In November 2014, we amended this note to change the maturity date to the first to occur of (i) April 1, 2016, (ii) the date of an event of default, or (iii) a date designated by Moral Compass Corporation no earlier than the 20th day following our completion of an equity financing with gross proceeds to us of at least $50.0 million. In addition, the interest rate on the term loan remained at prime plus 2% through December 31, 2014, after which the rate increased to 11% per annum until maturity. In April 2015, we entered into a new term loan facility and repaid the principal balance of $8.0 million plus accrued interest and prepayment fee of $148,000 on this note.

Promissory Notes

We entered into promissory notes in August 2013 and November 2013 in the amounts of $2.0 million and $1.1 million, respectively. The interest rate on the notes is fixed at 10% with principal and interest due in 36 equal monthly installments over the course of the three-year terms. Monthly principal and interest on the $2.0 million note is $65,000 and the three-year term ends in August 2016. Monthly principal and interest on the $1.1 million note is $35,000 and the three-year term ends in November 2016. In April 2015, we entered into a new term loan facility and repaid the aggregate outstanding principal balance of $1.6 million plus accrued interest and prepayment fee of $44,000 on the promissory notes.

Convertible Promissory Notes

In September 2013, we entered into a note and warrant purchase agreement in the amount of $5.0 million with an affiliate of Mahyco, one of our commercial partners with which we have several research and license agreements. We issued a convertible promissory note under this agreement in exchange for $500,000 in September 2013 and issued a second convertible promissory note in exchange for $4.5 million in December 2013. The interest rate on the notes is prime plus 2%, compounded monthly over the course of the five-year terms ending in September and December 2018, respectively. At any time during the term, Mahyco may convert all or part of the aggregate outstanding balance of the notes (including principal and accrued but unpaid interest) into shares of our common stock at $16.52 per share. Mahyco has the right, at its option, to place another $5.0 million of convertible debt with us during the five-year term. Mahyco, at its option, may offset future fee payments to us due under any license agreements or contract research and development agreements with us against the outstanding balance of the note, including principal and accrued but unpaid interest. With the exception of such offset payments, no principal or interest is due until the end of the term. Under this note and warrant purchase agreement, we also issued Mahyco warrants to purchase 75,666 shares of our common stock at an exercise price of $16.52 per share. The warrants were issued in December 2013, vested immediately, and remain exercisable throughout the five-year term.

Term Loans

In April 2015, we entered into a loan and security agreement (“loan agreement”) with lenders that are affiliates of Tennenbaum Capital Partners, LLC. Obsidian Agency Services, Inc. acts as administrative agent for the lenders under this agreement. Under the agreement, the lenders committed to advance term loans in an aggregate principal amount of up to $20.0 million, and we borrowed the entire $20.0 million of term loan commitments on the loan closing date.

Under this loan agreement, interest on the term loans accrues at a rate per annum equal to the greater of (i) 9.0% and (ii) a fluctuating rate of interest equal to three-month LIBOR as in effect from time to time plus 8.74%. We are required to make interest-only payments under this agreement from the drawdown dates through April 30, 2016, subject to certain conditions for extension to October 31, 2016. After this date, we are required to make equal monthly payments of principal and interest so that all outstanding principal amounts and accrued interest will be repaid by November 1, 2018. This agreement provides for a right of prepayment with associated prepayment fees. Upon the maturity date or the date on which the term loans are prepaid in whole or in part, we will owe an additional end-of-term payment to the lenders.

The loan agreement includes customary covenants for credit facilities of this type. In addition, the agreement contains a financial covenant with respect to quarterly revenue targets or cash and cash equivalents on hand. As of the date of this reporting, we are in compliance with such covenants. Our obligations under the loan agreement are secured by substantially all of our assets. We recently reached agreement with the lenders to amend the loan agreement to include certain intellectual property rights in exchange for a waiver of our obligation to obtain a subordination agreement from Mahyco with respect to the indebtedness we owe to Mahyco. The loan agreement includes customary events of default for credit facilities of this type. If any of these events of default occurs, the lenders may accelerate and declare to be immediately due and payable the outstanding

principal amount of the term loans and our other payment obligations under the agreement. In the case of a bankruptcy or insolvency event of default, the outstanding principal amount of the term loans and our other payment obligations under the loan agreement automatically are accelerated and become due and payable. In addition, if an event of default occurs and is continuing under the loan agreement, the lenders may exercise certain additional secured creditor remedies against us and against the assets securing our obligations under the agreement.

Cash Flows

The following table summarizes our cash flows for the periods indicated (in thousands):

	Three Months Ended March 31,	
	2015	2014
Cash used in operating activities	$ (2,598)	$ (2,126)
Cash used in investing activities	(7)	(700)
Cash (used in) provided by financing activities	(2,688)	506
Net decrease in cash	(5,293)	(2,320)

Cash used in operating activities

Cash used in operating activities for the three months ended March 31, 2015 was $2.6 million. Our net loss of $5.8 million was partly offset by non-cash charges of $1.4 million for the change in fair value of derivative liabilities, $0.4 million for stock-based compensation, $0.1 million for accretion of debt discount, and $72,000 for depreciation and amortization as well as adjustments in our working capital accounts. The increase in cash associated with our net operating assets of $1.2 million was primarily due to a $1.1 million decrease in accounts receivable and unbilled revenue as a result of a significant milestone payment which was invoiced in the fourth quarter of 2014 and received in the first quarter of 2015.

Cash used in operating activities for the three months ended March 31, 2014 was $2.1 million. Our net loss of $3.5 million was partly offset by non-cash charges of $0.4 million for equity in loss of unconsolidated entity, $0.2 million for stock-based compensation, $0.2 million for accretion of debt discount, and $94,000 for depreciation and amortization as well as adjustments in our working capital accounts. The increase in cash associated with our net operating assets of $0.4 million was due to a net decrease of $0.4 million in accounts receivable and unbilled revenue as a result of a milestone payment which was invoiced in the fourth quarter of 2013 and received in the first quarter of 2014. Also contributing was an increase of $0.5 million in accounts payable and accrued expenses as a result of the timing of payments partially offset by a $0.4 million increase in inventory due to seasonal growing and processing fees incurred in the first quarter of 2014.

Cash used in investing activities

Cash used in investing activities for the three months ended March 31, 2015 of $7,000 consisted primarily of purchase of property and equipment.

Cash used in investing activities for the three months ended March 31, 2014 of $0.7 million consisted primarily of our investment in Bioceres in accordance with our agreements concerning Verdeca.

Cash provided by financing activities

Cash used in financing activities for the three months ended March 31, 2015 of $2.7 million was related to $1.5 million of payments on notes payable and convertible promissory notes and $1.2 million of deferred offering costs payments.

Cash provided by financing activities for the three months ended March 31, 2014 of $0.5 million was related to the $0.9 million of net proceeds from our issuance of Series D preferred stock in the first half of 2014 and offset by $0.4 million of payments on notes payable and convertible promissory notes.

Contractual Obligations and Other Commitments

We are obligated to make future payments to related and unrelated parties under in-license agreements, including certain license fees, royalties, and milestone fees. In addition, certain royalty payments ranging from the low single digits to mid-teens are payable on

net revenue amounts as defined in the in-licensing agreements. Milestone payments under these agreements may also be payable upon the successful development or implementation of various technologies. The amount and timing of these payments are uncertain and have been excluded from the above table.

There have been no other material changes in our contractual obligations since December 31, 2014.

Off-Balance Sheet Arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements, including the use of structured finance, special purpose entities, or variable interest entities, except as disclosed in the notes to our consolidated financial statements.

Critical Accounting Polices and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We consider our critical accounting policies and estimates to be revenue recognition; inventories; and stock-based compensation. There have been no material changes to our critical accounting policies and estimates during the three months ended March 31, 2015 from those disclosed in our prospectus dated May 14, 2015 that forms a part of the Company's Registration Statement on Form S-1, filed with the SEC pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended.

ITEM 3: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The primary objective of our investment activities is to preserve our capital to fund our operations. We also seek to maximize income from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of cash equivalents and investments in a variety of securities of high credit quality. As of March 31, 2015, we had cash, cash equivalents and investments of $11.3 million consisting of cash and liquid investments deposited in highly rated financial institutions in the United States. A portion of our investments may be subject to interest rate risk and could fall in value if market interest rates increase. However, because our investments are primarily short-term in duration, we believe that our exposure to interest rate risk is not significant and a 1% movement in market interest rates would not have a significant impact on the total value of our portfolio. We actively monitor changes in interest rates.

ITEM 4: CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, or Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to meet reasonable assurance standards. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation identified above that occurred during the quarter ended March 31, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We currently are not a party to any material litigation or other legal proceedings.

ITEM 1A. RISK FACTORS.

You should carefully consider the following risk factors, in addition to the other information contained in this report on Form 10-Q, including the section of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes. If any of the events described in the following risk factors and the risks described elsewhere in this report occurs, our business, operating results and financial condition could be seriously harmed. This report on Form 10-Q also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this report.

Risks Related to Our Business and Our Industry

We or our collaborators may not be successful in developing commercial products that incorporate our traits.

Our future growth depends on our ability to identify genes that will improve selected crop traits and license these genes to our collaborators to develop and commercialize seeds that contain the genes. Our long-term growth strategy is based on our expectation that revenues related to the sale of seeds containing our traits will comprise a significant portion of our future revenues. Pursuant to our collaboration agreements, we are entitled to share in the revenues from the sale of products that integrate our trait. We expect that it will take several years before the first seeds integrating our agricultural yield traits complete the development process and become commercially available for sale, resulting in revenues for us. However, the development process could take longer than we anticipate or could ultimately fail to succeed in commercialization for any of the following reasons:

- our traits may not be successfully validated in one or more target crops;
- our traits may not have the desired effect sought by our collaborators in the relevant crop or geography, or under certain environmental conditions;
- relevant milestones under our agreements with collaborators may not be achieved; and
- we or our collaborators may be unable to complete the regulatory process for the products containing our traits.

If products containing our traits are never commercialized, or are commercialized on a slower timeline than we anticipate, our ability to generate revenues and become profitable, as well as our long-term growth strategy, would be materially and adversely affected.

Even if we or our collaborators are successful in developing commercial products that incorporate our traits, such products may not achieve commercial success.

Our long-term growth strategy is dependent upon our or our collaborators' ability to incorporate our traits into a wide range of crops with global scope. Even if we or our collaborators are able to develop commercial products that incorporate our traits, any such products may not achieve commercial success as quickly as we project, or at all, for one or more of the following reasons, among others:

- products may fail to be effective in particular crops, geographies, or circumstances, limiting their commercialization potential;
- our competitors may launch competing or more effective traits or products;
- the market for abiotic seed traits is evolving and not well established, and the market opportunities for any product we or our collaborators develop may be smaller than we or our collaborators believe;
- as we do not have a sales or marketing infrastructure, we depend entirely on our collaborators to commercialize our products, and they may fail to devote the necessary resources and attention to sell, market, and distribute our current or any future products effectively;
- significant fluctuations in market prices for agricultural inputs and crops could have an adverse effect on the value of our traits;

- farmers are generally cautious in their adoption of new products and technologies, with conservative initial purchases and proof of product required prior to widespread deployment, and it may accordingly take several growing seasons for farmers to adopt our or our collaborators' products on a large scale;
- farmers may reuse certain non-hybrid GM seeds from prior growing seasons in violation of applicable seed license agreements;
- our collaborators may not be able to produce high-quality seeds in sufficient amounts to meet demand; and
- our collaborators may decide, for whatever reason, not to commercialize products containing our traits.

Our financial condition and results of operations could be materially and adversely affected if any of the above were to occur.

Our product development cycle is lengthy and uncertain, and we may never earn revenues from the sale of products containing our traits.

Research and development in the seed, agricultural biotechnology, and larger agriculture industries is expensive and prolonged and entails considerable uncertainty. We and our collaborators may spend many years and dedicate significant financial and other resources, including the proceeds from our recent initial public offering, developing traits that will never be commercialized. The process of discovering, developing, and commercializing a seed trait through either genetic modification or advanced breeding involves multiple phases, and it may require from six to thirteen years or more from discovery to commercialization. The length of the process may vary depending on one or more of the complexity of the trait, the particular crop, and the intended geographical market involved. This long product development cycle is in large part attributable to the nature-driven breeding period for a commercial product, as well as a lengthy regulatory process.

There are currently over 50 products in development incorporating our traits, each of which consists of the application of a specific seed trait to a specific crop. Although our Sonova products are on the market currently, we expect that it will take several years before the first products containing our agricultural yield traits complete the development process and become commercially available. However, we have little to no certainty as to which, if any, of these products will eventually reach commercialization in this timeframe or at all. Because of the long product development cycle and the complexities and uncertainties associated with agricultural biotechnology research, there is significant uncertainty as to whether we will ever generate revenues from the sale of products containing one of our traits and, even if such products reach commercialization, any resulting revenues may come at a later time than we currently anticipate.

We have a history of significant losses, which we expect to continue, and we may never achieve or maintain profitability.

We have incurred significant net losses since our formation in 2002 and expect to continue to incur net losses for the foreseeable future. We incurred a net loss of $18.3 million for the year ended December 31, 2014 and a net loss of $5.8 million for the three months ended March 31, 2015. As of March 31, 2015, we had an accumulated deficit of $119.8 million. We expect to continue to incur losses until we begin generating revenues from the sale of traits we are currently developing, which we expect will not occur for several years, if at all. Because we have incurred and will continue to incur significant costs and expenses for these efforts before we obtain any incremental revenues from the sale of seeds incorporating our traits, our losses in future periods could be even more significant. In addition, we may find our development efforts are more expensive than we anticipate or that they do not generate revenues in the time period we anticipate, which would further increase our losses. If we are unable to adequately control the costs associated with operating our business, including costs of development and commercialization of our traits, our business, financial condition, operating results, and prospects will suffer.

In addition, our ability to generate meaningful revenues and achieve and maintain profitability depends on our ability, alone or with strategic collaborators, to successfully complete the development of and complete the regulatory process to commercialize our traits. Most of our revenues since inception have consisted of upfront and milestone payments associated with our contract research and license agreements. Additional revenues from these agreements are largely dependent on successful development of our traits by us or our collaborators. To date, we have not generated any significant revenues from product sales other than from our Sonova products, and we do not otherwise anticipate generating revenues from product sales other than from sales of our Sonova products for the next several years. If products containing our traits fail to achieve market acceptance or generate significant revenues, we may never become profitable.

We may require additional financing in the future and may not be able to obtain such financing on favorable terms, if at all, which could force us to delay, reduce, or eliminate our research and development activities.

We will continue to need capital to fund our research and development projects and to provide working capital to fund other aspects of our business. If our capital resources are insufficient to meet our capital requirements, we will have to raise additional funds. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we are able to raise additional debt financing, which will require the consent of our current debt holders, we may be subject to additional restrictive covenants that limit our operating flexibility. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop and commercialize products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research and development programs or the commercialization of products or curtail operations. If adequate funds are not available, we will not be able to successfully execute on our business strategy or continue our business.

If ongoing or future field trials by us or our collaborators are unsuccessful, we may be unable to complete the regulatory process for, or commercialize, our products in development on a timely basis.

The successful completion of field trials in United States and foreign locations is critical to the success of product development and marketing efforts for products containing our traits. If our ongoing or future field trials, or those of our collaborators, are unsuccessful or produce inconsistent results or unanticipated adverse effects on crops or on non-target organisms, or if we or our collaborators are unable to collect reliable data, regulatory review of products in development containing our traits could be delayed or commercialization of products in development containing our traits may not be possible. In addition, more than one growing season may be required to collect sufficient data to develop or market a product containing our traits, and it may be necessary to collect data from different geographies to prove performance for customer adoption. Even in cases where field trials are successful, we cannot be certain that additional field trials conducted on a greater number of acres, or in different crops or geographies, will be successful. Generally, our collaborators conduct these field trials or we pay third parties, such as farmers, consultants, contractors, and universities, to conduct field trials on our behalf. Poor trial execution or data collection, failure to follow required agronomic practices, regulatory requirements, or mishandling of products in development by our collaborators or these third parties could impair the success of these field trials.

Many factors that may adversely affect the success of our field trials are beyond our control, including weather and climatic variations, such as drought or floods, severe heat or frost, hail, tornadoes and hurricanes, pests and diseases, or acts of protest or vandalism. For example, if there was prolonged or permanent disruption to the electricity, climate control, or water supply operating systems in our greenhouses or laboratories, the crops in which we or our collaborators are testing our traits and the samples we or our collaborators store in freezers, both of which are essential to our research and development activities, could be severely damaged or destroyed, adversely affecting these activities and thereby our business and results of operations. Unfavorable weather conditions can also reduce both acreage planted and incidence, or timing of, certain crop diseases or pest infestations, each of which may halt or delay our field trials. We have also experienced crop failures in the past for then-unknown reasons, causing delays in our achievement of milestones and delivery of results and necessitating that we repeat the impacted field trials. Any field test failure we may experience may not be covered by insurance and, therefore, could result in increased cost for the field trials and development of our traits, which may negatively impact our business and results of operations. Additionally, we are subject to U.S. Department of Agriculture, or USDA, regulations, which may require us to abandon a field trial or to purchase and destroy neighboring crops that are planted after our field trials have commenced. For example, while conducting early field trials for GLA safflower oil, we were forced to purchase and destroy an adjacent safflower crop when the placement of bee hives by a third party altered the required isolation distance between our crop and the neighboring crop, requiring us to either purchase and destroy the adjacent crop or abandon our field trial. In order to prevent the significant delays that would result from terminating our field trial, we decided to purchase and destroy the neighboring crop at a cost of approximately $30,000. Similar factors outside of our control can create substantial volatility relating to our business and results of operations.

Competition in traits and seeds is intense and requires continuous technological development, and, if we are unable to compete effectively, our financial results will suffer.

We face significant competition in the markets in which we operate. The markets for traits and agricultural-biotechnology products are intensely competitive and rapidly changing. In most segments of the seed and agricultural biotechnology market, the number of products available to consumers is steadily increasing as new products are introduced. At the same time, the expiration of patents covering existing products reduces the barriers to entry for competitors. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our traits. In addition, several of our competitors have substantially greater financial, marketing, sales, distribution, research and development, and technical resources than us, and some of our collaborators have more experience in research and development, regulatory matters, manufacturing, and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technologies may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our traits being developed.

We derive a significant portion of our current revenues from government agencies, which may not continue in the future and which may expose us to government audits and potential penalties.

We historically have derived a significant portion of our revenues from grants from U.S. government agencies. Our ability to obtain grants is subject to the availability of funds under applicable government programs and approval of our applications to participate in such programs. The application process for these grants is highly competitive. We may not be successful in obtaining any additional grants. Once we successfully obtain a grant, the awarding U.S. government agency has the right to discontinue funding on such a grant at any time. The recent political focus on reducing spending at the U.S. federal and state levels may reduce the scope and amount of funds dedicated to seed and agricultural biotechnology innovations, if such funds continue to be available at all. To the extent that we are unsuccessful in obtaining any additional government grants in the future or if funding is discontinued on an existing grant, we would lose a significant source of our current revenues.

To the extent that we do not comply with the specific requirements of a grant, our expenses incurred may not be reimbursed and any of our existing grants or new grants that we may obtain in the future may be terminated or modified. In addition, our activities funded by our government grants may be subject to audits by U.S. government agencies. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards, and the terms and conditions of the grant. An audit could result in a material adjustment to our results of operations and financial condition. Moreover, if an audit uncovers improper or illegal activities, we may also be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, or fines, and we may be suspended or prohibited from doing business with the government. In addition, serious reputational harm or significant adverse financial effects could occur if allegations of impropriety are made against us, even if we are ultimately found to have done no wrong.

A significant portion of our revenues to date are from a limited number of strategic collaborations, and the termination of these collaborations would have a material adverse effect on our results of operations.

We derive a substantial amount of our revenues from a limited number of strategic collaborations, under which we generate revenues through licensing arrangements such as research and development payments, up-front payments, milestone payments, and, once a product is commercialized, a portion of the commercial value of the trait. A small number of commercial partners are expected to continue to account for a substantial amount of our revenues for the next several years. Our agreements with Mahyco are terminable by Mahyco at will upon 90 days' notice. The termination or non-renewal of our arrangements with Mahyco or our other commercial partners would have a material adverse effect on our business, financial condition, results of operations, and prospects.

We expect to derive a substantial portion of our future revenues from commercial products sold outside the United States, which subjects us to additional business risks.

A significant number of our research and collaboration agreements include products under development for markets outside the United States. Our collaborators' operations in these regions are subject to a variety of risks, including different regulatory requirements, uncertainty of contract and intellectual property rights, unstable political and regulatory environments, economic and fiscal instability, tariffs and other import and trade restrictions, restrictions on the ability to repatriate funds, business cultures accepting of various levels of corruption, and the impact of anti-corruption laws. These risks could result in additional cost, loss of materials, and delays in our commercialization timeline in international markets and have a negative effect on our operating results.

Revenues generated outside the United States could also be subject to increased difficulty in collecting delinquent or unpaid accounts receivables, adverse tax consequences, currency and exchange rate fluctuations, relatively high inflation, exchange control regulations, and governmental pricing directives. Acts of terror or war may impair our ability to operate in particular countries or regions and may impede the flow of goods and services between countries. Customers in these and other markets may be unable to purchase our products if their economies deteriorate, or it could become more expensive for them to purchase imported products in their local currency or sell their commodities at prevailing international prices, and we may be unable to collect receivables from such customers. If any of these risks materialize, our results of operations and profitability could be harmed.

We or our collaborators may fail to perform our respective obligations under contract research and collaboration agreements.

We are obligated under certain contract research agreements to perform research activities over a particular period of time. If we fail to perform our obligations under these agreements, in some cases our collaborators may terminate our agreements with them and in other cases our collaborators' obligations may be reduced and, as a result, our anticipated revenues may decrease. In addition, any of our collaborators may fail to perform their obligations under the diligence timelines in our collaboration agreements, which may delay development and commercialization of products containing our traits and materially and adversely affect our future results of operations.

Furthermore, the various payments we receive from our collaborators are a significant source of our current revenues and are expected to be the largest source of our revenues in the future. If our collaborators do not make these payments, either due to financial hardship, disagreement under the relevant collaboration agreement, or for any other reason, our results of operations and business could be materially and adversely affected. If disagreements with a collaborator arise, any dispute with such collaborator may negatively affect our relationship with one or more of our other collaborators and may hinder our ability to enter into future collaboration agreements, each of which could negatively impact our business and results of operations.

Most of our collaborators have significant resources and development capabilities and may develop their own products that compete with or negatively impact the advancement or sale of products containing our traits.

Most of our collaborators are significantly larger than us and may have substantially greater resources and development capabilities. As a result, we are subject to competition from many of our collaborators, who could develop or pursue competing products and traits that may ultimately prove more commercially viable than our traits. In addition, former collaborators, by virtue of having had access to our proprietary technology, may utilize this insight for their own development efforts, despite the fact that our collaboration agreements prohibit such use. The development or launch of a competing product by a collaborator may adversely affect the advancement and commercialization of any traits we develop and any associated research and development and milestone payments and value-sharing payments we receive from the sale of products containing our traits.

We rely on third parties to conduct, monitor, support, and oversee field trials and, in some cases, to maintain regulatory files for those products in development, and any performance issues by third parties, or our inability to engage third parties on acceptable terms, may impact our or our collaborators' ability to complete the regulatory process for or commercialize such products.

We rely on third parties, including farmers, to conduct, monitor, support, and oversee field trials. As a result, we have less control over the timing and cost of these trials than if we conducted these trials with our own personnel. If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated prematurely, we may be unable to conduct and complete our trials in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our studies or perform as required by our contract or in accordance with regulatory requirements, including maintenance of field trial information regarding our products in development. If these third parties fail to meet expected deadlines, fail to transfer to us any regulatory information in a timely manner, fail to adhere to protocols, or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality or accuracy of their activities or the data they obtain, then field trials of our products in development may be extended or delayed with additional costs incurred, or our data may be rejected by the USDA, the U.S. Food and Drug Administration, or FDA, the U.S. Environmental Protection Agency, or EPA, or other regulatory agencies. Ultimately, we are responsible for ensuring that each of our field trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our responsibilities.

If our relationship with any of these third parties is terminated, we may be unable to enter into arrangements with alternative parties on commercially reasonable terms, or at all. Switching or adding farmers or other suppliers can involve substantial cost and require extensive management time and focus. In addition, there is a natural transition period when a new farmer or other third party commences work. As a result, delays may occur, which can materially impact our ability to meet our desired development timelines. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

Our prospects for successful development and commercialization of our products are dependent upon the research, development, commercialization, and marketing efforts of our collaborators.

We primarily rely on third parties for research, development, commercialization, and marketing of our products and products in development. Other than as provided for in our collaboration agreements, we have no control over the resources, time and effort that our collaborators may devote to the development of products incorporating our traits, and have limited access to information regarding or resulting from such programs. We are dependent on our third party collaborators to fund and conduct the research and development of product candidates, to complete the regulatory process, and for the successful marketing and commercialization of one or more of such products or products in development. Such success will be subject to significant uncertainty.

Our ability to recognize revenues from successful collaborations may be impaired by multiple factors including:

- a collaborator may shift its priorities and resources away from our programs due to a change in business strategies, or a merger, acquisition, sale, or downsizing of its company or business unit;
- a collaborator may cease development in a specific crop area that is the subject of a collaboration agreement;
- a collaborator may change the success criteria for a particular program or product in development, thereby delaying or ceasing development of such program or product in development;
- a significant delay in initiation of certain development activities by a collaborator will also delay payment of milestones tied to such activities, thereby impacting our ability to fund our own activities;
- a collaborator could develop or acquire a product that competes, either directly or indirectly, with our current products or any future products;
- a collaborator with commercialization obligations may not commit sufficient financial or human resources to the marketing, distribution, or sale of a product;
- a collaborator with manufacturing responsibilities may encounter regulatory, resource, or quality issues and be unable to meet demand requirements;
- a collaborator may exercise its rights under the agreement to terminate our collaboration;
- a dispute may arise between us and a collaborator concerning the development and commercialization of a product in development, resulting in a delay in milestones, royalty payments, or termination of a program and possibly resulting in costly litigation or arbitration that may divert management attention and resources;
- a collaborator may not adequately protect the intellectual property rights associated with a product or product in development; and
- a collaborator may use our proprietary information or intellectual property in such a way as to expose us to litigation from a third party.

If our collaborators do not perform in the manner we expect or fulfill their responsibilities in a timely manner, or at all, the development, regulatory, and commercialization process could be delayed, terminated, or otherwise unsuccessful. Conflicts between us and our collaborators may arise. In the event of termination of one or more of our collaboration agreements, it may become necessary for us to assume the responsibility for any terminated products or products in development at our own expense or seek new collaborators. In that event, we likely would be required to limit the size and scope of one or more of our independent programs or increase our expenditures and seek additional funding, which may not be available on acceptable terms or at all, and our business may be materially and adversely affected.

Our joint venture agreements could present a number of challenges that may have a material adverse effect on our business, financial condition, and results of operations.

We currently participate in two joint ventures, Limagrain Cereal Seeds LLC, which focuses on the development and commercialization of improved wheat seeds, and Verdeca LLC, which focuses on the development and deregulation of soybean traits, and we may enter into additional joint ventures in the future. Our joint venture arrangements may present financial, managerial, and operational challenges, including potential disputes, liabilities, or contingencies and may involve risks not otherwise present when operating independently, including:

- our joint venture partners may have business interests, goals, or cultures that are or become inconsistent with our business interests, goals, or culture;
- our joint venture partners may share certain approval rights, or in some cases, as with Limagrain Cereal Seeds LLC, have control over major decisions;

- our joint venture partners may not pay their share of the joint venture's obligations, potentially leaving us liable for their share of such obligations, or we may be unable to pay our share of the joint venture's obligations, which may result in a reduction of our ownership interest;
- we may incur liabilities or losses as a result of an action taken by the joint venture or our joint venture partners;
- our joint venture partners may take action contrary to our instructions, requests, policies, or objectives, which could reduce our return on investment, harm our reputation, or restrict our ability to run our business; and
- disputes between us and our joint venture partners may result in delays, litigation, or operational impasses.

The risks described above or the failure to continue any joint venture or joint development arrangement or to resolve disagreements with our current or future joint venture partners could materially and adversely affect our ability to transact the business that is the subject of such joint venture, which would in turn negatively affect our financial condition and results of operations.

We and our collaborators may disagree over our right to receive payments under our collaboration agreements, potentially resulting in costly litigation and loss of reputation.

Our ability to receive payments under our collaboration agreements depends on our ability to clearly delineate our rights under those agreements. We typically license our intellectual property to our collaborators, who then develop and commercialize seeds with improved traits. However, a collaborator may use our intellectual property without our permission, dispute our ownership of certain intellectual property rights, or argue that our intellectual property does not cover, or add value to, their marketed product. If a dispute arises, it may result in costly patent office procedures and litigation, and our collaborator may refuse to pay us while the dispute is ongoing. Furthermore, regardless of any resort to legal action, a dispute with a collaborator over intellectual property rights may damage our relationship with that collaborator and may also harm our reputation in the industry.

Even if we are entitled to payments from our collaborators, we may not actually receive these payments, or we may experience difficulties in collecting the payments to which we believe we are entitled. After our collaborators launch commercial products containing our licensed traits, we will need to rely on the good faith of our collaborators to report to us the sales they earn from these products and to accurately calculate the payments we are entitled to, a process that will involve complicated and difficult calculations. Although we seek to address these concerns in our collaboration agreements by reserving our right to audit financial records, such provisions may not be effective.

Our business is subject to various government regulations and if we or our collaborators are unable to timely complete the regulatory process for our products in development, our or our collaborators' ability to market our traits could be delayed, prevented or limited.

Our business is generally subject to two types of regulations: regulations that apply to how we and our collaborators operate and regulations that apply to products containing our traits. We apply for and maintain the regulatory permits necessary for our operations, particularly those covering our field trials, while we or our collaborators apply for and maintain regulatory approvals necessary for the commercialization of products containing our seed traits. The large-scale field trials that our collaborators conduct during advanced stages of product development are subject to regulations similar to those to which we are subject. Pursuant to our collaboration agreements, our collaborators also apply for the requisite regulatory approvals prior to commercialization of products containing our traits. In most of our key target markets, regulatory approvals must be received prior to the importation of genetically modified products. These regulatory processes may be complex; for example, the U.S. federal government's regulation of biotechnology is divided among the EPA, which regulates activity related to the use of plant pesticides and herbicides, the USDA, which regulates the import, field testing, and interstate movement of specific technologies that may be used in the creation of genetically modified plants, and the FDA, which regulates foods derived from new plant varieties. In addition to regulation by the U.S. government, products containing our biotech traits may be subject to regulation in each country in which such products are tested or sold. International regulations may vary from country to country and from those of the United States. The difference in regulations under U.S. law and the laws of foreign countries may be significant and, in order to comply with the laws of foreign countries, we may have to implement global changes to our products or business practices. Such changes may result in additional expense to us and either reduce or delay product development or sales. Additionally, we or our collaborators may be required to obtain certifications or approvals by foreign governments to test and sell the products in foreign countries.

The regulatory process is expensive and time-consuming, and the time required to complete the process is difficult to predict and depends upon numerous factors, including the substantial discretion of the regulatory authorities. Other than our Sonova products, neither we nor our collaborators have completed all phases of the regulatory process for any of our products in development. Our traits could require a significantly longer time to complete the regulatory process than expected, or may never gain approval, even if we and our collaborators expend substantial time and resources seeking such approval. A delay or denial of regulatory approval could delay or prevent our ability to generate revenues and to achieve profitability. For example, we are currently awaiting completion of the regulatory process for one of our Sonova products to be used in pet food, which has taken longer than expected. Changes in regulatory review policies during the development period of any of our traits, changes in, or the enactment of, additional regulations or statutes, or changes in regulatory review practices for a submitted product application may cause a delay in obtaining approval or result in the rejection of an application for regulatory approval. Regulatory approval, if obtained, may be made subject to limitations on the indicated uses for which we or our collaborators may market a product. These limitations could adversely affect our potential revenues. Failure to comply with applicable regulatory requirements may, among other things, result in fines, suspensions of regulatory approvals, product recalls, product seizures, operating restrictions, and criminal prosecution. We have on certain occasions notified the USDA of instances of noncompliance with regulations. Although these occasions did not result in any enforcement actions, we may have occasions of noncompliance in the future that result in USDA or other governmental agency enforcement action.

Consumer resistance to genetically modified organisms may negatively affect our public image and reduce sales of seeds containing our traits.

We are active in the field of agricultural biotechnology research and development in seeds and crop protection, including GM seeds. Foods made from such seeds are not accepted by many consumers due to concerns over such products' effects on food safety and the environment. The high public profile of biotechnology in food production and lack of consumer acceptance of products to which we have devoted substantial resources could negatively affect our public image and results of operations. The current resistance from consumer groups, particularly in Europe, to GM crops not only limits our access to such markets, but also has the potential to spread to and influence the acceptance of products developed through biotechnology in other regions of the world. For example, in the United States, organizations have advocated for the labeling of food products containing GM ingredients, three states (Connecticut, Maine, and Vermont) have passed GM labeling legislation, and more than 20 states introduced legislation or ballot initiatives in 2014 that would require GM labeling. These labeling-related initiatives have heightened consumer awareness of GM crops generally and may make consumers less likely to purchase food products containing GM ingredients, which could have a negative impact on the commercial success of products that incorporate our traits and materially and adversely affect our financial condition and results of operations.

Governmental restrictions on the production of GM crops may negatively affect our business and results of operations.

The production of certain GM crops is effectively prohibited in certain countries, including throughout the European Union, which limits our commercial opportunities and may influence regulators in other countries to limit or ban production of GM crops. Our GM crops are grown principally in North America, South America, and Australia, where there are fewer restrictions on the production of GM crops. If these or other countries where our GM crops are grown enact laws or regulations that ban the production of such crops or make regulations more stringent, we could experience a longer product development cycle for our products, encounter difficulty obtaining intellectual property protection, and may even have to abandon projects related to certain crops or geographies, any of which would negatively affect our business and results of operations. Furthermore, any changes in such laws and regulations or consumer acceptance of our GM crops could negatively impact our collaborators, who in turn might terminate or reduce the scope of their collaborations with us or seek to alter the financial terms of our agreements with them.

Changes in laws and regulations to which we are subject, or to which we may become subject in the future, may materially increase our costs of operation, decrease our operating revenues, and disrupt our business.

Laws and regulatory standards and procedures that impact our business are continuously changing. Responding to these changes and meeting existing and new requirements may be costly and burdensome. Changes in laws and regulations could:

- impair or eliminate our ability, or increase our cost, to develop our traits, including validating our products in development through field trials;
- increase our compliance and other costs of doing business through increases in the cost to patent or otherwise protect our intellectual property or increases in the cost to our collaborators to complete the regulatory process to commercialize and market the products we develop with them;
- render any products less profitable, obsolete, or less attractive compared to competing products;
- affect our collaborators' willingness to do business with us;

- reduce the amount of revenues we receive from our collaborators; and
- discourage our collaborators from offering, and consumers from purchasing, products that incorporate our traits.

Any of these events could have a material adverse effect on our business, results of operations, and financial condition. Legislators and regulators have increased their focus on plant biotechnology in recent years, with particular attention paid to GM crops.

Our future growth relies on the ability of our collaborators to commercialize and market our products in development, and any restrictions on such activities could materially and adversely impact our business and results of operations. Any changes in regulations in countries where GM crops are grown or imported could result in our collaborators being unable or unwilling to develop, commercialize, or sell products that incorporate our traits. Any changes to these existing laws and regulations may also materially increase our costs of operation, decrease our operating revenues, and disrupt our business.

The unintended presence of our traits in other products or plants may negatively affect us.

Trace amounts of our traits may unintentionally be found outside our containment area in the products of third parties, which may result in negative publicity and claims of liability brought by such third parties against us. Furthermore, in the event of an unintended dissemination of our genetically engineered materials to the environment or the presence of unintended but unavoidable trace amounts, sometimes called "adventitious presence," of our traits in conventional seed, or in the grain or products produced from conventional or organic crops, we could be subject to claims by multiple parties, including environmental advocacy groups, as well as governmental actions such as mandated crop destruction, product recalls, or additional stewardship practices and environmental cleanup or monitoring.

Loss of or damage to our germplasm collection would significantly slow our product development efforts.

We have developed and maintain a comprehensive collection of germplasm through strategic collaborations with leading institutions, which we utilize in our non-GM programs. Germplasm comprises collections of genetic resources covering the diversity of a crop, the attributes of which are inherited from generation to generation. Germplasm is a key strategic asset since it forms the basis of seed development programs. To the extent that we lose access to such germplasm because of the termination or breach of our collaboration agreements, our product development capabilities would be severely limited. In addition, loss of or damage to these germplasm collections would significantly impair our research and development activities. Although we restrict access to our germplasm at our research facilities to protect this valuable resource, we cannot guarantee that our efforts to protect our germplasm collection will be successful. The destruction or theft of a significant portion of our germplasm collection would adversely affect our business and results of operations.

We depend on our key personnel and, if we are not able to attract and retain qualified scientific and business personnel, we may not be able to grow our business or develop and commercialize our products.

We depend heavily on the skills, expertise and legacy knowledge of principal members of our management, including Eric J. Rey, our President and Chief Executive Officer, and Vic C. Knauf, our Chief Scientific Officer, the loss of whose services might significantly delay or prevent the achievement of our scientific or business objectives.

Additionally, the vast majority of our workforce is involved in research, development, and regulatory activities. Our business is therefore dependent on our ability to recruit and maintain a highly skilled and educated workforce with expertise in a range of disciplines, including molecular biology, biochemistry, plant genetics, agronomics, mathematics, agribusiness, and other subjects relevant to our operations. All of our current employees are at-will employees, and the failure to retain or hire skilled and highly educated personnel could limit our growth and hinder our research and development efforts.

Many of our employees have become vested in a substantial number of stock options. Our employees may be more likely to leave us if the shares they own or the shares underlying their vested options have significantly appreciated in value relative to the original purchase prices of the shares or the exercise prices of the options.

Our development activities are currently conducted at a limited number of locations, which makes us susceptible to damage or business disruptions caused by natural disasters.

Our headquarters, certain research and development operations and our seed storage warehouse are located in Davis, California. We also conduct certain research and development operations and store certain biomaterials in Seattle, Washington. The safflower grain used in the production of our Sonova products is grown in several locations throughout Idaho and is stored in a single facility in Idaho. Our production of our Sonova products takes place at a single facility in Northern California, and the inventory is stored in a single cold storage facility in Northern California. We take precautions to safeguard our facilities, including insurance, health and safety protocols, and off-site storage of critical research results and computer data. However, a natural disaster, such as a fire, flood, or earthquake, could cause substantial delays in our operations, damage or destroy our equipment, inventory, or development projects, and cause us to incur additional expenses. The insurance we maintain against natural disasters may not be adequate to cover our losses in any particular case.

Interruptions in the production or transportation of raw materials used in our Sonova products could adversely affect our operations and profitability.

The production of our Sonova products requires that sufficient quantities of certain raw materials, including our GLA safflower grain grown in Idaho, be timely delivered to our service provider's production facility in Northern California. Our dependency upon timely deliveries means that interruptions or stoppages in such deliveries, or delays or limitations with respect to the production of such raw materials, could adversely affect our operations until alternative arrangements could be made. If we were unable to obtain the necessary raw materials for an extended period of time for any reason, our business, customer relations, and operating results could suffer.

Disruption to our IT system could adversely affect our reputation and have a material adverse effect on our business and results of operations.

Our technologies rely on our IT system to collect and analyze our genomic data, including TILLING and other experimental data, and manage our plant inventory system, which tracks every plant that we have ever produced. We can provide no assurance that our current IT system is fully protected against third-party intrusions, viruses, hacker attacks, information, or data theft, or other similar threats. Furthermore, we store significant amounts of data and, though we are developing back-up storage for our stored data, we cannot assure you that our back-up storage arrangements will be effective if it becomes necessary to rely on them.

If our IT system does not function properly or proves incompatible with new technologies, we could experience interruptions in data transmissions and slow response times, preventing us from completing routine research and business activities. Furthermore, disruption or failure of our IT system due to technical reasons, natural disaster, or other unanticipated catastrophic events, including power interruptions, storms, fires, floods, earthquakes, terrorist attacks, and wars could significantly impair our ability to deliver data related to our projects to our collaborators on schedule and materially and adversely affect the outcome of our collaborations, our relationships with our collaborators, our business, and our results of operations.

Our use of hazardous materials exposes us to potential liabilities.

Certain of our operations involve the storage and controlled use of hazardous materials, including herbicides and pesticides. This requires us to conduct our operations in compliance with applicable environmental and safety standards, and we cannot completely eliminate the risk of accidental contamination from hazardous materials. In the event of such contamination, we may be held liable for significant damages or fines, which could have a material adverse effect on our business and operating results.

Most of the licenses we grant to our collaborators to use our proprietary genes in certain crops are exclusive within certain jurisdictions, which limits our licensing opportunities.

Most of the licenses we grant our collaborators to use our proprietary genes in certain crops are exclusive within specified jurisdictions, so long as our collaborators comply with certain diligence requirements. That means that once genes are licensed to a collaborator in a specified crop or crops, we are generally prohibited from licensing those genes to any third party. The limitations imposed by these exclusive licenses could prevent us from expanding our business and increasing our product development initiatives with new collaborators, both of which could adversely affect our business and results of operations.

Our business model for discovery of genes is dependent on licensing patent rights from third parties, and any disruption of this licensing process could adversely affect our competitive position and business prospects.

Our business model involves acquiring technologies that have achieved proof of concept through rigorous development and testing by third-party basic researchers in order to avoid the significant risks and high costs associated with basic research. Only a small number of the genes we evaluate for acquisition are likely to provide viable commercial candidates and an even more limited number, if any, are likely to be commercialized by us or our collaborators. A failure by us to continue identifying genes that improve specific crop traits could make it difficult to grow our business. If we are unable to identify additional genes, we may be unable to develop new traits, which may negatively impact our ability to generate revenues.

If we are unable to enter into licensing arrangements to acquire rights to these potentially viable genes on favorable terms in the future, it may adversely affect our business. In addition, if the owners of the patents we license do not properly maintain or enforce the patents underlying such licenses, our competitive position and business prospects could be harmed. Without protection for the intellectual property we license, other companies might be able to offer substantially similar or identical products for sale, which could adversely affect our competitive business position and harm our business prospects.

If we fail to comply with our obligations under license agreements, our counterparties may have the right to terminate these agreements, in which event we may not be able to develop, manufacture, register, or market, or may be forced to cease developing, manufacturing, registering, or marketing, any product that is covered by these agreements or may face other penalties under such agreements. Such an occurrence could materially adversely affect the value of the applicable products to us and have an adverse effect on our business and result of operations.

Our success depends on our ability to protect our intellectual property and our proprietary technologies.

Our commercial success depends, in part, on our ability to obtain and maintain patent and trade secret protection for our proprietary technologies, our traits, and their uses, as well as our ability to operate without infringing upon the proprietary rights of others. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially and adversely affected and our business could be harmed.

We treat our proprietary technologies, including unpatented know-how and other proprietary information, as trade secrets. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with any third parties who have access to them, such as our consultants, independent contractors, advisors, corporate collaborators, and outside scientific collaborators. We also enter into confidentiality and invention or patent assignment agreements with employees and certain consultants. Any party with whom we have executed such an agreement could breach that agreement and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time consuming, and the outcome is unpredictable. In addition, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, or if we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced and our business and competitive position could be harmed.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products in development.

As an agricultural biotechnology company, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents involves technological and legal complexity, and is costly, time consuming, and inherently uncertain. In addition, the U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the U.S. Patent and Trademark Office, the laws and regulations governing patents could change in unpredictable ways that may weaken or undermine our ability to obtain new patents or to enforce our existing patents and patents we might obtain in the future.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, maintaining, and defending patents on products in development in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States are less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. For example, several countries outside the United States prohibit patents on plants and seeds entirely. In addition, we may at times license third-party technologies for which limited international patent protection exists and for which the time period for filing international patent applications has passed. Consequently, we are unable to prevent third parties from using intellectual property we develop or license in all countries outside the United States, or from selling or importing products made using our intellectual property in and into the jurisdictions in which we do not have patent protection. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products, and we may be unable to prevent such competitors from importing those infringing products into territories where we have patent protection, but where enforcement is not as strong as in the United States. These products may compete with our products in development and our patents and other intellectual property rights may not be effective or sufficient to prevent them from competing in those jurisdictions. Moreover, farmers or others in the chain of commerce may raise legal challenges to our intellectual property rights or may infringe upon our intellectual property rights, including through means that may be difficult to prevent or detect, and local regulators may choose to not enforce our intellectual property rights.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions where we have filed patent applications. The legal systems of certain countries have not historically favored the enforcement of patents or other intellectual property rights, which could hinder us from preventing the infringement of our patents or other intellectual property rights and result in substantial risks to us. Proceedings to enforce our patent rights in the United States or foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert patent infringement or other claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful or even cover our associated legal costs. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license from third parties.

If we or one of our collaborators are sued for infringing the intellectual property rights of a third party, such litigation could be costly and time consuming and could prevent us or our collaborators from developing or commercializing our products.

Our ability to generate significant revenues from our products depends on our and our collaborators' ability to develop, market and sell our products and utilize our proprietary technology without infringing the intellectual property and other rights of any third parties. In the United States and abroad there are numerous third-party patents and patent applications that may be applied toward our proprietary technology, business processes, or developed traits, some of which may be construed as containing claims that cover the subject matter of our products or intellectual property. Because of the rapid pace of technological change, the confidentiality of patent applications in some jurisdictions (including U.S. provisional patent applications), and the fact that patent applications can take many years to issue, there may be currently pending applications that are unknown to us that may later result in issued patents upon which our products in development or proprietary technologies infringe. Similarly, there may be issued patents relevant to our products in development of which we are not aware. These patents could reduce the value of the traits we develop or the genetically modified plants containing our traits or, to the extent they cover key technologies on which we have unknowingly relied, require that we seek to obtain licenses or cease using the technology, no matter how valuable to our business. We may not be able to obtain such a license on commercially reasonable terms. If any third party patent or patent application covers our intellectual property or proprietary rights and we are not able to obtain a license to it, we and our collaborators may be prevented from commercializing products containing our traits.

As the agricultural biotechnology industry continues to develop, we may become party to, or threatened with, litigation or other adverse proceedings regarding intellectual property or proprietary rights in our technology, processes, or developed traits. Third parties may assert claims based on existing or future intellectual property rights and the outcome of any proceedings is subject to uncertainties that cannot be adequately quantified in advance. Any litigation proceedings could be costly and time consuming, and negative outcomes could result in liability for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent. There is also no guarantee that we would be able to obtain a license under such infringed intellectual property on commercially reasonable terms or at all. A finding of infringement could prevent us or our collaborators from developing, marketing or selling a product or force us to cease some or all of our business operations. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel may be diverted as a result of these proceedings, which could have a material adverse effect on us. Claims that we have misappropriated the confidential information or trade secrets of third parties could similarly have a negative impact on our business.

Our results of operations will be affected by the level of royalty payments that we are required to pay to third parties.

We are a party to license agreements that require us to remit royalty payments and other payments related to in-licensed intellectual property. Under our in-license agreements, we may pay up-front fees and milestone payments and be subject to future royalties. We cannot precisely predict the amount, if any, of royalties we will owe in the future, and if our calculations of royalty payments are incorrect, we may owe additional royalties, which could negatively affect our results of operations. As our product sales increase, we may, from time to time, disagree with our third-party collaborators as to the appropriate royalties owed and the resolution of such disputes may be costly and may consume management's time. Furthermore, we may enter into additional license agreements in the future, which may also include royalty, milestone and other payments.

We are subject to governmental export and import controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws.

Our products and products in development are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. Exports of our products and technology must be made in compliance with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges; fines, which may be imposed on us and responsible employees or managers; and, in extreme cases, the incarceration of responsible employees or managers.

In addition, changes in our products or solutions or changes in applicable export or import laws and regulations may create delays in the introduction and sale of our products and solutions in international markets, prevent our customers from deploying our products and solutions or, in some cases, prevent the export or import of our products and solutions to certain countries, governments or persons altogether. Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our products and solutions, or in our decreased ability to export or sell our products and solutions to existing or potential customers. Any decreased use of our products and solutions or limitation on our ability to export or sell our products and solutions would likely adversely affect our business, financial condition and results of operations.

We are subject to anti-corruption and anti-money laundering laws with respect to both our domestic and international operations, and non-compliance with such laws can subject us to criminal and civil liability and harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and possibly other anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit us and our collaborators from authorizing, offering, or directly or indirectly providing improper payments or benefits to recipients in the public or private sector. We or our collaborators may have direct and indirect interactions with government agencies and state-affiliated entities and universities in the course of our business. We may also have certain matters come before public international organizations such as the United Nations. We use third-party collaborators, joint venture and strategic partners, law firms, and other representatives for regulatory compliance, patent registration, lobbying, deregulation advocacy, field testing, and other purposes in a variety of countries, including those that are known to present a high corruption risk such as India, China, and Latin American countries. We can be held liable for the corrupt or other illegal activities of these third-party collaborators, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. In addition, although we have implemented policies and procedures to ensure compliance with anti-corruption and related laws, there can be no assurance that all of our employees, representatives, contractors, partners, or agents will comply with these laws at all times. Noncompliance with these laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension and debarment from contracting with certain governments or other persons, the loss of export privileges, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations, and financial condition could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees. Enforcement actions and sanctions could further harm our business, results of operations, and financial condition.

Adverse outcomes in future legal proceedings could subject us to substantial damages and adversely affect our results of operations and profitability.

We may become party to legal proceedings, including matters involving personnel and employment issues, personal injury, environmental matters, and other proceedings. Some of these potential proceedings could result in substantial damages or payment awards that exceed our insurance coverage. We will estimate our exposure to any future legal proceedings and establish provisions for the estimated liabilities where it is reasonably possible to estimate and where an adverse outcome is probable. Assessing and predicting the outcome of these matters will involve substantial uncertainties. Furthermore, even if the outcome is ultimately in our favor, our costs associated with such litigation may be material. Adverse outcomes in future legal proceedings or the costs and expenses associated therewith could have an adverse effect on our results of operations.

We may be required to pay substantial damages as a result of product liability claims for which insurance coverage is not available.

We are subject to product liability claims with respect to our Sonova products, and as additional products integrating our traits reach commercialization, product liability claims will increasingly be a commercial risk for our business, particularly as we are involved in the supply of biotechnological products, some of which may be harmful to humans and the environment. Product liability claims against us or our collaborators selling products that contain our traits, or allegations of product liability relating to seeds containing traits developed by us, could damage our reputation, harm our relationships with our collaborators, and materially and adversely affect our business, results of operations, financial condition, and prospects. Furthermore, while our collaboration agreements typically require that our collaborators indemnify us for the cost of product liability claims brought against us as a result of our collaborator's misconduct, such indemnification provisions may not always be enforced, and we may receive no indemnification if our own misconduct contributed to the claims.

We may seek to expand through acquisitions of and investments in other brands, businesses, and assets. These acquisition activities may be unsuccessful or divert management's attention.

We may consider strategic and complementary acquisitions of and investments in other agricultural biotechnology brands, businesses or other assets, and such acquisitions or investments are subject to risks that could affect our business, including risks related to:

- the necessity of coordinating geographically disparate organizations;
- implementing common systems and controls;
- integrating personnel with diverse business and cultural backgrounds;
- integrating acquired manufacturing and production facilities, technology and products;
- combining different corporate cultures and legal systems;
- unanticipated expenses related to integration, including technical and operational integration;
- increased costs and unanticipated liabilities, including with respect to registration, environmental, health and safety matters, that may affect sales and operating results;
- retaining key employees;
- obtaining required government and third-party approvals;
- legal limitations in new jurisdictions;
- installing effective internal controls and audit procedures;
- issuing common stock that could dilute the interests of our existing stockholders;
- spending cash and incurring debt;
- assuming contingent liabilities; and
- creating additional expenses.

We may not be able to identify opportunities or complete transactions on commercially reasonable terms, or at all, or actually realize any anticipated benefits from such acquisitions or investments. Similarly, we may not be able to obtain financing for acquisitions or investments on attractive terms. In addition, the success of any acquisitions or investments also will depend, in part, on our ability to integrate the acquisition or investment with our existing operations.

We incur significantly increased costs and devote substantial management time as a result of operating as a public company.

As a public company, we incur significant legal, accounting, and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC and The NASDAQ Stock Market, including the establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Compliance with these requirements has increased and will continue to increase our legal and financial compliance costs and has made and will continue to make some activities more time consuming and costly. In addition, our management and other personnel has had to and will continue to divert attention from operational and other business matters to devote substantial time to these public company requirements. We will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and may need to establish an internal audit function.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

Pursuant to Section 404 of the Sarbanes-Oxley Act and the related rules adopted by the SEC and the Public Company Accounting Oversight Board, starting with the second annual report that we file with the SEC after the consummation of our public offering, our management will be required to report on the effectiveness of our internal control over financial reporting. In addition, once we no longer qualify as an emerging growth company under the JOBS Act and lose the ability to rely on the exemptions related thereto, our independent registered public accounting firm will also need to attest to the effectiveness of our internal control over financial reporting under Section 404. We are starting the process of determining whether our existing internal controls over financial reporting systems are compliant with Section 404. This process will require the investment of substantial time and resources, including by members of our senior management. As a result, this process may divert internal resources and take a significant amount of time and effort to complete. In addition, we cannot predict the outcome of this determination and whether we will need to implement remedial actions in order to implement effective internal control over financial reporting.

In connection with the preparation of our financial statements for the years ended December 31, 2013 and 2014, we identified certain internal control deficiencies that did not rise to the level of a material weakness, on an individual basis or in the aggregate, but which represented significant deficiencies in our internal control over financial reporting. One deficiency related to our information technology access controls and the other related to the timeliness of our accounting and disclosure procedures. We successfully remediated the deficiency relating to the timeliness of our accounting and disclosure procedures during the year ended December 31, 2014, but we can provide no assurance that we will not experience similar control deficiencies in the future. We are currently working to improve our technology access controls and strengthen our internal control environment. As a result, we may experience higher than anticipated operating expenses, as well as higher auditor fees during and after the implementation of these changes. If we are unable to implement any of the required changes to our internal control over financial reporting effectively or efficiently or are required to do so earlier than anticipated, it could adversely affect our operations, financial reporting, and results of operations and could result in an adverse opinion on internal controls from our independent registered public accounting firm.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

As of December 31, 2014, we had net operating loss carryforwards, or NOLs, for federal income tax reporting purposes of $98.1 million, which begin to expire in 2020, and state NOLs of $77.2 million, which began expiring in 2015. In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its NOLs to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in the future, our ability to utilize NOLs could be further limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. There is also a risk that, due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities. For these reasons, we may not be able to realize a tax benefit from the use of our NOLs, whether or not we obtain profitability.

Risks Related to Ownership of Our Common Stock

We expect our operating results to vary significantly from quarter to quarter, which may cause our stock price to fluctuate widely.

We expect our quarterly operating results to fluctuate widely and unpredictably for the following reasons, among others:

- our significant customer concentration;
- our uncertain ability to obtain government grant funding, which affects the timing and amounts of our payments from the U.S. government;
- the greatly varying timing, stage, and results of our and our collaborators' research, development, and regulatory activities;
- the impact of seasonality in agricultural operations on our field trials and sales of products that incorporate our seed traits;
- supplier, manufacturing, or quality problems; and
- variance in the timing of customer and distributor orders for our Sonova products.

Further, a large proportion of our costs are fixed, due in part to our significant research and development costs and general and administrative expenses. Thus, even a small decline in revenues could disproportionately affect our quarterly operating results and could cause such results to differ materially from expectations. Any unanticipated change in revenues or operating results is likely to cause our stock price to fluctuate since such changes reflect new information available to investors and analysts.

Our stock price may be volatile.

The market price of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section and others beyond our control, including:

- addition or loss of significant customers, collaborators, or distributors;
- changes in laws or regulations applicable to our industry or traits;
- additions or departures of key personnel;
- the failure of securities analysts to cover or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- price and volume fluctuations in the overall stock market;
- volatility in the market price and trading volume of companies in our industry or companies that investors consider comparable;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- our ability to protect our intellectual property and other proprietary rights;
- sales of our common stock by us or our stockholders;
- the expiration of contractual lock-up agreements;
- litigation involving us, our industry, or both;
- major catastrophic events; and
- general economic and market conditions and trends.

Further, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. In addition, the stock prices of many seed and agricultural biotechnology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political, and market conditions such as recessions, interest rate changes, or international currency fluctuations, may cause the market price of our common stock to decline. If the market price of our common stock fluctuates or declines, you may not realize any return on your investment and may lose some or all of your investment.

Future sales of shares by existing stockholders could cause our stock price to decline.

Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline. These sales could also make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. Following the completion of our initial public offering in May 2015, and the completion of the underwriters' exercise of their initial public offering over-allotment option in June 2015, 43,581,694 shares of common stock were outstanding. Of these shares, 6,880,288 shares are freely tradable, without restriction, in the public market. Each of our directors and officers and substantially all of our other stockholders has entered into a lock-up agreement with the underwriters of that restricts their ability to sell or transfer their shares. The lock-up agreements will expire at the end of November 10, 2015. The underwriters, however, may, in their sole discretion, waive the contractual lock-up prior to the expiration of the lock-up agreements. After the lock-up agreements expire, based on shares outstanding as of June 17, 2015, up to an additional 36,701,406 shares of common stock will be eligible for sale in the public market, of which 31,643,423 shares are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

In addition, the 7,763,428 shares of common stock that are either subject to outstanding options under our stock incentive plans or reserved for future issuance under our stock incentive plans will become eligible for sale in the public market in the future, subject to certain legal and contractual limitations. We have filed a registration statement on Form S-8 under the Securities Act covering all of the shares of common stock subject to options outstanding and reserved for issuance under our stock incentive plans. That registration statement became effective immediately upon filing, and shares covered by that registration statement are eligible for sale in the public markets, subject to Rule 144 limitations applicable to affiliates and any lock-up agreements described above. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Insiders have substantial control over us, which could limit your ability to influence the outcome of key transactions, including a change of control.

Our directors, executive officers and each of our stockholders who own greater than 5% of our outstanding common stock and their affiliates, in the aggregate, beneficially own approximately 72.6% of the outstanding shares of our common stock. As a result, these stockholders, if acting together, would be able to influence or control matters requiring approval by our stockholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. They may have interests that differ from yours and may vote in a way with which you disagree and that may be adverse to your interests. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might affect the market price of our common stock.

Moral Compass Corporation, our largest stockholder, beneficially owns approximately 51.7% of our outstanding common stock, and Moral Compass Corporation and Mandala Capital together beneficially own approximately 72.5% of our outstanding common stock. For so long as Moral Compass Corporation continues to own a significant percentage of our outstanding shares, they will be able to significantly influence the composition of our board of directors and the approval of actions requiring stockholder approval. Accordingly, for such period of time, Moral Compass Corporation may be able to exercise control over our management, business plans, and policies, including the appointment and removal of our officers, and may be able to cause or prevent a change of control of our company or a change in the composition of our board of directors and could preclude any unsolicited acquisition of our company. This concentration of ownership could deprive you of an opportunity to receive a premium for your shares as part of a sale of our company and ultimately might affect the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws and under Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could depress the trading price of our common stock by discouraging, delaying or preventing a change of control of our company or changes in our management that the stockholders of our company may believe advantageous. These provisions include:

- establishing a classified board of directors so that not all members of our board of directors are elected at one time;
- authorizing "blank check" preferred stock that our board of directors could issue to increase the number of outstanding shares to discourage a takeover attempt;
- eliminating the ability of stockholders to call a special stockholder meeting;
- eliminating the ability of stockholders to act by written consent;
- the requirement that, to the fullest extent permitted by law and unless we consent to an alternate form, certain proceedings against or involving us or our directors, officers, or employees be brought exclusively in the Court of Chancery in the State of Delaware;
- providing that the board of directors is expressly authorized to make, alter, or repeal our bylaws; and
- establishing advance notice requirements for nominations for elections to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who may cover us make adverse changes to their recommendation regarding our stock, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

As an emerging growth company within the meaning of the Securities Act, we utilize certain modified disclosure requirements, and we cannot be certain if these reduced requirements will make our common stock less attractive to investors.

We are an emerging growth company within the meaning of the rules under the Securities Act. We utilized in our May 14, 2015 prospectus, and we plan in future filings with the SEC to continue to utilize, the modified disclosure requirements available to emerging growth companies, including reduced disclosure about our executive compensation and omission of compensation discussion and analysis, and an exemption from the requirement of holding a nonbinding advisory vote on executive compensation. In addition, we are not subject to certain requirements of Section 404 of the Sarbanes-Oxley Act, including the additional testing of our internal control over financial reporting as may occur when outside auditors attest as to our internal control over financial reporting. As a result, our stockholders may not have access to certain information they may deem important. We cannot predict if investors will find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We could remain an emerging growth company for up to five years, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed $1.0 billion, (ii) the date that we become a large accelerated filer as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter, or (iii) the date on which we have issued more than $1.0 billion in non-convertible debt during the preceding three-year period.

Because we do not expect to pay any dividends for the foreseeable future, investors may be forced to sell their stock to realize a return on their investment.

We do not anticipate that we will pay any dividends to holders of our common stock for the foreseeable future. Any payment of cash dividends will be at the discretion of our board of directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions including compliance with covenants under our debt agreements, and other factors that our board of directors may deem relevant. Our ability to pay dividends might be restricted by the terms of any indebtedness that we incur in the future. In addition, certain of our current outstanding debt agreements prohibit us from paying cash dividends on our common stock. Consequently, you should not rely on dividends to receive a return on your investment.

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

Use of Proceeds from Public Offering of Common Stock

On May 20, 2015, we completed our initial public offering, or IPO, of our common stock, and on June 17, 2015, we completed the sale of additional shares upon exercise of the underwriters' over-allotment option. In connection with the IPO, we issued and sold 8,528,306 shares of common stock, including the over-allotment shares, at a price to the public of $8.00 per share. As a result of the IPO, we received approximately $68.2 million in gross proceeds, and $58.3 million in net proceeds after deducting underwriting discounts and commissions of $4.8 million and offering expenses of approximately $5.1 million payable by us. None of the expenses associated with the IPO were paid to directors, officers, persons owning 10% or more of any class of our equity securities, or to their associates, or to our affiliates. Credit Suisse Securities (USA) LLC and J.P. Morgan Securities LLC acted as joint lead book-running managers for the IPO, and Piper Jaffray & Co. acted as an additional book-running manager. The offering terminated after all of the shares of common stock were sold.

We registered the shares under the Securities Act of 1933 on a Registration Statement on Form S-1 (Registration No. 333-202124), which was filed with the Securities and Exchange Commission, or SEC, on February 17, 2015 and declared effective on May 14, 2015.

There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on May 15, 2015 pursuant to Rule 424(b).

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

A list of exhibits filed with this Quarterly Report on Form 10-Q or incorporated herein by reference is found in the Index to Exhibits immediately following the signature page of this report and is incorporated into this Item 6 by reference.

SIGNATURES

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

Arcadia Biosciences, Inc.

June 24, 2015

By: /s/ Eric J. Rey
Eric J. Rey
Chief Executive Officer

June 24, 2015

By: /s/ Thomas P. O'Neil
Thomas P. O'Neil
Chief Financial Officer

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.16	Director Compensation Policy (filed solely to correct typographical mistakes in the version filed as Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-202124), filed with the SEC on May 11, 2015).	Filed herewith			
31.1	Principal Executive Officer's Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith			
31.2	Principal Financial Officer's Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith			
32.1(1)	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith			
32.2(1)	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith			
101.INS	XBRL Instance Document	Filed herewith			
101.SCH	XBRL Taxonomy Extension Schema Document	Filed herewith			
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith			
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Filed herewith			
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith			
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith			

(1) This certification is deemed not filed for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

DIRECTOR COMPENSATION POLICY

Effective upon the effectiveness of the registration statement for the initial public offering of Arcadia Biosciences, Inc., a Delaware corporation (the "***Company***"), directors of the Company that are not employees of the Company ("***Non-Employee Directors***") shall receive the following compensation for their service as a member of the Board of Directors (the "***Board***") of the Company:

Cash Compensation

Annual Retainer for Board Service

Each Non-Employee Director shall be entitled to an annual cash retainer of Forty Thousand Dollars (US$40,000) (the "***Annual Retainer***"), payable quarterly in arrears, subject to such director's continued service to the Company as a Non-Employee Director on the last day of the preceding quarter. Such amounts shall be prorated in the case of service for less than the entire quarter.

Annual Retainer for Chairman of the Board

In addition to the Annual Retainer, the Non-Employee Director serving as the Chairman of the Board shall receive an additional annual cash retainer of Twenty Thousand Dollars (US$20,000) (the "***Chairman Annual Retainer***"), payable quarterly in arrears, subject to such director's continued service to the Company as the Chairman of the Board on the last day of the preceding quarter. Such amounts shall be prorated in the case of service for less than the entire quarter.

Annual Retainer for Board Committee Chairpersons

In addition to the Annual Retainer, a Non-Employee Director who serves as Chair of the Company's Audit Committee, Compensation Committee or Nominating and Governance Committee shall be entitled to an additional annual cash retainer equal to Fifteen Thousand Dollars (US$15,000) (in the case of the Chair of the Audit Committee), Ten Thousand Dollars (US$10,000) (in the case of the Chair of the Compensation Committee), and/or Seven Thousand Five Hundred Dollars (US$7,500) (in the case of the Chair of the Nominating and Governance Committee), irrespective of the number of committees on which such director serves as Chair or as a member (collectively the "***Chair Retainers***"). Chair Retainers shall be payable quarterly in arrears, subject to such director's continued service to the Company as a Chair of a committee on

the last day of the preceding quarter. Such amounts shall be prorated in the case of service for less than the entire quarter.

Annual Retainer for Service on a Board Committee

In addition to the Annual Retainer, other than the Chair, each Non-Employee Director who serves as member of the Company's Audit Committee, Compensation Committee or Nominating and Governance Committee shall be entitled to an additional annual cash retainer equal to Seven Thousand Five Hundred Dollars (US$7,500) (in the case of a member of the Audit Committee), Five Thousand Dollars (US$5,000) (in the case of a member of the Compensation Committee), and/or Three Thousand Seven Hundred Fifty Dollars (US$3,750) (in the case of a member of the Nominating and Governance Committee), irrespective of the number of committees on which such director serves as Chair or as a member (collectively the "***Committee Membership Retainers***"). Committee Membership Retainers shall be payable quarterly in arrears, subject to such director's continued service to the Company as a member of a committee on the last day of the preceding quarter. Such amounts shall be prorated in the case of service for less than the entire quarter.

Equity Award

Initial Award for New Directors

On the date a new Non-Employee Director becomes a member of the Board, each such Non-Employee Director shall automatically, without further action by Board or Committee, receive an option (an "***Initial Option***") to purchase 15,000 shares of the common stock of the Company (each, a "***Share***"). The per share exercise price for the Initial Option shall be equal to the fair market value for a Share on the date of grant. The Initial Option shall vest and becomes exercisable in three equal annual installments, with one-third of the Shares subject to the Initial Option vesting on each of the first three anniversaries of the date of grant, subject to such director's continued board service through each applicable vesting date. An employee director who ceases to be an employee, but who remains a director, will not receive the Initial Equity Awards. For the avoidance of doubt, no Initial Options will be granted to existing members of the Board in connection with the closing of the initial public offering of the Company.

Annual Award for Continuing Board Members

At each Company's annual meeting of stockholders, all Non-Employee Directors shall automatically, without further action by Board or Committee, receive an option (an "***Annual Option***") to purchase 5,000 Shares. The per share exercise price for the Annual Option shall be equal to the fair market value for a Share on the date of grant. The Annual Option shall vest and becomes exercisable on the earlier of (x) the one year anniversary of the date of grant of the Annual Option and (y) the date of the Company's next annual meeting of stockholders following the date of grant, subject to such director's continued board service through such vesting date.

Provisions Applicable to All Equity Awards

Each Initial Option and Annual Option shall be subject to the terms and conditions of the Company's 2015 Omnibus Equity Incentive Plan (the "***2015 Equity Plan***") and the terms of the

Stock Option Agreement entered into by the Company and such director in connection with such award. For purposes of this Director Compensation Policy, "***Fair Market Value***" shall have the meaning as set forth in the 2015 Equity Plan. Furthermore, all vesting for any such equity awards to Non-Employee Directors shall terminate, and all such equity awards shall be fully vested, upon a "***Change in Control***" as defined in the 2015 Equity Plan.

Expense Reimbursement

The Company shall reimburse each director, consistent with the Company's travel and expense reimbursement policies and practices, for all reasonable out-of-pocket expenses incurred by any director of the Company directly in connection with travel to and from any meetings of the Board or committees thereof. The Company shall make expense reimbursements to all directors within a reasonable amount of time following submission by the director of reasonable written substantiation for the expenses.

Effective Date: May 14, 2015

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, Eric J. Rey, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Arcadia Biosciences, Inc. for the period ended March 31, 2015;

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

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

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

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

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

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

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

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

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

Dated: June 24, 2015

/s/ Eric J. Rey
Eric J. Rey
President & Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas P. O'Neil, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Arcadia Biosciences, Inc. for the period ended March 31, 2015;

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

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

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

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

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

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

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

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

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

Dated: June 24, 2015

/s/ Thomas P. O'Neil
Thomas P. O'Neil
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

In connection with the accompanying Quarterly Report of Arcadia Biosciences, Inc. (the "Company"), on Form 10-Q for the quarter ended March 31, 2015 (the "Report"), I, Eric J. Rey, President and Chief Executive Officer of the Company, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002 that:

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

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

Dated: June 24, 2015

/s/ Eric J. Rey
Eric J. Rey
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

In connection with the accompanying Quarterly Report of Arcadia Biosciences, Inc. (the "Company"), on Form 10-Q for the quarter ended March 31, 2015 (the "Report"), I, Thomas P. O'Neil, Chief Financial Officer of the Company, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002 that:

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

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

Dated: June 24, 2015

/s/ Thomas P. O'Neil
Thomas P. O'Neil,
Chief Financial Officer
(Principal Financial Officer)