MARRONE BIO INNOVATIONS INC
Form 424B4
June 06, 2014
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Filed Pursuant to Rule 424(b)(4)

Registration No. 333-196058

PROSPECTUS

4,500,000 Shares

Marrone Bio Innovations, Inc.

Common Stock

We are offering 3,900,000 shares of our common stock and the selling stockholder identified in this prospectus is offering 600,000 shares of our common stock. We will not receive any proceeds from the sale of the shares by the selling stockholder. Our common stock is listed on The Nasdaq Global Market under the symbol MBII. On June 5, 2014, the last reported sale price of our common stock on The Nasdaq Global Market was $9.60 per share.

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act and, as such, have elected to comply with certain reduced reporting requirements.

Investing in our common stock involves a high degree of risk. Please read Risk Factors beginning on page 15 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public Offering Price	$ 9.50	$ 42,750,000
Underwriting Discounts and Commissions [(1)]	$ 0.57	$ 2,565,000
Proceeds to Marrone, before expenses	$ 8.93	$ 34,827,000
Proceeds to Selling Stockholder, before expenses	$ 8.93	$ 5,358,000

(1) See the section of this prospectus entitled Underwriting.

Delivery of the shares of common stock is expected to be made on or about June 11, 2014. We have granted the underwriters an option for a period of 30 days to purchase an additional 675,000 shares of our common stock. If the underwriters exercise the option in full, the total

underwriting discounts and commissions payable by us will be $2,607,750, and the total proceeds to us, before expenses, will be $40,854,750.

Jefferies **Piper Jaffray**

Stifel **Baird** **Roth Capital Partners**

Prospectus dated June 5, 2014

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We and the underwriters have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

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PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes included in this prospectus and the information set forth under the headings Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations. Unless otherwise indicated in this prospectus, MBI, our company, we, us and our refer to Marrone Bio Innovations, Inc.

Our Company

We make bio-based pest management and plant health products. Bio-based products are comprised of naturally occurring microorganisms, such as bacteria and fungi, and plant extracts. We target the major markets that use conventional chemical pesticides, including certain agricultural and water markets, where our bio-based products are used as substitutes for, or in programs with, conventional chemical pesticides. We also target new markets for which there are no available conventional chemical pesticides, the use of conventional chemical products may not be desirable or permissible because of health and environmental concerns or the development of pest resistance has reduced the efficacy of conventional chemical pesticides. All of our current products are EPA-approved and registered as biopesticides. We believe our current portfolio of products and our pipeline address the growing global demand for effective, efficient and environmentally responsible products to control pests, increase crop yields and reduce crop stress.

Our products currently target two core end markets: crop protection and water treatment. Crop protection products consist of herbicides (for weed control), fungicides (for plant disease control), nematicides (for parasitic roundworm control), insecticides (for insect and mite control) and plant growth regulators and stimulants that growers use to increase crop yields, improve plant health, manage pest resistance and reduce chemical residues. Our products can be used in both conventional and organic crop production. We currently sell our three crop protection product lines, Regalia, for plant disease control and plant health, and Grandevo and Venerate, for insect and mite control, to growers of specialty crops such as grapes, citrus, tomatoes, vegetables, nuts, leafy greens and ornamental plants. We have also had sales of Regalia for large-acre row crops such as corn and soybeans. Water treatment products target invasive water pests across a broad range of applications, including hydroelectric and thermoelectric power generation, industrial applications, drinking water, aquaculture, irrigation and recreation. Our current water treatment product line, Zequanox, which we began selling in the second half of 2012, selectively kills invasive mussels that cause significant infrastructure and ecological damage.

In addition to our current two core end markets, we are also taking steps through strategic collaborations to commercialize products for other non-crop pest management markets. These products can be different formulations of our crop protection products that are specifically targeted for industrial and institutional, turf and ornamental, home and garden and animal health uses such as controlling grubs, cockroaches, flies and mosquitoes in and around schools, parks, golf courses and other public-use areas.

The agricultural industry is increasingly dependent on effective and sustainable pest management practices to maximize yields and quality in a world of increased demand for agricultural products, rising consumer awareness of food production processes and finite land and water resources. We believe that our competitive strengths, including our commercially available products, robust pipeline of novel product candidates, proprietary technology and product development process, commercial relationships and industry experience, position us for rapid growth by providing solutions for these global trends.

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Our Technology and Product Development Process

Our proprietary technology comprises a sourcing process for microorganisms and plant extracts, an extensive proprietary microorganism collection, microbial fermentation technology, screening technology and a process to identify and characterize natural compounds with pesticidal activity. Our technology enables us to isolate and screen naturally occurring microorganisms and plant extracts in an efficient manner and to identify those that may have novel, effective and safe pest management or plant health promoting characteristics. We then analyze and characterize the structures of compounds either produced by selected microorganisms or found in plant extracts to identify product candidates for further development and commercialization. As of March 31, 2014, we have screened more than 18,000 microorganisms and 350 plant extracts, and we have identified multiple product candidates that display significant levels of activity against insects, nematodes, weeds, plant diseases and invasive species such as zebra and quagga mussels, aquatic weeds and algae. We also have produced a collection of microorganisms from taxonomic groups that may enhance nutrient uptake in plants, reduce stress and otherwise increase plant growth. Our product candidates come primarily from our own discovery and development as well as in-licensed technology from universities, corporations and governmental entities.

Our proprietary product development process includes several important components. For all of our product candidates, we develop an analytical method to detect the quantity of the active natural product compounds that are produced by the microorganism or that are extracted from plants. For microbial products, we develop unique proprietary fermentation processes that increase the active natural compounds produced by the microorganisms. We also scale-up fermentation volumes to maximize yields consistently in each batch. Similarly, for our plant extract-based products, we develop a manufacturing process that increases the amount of active natural compounds extracted from plant materials. Our deep understanding of natural product chemistry allows us to develop formulations that optimize the efficacy and stability of compounds produced by microorganisms or plants. Products are not released for sale unless the quantity of the compounds meets our desired efficacy specifications. These methods allow us to produce products that are highly effective and of a consistent quality on a commercial scale.

These product formulations are tailored to meet customers needs and display enhanced performance characteristics such as effectiveness, shelf life, compatibility with other pesticides and ease of use. Our senior management s numerous years of experience in the development of commercial products and formulations have resulted in a highly efficient product development process, which allows us to rapidly commercialize new products.

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Our Products

The table below summarizes our current portfolio of biopesticide products that are commercially available or are in targeted placement with key customers.

NAME	MARKET	TARGET	USE	STAGE
Regalia	Crop Protection, Home and Garden, Turf	Plant Disease/ Plant Health	Protects against fungal and bacterial diseases and enhances yields.	Commercially Available
Grandevo	Crop Protection, Home and Garden, Turf	Insects and Mites	Kills a broad range of sucking and chewing insects through feeding.	Commercially Available
Zequanox	Water Treatment	Invasive Mussels	Kills invasive mussels that restrict water flow in industrial and power facilities and harm recreational waters.	Commercially Available for In-Pipe; Submitted for EPA Registration for Open Water
Venerate	Crop Protection, Home and Garden, Turf, Animal Health	Insects and Mites	Kills sucking and chewing insects on contact.	Commercially Available
Opportune	Crop Protection, Home and Garden, Turf	Weeds	Controls weeds pre- and post-emergence.	EPA Approved; Targeted Placement with Key Customers

In addition to the above products, our pipeline consists of product candidates in various stages of development, including biostimulant and plant health products that do not require EPA registration, products submitted to the EPA for registration, and other promising product candidates under development, which are summarized in the table below, as well as other early-stage discoveries.

NAME	MARKET	TARGET	USE	STAGE
Haven	Crop Protection, Turf, Ornamentals	Plant Health	Enhances yields and reduces plant stress.	EPA Exempt; Under Development
MBI-506, MBI-507 and MBI-508	Crop Protection, Home and Garden, Turf	Plant Health	Enhance yields and reduce crop stress.	EPA Exempt; Under Development
MBI-304 and MBI-305	Crop Protection, Home and Garden, Turf	Nematodes	Kill a broad range of nematodes.	EPA Approved; Under Development
MBI-011	Crop Protection, Home and Garden, Turf	Weeds	Controls weeds; burndown herbicide (controls weed foliage).	Submitted for EPA Registration; Under Development
MBI-302	Crop Protection, Turf	Nematodes/ Plant Health	Controls plant-parasitic nematodes and improves plant health.	Submitted for EPA Registration; Under Development

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NAME	MARKET	TARGET	USE	STAGE
MBI-601	Crop Protection, Home and Garden, Industrial	Plant Disease/Nematodes/ Insects	Biofumigant; controls post-harvest and soil-borne pests and diseases.	Submitted for EPA Registration; Under Development
MBI-010	Crop Protection, Turf, Home and Garden	Weeds	Controls weeds; non-selective systematic herbicide.	Under Development
MBI-110	Crop Protection, Home and Garden	Plant Disease/Plant Health	Protects against fungal diseases and improves plant growth.	Under Development
MBI-303	Crop Protection, Turf	Nematodes/Plant Health	Controls plant-parasitic nematodes and improves plant health.	Under Development

The Value Proposition of Our Pest Management and Plant Health Products

Our products are highly effective and generally designed to be compatible with existing equipment and infrastructure. This allows them to be used as substitutes for, or in connection with, conventional chemical pesticides and other products, as well as in markets for which there are no available conventional chemical pesticides or the use of conventional chemical products may not be desirable or permissible because of health and environmental concerns. We believe that compared with conventional chemical pesticides, our products:

- Are competitive in both price and efficacy;
- Provide viable alternatives where conventional chemical pesticides and genetically modified crops are subject to regulatory restrictions;
- Comply with market-imposed requirements for pest management programs by food processors and retailers;
- Are environmentally friendly;
- Meet stringent organic farming requirements;
- Improve worker productivity by shortening field re-entry times after spraying and allowing spraying up to the time of harvest;
- Are exempt from residue restrictions applicable to conventional chemical pesticides in both the agriculture and water markets; and
- Are less likely to result in the development of pest resistance.

In addition, our experience has shown that when our products are used in connection with conventional chemical pesticides, they can:

- Increase the effectiveness of conventional chemical pesticides while reducing their required application levels;

- Increase levels of pest control and consistency of control;
- Increase crop yields;
- Increase crop quality, including producing crops with higher levels of protein, better taste and color and more attractive flowers; and
- Delay the development of pest resistance to conventional chemical pesticides.

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Our Sales and Distribution Platform

We currently sell our crop protection product lines, Regalia, Grandevo and Venerate, through leading agricultural distributors such as Crop Production Services, Simplot and members of the Integrated Agribusiness Professionals group. These are the same distribution partners that all major agrichemical companies use for delivering solutions to growers across the country.

With respect to sales outside of the United States, we have signed exclusive international distribution agreements for Regalia with FMC (for markets in Latin America), Syngenta (for markets in Africa, Europe and the Middle East) and Engage Agro (for markets in Canada and professional turf and ornamental plants in the United States). We have also entered into initial Memorandums of Understanding for Grandevo and Venerate with DeSangosse (for markets in France), with CBC/Intrachem (for markets in Italy), with Koppert (for indoor crops markets globally except the United States, Canada and France) and with Nufarm (for markets in Australia and New Zealand).

For our water treatment product line, Zequanox, we are in the process of staffing our own sales organization to manage demand creation at the end user level. Zequanox is currently being marketed and sold directly to U.S. power and industrial companies. We are also in discussions with several leaders in water treatment technology and applications regarding potential arrangements to distribute Zequanox in international markets.

In addition, we have signed a technology evaluation and development agreement with Scotts Miracle-Gro under which we have granted Scotts Miracle-Gro first rights to negotiate for exclusive worldwide distribution rights with respect to bio-based pest management and plant health products we jointly develop for the consumer lawn and garden market.

Our Competitive Strengths

Commercially Available Products. We have four commercially available product lines: Regalia, Grandevo, Zequanox and Venerate. We believe these product lines, along with our other EPA-approved and EPA-submitted products and other pipeline of product candidates, provide us the foundation for continuing to build one of the leading portfolios of bio-based pest management products.

Robust Pipeline of Novel Product Candidates. Our pipeline of early-stage discoveries and new product candidates extends across a variety of product types for different end markets, including herbicides, fungicides, nematicides, insecticides, algaecides (for algae control), molluscicides (for mussel and snail control) and plant growth and plant stress regulators. Our product candidates are developed both internally and sourced from third parties.

Rapid and Efficient Development Process. We believe we can develop and commercialize novel and effective products faster and at a lower cost than many other developers of pest management products. For example, we have moved each of Regalia, Grandevo and Zequanox through development, EPA approval and U.S. market launch in approximately four years at a cost of $6.0 million or less. In comparison, a report from Phillips McDougall, an independent market research firm, shows that the average cost for major agrichemical companies to bring a new crop protection product to market is over $250.0 million, and these products have historically taken an average of nearly ten years to move through development, regulatory approval and market launch.

Proprietary Discovery Process. Our discovery process allows us to efficiently discover microorganisms and plant extracts that produce or contain compounds that display a high level of pesticidal activity against various pests. We then use various analytical chemistry techniques to identify and characterize the natural product chemistry of the compounds, which we optimize and patent. Five of our product candidates, one of which is EPA-approved and one of which has been submitted to the EPA, are what we believe to be newly identified microorganism species. We believe that three of our product candidates produce novel compounds that we identified, and four of our product candidates have been found to have, or produce compounds with, a novel

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mode of action. Our proprietary discovery process is protected by patents on the microorganisms, their natural product compounds and their uses for pest management, as well as a patent application we have filed on a screening process to identify enzyme-inhibiting herbicides. We also maintain trade secrets related to the discovery, formulation, process development and manufacturing capabilities.

Sourcing and Commercialization Expertise. We use our technical and commercial development expertise to evaluate early-stage discoveries by third parties to determine commercial viability, secure promising technologies through in-licensing and add considerable value to these in-licensed product candidates. Our efficient development process and significant experience in applying natural product chemistry has led universities, corporations and government entities to collaborate with us to develop or commercialize a number of their early-stage discoveries. As with our internally discovered products, early-stage products we source and commercialize are subject to our own patents and trade secrets related to our added value in characterizing, formulating, developing and manufacturing marketable products.

Existing Agreements with Global Market Leaders. We have strategic agreements with global market leaders across agricultural and consumer retail markets. We have signed exclusive international distribution agreements for Regalia with Syngenta in Africa, Europe and the Middle East and with FMC in Latin America. We also have a technology evaluation and development agreement with Scotts Miracle-Gro, which grants it a right of first access to the active ingredients in our full portfolio of bio-based pest management and plant health products for use in its consumer lawn and garden products.

Management Team with Significant Industry Experience. Our management team has deep experience in bio-based pest management products and the broader agriculture industry. Our chief executive officer, chief operating officer and other key employees average over 25 years of experience and include individuals who have led agrichemical sales and marketing organizations, top scientists and industry experts, some of whom have served in leadership roles at large multinational corporations and governmental agencies, commercialized multiple products, brought multiple products through EPA, state and foreign regulatory processes, filed patent applications and received patents, led groundbreaking research studies and published numerous scientific articles.

Our Growth Strategy

Continue to Develop and Commercialize New Products in Both Existing and New Markets. Our goal is to rapidly and efficiently develop, register and commercialize new products each year, with the goal of developing a full suite of pest management and plant health products. For example, while our current crop protection products address plant diseases and insects, we are developing products that can also control nematodes and weeds as well as products for improving fertilizer efficiency and reducing drought and salt stress. We are also currently screening for water treatment products that control algae and aquatic weeds to complement Zequanox, our invasive mussel control product line.

Expand Applications of Our Existing Product Lines. We have identified opportunities to broaden the commercial applications and expand the use of our existing products lines into several key end markets, including large-acre row crop applications, seed treatment, irrigation, aquaculture and animal health. In addition, we recently expanded sales of Regalia in large-acre row crops. We believe these opportunities could help to drive significant growth for our company.

Accelerate Adoption of New Products, Product Applications and Product Lines. Our goal is to provide growers with complete and effective solutions to a broad range of pest management and plant health needs that can be used individually, together and in connection with conventional chemical pesticides to maximize yield and quality. We believe we will be able to leverage relationships with existing distributors as well as growers positive experiences using our Regalia and Grandevo product lines to accelerate adoption of new products, product applications and product lines. We will also continue to target early adopters of new pest management and plant health technologies with controlled product launches and to educate growers and water resource

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managers about the benefits of bio-based pest management products through on-farm and in-facility demonstrations to accelerate commercial adoption of our products.

Leverage Existing Distribution Arrangements and Develop New Relationships. To expand the availability of our products, we intend to continue to use relationships with conventional chemical pesticide distributors in the United States and leverage the international distribution capabilities under our existing strategic collaboration and distribution agreements. We also continue to form new strategic relationships with other market-leading companies in our target markets and regions to expand the supply of our products globally. For example, we have engaged distributors to help develop Grandevo and Venerate for key countries in Europe and Latin America and sell Regalia in Canada for specialty crops, in the United States for turf and ornamental plants and in parts of the Midwest United States for row crops. We have also engaged a distributor that launched Grandevo in the United States for turf and ornamental plants.

Develop and Expand Manufacturing Capabilities. We currently use third-party manufacturers to produce our products on a commercial scale. These arrangements have historically allowed us to focus our time and direct our capital towards discovering and commercializing new product candidates. We are repurposing a manufacturing facility that we purchased in July 2012 and plan to further expand capacity at this facility. We believe that greater control of our own manufacturing capacity will allow us to scale-up processes and institute process changes more quickly and efficiently while lowering manufacturing costs over time to achieve the desired margins and protecting the proprietary position of our products.

Pursue Strategic Collaborations and Acquisitions. We intend to continue collaborating with chemical manufacturers to develop products that combine our bio-based pest management and plant health products with their technologies, delivering more compelling product solutions to growers. We also may pursue acquisition and in-licensing opportunities to gain access to later-stage products and technologies that we believe would be a good strategic fit for our business and would create additional value for our stockholders.

Industry Overview

Pest management is an important global industry. Most of the markets we currently target or plan to target primarily rely on conventional chemical pesticides, supplemented in certain agricultural markets by the use of genetically modified crops. Conventional chemical pesticides are generally synthetic materials that directly kill or inactivate pests. Phillips McDougall estimates the 2013 agrichemical market at $59.2 billion (including non-crop pesticides), up from 2012 by 10%. Agranova, an independent market research firm, estimated that global agrichemical sales for the crop protection market were $50.0 billion in 2012, which represented an increase of 8.2% from 2011. The market for treatment of fruits and vegetables, the largest current users of bio-based pest management and plant health products, accounted for $16.2 billion of this total. Other agricultural applications, notably crops such as corn, soybeans, rice, cotton and cereals, which we expect will become increasingly important users of bio-based products, accounted for $24.7 billion of the total.

While conventional chemical pesticides are often effective in controlling pests, some of these chemicals are acutely toxic, some are suspected carcinogens and some can have other harmful effects on the environment and other animals. Health and environmental concerns have prompted stricter legislation around the use of conventional chemical pesticides, particularly in Europe, where the use of some highly toxic or endocrine-disrupting chemical pesticides is banned or severely limited and the importation of produce is subject to strict regulatory standards on pesticide residues. In addition, the European Union has passed the Sustainable Use Directive, which requires EU-member countries to reduce the use of conventional chemical pesticides and to use alternative pest management methods, including bio-based pest management products. Over the past two decades, U.S. regulatory agencies have also developed stricter standards and regulations. Furthermore, a growing shift in consumer preference towards organic and sustainable food production has led many large, global food retailers to require their supply chains to implement these practices, including the use of bio-based pest management and fertilizer solutions, water and energy efficiency practices, and localized

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food product sourcing. For example, in 2010, Wal-Mart announced its global sustainable agriculture goals to require sustainable best practices throughout its global food supply chain.

Aside from the health and environmental concerns, conventional chemical pesticide users face additional challenges such as pest resistance and reduced worker productivity, as workers may not return to the fields for a certain period of time after treatment. Similar risks and hazards are also prevalent in the water treatment market, as chlorine and other chemicals used to control invasive water pests contaminate and endanger natural waterways. Costs of using conventional chemical pesticides are also increasing due to a number of factors, including raw materials costs such as rising costs of petroleum, stringent regulatory requirements and pest resistance to conventional chemical pesticides, which requires increasing application rates or the use of more expensive substitute products.

As the cost of conventional chemical pesticides increases and the use of conventional chemical pesticides and genetically modified crops meets increased opposition from government agencies and consumers, and the efficacy of bio-based pest management products becomes more widely recognized among growers, bio-based pest management products are gaining popularity and represent a strong growth sector within the market for pest management technologies. Bio-based pest management products include biopesticides, which the EPA registers in two major categories: (1) microbial pesticides, which contain a microorganism such as a bacterium or fungus as the active ingredient; and (2) biochemical pesticides, which are naturally occurring substances with a non-toxic mode of action such as insect sex pheromones, certain plant extracts and fatty acids.

We believe many bio-based pest management products perform as well as or better than conventional chemical pesticides. When used in alternation or in spray tank mixtures with conventional chemical pesticides, bio-based pest management products can increase crop yields and quality over chemical-only programs. Agricultural industry reports, as well as our own research, indicate that bio-based pest management products can affect plant physiology and morphology in ways that may improve crop yield and can increase the efficacy of conventional chemical pesticides. In addition, pests rarely develop resistance to bio-based pest management products due to their complex modes of action. Likewise, bio-based pest management products have been shown to extend the product life of conventional chemical pesticides and limit the development of pest resistance, a key issue facing users of conventional chemical pesticides, by eliminating pests that survive conventional chemical pesticide treatments. Most bio-based pest management products are listed for use in organic farming, providing those growers with compelling pest control options to protect yields and quality. Given their generally lower toxicity compared with many conventional chemical pesticides, bio-based pest management products can add flexibility to harvest timing and worker re-entry times and can improve worker safety. Many bio-based pest management products are also exempt from conventional chemical residue tolerances, which are permissible levels of chemical residue at the time of harvest set by governmental agencies. Bio-based pest management products may not be subject to restrictions by food retailers and governmental agencies limiting chemical residues on produce, which enables growers to export to wider markets.

In addition to performance attributes, bio-based pest management products registered with the EPA as biopesticides can offer other advantages over conventional chemical pesticides. From an environmental perspective, biopesticides have low toxicity, posing low risk to most non-target organisms, including humans, other mammals, birds, fish and beneficial insects. Biopesticides are biodegradable, resulting in less risk to surface water and groundwater and generally have low air-polluting volatile organic compounds content. Because biopesticides tend to pose fewer risks than conventional pesticides, the EPA offers a more streamlined registration process for these products, which generally requires significantly less toxicological and environmental data and a lower registration fee. As a result, both the time and money required to bring a new product to market are reduced.

Summary of Risk Factors

Our business is subject to numerous risks, which are described in the section entitled Risk Factors immediately following this prospectus summary on page 15. You should carefully consider these risks before

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making an investment. In particular, the following considerations, among others, may offset our competitive strengths or have a negative effect on our growth strategy, which could cause a decline in the price of our common stock and result in a loss of all or a portion of your investment:

- We have a limited operating history and number of commercialized products, have incurred significant losses to date and anticipate continuing to incur losses in the future, and we may not achieve or maintain profitability.
- Our products are in the early stages of commercialization, and our business may fail if we are not able to successfully generate significant revenues from these products.
- Adverse weather conditions and other natural conditions can reduce acreage planted or incidence of crop disease or pest infestations, which can adversely affect our results of operations.
- If our ongoing or future field trials are unsuccessful, we may be unable to obtain regulatory approval of, or commercialize, our products on a timely basis.
- Our inability to obtain regulatory approvals, or to comply with ongoing and changing regulatory requirements, could delay or prevent sales of the products we are developing and commercializing.
- Customers may not adopt our bio-based pest management and plant health products as quickly as we are projecting.
- The high level of competition in the market for pest management products may result in pricing pressure, reduced margins or the inability of our products to achieve market acceptance.
- Our product sales are expected to be seasonal and subject to weather conditions and other factors beyond our control, which may cause our operating results to fluctuate significantly quarterly and annually.
- We rely on third parties for the production of our products. If these parties do not produce our products at a satisfactory quality, in a timely manner, in sufficient quantities or at an acceptable cost, our development and commercialization efforts could be delayed or otherwise negatively impacted.
- We rely on a single supplier based in China for a key ingredient of Regalia.
- If we are unable to maintain and further establish successful relations with the third-party distributors that are our principal customers, or they do not focus adequate resources on selling our products or are unsuccessful in selling them to end users, sales of our products would decline.
- Our intellectual property is integral to our business. If we are unable to protect our patents and proprietary rights in the United States and foreign countries, our business could be adversely affected.

Corporate Information

We were originally incorporated in the State of Delaware in June 2006 as Marrone Organic Innovations, Inc. Our principal executive offices are located at 2121 Second St. Suite A-107, Davis, CA 95618. Our telephone number is (530) 750-2800. Our website address is www.marronebioinnovations.com. The information that can be accessed through our website is not part of this prospectus, and investors should not rely on any such information in deciding whether to purchase our common stock.

Emerging Growth Company Status

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act, which we refer to as the JOBS Act. For as long as we are an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding advisory say-on-pay votes on executive compensation and shareholder advisory votes on golden parachute compensation.

Under the JOBS Act, we will remain an emerging growth company until the earliest of:

- the last day of the fiscal year during which we have total annual gross revenues of $1 billion or more;

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- the last day of the fiscal year following the fifth anniversary of the completion of the initial public offering in August 2013;

- the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt; and

- the date on which we are deemed to be a large accelerated filer under the Securities Exchange Act of 1934, or the Exchange Act (we will qualify as a large accelerated filer as of the first day of the first fiscal year after we have (i) more than $700 million in outstanding common equity held by our non-affiliates and (ii) been public for at least 12 months; the value of our outstanding common equity will be measured each year on the last day of our second fiscal quarter).

The JOBS Act also provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, or the Securities Act, for complying with new or revised accounting standards. However, we have elected to opt out of such extended transition period, and, as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for companies that are not emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

Trade Names

Except as context otherwise requires, references in this prospectus to our product lines, such as Regalia, refer collectively to all formulations of the respective product line, such as Regalia Maxx or Regalia SC, and all trade names under which our distributors sell such product lines internationally, such as Sakalia.

Our logos, Grandevo®, Haven™, Opportune™, Regalia®, Venerate™, Zequanox® and other trade names, trademarks or service marks of Marrone Bio Innovations, Inc. appearing in this prospectus are the property of Marrone Bio Innovations, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

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The Offering

Common stock offered by us	3,900,000 shares
Common stock offered by the selling stockholder	600,000 shares
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days to purchase up to 675,000 additional shares of our common stock.
Common stock to be outstanding after this offering	23,607,001 shares (or 24,282,001 shares if the underwriters exercise their option to purchase additional shares in full)
Use of proceeds	We intend to use the net proceeds we receive from this offering primarily for working capital required to accelerate growth, capital expenditures and other general corporate purposes. We will not receive any proceeds from the sale of common stock by the selling stockholder in this offering. See Use of Proceeds.
Risk factors	See Risk Factors and the other information included in this prospectus for a discussion of the factors you should consider carefully before deciding to invest in our common stock.
Nasdaq Global Market symbol	MBII

The number of shares of our common stock to be outstanding after this offering is based on 19,707,001 shares outstanding as of March 31, 2014, and excludes:

- 2,974,054 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2014 with a weighted-average exercise price of $10.95 per share;
- 144,646 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2014, with a weighted-average exercise price of $8.40 per share; and
- 1,127,624 shares of common stock that will be available for future grant under our 2013 Stock Incentive Plan as of March 31, 2014, and additional shares of common stock that will be available for future grant under the automatic increase provisions of our 2013 Stock Incentive Plan (see Executive Compensation Employee Benefit and Stock Plans 2013 Stock Incentive Plan).

Except as otherwise indicated, all information in this prospectus assumes:

- no other exercise of options or warrants subsequent to March 31, 2014; and

- no exercise of the underwriters option to purchase additional shares of our common stock.

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Summary Financial Data

The following tables summarize the financial data for our business. You should read this summary financial data in connection with Management s Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and related notes, all included elsewhere in this prospectus.

We have derived the consolidated statements of operations data for each of the fiscal years ended December 31, 2013, 2012 and 2011 from our audited consolidated financial statements and related notes included elsewhere in this prospectus. We have derived the consolidated statements of operations data for the three months ended March 31, 2014 and 2013 and the consolidated balance sheet data as of March 31, 2014 from our unaudited interim condensed consolidated financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future.

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Statements of Operations Data:

	YEAR ENDED DECEMBER 31,			THREE MONTHS ENDED MARCH 31,	
	2013	2012	2011	2014	2013
	(In thousands, except per share data)				
Revenues:					
Product	$ 12,657	$ 6,777	$ 5,044	$ 2,097	$ 2,373
License [1]	193	179	57	45	48
Related party	1,693	184	150	648	309
Total revenues	14,543	7,140	5,251	2,790	2,730
Cost of product revenues, including cost of product revenues to related parties of $984, $126 and $50 for the years ended December 31, 2013, 2012 and 2011, respectively, and $192 and $194 for the three months ended March 31, 2014 and 2013, respectively	10,736	4,333	2,172	1,652	1,795
Gross profit	3,807	2,807	3,079	1,138	935
Operating expenses:					
Research, development and patent	17,814	12,741	9,410	4,282	3,283
Non-cash charge associated with a convertible note		3,610			
Selling, general and administrative	15,018	10,294	6,793	6,330	2,847
Total operating expenses	32,832	26,645	16,203	10,612	6,130
Loss from operations	(29,025)	(23,838)	(13,124)	(9,474)	(5,195)
Other income (expense):					
Interest income	49	16	22	10	1
Interest expense	(5,997)	(2,466)	(88)	(773)	(1,985)
Change in estimated fair value of financial instruments [2]	6,717	(12,461)	1		(3,563)
Gain on extinguishment of debt	49				
Other (expense) income, net	(282)	(45)	9	(9)	(7)
Total other income (expense), net	536	(14,956)	(56)	(772)	(5,554)
Loss before income taxes	(28,489)	(38,794)	(13,180)	(10,246)	(10,749)
Income taxes					
Net loss	(28,489)	(38,794)	(13,180)	(10,246)	(10,749)
Deemed dividend on convertible notes	(1,378)	(2,039)			
Net loss attributable to common stockholders	$ (29,867)	$ (40,833)	$ (13,180)	$ (10,246)	$ (10,749)
Net loss per common share [3]:					
Basic	$ (3.42)	$ (32.48)	$ (10.64)	$ (0.52)	$ (8.48)
Diluted	$ (3.94)	$ (32.48)	$ (10.64)	$ (0.52)	$ (8.48)

Weighted-average shares outstanding used in computing net loss per common share [(3)]:					
Basic	8,731	1,257	1,239	19,518	1,268
Diluted	8,911	1,257	1,239	19,518	1,268

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(1) We receive payments under strategic collaboration and distribution agreements under which we provide third parties with exclusive development, marketing and distribution rights. These payments are initially classified as deferred revenues and are recognized as revenues over the exclusivity period. See Note 2 of our accompanying audited consolidated financial statements for an explanation of the method used to calculate license revenues.

(2) Prior to the completion of the initial public offering, we accounted for the outstanding warrants exercisable into shares of our Series A, Series B and Series C convertible preferred stock and the outstanding warrants exercisable into a variable number of shares of common stock as liability instruments, as the Series A, Series B and Series C convertible preferred stock and the common stock into which these warrants were convertible were contingently redeemable upon the occurrence of certain events or transactions. In addition, convertible notes were accounted for at estimated fair value. The warrant instruments and convertible notes were adjusted to fair value at each reporting period with the change in fair value recorded in the consolidated statements of operations. These charges did not continue after the completion of the initial public offering because the preferred stock warrants were exercised and the convertible notes automatically converted into common stock in accordance with their terms upon the completion of the initial public offering. The common stock warrants were, in accordance with their terms upon the completion of the initial public offering, either automatically exercised for shares of common stock or represent the right to purchase a fixed number of shares. See Management s Discussion and Analysis of Financial Condition and Results of Operations Key Components of Our Results of Operations Change in Estimated Fair Value of Financial Instruments and Deemed Dividend on Convertible Notes.

(3) Includes the effect of a 1-for-3.138458 reverse stock split, effective August 1, 2013.

Balance Sheet Data:

As adjusted consolidated balance sheet data as of March 31, 2014 in the table below gives effect to our receipt of the estimated net proceeds from this offering, at a public offering price of $9.50 per share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	AS OF MARCH 31, 2014	
	ACTUAL	AS ADJUSTED
	(In thousands)	
Cash and cash equivalents	$ 21,298	$ 55,275
Short-term investments	2,664	2,664
Working capital (1)	32,571	66,548
Total assets	63,459	97,436
Debt and capital leases (net of unamortized discount)	15,174	15,174
Total liabilities	29,498	29,498
Total stockholders equity	33,961	67,938

(1) Working capital is defined as total current assets minus total current liabilities.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors, as well as other information in this prospectus, before deciding whether to invest in shares of our common stock. The occurrence of any of the events described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the trading price of our common stock may decline and you may lose all or part of your investment.

Risks Relating to Our Business and Strategy

We have a limited operating history and number of commercialized products, have incurred significant losses to date and anticipate continuing to incur losses in the future, and we may not achieve or maintain profitability.

We are an early stage company with a limited operating history, and we only recently began commercializing our products. We have incurred operating losses since our inception in June 2006, and we expect to continue to incur operating losses for the foreseeable future. At December 31, 2013 and 2012 and March 31, 2014, we had an accumulated deficit of $105.4 million, $75.6 million and $115.7 million, respectively. For the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, we had a net loss attributable to common stockholders of $29.9 million, $40.8 million, $13.2 million and $10.2 million, respectively. As a result, we will need to generate significant revenues to achieve and maintain profitability. If our revenues grow slower than anticipated, or if operating expenses exceed expectations, then we may not be able to achieve profitability in the near future or at all, which may depress our stock price.

Through March 31, 2014, we have derived substantially all of our revenues from sales of Regalia and Grandevo. In addition, we have derived revenues from strategic collaboration and development agreements for the achievement of testing validation, regulatory progress and commercialization events, and from sales of other products. Accordingly, there is only a limited basis upon which to evaluate our business and prospects. Our future success depends, in part, on our ability to market and sell other products, such as Venerate, as well as our ability to increase sales of Regalia, Grandevo and Zequanox. An investor in our stock should consider the challenges, expenses, and difficulties we will face as a company seeking to develop and manufacture new types of products in a relatively established market. We expect to derive future revenues primarily from sales of Regalia, Grandevo, Zequanox, Venerate and other products, but we cannot guarantee the magnitude of such sales, if any. We expect to continue to devote substantial resources to expand our research and development activities, further increase manufacturing capabilities and expand our sales and marketing activities for the further commercialization of Regalia, Grandevo, Zequanox, Venerate and other product candidates. We expect to incur additional losses for the next several years and may never become profitable.

Our products are in the early stages of commercialization, and our business may fail if we are not able to successfully generate significant revenues from these products.

Our future success will depend in part on our ability to commercialize the bio-based pest management and plant health product candidates we are developing. Our initial sales of our latest formulation of Regalia and our initial formulation of Grandevo occurred in the fourth quarter of 2009 and the fourth quarter of 2011, respectively, we began selling Zequanox in the second half of 2012, and we began to sell Venerate, a bioinsecticide, in May 2014. Our ability to generate significant revenues from Zequanox is dependent on our ability to persuade customers to evaluate the costs of our Zequanox products compared to the overall cost of the chlorine treatment process, the primary current alternative to using Zequanox, rather than the cost of purchasing chemicals alone. Sales of Zequanox have also remained lower than our other products due to the length of the treatment cycle, the longer sales cycle (the bidding process with utility companies occurs on a yearly or multi-year basis) and the unique nature of the treatment approach for each customer based on the extent of the infestation and the design of the facility.

Our near-term development and commercialization efforts are focused on our current launch of Venerate (a bioinsecticide), bringing to market Haven (an anti-transpirant) and MBI-507 and MBI-508 (biostimulants), submitting for EPA registration MBI-010 (a bioherbicide) and MBI-110 (a biofungicide), and conducting field trials on MBI-304 and MBI-305 (bionematicides). In addition, we intend to continue development of three products already submitted for EPA registration, MBI-302 (a bionematicides), MBI-011 (a bioherbicide) and MBI-601 (a biofumigant), and we have already taken into field trials several candidates we recently in-licensed from the New Zealand Institute for Plant and Food Research.

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Successful development of our product candidates will require significant additional investment, including costs associated with research and development, completing field trials and obtaining regulatory approval, as well as the ability to manufacture our products in large quantities at acceptable costs while also preserving high product quality. Difficulties often encountered in scaling up production include problems involving production yields, quality control and assurance, shortage of qualified personnel, production costs and process controls. In addition, we are subject to inherent risks associated with new products and technologies. These risks include the possibility that any product candidate may:

- be found unsafe;
- be ineffective or less effective than anticipated;
- fail to receive necessary regulatory approvals;
- be difficult to competitively price relative to alternative pest management solutions;
- be harmful to consumers, growers, farm workers or the environment;
- be harmful to crops when used in connection with conventional chemical pesticides;
- be difficult or impossible to manufacture on an economically viable scale;
- be subject to supply chain constraints for raw materials;
- fail to be developed and accepted by the market prior to the successful marketing of similar products by competitors;
- be impossible to market because it infringes on the proprietary rights of third parties; or
- be too expensive for commercial use.

Adverse weather conditions and other natural conditions can reduce acreage planted or incidence of crop disease or pest infestations, which can adversely affect our results of operations.

Production of the crops on which our products are typically applied is vulnerable to extreme weather conditions such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought, fires and floods. Weather conditions can be impacted by climate change resulting from global warming, including changes in precipitation patterns and the increased frequency of extreme weather events, or other factors. Unfavorable weather conditions can reduce both acreage planted and incidence (or timing) of certain crop diseases or pest infestations, each of which may reduce demand for our products. For example, in 2013 and 2012, the United States experienced nationwide abnormally low rainfall or drought, reducing the incidence of fungal diseases such as mildews, and these conditions have been present in some of our key markets in the first quarter of 2014 as well. In addition, disruptions that cause delays by growers in harvesting or planting can result in the movement of orders to a future quarter, which would negatively affect the quarter and cause fluctuations in our operating results. For example, late snows and cold temperatures in the Midwestern and Eastern United States in the first quarter of 2014 have delayed planting and pesticide applications. Since Regalia and Grandevo products have different margins, changes in product mix due to these conditions could affect our overall margins.

If our ongoing or future field trials are unsuccessful, we may be unable to obtain regulatory approval of, or commercialize, our products on a timely basis.

The successful completion of multiple field trials in domestic and foreign locations on various crops and water infrastructures is critical to the success of our product development and marketing efforts. If our ongoing or future field trials are unsuccessful or produce inconsistent results or unanticipated adverse side effects on crops or on non-target organisms, or if we are unable to collect reliable data, regulatory approval of our products could be delayed or we may be unable to commercialize our products. In addition, more than one growing or treatment season may be required to collect sufficient data and we may need to collect data from different geographies to prove performance for customer adoption. Although we have conducted successful field trials on a broad range of crops, we cannot be certain that additional field trials conducted on a greater number of acres, or on crops for which we have not yet conducted field trials, will be successful. Moreover, the results of our ongoing and future field trials are subject to a number of conditions beyond our control, including weather-related events such as drought or floods, severe heat or frost, hail, tornadoes and hurricanes. Generally, we pay third parties such as growers, consultants and universities, to conduct field tests on our behalf. Incompatible crop treatment practices or misapplication of our products by these third parties could impair the success of our field trials.

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Our inability to obtain regulatory approvals, or to comply with ongoing and changing regulatory requirements, could delay or prevent sales of the products we are developing and commercializing.

The field testing, manufacture, sale and use of pest management products, including Regalia, Grandevo, Zequanox, Venerate and other products we are developing, are extensively regulated by the EPA and state, local and foreign governmental authorities. These regulations substantially increase the time and cost associated with bringing our products to market. If we do not receive the necessary governmental approvals to test, manufacture and market our products, or if regulatory authorities revoke our approvals, do not grant approvals in a timely manner or grant approvals subject to restrictions on their use, we may be unable to sell our products in the United States or other jurisdictions, which would result in our future revenues being less than anticipated.

We have received approval from the EPA for the active ingredients and certain end product formulations for Regalia, Grandevo, Zequanox, Opportune and Venerate. As we introduce new formulations of and applications for our products, we will need to seek EPA approval prior to commercial sale. For any such approval, the EPA may require us to fulfill certain conditions within a specified period of time following initial approval. We are also required to obtain regulatory approval from other state and foreign regulatory authorities before we market our products in their jurisdictions.

Some of these states and foreign countries may apply different criteria than the EPA in their approval processes. Although federal pesticide law preempts separate state and local pesticide registration requirements to some extent, state and local governments retain authority to control pesticide use within their borders.

There can be no assurance that we will be able to obtain regulatory approval for marketing our additional products or new product formulations and applications we are developing. Although the EPA has in place a registration procedure for biopesticides like Regalia and Grandevo that is streamlined in comparison to the registration procedure for conventional chemical pesticides, there can be no assurance that all of our products or product extensions will be eligible for this streamlined procedure or that additional requirements will not be mandated by the EPA that could make the procedure more time consuming and costly for our future products.

Additionally, for California state registration and registration in jurisdictions outside of the United States, all products need to be proven efficacious, which can require costly field trial testing and a favorable result is not assured. Because many of the products that may be sold by us must be registered with one or more government agencies, the registration process can be time consuming and expensive, and there is no guarantee that the product will obtain all needed registrations. We have intentionally obtained registration in some jurisdictions and not in others. California is one of the largest and most important producers of agricultural products in the world. Because of its stringent regulation of pesticides and environmental focus, we also view California as one of the most natural and attractive markets for our products. Given California s stringent regulations, it is possible that we may have products that have been registered by the EPA, in other states and in foreign countries, but which may not be sold in California. If this were to occur, our business would be harmed.

Even if we obtain all necessary regulatory approvals to market and sell our products, they will be subject to continuing review and extensive regulatory requirements, including periodic re-registrations. The EPA, as well as state and foreign regulatory authorities, could withdraw a previously approved product from the market upon receipt of newly discovered information, including an inability to comply with their regulatory requirements or the occurrence of unanticipated problems with our products, or for other reasons.

Customers may not adopt our bio-based pest management and plant health products as quickly as we are projecting.

Customers in the crop production sector and the water treatment sector are generally cautious in their adoption of new products and technologies. Growers often require on-farm demonstrations of a given pest management or plant health product. Initial purchases of the product tend to be conservative, with the grower testing on a small portion of their overall crop. As the product is proven, growers incorporate the product into their rotational programs and deploy it on a greater percentage of their operations. As a result, large scale adoption can take several growing seasons. Water treatment products must also pass efficacy and ecological toxicity tests. In addition, given the relative novelty of our water treatment products, consumers of those products will continue to require education on their use, which may delay their adoption.

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The high level of competition in the market for pest management products may result in pricing pressure, reduced margins or the inability of our products to achieve market acceptance.

The markets for pest management products are intensely competitive, rapidly changing and undergoing consolidation. 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 our products.

Many entities are engaged in developing pest management products. Our competitors include major multinational agrichemical companies such as Arysta, BASF, Bayer, Dow Chemical, DuPont, FMC, Monsanto, Sumitomo Chemical, Syngenta and specialized biopesticide businesses such as AgraQuest (now a part of Bayer), Certis USA (now a part of Mitsui), Novozymes and Valent Biosciences (now a part of Sumitomo). Many of these organizations have longer operating histories, significantly greater resources, greater brand recognition and a larger base of customers than we do. As a result, they may be able to devote greater resources to the manufacture, promotion or sale of their products, receive greater resources and support from independent distributors, initiate or withstand substantial price competition or more readily take advantage of acquisition or other opportunities. Further, many of the large agrichemical companies have a more diversified product offering than we do, which may give these companies an advantage in meeting customers needs by enabling them to offer a broader range of pest management solutions.

The market for our bio-based pest management and plant health products is underdeveloped, which may make it difficult to effectively market or price our products.

The market for bio-based pest management products is underdeveloped when compared with conventional chemical pesticides. Certain of our product lines, such as Zequanox, currently have few or no competitors, making it difficult to determine how we should determine their pricing. We may not be able to charge as much for such products as we currently plan. In addition, customers have historically perceived bio-based pest management products as more expensive and less effective than conventional chemical pesticides. To succeed, we will need to continue to change that perception. To the extent that the market for bio-based pest management products does not further develop or customers elect to continue to purchase and rely on conventional chemical pesticides, our market opportunity will be limited.

Public perception of consuming food with microbial residues and public perception of releasing microorganisms into the environment could damage our reputation and adversely impact sales of our microbial products.

We believe maintaining our strong reputation and favorable image with distributors, direct customers and end users will be a key component in our success. Although there has been a long history of safe use of bio-based pest management products based on microorganisms, adverse public reaction to the microbial nature of our products could harm our potential sales. In addition, perceptions that the products we produce and market are not safe could adversely affect us and contribute to the risk we will be subjected to legal action. For example, companies are frequently subject to litigation and negative press related to the release of chemicals into water systems, and our Zequanox water treatment product line may be subject to public scrutiny. Public perception that our products are not safe, whether justified or not, could impair our reputation, involve us in litigation, damage our brand names and have a material adverse effect on our business.

Our product sales are expected to be seasonal and subject to weather conditions and other factors beyond our control, which may cause our operating results to fluctuate significantly quarterly and annually.

Sales of our individual products are generally expected to be seasonal. Weather conditions and natural disasters affect decisions by our distributors, direct customers and end users about the types and amounts of pest management products to purchase and the timing of use of such products. In addition, disruptions that cause delays by growers in harvesting or planting can result in the movement of orders to a future quarter, which would negatively affect the quarter and cause fluctuations in our operating results. For example, we expect that our Regalia, Grandevo and Venerate product lines will be sold and applied to crops in greater quantity in the second and fourth quarters. These seasonal variations may be especially pronounced because sales have been primarily limited to our Regalia and Grandevo product lines in the Northern Hemisphere, and our Venerate product line has only been launched in the Northern Hemisphere. Our Regalia and Grandevo product lines accounted for 97%, 96%, 96% and 87% of our total revenues for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. In addition, sales of products for treatment of invasive mussels are concentrated during periods of increased mussel growth and feeding activity, which occurs from June through September in the eastern United States, Canada and Europe and from April through October in the southwestern United States. However, planting

and growing seasons, climatic conditions and other variables on which sales of our products are dependent vary from year to year and quarter to quarter. As a result, we have historically experienced substantial fluctuations in quarterly sales.

The level of seasonality in our business overall is difficult to evaluate as a result of our relatively early stage of development, our relatively limited number of commercialized products, our expansion into new geographical territories, the introduction of new products and the timing of introductions of new formulations and products. It is possible that our business may be more seasonal, or experience seasonality in different periods, than anticipated. For example, if sales of Zequanox become a more significant component of our revenue, the separate seasonal sales cycles of that product line could cause further shifts in our quarterly revenue. Other factors may also contribute to the unpredictability of our operating results, including the size and timing of significant distributor transactions, the delay or deferral of use of our products and the fiscal or quarterly budget cycles of our distributors, direct customers and end users. Customers may purchase large quantities of our products in a particular quarter to store and use over long periods of time or time their purchases to manage their inventories, which may cause significant fluctuations in our operating results for a particular quarter or year.

Our expense levels are based in part on our expectations regarding future sales. As a result, any shortfall in sales relative to our expectations could cause significant fluctuations in our operating results from quarter to quarter, which could result in uncertainty surrounding our level of earnings and possibly a decrease in our stock price.

If we are unable to identify new product candidates through our product development process, we may not achieve or maintain profitability.

Our future success will depend in part on our ability to improve our existing products and to utilize our product development process to identify and commercialize natural compounds with pesticidal activity. As of March 31, 2014, we have screened more than 18,000 microorganisms and 350 plant extracts, and we have identified multiple product candidates that display activity against insects, nematodes, weeds, plant diseases and invasive species such as zebra and quagga mussels, aquatic weeds and algae. Only a small number of these candidates are likely to provide viable commercial candidates and an even more limited number, if any, are likely to be commercialized by us. A failure by us to continue identifying natural compounds with pesticidal or plant health promoting activity could make it difficult to grow our business. In addition, we may continue to expand our product offerings through in-licensing of microorganisms and plant extracts. There is no assurance that these attempts will be successful. Licensing of products requires identification of new products or determination of new applications for existing products and a willingness on the product owner to license the product. If we are unable to identify or in-license additional microorganisms, natural product compounds or product candidates, we may be unable to develop new products or generate revenues.

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 related to in-licensed microorganisms and plant extracts for certain of our product lines such as Regalia, Grandevo and Zequanox. The amount of royalties that we could owe under these license agreements ranges from 2% to 5% of net product revenues. 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 more 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 payments.

We rely on third parties for the production of our products. If these parties do not produce our products at a satisfactory quality, in a timely manner, in sufficient quantities or at an acceptable cost, our development and commercialization efforts could be delayed or otherwise negatively impacted.

We do not currently produce our microbial and plant extract-based products other than at a small scale using our own facilities. As such, we rely on third parties for the production of our products. While we are developing our own internal commercial-scale manufacturing capacity, we may from time to time utilize third-party manufacturers for supplemental production capacity of our products. Our reliance on third parties to manufacture our products presents significant risks to us, including the following:

- reduced control over delivery schedules, yields and product reliability;

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- price increases;
- manufacturing deviations from internal and regulatory specifications;
- the failure of a key manufacturer to perform its obligations to us for technical, market or other reasons;
- challenges presented by introducing our fermentation processes to new manufacturers or deploying them in new facilities;
- difficulties in establishing additional manufacturers if we are presented with the need to transfer our manufacturing process technologies to them;
- misappropriation of our intellectual property; and
- other risks in potentially meeting our product commercialization schedule or satisfying the requirements of our distributors, direct customers and end users.

We have not entered into any long-term manufacturing or supply agreements for any of our products, and we will need to enter into additional agreements for the commercial development, manufacturing and sale of our products. There can be no assurance that we can do so on favorable terms, if at all.

Our products have been produced in quantities sufficient to meet commercial demand. However, our current dependence upon others for the production of our products, and our anticipated future dependence upon others for the production of a portion of our products, may adversely affect our ability to develop and commercialize any products on a timely and competitive basis. If manufacturing capacity is reduced or eliminated at one or more of our third-party manufacturers facilities, we could have difficulties fulfilling our customer orders, and our net revenues and results of operations could decline.

We must accurately forecast demand for our products to obtain adequate and cost-effective capacity from our third-party manufacturers and to purchase certain of the raw materials used in our products at cost-effective rates. Our third-party manufacturers are not required to supply us products until we place and they accept our purchase orders, which generally occurs approximately one month prior to the anticipated product delivery date based on our own rolling forecasts. Our purchase orders may not be accepted and our third-party manufacturers may not be willing to provide us with additional products on a timely basis if they prioritize orders placed by other companies, many of whom are more established than us and order larger volumes of products. In addition, while raw material orders are generally placed one month in advance, because certain of the raw materials used in our products are in short supply or are subject to capacity demands, we place some raw material orders approximately six months in advance to avoid paying higher prices. Accordingly, if we inaccurately forecast demand for our products, we may be unable to meet our customers delivery requirements, or we may accumulate excess inventories of products and raw materials.

We may experience significant delays in financing or completing the repurpose of our commercial manufacturing facility for producing some of our bio-based pest management and plant health products, which could result in harm to our business and prospects.

We acquired a manufacturing facility in July 2012, and our business plan contemplates completing an initial repurpose and upgrade of this facility to develop significant internal commercial manufacturing capacity. Phase 1 of the project includes installation of the first of three fermentation tanks, and the construction of a dedicated building to house them. In December 2013, we produced the first test batch of Grandevo at this facility and expect to begin full-scale production of our products using our own manufacturing capacity in the first half of 2014. Phase 1 will also include full-scale production of Regalia, which we successfully produced in small-scale in 2013, and Zequanox. Phase 2, which we may initiate as our business grows, will include increasing the capacity of the facility s utilities, installing drying capacity and installing larger fermenters that will accommodate production of multiple products at higher volumes. We expect Phase 1 to fulfill our capacity needs through 2015. Our plan includes continuing to retain some contract manufacturers for emergency and risk mitigation. If we are unable to complete the repurpose, upgrade and expansion of this facility in a timely manner, we will need to otherwise secure access to capacity significantly greater than what we have previously used as we commercialize our products.

In order to bring our facility fully on line, we will need to complete design and other plans needed for the repurpose of the facility and secure the requisite permits, licenses and other governmental approvals, and we may not be successful in doing so. If we encounter significant delays, cost overruns, engineering problems, equipment supply constraints or other serious challenges in bringing the facility online, we may be unable to meet our production goals

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in the time frame we have planned. We may not be successful in producing the amount and quality of product we anticipate in the facility and our results of operations may suffer as a result. Further, we intend to continue to utilize various third-party contract manufacturers, which will reduce our ability to control product quality and the speed and timing of manufacturing, protect our proprietary position in our products and lower our manufacturing costs.

Failure to achieve expected manufacturing yields for our products could negatively impact our operating results.

Low yields may result from product design, development stage or process technology failures. We do not know whether a yield problem exists until our products are manufactured based on our design. When a yield issue is identified, the product is analyzed and tested to determine the cause. As a result, yield deficiencies may not be identified until well into the production process. We are repurposing our manufacturing facility acquired in July 2012 for high volume production and anticipate further expanding capacity at this facility, and we may experience delays or product yield issues as this facility comes online. In the event we continue to rely on third-party manufacturers, resolution of yield problems requires cooperation among, and communication between us and our manufacturers. We have limited experience producing a number of our products at commercial scale, and we will not succeed if we cannot maintain or decrease our production costs and effectively scale our technology and manufacturing processes.

We rely on a single supplier based in China for a key ingredient of Regalia.

The active ingredient in our Regalia product line is derived from the giant knotweed plant, which we obtain from China. Our single supplier acquires raw knotweed from numerous regional sources and performs an extraction process on this plant, creating a dried extract that is shipped to our third-party manufacturer in the United States. A disruption at our supplier s manufacturing site or a disruption in trade between the United States and China could negatively impact sales of Regalia. We currently use one supplier and do not have a long-term supply contract with this supplier. Although we have identified additional sources of knotweed, there can be no assurance that we will continue to be able to obtain dried extract from China at a competitive price point.

We have limited experience in marketing and selling our products and will need to expand our sales and marketing infrastructure.

We currently have limited sales and marketing experience and capabilities. As of March 31, 2014, we employed 31 full-time equivalent sales and marketing personnel, 23 of which focus on technical support and demonstration and research field trials. We will need to further develop our sales and marketing capabilities in order to successfully commercialize Zequanox, Opportune, Venerate and other products we are developing, which may involve substantial costs. Our internal sales and marketing staff consists primarily of sales and marketing specialists and field development specialists who are trained to educate growers and independent distributors on the uses and benefits of our products. These specialists require a high level of technical expertise and knowledge regarding the capabilities of our products compared with other pest management products and techniques. There can be no assurance that our specialists and other members of our sales and marketing team will successfully compete against the sales and marketing teams of our current and future competitors, many of which may have more established relationships with distributors and growers. Our inability to recruit, train and retain sales and marketing personnel or their inability to effectively market and sell the products we are developing could impair our ability to gain market acceptance of our products and cause our sales to suffer.

If we are unable to maintain and further establish successful relations with the third-party distributors that are our principal customers, or they do not focus adequate resources on selling our products or are unsuccessful in selling them to end users, sales of our products would decline.

In the United States, we rely on independent distributors of agrichemicals such as Crop Production Services and Wilbur Ellis to distribute and assist us with the marketing and sale of Regalia, Grandevo and other products we are developing. These distributors are our principal customers, and our future revenues growth will depend in large part on our success in establishing and maintaining this sales and distribution channel. If our distributors are unable to sell our products, or receive negative feedback from end users, they may not continue to purchase or market our products. In addition, our products are often combined with other pesticides. If our products are improperly combined with other pesticides they may damage the treated plants, and, even when properly combined, our products may be blamed for damage caused by these other pesticides. Any such issues could damage our brands or reputation.

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In addition, there can be no assurance that our distributors will focus adequate resources on selling our products to end users or will be successful in selling them. Many of our potential distributors are in the business of distributing and sometimes manufacturing other, possibly competing, pest management products. As a result, these distributors may perceive our products as a threat to various product lines currently being distributed or manufactured by them. In addition, these distributors may earn higher margins by selling competing products or combinations of competing products. If we are unable to establish or maintain successful relationships with independent distributors, we will need to further develop our own sales and distribution capabilities, which would be expensive and time-consuming and the success of which would be uncertain.

We depend on a limited number of distributors, some of whom are related parties.

Our current revenues are derived from a limited number of key customers, each of which serves as a third-party distributor to our products end users. For the year ended December 31, 2013, our top two distributors accounted for 38% of our total revenues, with Crop Production Services and The Tremont Group accounting for 28% and 10% of our total revenues, respectively. The Tremont Group is an affiliate of Les Lyman, who is a member of our board. For the year ended December 31, 2012, our top three distributors accounted for 58% of our total revenues, with Crop Production Services, Engage Agro and Helena Chemical accounting for 33%, 13% and 12% of our total revenues, respectively. For the three months ended March 31, 2014, our top five distributors accounted for 66% of our total revenues, with Crop Production Services, Reister s, The Tremont Group, Growmark and Helena Chemicals accounting for 17%, 15%, 12%, 11% and 11%, respectively. We expect a limited number of distributors, some of whom may be related parties, to continue to account for a significant portion of our revenues for the foreseeable future. This customer concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business from one or a combination of our significant distributors could materially adversely affect our revenues, financial condition and results of operations.

We rely on the experience and expertise of our senior management team and other key personnel, and if we are unable to recruit or retain qualified personnel, our development and commercialization efforts may be significantly delayed.

We depend heavily on the principal members of our management, particularly Dr. Pamela G. Marrone, our founder, President and Chief Executive Officer, the loss of whose services might significantly delay or prevent the achievement of our scientific or business objectives. Although we maintain and are the beneficiary of $15.0 million in key person life insurance policies for the life of Dr. Marrone, we do not believe the proceeds would be adequate to compensate us for her loss.

As we expand our operations, we will need to hire additional qualified research and development and management personnel to succeed. The process of hiring, training and successfully integrating qualified personnel into our operation is a lengthy and expensive one. The market for qualified personnel such as experienced fermentation engineers and formulation chemists is very competitive because of the limited number of people available with the necessary technical skills and understanding of our technology and anticipated products. Our failure to hire and retain qualified personnel could impair our ability to meet our research and development and business objectives and adversely affect our results of operations and financial condition.

We also have relationships with scientific collaborators at academic and other institutions, some of whom conduct research at our request or assist us in formulating our research and development strategy. These scientific collaborators are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. We have limited control over the activities of these scientific collaborators and can generally expect these individuals to devote only limited amounts of time to our activities. The inability of any of these persons to devote sufficient time and resources to our programs could harm our business. In addition, these collaborators may have arrangements with other companies to assist those companies in developing technologies that may compete with our products.

Our intellectual property is integral to our business. If we are unable to protect our patents and proprietary rights in the United States and foreign countries, our business could be adversely affected.

Our success depends in part on our ability to obtain and maintain patent and other proprietary rights protection for our technologies and products in the United States and other countries. If we are unable to obtain or maintain these protections, we may not be able to prevent third parties from using our proprietary rights. It is also possible that we

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will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. As of March 31, 2014, we had 10 issued U.S. patents and 20 issued foreign patents (of which 5 U.S. patents and 10 foreign patents were in-licensed), 36 pending provisional and non-provisional patent applications (of which 2 were in-licensed), and 267 pending foreign patent applications (of which 6 were in-licensed).

The patent position of biotechnology and biochemical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems and costs in protecting our proprietary rights in these foreign countries.

Our patents and those patents for which we have license rights may be challenged, narrowed, invalidated or circumvented. In addition, our issued patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products or provide us with any competitive advantage. We are not certain that our pending patent applications will be issued. Moreover, our competitors could challenge or circumvent our patents or pending patent applications. It is also not possible to patent and protect all knowledge and know-how associated with our products so there may be areas that are not protected such as certain formulations and manufacturing processes. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

For certain of our products, we hold co-exclusive licenses to certain of the intellectual property related to these products. Although our products that are derived from intellectual property licensed to us on a co-exclusive basis also include our own proprietary technology, the third parties with whom we share co-exclusive rights may develop products based on the same underlying intellectual property. This could adversely affect the sale of our products.

Intellectual property litigation could cause us to spend substantial resources and could distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development, sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position could be harmed.

We have taken measures to protect our trade secrets and know-how, including the use of confidentiality agreements with our employees, consultants, advisors and third-party manufacturers. It is possible that these agreements may be breached and that any remedies for a breach will not make us whole. In addition, some courts inside and outside of the United States are less willing or unwilling to protect trade secrets. We generally control and limit access to, and the distribution of, our product documentation and other proprietary information. Despite our efforts to protect these proprietary rights, our trade secret-protected know-how could fall into the public domain, unauthorized parties may copy aspects of our products and obtain and use information that we regard as proprietary. We also cannot guarantee that other parties will not independently develop our knowhow or otherwise obtain access to our technologies.

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Third parties may misappropriate our microbial strains.

Third parties, including contract manufacturers, often have custody or control of our microbial strains. If our microbial strains were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce the microbial strains for their own commercial gain. If this were to occur, it would be difficult for us to challenge and prevent this type of use, especially in countries with limited intellectual property protection.

Other companies may claim that we infringe their intellectual property or proprietary rights, which could cause us to incur significant expenses or prevent us from selling our products.

Our success depends in part on our ability to operate without infringing the patents and proprietary rights of third parties. Product development is inherently uncertain in a rapidly evolving technological environment such as ours in which there may be numerous patent applications pending, many of which are confidential when filed, with regard to similar technologies. Patents issued to third parties may contain claims that conflict with our patents and that may place restrictions on the commercial viability of our products and technologies. Third parties could assert infringement claims against us in the future. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products, product candidates and technology. We may not be aware of all such third-party intellectual property rights potentially relevant to our products and product candidates.

Any litigation, adversarial proceeding or proceeding before governmental authorities regarding intellectual property rights, regardless of its outcome, would probably be costly and require significant time and attention of our key management and technical personnel. Litigation, adversarial proceedings or proceedings before governmental authorities could also force us to:

- stop or delay using our proprietary screening technology;
- stop or delay selling, manufacturing or using products that incorporate the challenged intellectual property;
- pay damages; and/or
- enter into licensing or royalty agreements which, if available at all, may only be available on unfavorable terms.

Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

If we fail to maintain and successfully manage our existing, or enter into new, strategic collaborations and other relationships, we may not be able to expand commercial development and sales of many of our products.

Our ability to enter into, maintain and manage collaborations and other relationships in our markets is fundamental to the success of our business. We currently have entered into various license agreements, research and development agreements, supply agreements and distribution agreements. We currently rely on our third parties for manufacturing and sales or marketing services and intend to continue to do so for the foreseeable future, and we intend to enter into other strategic agreements to produce, market and sell other products we develop. However, we may not be successful in entering into new arrangements with third parties for the production, sale and marketing of other products. Any failure to enter into new strategic arrangements on favorable terms or to maintain or manage our existing strategic arrangements could delay or hinder our ability to develop and commercialize our products and could increase our costs of development and commercialization.

We expect to derive a portion of our revenues from markets outside the United States, including Europe and Latin America, which will subject us to additional business risks.

Our success depends in part on our ability to expand internationally as we obtain regulatory approvals to market and sell our products in foreign countries. For the year ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, international sales comprised 8%, 20%, 7% and 5% of total revenues, respectively, and we expect to increase the relative percentage of international sales in the future. We have been conducting field trials in Europe, Latin America, Africa and elsewhere. International expansion of our operations could impose substantial

burdens on our resources, divert management s attention from domestic operations and otherwise harm our business. Furthermore, international operations are subject to several inherent risks, especially different regulatory requirements and reduced protection of intellectual property rights that could adversely affect our ability

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to compete in international markets and have a negative effect on our operating results. Revenues generated outside the United States could also result in increased difficulty in collecting delinquent or unpaid accounts receivables, adverse tax consequences and currency fluctuations.

Our Zequanox product line requires additional development, and during the initial commercialization of Zequanox, we will be relying on successful bidding for government contracts, which could require a longer sales cycle than the private sector.

Our Zequanox product line is principally designed to kill invasive mussels that restrict critical water flow in industrial and power facilities and impinge on access to recreational waters. This product requires additional development to improve ease of application, and because this product will be used in open waters, it may also require additional ecological testing. We expect our near-term sales of Zequanox will continue to be to governmental agencies and regulated industries, which typically take longer to negotiate and approve contracts than the private sector. Further, we currently expect that our governmental sales may be subject to bidding procedures as well as uncertainties surrounding these agencies budget approval processes. Therefore, we anticipate that the sales cycle for Zequanox will continue to be longer than that for our pest management products sold into agricultural markets.

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 may need to raise more money to continue our operations or to enter into strategic transactions, and we may make significant capital expenditures in connection with scaling up our operations, including, for example, the repurpose of our manufacturing facility. We may seek additional funds from public and private stock offerings, corporate collaborations and licenses, borrowings under lease lines of credit or other sources. Additional capital may not be available on terms acceptable to us, or at all. Any additional equity financing may be dilutive to stockholders, and debt financing, if available, may include restrictive covenants. If we cannot raise more money when needed, we may have to reduce our capital expenditures, scale back our development of new products, reduce our workforce or license to others products that we otherwise would seek to commercialize ourselves. Moreover, our cash used in operations has exceeded cash generated from operations in each period since our inception. We used approximately $34.0 million, $22.4 million, $12.4 million and $9.9 million of net cash used in operating activities for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. In addition, for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, we incurred expenses of $17.8 million, $12.7 million, $9.4 million and $4.3 million, respectively, for research, development and patent related costs. We expect that our current resources and future operating revenue, together with the net proceeds from this offering, will be sufficient to fund operations for at least the next 24 months. We may attempt to raise additional capital due to market conditions or strategic considerations even if we have sufficient funds for planned operations.

We use hazardous materials in our business and are subject to potential liability under environmental laws. Any claims relating to improper handling, storage or disposal of hazardous materials could be time consuming and costly to resolve.

We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling, disposal and release of hazardous materials and certain waste products. Our research and development and manufacturing activities involve the controlled use of hazardous materials and biological waste. Some of these materials may be novel, including bacteria with novel properties and bacteria that produce biologically active compounds. We cannot eliminate the risk of accidental contamination or discharge and any injury resulting from these materials. In addition, although we have not currently identified any environmental liabilities, the manufacturing facility we purchased in July 2012 may have existing environmental liabilities associated with it that may also result in successor liabilities for us, and we will be subject to increased exposure to potential environmental liabilities as we manufacture our products on a larger scale. We may also be held liable for hazardous materials brought onto the premises of our manufacturing facility before we acquired title, without regard for fault for, or knowledge of, the presence of such substances, as well as for hazardous materials that may be discovered after we no longer own the property if we sell it in the future. In the event of an accident, or if any hazardous materials are found within our operations or on the premises of our manufacturing facility in violation of the law at any time, we may be liable for all cleanup costs, fines, penalties and other costs. This liability could exceed our resources, and, if significant losses arise from hazardous substance contamination, our financial viability may be substantially and adversely affected.

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In addition, we may have to incur significant costs to comply with future environmental laws and regulations. In addition, we cannot predict the impact of new governmental regulations that might have an adverse effect on the research, development, production and marketing of our products. We may be required to incur significant costs to comply with current or future laws or regulations. Our business may be harmed by the cost of compliance.

Our collaborators may use hazardous materials in connection with our collaborative efforts. To our knowledge, their work is performed in accordance with applicable biosafety regulations. In the event of a lawsuit or investigation, however, we could be held responsible for any injury caused to persons or property by exposure to, or release of, hazardous materials used by these parties. Further, we may be required to indemnify our collaborators against all damages and other liabilities arising out of our development activities or products produced in connection with these collaborations.

Any decline in U.S. agricultural production could have a material adverse effect on the market for pesticides and on our results of operations and financial position.

Conditions in the U.S. agricultural industry significantly impact our operating results. The U.S. agricultural industry can be affected by a number of factors, including weather patterns and field conditions, current and projected grain inventories and prices, domestic and international demand for U.S. agricultural products and U.S. and foreign policies regarding trade in agricultural products. State and federal governmental policies, including farm subsidies and commodity support programs, as well as the prices of fertilizer products and the prices at which produce may be sold, may also directly or indirectly influence the number of acres planted, the mix of crops planted and the use of pesticides for particular agricultural applications. There are various proposals pending before the U.S. Congress to cut or eliminate various agricultural subsidies. If such proposals are implemented, they may adversely impact the U.S. agricultural industry and suppliers to that industry such as us.

Our headquarters and facility and certain manufacturers and suppliers are located in regions that are subject to natural disasters, as well as in some cases geopolitical risks and social upheaval.

Our Davis, California headquarters and facility is located near a known earthquake fault. The impact of a major earthquake or other natural disaster, including floods, on our facilities, infrastructure and overall operations is difficult to predict and any natural disaster could seriously disrupt our entire business process. In addition, Regalia is produced by a third-party manufacturer in Florida in a location that could be impacted by hurricane activity, and certain of our raw materials are sourced in China, which is subject to risks associated with uncertain political, economic and other conditions such as the outbreak of contagious diseases, such as avian flu, swine flu and SARS, and natural disasters. The insurance we maintain may not be adequate to cover our losses resulting from natural disasters or other business interruptions. Although these risks have not materially adversely affected our business, financial condition or results of operations to date, there can be no assurance that such risks will not do so in the future.

Inability to comply with regulations applicable to our facilities and procedures could delay, limit or prevent our research and development or manufacturing activities.

Our research and development and manufacturing facilities and procedures are subject to continual review and periodic inspection. We must spend funds, time and effort in the areas of production, safety and quality control and assurance to ensure full technical compliance with the regulations applicable to these facilities and procedures. If the EPA or another regulatory body determines that we are not in compliance with these regulations, regulatory approval of our products could be delayed or we may be required to limit or cease our research and development or manufacturing activities or pay a monetary fine. If we are required to limit or cease our research and development activities, our ability to develop new products would be impaired. In addition, if we are required to limit or cease our manufacturing activities, our ability to produce our products in commercial quantities would be impaired or prohibited, which would harm our business.

We may be exposed to product liability and remediation claims, which could harm our business.

The use of certain bio-based pest management and plant health products is regulated by various local, state, federal and foreign environmental and public health agencies. These regulations may include requirements that only certified or professional users apply the product or that certain products be used only on certain types of locations, may require users to post notices on properties to which products have been or will be applied, may require notification to individuals in the vicinity that products will be applied in the future or may ban the use of certain ingredients. Even if we are able to comply with all such regulations and obtain all necessary registrations, we cannot

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provide assurance that our products will not cause injury to crops, the environment or people under all circumstances. For example, our products may be improperly combined with other pesticides or, even when properly combined, our products may be blamed for damage caused by these other pesticides. The costs of remediation or products liability could materially adversely affect our future quarterly or annual operating results.

We may be held liable for, or incur costs to settle, liability and remediation claims if any products we develop, or any products that use or incorporate any of our technologies, cause injury or are found unsuitable during product testing, manufacturing, marketing, sale or use. These risks exist even with respect to products that have received, or may in the future receive, regulatory approval, registration or clearance for commercial use. We cannot guarantee that we will be able to avoid product liability exposure.

We currently maintain product liability insurance at levels we believe are sufficient and consistent with industry standards for companies at our stage of development. We cannot guarantee that our product liability insurance is adequate and, at any time, it is possible that this insurance coverage may not be available on commercially reasonable terms or at all. A product liability claim could result in liability to us greater than our assets or insurance coverage. Moreover, even if we have adequate insurance coverage, product liability claims or recalls could result in negative publicity or force us to devote significant time and attention to those matters, which could harm our business.

We have identified a material weakness in our internal control over financial reporting, which existed as of December 31, 2013, and has not been adequately remediated as of March 31, 2014. If we fail to properly remediate this or any future weaknesses or deficiencies or maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired and investors views of us could be harmed.

While preparing our financial statements for the three months ended March 31, 2014, we have determined that we have a material weakness in our internal control over financial reporting, which also existed as of December 31, 2013. We discovered that we did not have effective controls to prevent or detect an instance where the product shipped was not the same as the product ordered by a customer. This material weakness did not result in a material error or a restatement of our consolidated financial statements included in this prospectus.

We have developed, and are currently implementing, a plan to remediate this material weakness, which includes, among other things, training our personnel who handle customer shipments to compare product ordered to product selected in the inventory records prior to shipment and comparison of product ordered to product removed from inventory prior to invoicing, which would enhance our ability to prevent the wrong product from being shipped and to detect if the wrong product has been shipped prior to invoicing.

Although we are undertaking steps to address this material weakness, the existence of a material weakness is an indication that there is more than a remote likelihood that a material misstatement of our financial statements will not be prevented or detected in the current or any future period. There can be no assurance that we will be able to fully implement our plans and controls to address this material weakness, or that the plans and controls, if implemented, will be successful in fully remediating this material weakness. In addition, we may in the future identify further material weaknesses in our internal control over financial reporting that we have not discovered to date. If we fail to successfully remediate the identified material weakness, or we identify further material weaknesses in our internal controls, the market s confidence in our financial statements could decline and the market price of our common stock could be adversely impacted.

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

As of December 31, 2013, we had approximately $77.7 million of federal and $73.5 million of state operating loss carry-forwards available to offset future taxable income, which expire in varying amounts beginning in 2026 for federal and 2016 for state purposes if unused. It is possible that we will not generate taxable income in time to use these loss carry-forwards before their expiration. As of December 31, 2013 and 2012, all deferred tax assets were fully offset by a valuation allowance for financial purposes.

Section 382 of the Internal Revenue Code imposes restrictions on the use of a corporation s net operating losses, as well as certain recognized built-in losses and other carryforwards, after an ownership change occurs. A Section 382 ownership change occurs if one or more stockholders or groups of stockholders who own at least 5% of our stock increase their ownership by more than 50 percentage points over their lowest ownership percentage

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within a rolling three-year period. The issuance of common stock pursuant to this offering and/or future issuances or sales of our stock (including certain transactions involving our stock that are outside of our control) could result in an ownership change under Section 382. If an ownership change occurs, Section 382 would impose an annual limit on the amount of pre-change net operating losses and other losses we can use to reduce our taxable income generally equal to the product of the total value of our outstanding equity immediately prior to the ownership change (subject to certain adjustments) and the applicable federal long-term tax-exempt interest rate for the month of the ownership change. The applicable rate for ownership changes occurring in the month of May 2014 was 3.36%.

Because U.S. federal net operating losses generally may be carried forward for up to 20 years, the annual limitation may effectively provide a cap on the cumulative amount of pre-ownership change losses, including certain recognized built-in losses that may be utilized. Such pre-ownership change losses in excess of the cap may be lost. In addition, if an ownership change were to occur, it is possible that the limitations imposed on our ability to use pre-ownership change losses and certain recognized built-in losses could cause a net increase in our U.S. federal income tax liability and U.S. federal income taxes to be paid earlier than otherwise would be paid if such limitations were not in effect. Further, if the amount or value of these deferred tax assets is reduced, such reduction would have a negative impact on the book value of our common stock.

We completed a Section 382 analysis as of December 31, 2013 and concluded that approximately $0.5 million in federal net operating losses and approximately $0.2 million in federal research and development credits are expected to expire prior to utilization as a result of our previous ownership changes and corresponding annual limitations. We have not conducted an analysis to determine the amount of state net operating losses that are also expected to expire prior to utilization. Our existing net operating loss carry-forwards or credits may be subject to significant limitations due to events occurring since December 31, 2013, and we have not updated our Section 382 analysis to consider events since December 31, 2013, including the effect of issuing common stock pursuant to this offering. Our inability to use these net operating loss carry-forwards as a result of the Section 382 limitations could harm our financial condition.

Our business is subject to various governmental regulations, and compliance with these regulations may cause us to incur significant expenses. If we fail to maintain compliance with applicable regulations, we may be forced to recall products and cease their manufacture and distribution, which could subject us to civil or criminal penalties.

The complex legal and regulatory environment exposes us to compliance and litigation costs and risks that could materially affect our operations and financial results. These laws and regulations may change, sometimes significantly, as a result of political or economic events. They include environmental laws and regulations, tax laws and regulations, import and export laws and regulations, government contracting laws and regulations, labor and employment laws and regulations, securities and exchange laws and regulations, and other laws such as the Foreign Corrupt Practices Act. In addition, proposed laws and regulations in these and other areas could affect the cost of our business operations. We face the risk of changes in both domestic and foreign laws regarding trade, potential loss of proprietary information due to piracy, misappropriation or foreign laws that may be less protective of our intellectual property rights. Violations of any of these laws and regulations could subject us to criminal or civil enforcement actions, any of which could have a material adverse effect on our business, financial condition or results of operations.

Risks Related to this Offering and Ownership of our Common Stock

The concentration of our capital stock ownership with our executive officers and directors, and their respective affiliates, will limit your ability to influence corporate matters.

As of March 31, 2014, our executive officers and directors and their affiliates beneficially owned or controlled, directly or indirectly, an aggregate of approximately 5.2 million shares, or 25.7%, of our common stock. This concentrated control will limit the ability for other stockholders to influence some corporate matters and could result in some corporate actions that our other stockholders do not view as beneficial such as failure to approve change of control transactions that could offer holders of our common stock a premium over the market value of our company. As a result, the market price of our common stock could be adversely affected.

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Our common stock may experience extreme price and volume fluctuations, and you may not be able to resell shares of our common stock at or above the price you paid.

We are an early stage company with a limited operating history and a history of losses. Since shares of our common stock were sold in our initial public offering in August 2013 at a price of $12.00 per share, our stock price has ranged between $8.21 and $20.00 through June 5, 2014. The trading price of our common stock will likely continue to be highly volatile and could be subject to wide fluctuations in price in response to various factors, some of which are beyond our control. These factors include:

- our small public float relative to the total number of shares of common stock that are issued and outstanding;
- quarterly variations in our results of operations, those of our competitors or those of our customers;
- announcements of technological innovations, new products or services or new commercial relationships by us or our competitors;
- our ability to develop and market new products on a timely basis;
- disruption to our operations;
- media reports and publications about pest management products;
- announcements concerning our competitors or the pest management industry in general;
- our entry into, modification of or termination of key license, research and development or collaborative agreements;
- new regulatory pronouncements and changes in regulatory guidelines or the status of our regulatory approvals;
- general and industry-specific economic conditions;
- any major change in our board of directors or management;
- commencement of, or our involvement in, litigation;
- changes in financial estimates, including our ability to meet our future net revenues and operating profit or loss projections; and
- changes in earnings estimates or recommendations by securities analysts.

In the past, securities class action litigation has often been brought against companies that experience volatility in the market price of their securities. Whether or not meritorious, litigation brought against us could result in substantial costs, divert management s attention and resources

and harm our business.

If securities analysts or industry analysts downgrade our shares, publish negative research or reports, or do not publish reports about our business, our share 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 publish about us, our business and our industry. If one or more analysts adversely change their recommendation regarding our shares or our competitors stock, our share price would likely decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline.

Substantial future sales of our common stock, or the perception in the public markets that these sales may occur, may depress our stock price.

Sales of substantial amounts of our common stock in the public market after this offering, or the perception that these sales could occur, could adversely affect the price of our common stock and could impair our ability to raise capital through the sale of additional shares. Upon completion of this offering, we will have 23,607,001 shares of common stock outstanding, based on 19,707,001 shares outstanding as of March 31, 2014 and 3,900,000 shares to be sold by us in the offering. All of the shares to be sold in this offering, in addition to all 5,462,500 shares of common stock sold in our initial public offering, will be upon completion of this offering, or are, freely tradable, without restriction under the Securities Act, except for any shares of our common stock that may be held or acquired by our directors, executive officers and other affiliates, as that term is defined in the Securities Act, which will be restricted securities under the Securities Act, but which may be eligible for public sale if they qualify for an exemption from registration under Rule 144 of the Securities Act. In addition, 12,688,840 shares became eligible for sale in the public market

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after the expiration of lock-up agreements on January 28, 2014, to the extent they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, and in September 2013, we filed a registration statement on Form S-8 under the Securities Act covering 3,987,910 shares of our common stock for issuance under our equity incentive plans that may be sold in the public market upon issuance and once vested.

We, the selling stockholder, certain of our shareholders and all of our directors and executive officers have agreed, subject to certain exceptions, not to sell or transfer any common stock, or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 90 days (for the selling stockholder, certain shareholders and directors) or 180 days (for executive officers) after the date of this prospectus, without first obtaining written consent of each of Jefferies LLC and Piper Jaffray & Co., representatives of the underwriters. See Underwriting. In addition, we have entered into agreements with certain security holders that contain market stand-off provisions imposing restrictions on the ability of such security holders to offer, sell or transfer 762,815 of our shares until or after August 1, 2014.

If our existing stockholders sell substantial amounts of our common stock in the public market, or if the public perceives that such sales could occur, there could be an adverse impact on the market price of our common stock, even if there is no relationship between such sales and the performance of our business. See Shares Eligible for Future Sale for a more detailed description of the restrictions on selling shares of our common stock after this offering.

We will have broad discretion in how we use the net proceeds from this offering.

We currently intend to use the net proceeds we receive from this offering for working capital required to accelerate growth, including product development, commercialization and distribution matters, for capital expenditures, including to purchase equipment and accelerate completion of the manufacturing facility we acquired in July 2012, and for general corporate purposes, such as acquiring complementary businesses, products or technologies, as described in the Use of Proceeds section of this prospectus. However, we do not have more specific plans for the net proceeds from this offering and will have broad discretion in how we use the net proceeds of this offering. These proceeds could be applied in ways that do not improve our operating results or increase the value of your investment. You may not have the opportunity to influence our decisions on how to use the net proceeds from this offering.

Because we have no plans to pay dividends on our common stock, investors must look solely to stock appreciation for a return on their investment in us.

We have never declared or paid any cash dividends on our capital stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all future earnings to fund the development and growth of our business. Any payment of future dividends will be at the discretion of our board of directors and will depend on, among other things, our earnings, financial condition, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that the board of directors deems relevant. Investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize a return on their investment. Investors seeking cash dividends should not purchase our common stock.

We are an emerging growth company and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company as defined in the JOBS Act. For as long as we continue to be an emerging growth company we may choose to take advantage of certain exemptions from various reporting requirements applicable to other public companies but not to emerging public companies, which includes, among other things:

- exemption from the auditor attestation requirements under Section 404 of the Sarbanes-Oxley Act of 2002;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements;
- exemption from the requirements of holding non-binding stockholder votes on executive compensation arrangements; and

- exemption from any rules requiring mandatory audit firm rotation and auditor discussion and analysis and, unless the SEC otherwise determines, any future audit rules that may be adopted by the Public Company Accounting Oversight Board.

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We could be an emerging growth company until the last day of the fiscal year following the fifth anniversary after our initial public offering, or until the earliest of (i) the last day of the fiscal year in which we have annual gross revenues of $1 billion or more, (ii) the date on which we have, during the previous three year period, issued more than $1 billion in non-convertible debt or (iii) the date on which we are deemed to be a large accelerated filer under the federal securities laws. We will qualify as a large accelerated filer as of the first day of the first fiscal year after we have (i) more than $700 million in outstanding common equity held by our non-affiliates and (ii) been public for at least 12 months. The value of our outstanding common equity will be measured each year on the last day of our second fiscal quarter.

Under the JOBS Act, emerging growth companies are also permitted to elect to delay adoption of new or revised accounting standards until companies that are not subject to periodic reporting obligations are required to comply, if such accounting standards apply to non-reporting companies. We have made an irrevocable decision to opt out of this extended transition period for complying with new or revised accounting standards.

Investors may find our common stock less attractive as a result of our reliance on these exemptions, which may promote a less active trading market for our common stock and increase stock price volatility.

We will continue to incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to comply with the laws and regulations affecting public companies, particularly after we are no longer an emerging growth company.

As a newly public company, particularly after we cease to qualify as an emerging growth company, we will continue to incur significant legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting and corporate governance requirements, in order to comply with the rules and regulations imposed by the Sarbanes-Oxley Act, as well as rules implemented by the SEC and The Nasdaq Global Market. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives and our legal and accounting compliance costs will increase. We may need to hire additional staff or consultants in the areas of investor relations, legal and accounting to operate as a public company. We also expect that these new rules and regulations may make it more difficult and expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers. We are currently evaluating and monitoring developments with respect to these rules, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

For example, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls over financial reporting and disclosure controls and procedures. In particular, as a public company, we are required to perform system and process evaluations and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. As described above, as an emerging growth company, we will not need to comply with the auditor attestation provisions of Section 404 for several years. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and management time on compliance-related issues. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause our stock price to decline.

When the available exemptions under the JOBS Act, as described above, cease to apply, we expect to incur additional expenses and devote increased management effort toward ensuring compliance with them. We cannot predict or estimate the amount of additional costs we may incur as a result of becoming a public company or the timing of such costs.

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Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable.

Provisions in our amended and restated certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management. These provisions include the following:

- the right of our board of directors to elect directors to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the establishment of a classified board of directors requiring that only a subset of the members of our board of directors be elected at each annual meeting of stockholders;
- the prohibition of cumulative voting in our election of directors, which would otherwise allow less than a majority of stockholders to elect director candidates;
- the requirement that stockholders provide advance notice to nominate individuals for election to our board of directors or to propose matters that can be acted upon at a stockholders meeting. These provisions may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer s own slate of directors or otherwise attempting to obtain control of our company;
- the ability of our board of directors to issue, without stockholder approval, shares of undesignated preferred stock with terms set by the board of directors, which rights could be senior to those of our common stock. The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the inability of our stockholders to call a special meeting of stockholders and to take action by written consent in lieu of a meeting;
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend, or repeal our bylaws;
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to repeal or adopt any provision of our certificate of incorporation regarding the election of directors;
- the required approval of the holders of at least 80% of such shares to amend or repeal the provisions of our bylaws regarding the election and classification of directors; and
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to remove directors without cause.

As a Delaware corporation, we are also subject to certain Delaware anti-takeover provisions. Under Delaware law, a corporation may not engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other

things, the board of directors has approved the transaction. Our board of directors could rely on Delaware law to prevent or delay an acquisition of us.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, particularly in the sections titled Prospectus Summary, Risk Factors, Use of Proceeds, Management s Discussion and Analysis of Financial Condition and Results of Operations and Business, contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as would, could, will, may, expect, believe, should, anticipate if, future, intend, plan, estimate, predict, potential, targets, seek or continue or the negative of these terms or other similar exp statements we make regarding the following subject matters are forward-looking by their nature:

- our plans to target our existing products for new markets and for new uses and applications;
- our plans with respect to growth in sales of new product lines, including Grandevo, Zequanox and Venerate;
- our short- and long-term development and commercialization plans;
- our ability and plans to screen, source, in-license, develop, field test, register and commercialize additional new product candidates and bring new products to market across multiple categories faster and at a lower cost than other developers of pest management products, and in particular products that are allowed for use by organic farmers;
- our expectations regarding registering new products and new formulations and expanded use labels for existing products, including submitting new products to the EPA and U.S. state agencies;
- our belief that challenges facing the use of conventional chemical pesticides will continue to grow;
- our beliefs regarding the growth of markets for, and unmet demand for, biopesticides and biostimulants;
- our beliefs regarding market adoption for our products;
- our intention to maintain existing and develop new, supply, sales and distribution channels and extend market access;
- our anticipation that we will receive future payments under our strategic collaboration and development agreements for the achievement of testing validation, regulatory progress and commercialization events;
- our plans regarding repurposing and expanding capacity at our manufacturing facility, including timing for Phase 1 completion and Phase 2 commencement;
- our plans to collaborate with chemical manufacturers to develop products that combine our bio-based pest management solutions with their technologies;

- our plans to grow our business and expand operations, including plans to hire additional qualified personnel and expectations that we will generate a significant portion of our revenues from international sales of our products and that our revenues stream will be increasingly diversified;

- our intention to continue to devote significant resources toward our proprietary technology and research and development and the potential for pursuing acquisition and collaboration opportunities to gain access to third-party products and technologies;

- our expectations that sales will be seasonal and the impact of continued drought conditions;

- our ability to protect our intellectual property in the United States and abroad;

- our expectations regarding market risk, including interest rate changes, foreign currency fluctuations and commodity price changes;

- our belief in the sufficiency of our cash flows to meet our needs for 24 months following completion of this offering; and

- our future financial and operating results.

The preceding list is not intended to be an exhaustive list of all of our forward-looking statements. The forward-looking statements are based on our beliefs, assumptions and expectations of future performance, taking into account the information currently available to us. These statements are only predictions based upon our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or

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achievements expressed or implied by the forward-looking statements. Other sections of this prospectus may include additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time and it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Before investing in our common stock, investors should be aware that the occurrence of the events described under the caption Risk Factors and elsewhere in this prospectus could have a material adverse effect on our business, results of operations and financial condition.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance and events and circumstances reflected in the forward-looking statements will be achieved or occur. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

This prospectus contains statistical data that we obtained from industry publications and reports. These publications generally indicate that they have obtained their information from sources believed to be reliable, but do not guarantee the accuracy and completeness of their information. Although we believe the publications are reliable, we have not independently verified their data.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

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USE OF PROCEEDS

We estimate that the net proceeds we will receive from this offering will be approximately $34.0 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in full, we estimate that our net proceeds will be approximately $40.0 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any proceeds from the sale of the common stock by the selling stockholder.

We currently intend to use the net proceeds we receive from this offering for working capital required to accelerate the commercial adoption of our existing products, to accelerate the development of our product pipeline and to expand our network of strategic relationships, for capital expenditures, including to purchase equipment to facilitate our research and development efforts and to accelerate completion of the manufacturing facility we acquired in July 2012, and for general corporate purposes, such as acquiring complementary businesses, products or technologies.

We will have broad discretion in the way that we use the net proceeds of this offering. The amounts that we actually spend for the purposes described above may vary significantly and will depend, in part, on the timing and amount of our future revenues, our future expenses and any potential acquisitions that we may propose. Pending any use, as described above, we plan to invest the net proceeds in a variety of capital preservation instruments, including short- and long-term interest-bearing investments, direct or guaranteed obligations of the U.S. government, certificates of deposit and money market funds. We cannot predict whether the proceeds invested will yield a favorable return for us.

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MARKET PRICE OF COMMON STOCK

Our common stock has been listed on The Nasdaq Global Market under the symbol MBII since August 2, 2013. Prior to that time, there was no public market for our stock. The following table sets forth for the indicated periods the high and low intra-day sales prices per share for our common stock on The Nasdaq Global Market.

	HIGH	LOW
Third Quarter 2013 (from August 2, 2013)	$ 18.58	$ 12.27
Fourth Quarter 2013	$ 20.00	$ 13.01
First Quarter 2014	$ 19.64	$ 13.05
Second Quarter 2014 (through June 5, 2014)	$ 14.03	$ 8.21

On June 5, 2014, the last trading day prior to the date of this prospectus, the closing price of our common stock was $9.60 per share as reported on The Nasdaq Global Market. As of March 31, 2014, there were 106 stockholders of record of our common stock. Because some of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently anticipate that we will retain all of our future earnings for use in the expansion and operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable law and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant. In addition, an existing loan agreement restricts our ability to pay dividends on our capital stock in certain cases.

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CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2014 on an actual basis and on an as adjusted basis, giving effect to the sale by us of 3,900,000 shares of common stock in this offering at a public offering price of $9.50 per share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with Selected Financial Data , Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	AS OF MARCH 31, 2014	
	ACTUAL	AS ADJUSTED
	(In thousands, except per share data)	
Cash, cash equivalents and short-term investments	$ 23,962	$ 57,939
Capital leases, including current portion	2,739	2,739
Debt, including current portion	12,435	12,435
Stockholders equity:		
Preferred stock, $0.00001 par value, 20,000 shares authorized and no shares issued and outstanding, actual and as adjusted		
Common stock, $0.00001 par value 250,000 shares authorized; 19,707 shares issued and outstanding, actual; 23,607 shares issued and outstanding as adjusted		
Additional paid in capital	149,643	183,620
Accumulated deficit	(115,682)	(115,682)
Total stockholders equity	33,961	67,938
Total capitalization	$ 49,135	$ 83,112

The number of shares of our common stock to be outstanding after this offering is based on 19,707,001 shares outstanding as of March 31, 2014, and excludes:

- 2,974,054 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2014 with a weighted-average exercise price of $10.95 per share;
- 144,646 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2014, with a weighted-average exercise price of $8.40 per share; and

- 1,127,624 shares of common stock that will be available for future grant under our 2013 Stock Incentive Plan as of March 31, 2014, and additional shares of common stock that will be available for future grant under the automatic increase provisions of our 2013 Stock Incentive Plan (see Executive Compensation Employee Benefit and Stock Plans 2013 Stock Incentive Plan).

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SELECTED FINANCIAL DATA

We have derived the selected consolidated statements of operations data for each of the fiscal years ended December 31, 2013, 2012 and 2011 and the selected consolidated balance sheet data as of December 31, 2013 and 2012 from our audited consolidated financial statements and related notes included elsewhere in this prospectus. We have derived the selected consolidated statements of operations data for the fiscal year ended December 31, 2010 and the selected consolidated balance sheet data as of December 31, 2011 and 2010 from our audited consolidated financial statements not included in this prospectus. We have derived the consolidated statements of operations data for the three months ended March 31, 2014 and 2013 and the consolidated balance sheet data as of March 31, 2014 from our unaudited interim condensed consolidated financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected for any future period. The following selected financial data should be read in connection with Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included elsewhere in this prospectus.

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Statements of Operations Data:

	YEAR ENDED DECEMBER 31,				THREE MONTHS ENDED MARCH 31,	
	2013	2012	2011	2010	2014	2013
	(In thousands, except per share data)					
Revenues:						
Product	$ 12,657	$ 6,777	$ 5,044	$ 3,666	$ 2,097	$ 2,373
License [1]	193	179	57		45	48
Related party	1,693	184	150	31	648	309
Total revenues	14,543	7,140	5,251	3,697	2,790	2,730
Cost of product revenues, including cost of product revenues to related parties of $984, $126, $50 and $10 for the years ended December 31, 2013, 2012, 2011 and 2010, respectively, and $192 and $194 for the three months ended March 31, 2014 and 2013, respectively	10,736	4,333	2,172	1,738	1,652	1,795
Gross profit	3,807	2,807	3,079	1,959	1,138	935
Operating expenses:						
Research, development and patent	17,814	12,741	9,410	5,563	4,282	3,283
Non-cash charge associated with a convertible note		3,610				
Selling, general and administrative	15,018	10,294	6,793	4,353	6,330	2,847
Total operating expenses	32,832	26,645	16,203	9,916	10,612	6,130
Loss from operations	(29,025)	(23,838)	(13,124)	(7,957)	(9,474)	(5,195)
Other income (expense):						
Interest income	49	16	22	22	10	1
Interest expense	(5,997)	(2,466)	(88)	(102)	(773)	(1,985)
Change in estimated fair value of financial instruments [2]	6,717	(12,461)	1			(3,563)
Gain on extinguishment of debt	49					
Other (expense) income, net	(282)	(45)	9	1	(9)	(7)
Total other income (expense), net	536	(14,956)	(56)	(79)	(772)	(5,554)
Loss before income taxes	(28,489)	(38,794)	(13,180)	(8,036)	(10,246)	(10,749)
Income taxes						
Net loss	(28,489)	(38,794)	(13,180)	(8,036)	(10,246)	(10,749)
Deemed dividend on convertible notes	(1,378)	(2,039)				
Net loss attributable to common stockholders	$ (29,867)	$ (40,833)	$ (13,180)	$ (8,036)	$ (10,246)	$ (10,749)
Net loss per common share [3]:						
Basic	$ (3.42)	$ (32.48)	$ (10.64)	$ (6.58)	$ (0.52)	$ (8.48)
Diluted	$ (3.94)	$ (32.48)	$ (10.64)	$ (6.58)	$ (0.52)	$ (8.48)

Weighted-average shares outstanding used in computing net loss per common share [3]:						
Basic	8,731	1,257	1,239	1,221	19,518	1,268
Diluted	8,911	1,257	1,239	1,221	19,518	1,268

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(1) We receive payments under strategic collaboration and distribution agreements under which we provide third parties with exclusive development, marketing and distribution rights. These payments are initially classified as deferred revenues and are recognized as revenues over the exclusivity period. See Note 2 of our accompanying audited consolidated financial statements for an explanation of the method used to calculate license revenues.

(2) Prior to the completion of the initial public offering, we accounted for the outstanding warrants exercisable into shares of our Series A, Series B and Series C convertible preferred stock and the outstanding warrants exercisable into a variable number of shares of common stock as liability instruments, as the Series A, Series B and Series C convertible preferred stock and the common stock into which these warrants were convertible were contingently redeemable upon the occurrence of certain events or transactions. In addition, convertible notes were accounted for at estimated fair value. The warrant instruments and convertible notes were adjusted to fair value at each reporting period with the change in fair value recorded in the consolidated statements of operations. These charges did not continue after the completion of the initial public offering because the preferred stock warrants were exercised and the convertible notes automatically converted into common stock in accordance with their terms upon the completion of the initial public offering. The common stock warrants were, in accordance with their terms upon the completion of the initial public offering, either automatically exercised for shares of common stock or represent the right to purchase a fixed number of shares. See Management s Discussion and Analysis of Financial Condition and Results of Operations Key Components of Our Results of Operations Change in Estimated Fair Value of Financial Instruments and Deemed Dividend on Convertible Notes.

(3) Includes the effect of a 1-for-3.138458 reverse stock split, effective August 1, 2013.

Balance Sheet Data:

	DECEMBER 31,				MARCH 31,
	2013	2012	2011	2010	2014
			(In thousands)		
Cash and cash equivalents	$ 24,455	$ 10,006	$ 2,215	$ 4,287	$ 21,298
Short-term investments	13,677		2,000		2,664
Working capital (deficit) [1]	46,915	(11,468)	5,030	4,935	32,571
Total assets	68,879	33,778	9,818	7,937	63,459
Debt and capital leases (net of unamortized discount)	14,972	16,740	806	1,106	15,174
Convertible notes		41,860			
Preferred stock warrant liability		1,884	27	28	
Common stock warrant liability		301			
Total liabilities	27,095	68,413	4,306	2,689	29,498
Convertible preferred stock		39,612	39,612	26,452	
Total stockholders equity (deficit)	41,784	(74,247)	(34,100)	(21,204)	33,961

(1) Working capital (deficit) is defined as total current assets minus total current liabilities.

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MANAGEMENT S DISCUSSION AND ANALYSIS

OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and the other financial information appearing elsewhere in this prospectus. This discussion 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 various factors, including those discussed below and those discussed in the section entitled Risk Factors included elsewhere in this prospectus.

Overview

We make bio-based pest management and plant health products. Bio-based products are comprised of naturally occurring microorganisms such as bacteria and fungi, and plant extracts. We target the major markets that use conventional chemical pesticides, including agricultural and water markets, where our bio-based products are used as substitutes for, or in connection with, conventional chemical pesticides. We also target new markets for which there are no available conventional chemical pesticides, the use of conventional chemical pesticides may not be desirable or permissible because of health and environmental concerns or the development of pest resistance has reduced the efficacy of conventional chemical pesticides. Our current portfolio of EPA-approved and registered biopesticide products and our pipeline address the growing global demand for effective, efficient and environmentally responsible products.

Our goal is to provide growers with solutions to a broad range of pest management needs by adding new products to our product portfolio, continuing to broaden the commercial applications of our existing product lines, leveraging relationships with existing distributors and growers positive experiences with existing product lines, and educating growers with on-farm product demonstrations and controlled product launches with key target customers and other early adopters. We believe this approach enables us to stay ahead of our competition in providing innovative pest management solutions, enhances our sales process at the distributor level and helps us to capture additional value from our products.

The agricultural industry is increasingly dependent on effective and sustainable pest management practices to maximize yields and quality in a world of increased demand for agricultural products, rising consumer awareness of food production processes and finite land and water resources. In addition, our research has shown that the global market for biopesticides is growing substantially faster than the overall market for pesticides. This demand is in part a result of conventional growers acknowledging that there are tangible benefits to adopting bio-based pest management products into integrated pest management (IPM) programs. We believe that our competitive strengths, including our commercially available products, robust pipeline of novel product candidates, proprietary technology and product development process, commercial relationships and industry experience, position us for rapid growth by providing solutions for these global trends.

We currently offer four product lines for commercial sale: Regalia, an initial formulation of which we began selling in the fourth quarter of 2008, Grandevo, an initial formulation of which we began selling in the fourth quarter of 2011, Zequanox, an initial formulation of which we began selling in the second half of 2012 and Venerate, which we began selling in May 2014. We also have one product candidate, Opportune, an herbicide (for weed control), which received EPA approval in April 2012, that we are in the process of developing for commercial application. In addition, we submitted MBI-011, another herbicide, MBI-302, a biological nematicide, and MBI-601, a biofumigant, to the EPA for registration, and we have submitted Haven, an anti-transpirant, to applicable state agencies for registration. A large portion of our sales are currently attributable to conventional growers who use our bio-based pest management products either to replace conventional chemical pesticides or enhance the efficacy of their IPM programs. In addition, a portion of our sales are attributable to organic farmers, who cannot use conventional pesticides and have few alternatives for pest management. We intend to continue to develop and commercialize bio-based pest management and plant health products that are allowed for use by organic farmers.

We sell our crop protection products to leading agrichemical distributors while also working directly with growers to increase existing and generate new product demand. To date, we have marketed our bio-based pest management

and plant health products for agricultural applications to U.S. growers, through distributors and our own sales force, and we have focused primarily on high value specialty crops such as grapes, citrus, tomatoes, leafy greens and ornamental plants. As we continue to demonstrate the efficacy of our bio-based pest management and plant health products on new crops or for new applications, we may either continue to sell our product through our in-house sales force or collaborate with third parties for distribution to select markets. For example, we demonstrated that there is a significant opportunity for selling Regalia as a yield enhancer for large-acre row crop markets such as corn, cotton and soybeans, which we began to sell through third-party distributors in the third quarter of 2013.

We have historically sold a significant majority of our products in the United States, although we have strategically launched Regalia in select international markets. For example, we launched Regalia in the United Kingdom in 2009, Turkey in 2010, Mexico in 2011 and Canada in 2012. We are continuing to form strategic collaborations with major agrichemical companies such as FMC (for markets in Latin America) and Syngenta (for markets in Africa, Europe and the Middle East) to accelerate our entry into certain international markets where these distributors are already selling Regalia, as well as in Asia Pacific markets. In addition to engaging these large-scale international distributors, we intend to form new strategic collaborations with other market-leading companies in our target markets and regions to expand the supply of our products globally, particularly in markets for which our products fall under exemptions from registration. In the longer term, when we launch Grandevo and other products internationally, we expect to generate a significant portion of our revenues from international sales of our products.

We currently market our water treatment product, Zequanox, through our sales and technical workforce to hydroelectric power generation companies, combustion power generation companies and industrial facilities at various geographical sites. We are in discussions with several potential leaders in water treatment technology and applications regarding potential arrangements to sell Zequanox in the United States and international markets to supplement the efforts of our sales force. We are also exploring other options for selling Zequanox including entering into distribution arrangements with third parties to market Zequanox internationally. We may enter into similar arrangements for the distribution of Zequanox for use in certain applications such as treatment of lakes, aqueducts and drinking water facilities in the United States. We believe that Zequanox presents a unique opportunity for generating long-term revenue, as there are limited water treatment options available to date, most of which are time-consuming, costly or subject to high levels of regulation. Our ability to generate significant revenues from Zequanox is dependent on our ability to persuade customers to evaluate the costs of our Zequanox products compared to the overall cost of the chlorine treatment process, the primary current alternative to using Zequanox, rather than the cost of purchasing chemicals alone. Sales of Zequanox have also remained lower than our other products due to the length of the treatment cycle, the longer sales cycle (the bidding process with utility companies occurs on a yearly or multi-year basis) and the unique nature of the treatment approach for each customer based on the extent of the infestation and the design of the facility.

Our biopesticide products cannot be sold in the United States except under an EPA-approved use label. As such, we launch early formulations of our products to targeted customers under EPA-approved use labels, which list a limited number of crops and applications, to gather field data, gain product knowledge and get feedback to our research and development team while the EPA reviews new product formulations and expanded use labels for already approved formulations covering additional crops and applications. Based on these initial product launches, sales and demonstrations in additional regions and other tests and trials, we continue to enhance our products and submit product formulations and expanded use labels to the EPA and other regulatory agencies. For example, we began sales of Regalia SC, an earlier formulation of Regalia, in the Florida fresh tomatoes market in 2008, while a more effective formulation of Regalia with an expanded use label, including listing for use in organic farming, was under review by the EPA. When approved, we launched this new formulation into the Southeast United States in 2009 and nationally in 2010. In 2011, we received EPA approval of a newly expanded Regalia label covering hundreds of crops and various new uses for applications to soil and through irrigation systems. Likewise, in May 2013, we received approval for an improved Grandevo label, which has been approved by 49 states, with a decision pending in Hawaii.

Our total revenues were $14.5 million, $7.1 million, $5.3 million and $2.8 million for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively, and have risen as growers have increasingly adopted our products. In addition, revenue has increased as our products are used on an expanded number of crops. For example, in the third quarter of 2013, we began selling Regalia to distributors in row crop markets. We generate our revenues primarily from product sales, which are principally attributable to sales of

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our Regalia and Grandevo product lines. We believe weather conditions such as drought in the Western United States, freezing conditions in the Midwestern United States and heavy rains and flooding in the Southeastern United States may have an impact on purchases of our pest management and plant health products by our distributors, direct customers and end users. We believe that these conditions will shift the timing of some of the purchases for the growing season between quarters, but we do not anticipate an overall impact to annual sales. We anticipate that most of our revenue growth will occur during the second half of 2014 relating to growth in row crop and certain specialty crop markets, new product sales and entry into additional Latin American markets.

Since 2011, we have also recognized license revenues from our strategic collaboration and distribution agreements, which amounted to $0.2 million, $0.2 million, $0.1 million and $45,000 for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014. For the year ended December 31, 2013 and the three months ended March 31, 2014, we recognized $0.1 million and $0.3 million, respectively, of related party revenues under these agreements based on the terms of our agreements with Syngenta, an affiliate of one of our 5% stockholders. There were no related party revenues recognized under these agreements for the years ended December 31, 2012 and 2011.

We currently sell our crop protection products through the same leading agricultural distributors used by the major agrichemical companies. Distributors with 10% or more of our total revenues consist of the following:

	CROP PRODUCTION SERVICES	THE TREMONT GROUP [1], [2]	ENGAGE AGRO	HELENA CHEMICALS	WILBUR ELLIS	REISTER S	GROWMARK
For the years ended December 31,							
2013	28%	10%	*	*	*	*	*
2012	33%	*	13%	12%	*	*	*
2011	39%	*	*	17%	10%	*	*
For the three months ended March 31, 2014	17%	12%	*	11%	*	15%	11%

* Represents less than 10% of total revenues

(1) Represents related party revenues. See Note 18 of our accompanying audited consolidated financial statements for further discussion.

(2) Represents related party revenues. See Note 14 of our accompanying unaudited condensed consolidated financial statements.

While we expect product sales to a limited number of distributors to continue to be our primary source of revenues, as we continue to develop our pipeline and introduce new products to the marketplace, we anticipate that our revenues stream will be diversified over a broader product portfolio and customer base.

Our cost of product revenues was $10.7 million, $4.3 million, $2.2 million and $1.7 million for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. Cost of product revenues included $1.0 million, $0.1 million, $0.1 million and $0.2 million of cost of product revenues to related parties for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. Cost of product revenues consists principally of the cost of raw materials, including inventory costs and third-party services related to procuring, processing, formulating, packaging and shipping our products. We expect our cost of product revenues to increase as we expand sales of Regalia, Grandevo and Zequanox. Our cost of product revenues has increased as a percentage of total revenues primarily due to a change in product mix, with Grandevo representing an increased percentage of total revenues as Grandevo is early in its life cycle. We expect to see a gradual increase in gross margin over the life cycle of each of our products, including Grandevo, as we improve production processes, gain efficiencies and increase product yields.

Our research, development and patent expenses have historically comprised a significant portion of our operating expenses, amounting to $17.8 million, $12.7 million, $9.4 million and $4.3 million for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. We intend to

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continue to devote significant resources toward our proprietary technology and adding to our pipeline of bio-based pest management and plant health products using our proprietary discovery process, sourcing and commercialization expertise and rapid and efficient development process.

Selling, general and administrative expenses incurred to establish and build our market presence and business infrastructure have generally comprised the remainder of our operating expenses, amounting to $15.0 million, $10.3 million, $6.8 million and $6.3 million for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. We expect that in the future, our selling, general and administrative expenses will increase due to our expanded product portfolio and due to additional costs incurred relating to being a public company.

In addition, for the year ended December 31, 2012, in connection with a convertible note, we incurred a non-recurring, non-cash charge of $3.6 million as operating expenses. We also recognized a net gain in non-cash charges attributable to the change in estimated fair value of financial instruments of $6.7 million for the year ended December 31, 2013 and a net loss of $12.5 million for the year ended December 31, 2012, which were reported in other income (expense). There was no such charge for the three months ended March 31, 2014.

Historically, we have funded our operations from the issuance of shares of common stock, preferred stock, warrants and convertible notes, the issuance of debt and entry into financing arrangements, product sales, payments under strategic collaboration and distribution agreements and government grants, but we have experienced significant losses as we invested heavily in research and development. We expect to incur additional losses related to our investment in the continued development, expansion and marketing of our product portfolio.

Critical Accounting Policies and Estimates

Our consolidated financial statements and the related notes included elsewhere in this prospectus are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, net revenue, costs, and expenses, and any related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Changes in accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are material differences between these estimates and our actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe that the assumptions and estimates associated with revenue recognition, income taxes, inventory valuation, share-based compensation, and financial instruments with characteristics of both liabilities and equity have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates. For further information on all of our significant accounting policies, see Note 2 of our accompanying audited consolidated financial statements.

Key Components of Our Results of Operations

Product Revenues

Product revenues consist of revenues generated primarily from sales to distributors, net of rebates and cash discounts. Our product revenues through 2012 were primarily derived from sales of Regalia, but now are increasingly impacted by new products such as Grandevo. We elected to discontinue marketing GreenMatch, our first product, an organic herbicide in 2011 to focus on more attractive opportunities and products. We sold our remaining inventory of GreenMatch to a limited number of existing customers and terminated such sales upon the exhaustion of product inventory in July 2012. Product revenues, not including related party revenues, constituted 87%, 95%, 96% and 75% of our total revenues for the years ended December, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively. Product revenues in the United States, not including related party revenues, constituted 79%, 78%, 90% and 71% of our total revenues for the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, respectively.

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In 2013, we began to offer extended payment terms in excess of those historically offered to our customers. We believe our competitors and other vendors in the pest management and plant health industry also offer extended payment terms and, in the aggregate, we believe that by expanding the use of extended payment terms, we have provided a competitive response to the market. When we offer terms that are considered to be extended in comparison to our historical terms, we defer recognizing revenue until payment is due. As of December 31, 2013 and March 31, 2014, we recorded current deferred product revenues of $1.0 million and $0.8 million, respectively. As of December 31, 2012, we had no deferred product revenues.

License Revenues

License revenues generally consist of revenues recognized under our strategic collaboration and distribution agreements for exclusive distribution rights, either for Regalia or for our broader pipeline of products, for certain geographic markets or for market segments that we are not addressing directly through our internal sales force. Our strategic collaboration and distribution agreements generally outline overall business plans and include payments we receive at signing and for the achievement of testing validation, regulatory progress and commercialization events. As these activities and payments are associated with exclusive rights that we provide over the term of the strategic collaboration and distribution agreements, revenues related to the payments received are deferred and recognized as revenues over the term of the exclusive period of the respective agreements, which we estimate to be between 5 and 17 years based on the terms of the contract and the covered products and regions. For the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, license revenues constituted 1%, 2%, 1% and 2% of total revenues, respectively. As of March 31, 2014, not including agreements with related parties discussed below, we had received an aggregate of $1.4 million in payments under these agreements, and there are up to $1.9 million in payments under these agreements that we could potentially receive if the testing validation, regulatory progress and commercialization events occur.

Related Party Revenues

Related party revenues consist of both product revenues and license revenues. Les Lyman, a member of our board of directors, is the chairman and significant indirect shareholder of The Tremont Group, Inc., which purchases our products for further distribution and resale. In addition, in December 2012, we issued a convertible note to Syngenta Ventures Pte. LTD. (Syngenta), an affiliate of one of our distributors with whom we entered into a commercial agreement with and sell our products to for further distribution and resale. For the years ended December 31, 2013, 2012 and 2011 and the three months ended March 31, 2014, related party revenues constituted 12%, 3%, 3% and 23% of total revenues, respectively. As of March 31, 2014, we had received an aggregate of $1.0 million in payments under our strategic collaboration and distribution agreements with related parties, and there are up to $1.0 million in payments under these agreements that we could potentially receive if the testing validation, regulatory progress and commercialization events occur.

Cost of Product Revenues and Gross Profit

Cost of product revenues consists principally of the cost of raw materials, including inventory costs and third- party services related to procuring, processing, formulating, packaging and shipping our products. Cost of product revenues also may include charges due to inventory adjustments. Gross profit is the difference between total revenues and the cost of product revenues. Gross margin is the gross profit as expressed as a percentage of total revenues.

We have entered into in-license technology agreements with respect to the use and commercialization of our three commercially available product lines, including Regalia, Grandevo and Zequanox, and certain products under development. Under these licensing arrangements, we typically make royalty payments based on net product revenues, with royalty rates varying by product and ranging between 2% and 5% of net sales, subject in certain cases to aggregate dollar caps. These royalty payments are included in cost of product revenues, but they have historically not been significant. In addition, costs associated with license revenues have been included in cost of product revenues, as they have not been significant. The exclusivity and royalty provisions of these agreements are generally tied to the expiration of underlying patents. The patents for Regalia and Zequanox will expire in 2017 and the in-licensed U.S. patent for Grandevo is expected to expire in 2024. There is, however, a pending in-licensed patent application relating to Grandevo, which could expire later than 2024 if issued. After the termination of these provisions, we may continue to produce and sell these products. While third parties thereafter may develop products using the technology under expired patents, we do not believe that they can produce competitive products without

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infringing other aspects of our proprietary technology, including pending patent applications related to Regalia, Zequanox and Grandevo, and we therefore do not expect the expiration of the patents or the related exclusivity obligations to have a significant adverse financial or operational impact on our business.

We expect to see increases in gross profit over the life cycle of each of our products because gross margins are expected be increased over time as production processes improve and as we gain efficiencies and increase product yields. While we expect margins to improve on a product-by-product basis, our overall gross margins may vary as we introduce new products. In particular, we are experiencing and expect further near-term downward pressure on overall gross margins as we expand sales of Grandevo, Zequanox and Venerate and when we introduce Opportune, our EPA-approved bioherbicide. Gross profit has been and will continue to be affected by a variety of factors, including product manufacturing yields, changes in product production processes, new product introductions, product mix and average selling prices.

To date, we have relied on third parties for the production of our products. However, we believe reliance on third parties has resulted in lower gross margins for Grandevo, a fermentation-based product. Accordingly, in July 2012, we acquired a manufacturing facility, which we are repurposing for manufacturing operations, and we continue to further expand capacity at this facility. As production shifts from third parties to our own facility, we expect gross margins to improve.

Research, Development and Patent Expenses

Research, development and patent expenses principally consist of personnel costs, including salaries, wages, benefits and share-based compensation, related to our research, development and patent staff in support of product discovery and development activities. Research, development and patent expenses also include costs incurred for laboratory supplies, field trials and toxicology tests, quality control assessment, consultants and facility and related overhead costs. We have received grants and funding for our research from federal governmental entities. We recognize amounts under these grants as an offset to our overall research, development and patent expenses as services under the grant are performed. These grant offsets totaled $0.2 million in each of the years ended December 31, 2012 and 2011, and there were no grants for the year ended December 31, 2013 or the three months ended March 31, 2014.

We expect to increase our investments in research and development by hiring additional research and development staff, increasing the number of third-party field trials and toxicology tests for developing additional products and expanding uses for existing products. As a result, we expect that our research, development and patent expenses will increase in absolute dollars for the foreseeable future. As our sales increase, we expect our research, development and patent expenses to decrease as a percentage of total revenues, although, we could experience quarterly fluctuations.

Non-Cash Charge Associated with a Convertible Note

In December 2012, we issued a $12.5 million convertible note to Syngenta, an affiliate of one of our distributors, and incurred charges of $3.9 million representing the excess of the estimated fair value of the convertible note on the date of issuance compared to the cash received. Because the holder of this convertible note is an affiliate of one of our distributors, we recorded $0.3 million of the charges as a reduction of revenues recognized under our agreements with the affiliated distributor through the date of issuance of the convertible note in December 2012. We recorded the remaining $3.6 million of the charges in operating expenses as a non-recurring non-cash charge associated with a convertible note (See Note 9 of the accompanying audited consolidated financial statements for further discussion).

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of personnel costs, including salaries, wages, benefits and share-based compensation, related to our executive, sales, marketing, finance and human resources personnel, as well as professional fees, including legal and accounting fees, and other selling costs incurred related to business development and to building product and brand awareness. We create brand awareness through programs such as speaking at industry events, trade show displays and hosting local-level grower and distributor meetings. In addition, we dedicate significant resources to technical marketing literature, targeted advertising in print and online media, webinars and radio advertising. Costs related to these activities, including travel, are included in selling expenses. Our administrative expenses have increased in recent periods primarily as a result of becoming a public company.

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We expect our selling expenses to increase in the near term, both in absolute dollars and as a percent of total revenues, particularly as we market and sell new products or product formulations to the marketplace. In the long term, we expect our selling, general and administrative expenses to decline as a percent of total revenues. We expect our overall selling, general and administrative expenses to increase in absolute dollars in order to drive product sales, and we will incur additional expenses associated with operating as a public company. Such increases may include increased insurance premiums, investor relations expenses, legal and accounting fees associated with the expansion of our business and corporate governance, financial reporting expenses, expenses related to Sarbanes-Oxley and other regulatory compliance obligations. We expect to hire additional personnel, particularly in the area of general and administrative activities to support the growth of the business.

Interest Expense

We recognize interest expense on notes payable, convertible notes and other debt obligations. During 2012, we entered into a $0.5 million term loan, issued $24.1 million in convertible notes and $17.5 million in promissory notes, including a $10.0 million promissory note paid off prior to its maturity date. In October 2012, we issued a $2.5 million convertible note, and we incurred $0.2 million of interest expense for the year ended December 31, 2012 as a result of the excess in the $2.7 million estimated fair value of the convertible note on the date of issuance compared to the cash received. During 2013, we issued $6.5 million in convertible notes and $4.95 million in promissory notes, including the partial conversion of $1.25 million of a convertible note into a promissory note. Accordingly, our interest expense increased both in absolute terms and as a percentage of total revenues. In May 2013, we issued a $3.0 million convertible note, and we incurred $1.2 million of interest expense for the year ended December 31, 2013 as a result of the excess in the $4.2 million estimated fair value of the convertible note on the date of issuance compared to the cash received. Immediately following the completion of the IPO in August 2013, the convertible notes converted into shares of our common stock. Accordingly, we ceased to incur the interest expense associated with these convertible notes. In addition, in connection with the repayment of the April 2012 Senior Secured Promissory Note, we wrote-off the unamortized debt discount totaling $0.8 million and incurred an early termination fee of $0.3 million, which were recorded to interest expense during the year ended December 31, 2013.

We have also acquired equipment under capital leases which results in interest expense over the lease term. We increased our capital lease obligations to $2.5 million as of December 31, 2013 from $0.4 million as of December 31, 2012, and our capital lease obligations were $2.7 million as of March 31, 2014.

Interest Income

Interest income consists primarily of interest earned on investments and cash balances. Our interest income will vary each reporting period depending on our average investment and cash balances during the period and market interest rates.

Change in Estimated Fair Value of Financial Instruments and Deemed Dividend on Convertible Notes

In August 2013, we closed an initial public offering (the IPO), at which time all shares of our outstanding convertible preferred stock and all of our outstanding convertible notes automatically converted into shares of common stock, and all outstanding warrants to purchase convertible preferred stock and certain warrants to purchase common stock were exercised for shares of common stock.

Until the effective date of the IPO, we accounted for the outstanding warrants exercisable into shares of our Series A, Series B and Series C convertible preferred stock as liability instruments, as the Series A, Series B and Series C convertible preferred stock into which these warrants were contingently convertible upon the occurrence of certain events or transactions. We also accounted for the outstanding warrants exercisable into a variable number of common shares at a fixed monetary amount as liability instruments. Our convertible notes were recorded at estimated fair value on a recurring basis as the predominant settlement feature of the convertible notes was to settle a fixed monetary amount in a variable number of shares. We adjusted the warrants and the convertible notes to fair value at each reporting period and on the effective date of the IPO with the change in estimated fair value recorded in the consolidated statements of operations.

Based on our operating performance (including the closing of several debt financings and the IPO) and changes in the probability and timing of, and estimated proceeds from, the completion of a Qualified IPO or an Acquisition

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between reporting dates or the issuance dates of the warrants, we recognized a net gain due to the change in the estimated fair value of financial instruments related to the warrants of $0.4 million for the year ended December 31, 2013 and a net loss of $1.6 million for the year ended December 31, 2012.

We issued $24.1 million in convertible notes during the year ended December 31, 2012. During the year ended December 31, 2013, we issued $6.5 million in convertible notes and converted $1.25 million of a convertible note into a promissory note. Based on our operating performance and changes in the probability and timing of, and estimated proceeds from, the completion of a Qualified IPO or an Acquisition between the reporting dates, or the issuance dates of these notes, we recognized a net gain due to the change in estimated fair value of financial instruments of $6.3 million for the year ended December 31, 2013 and a net loss of $10.9 million for the year ended December 31, 2012, relating to convertible notes. In addition to the ongoing adjustments to the estimated fair value of our convertible notes, we also recognized a one-time deemed dividend in connection with the issuance of certain convertible notes to preferred stockholders because we estimated the fair value of the convertible notes as of the issuance dates to be greater than the cash proceeds received. Accordingly, we determined that the excess of the estimated fair value of the convertible notes on the dates of issuance over cash proceeds to us represents a deemed dividend to preferred stockholders, and $1.4 million and $2.0 million was reflected in the net loss attributable to common stockholders for the years ended December 31, 2013 and 2012, respectively.

As a result of the automatic exercise of all Series A and Series B convertible preferred stock warrants and certain common stock warrants for shares of common stock, the automatic conversion of all convertible notes into common stock in accordance with their terms, and the exercise of all Series C convertible preferred stock warrants for shares of common stock in connection with our IPO in August 2013, there will not be any further adjustments to these warrants and convertible notes. In addition, upon completion of the IPO, the exercise price and number of shares to be issued upon exercise of the remaining outstanding common stock warrants became known. Accordingly, after the IPO, the fair value of the outstanding common stock warrant liability on the date of the IPO was reclassified to equity and will no longer be adjusted to its estimated fair value on each reporting date.

Income Tax Provision

Since our inception, we have been subject to income taxes principally in the United States. We anticipate that as we further expand our sales into foreign countries, we will become subject to taxation based on the foreign statutory rates and our effective tax rate could fluctuate accordingly.

Income taxes are computed using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. As of December 31, 2013, based on the available information, it is more likely than not that our deferred tax assets will not be realized, and accordingly we have taken a full valuation allowance against all of our United States deferred tax assets.

As of December 31, 2013, we had net operating loss carry-forwards for federal income tax reporting purposes of $77.7 million, which begin to expire in 2026, and state net operating loss carry-forwards of $73.5 million, which begin to expire in 2016. Additionally, as of December 31, 2013, we had federal research and development tax credit carry-forwards of $1.4 million, which begin to expire in 2026, and state research and development tax credit carry-forwards of $1.3 million, which have no expiration date.

Federal and state laws impose substantial restrictions on the utilization of net operating loss and tax credit carry-forwards in the event of an ownership change, as defined in Section 382 of the U.S. Internal Revenue Code of 1986, as amended. We completed a Section 382 analysis as of December 31, 2013 and concluded that approximately $0.5 million in federal net operating losses and approximately $0.2 million in federal research and development credits are expected to expire prior to utilization as a result of our previous ownership changes and corresponding annual limitations. Our inability to use these net operating loss carry-forwards as a result of the Section 382 limitations could harm our financial condition.

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Results of Operations

The following table sets forth certain statements of operations data as a percentage of total revenues:

	YEAR ENDED DECEMBER 31,			THREE MONTHS ENDED MARCH 31,	
	2013	2012	2011	2014	2013
Revenues:					
Product	87%	95%	96%	75%	87%
License	1	2	1	2	2
Related party	12	3	3	23	11
Total revenues	100	100	100	100	100
Cost of product revenues [(1)]	74	61	41	59	66
Gross profit	26	39	59	41	34
Operating expenses:					
Research, development and patent	122	178	179	153	120
Non-cash charge associated with a convertible note		51			
Selling, general and administrative	103	144	129	227	104
Total operating expenses	225	373	308	380	224
Loss from operations	(199)	(334)	(249)	(339)	(190)
Other income (expense):					
Interest income					
Interest expense	(40)	(34)	(2)	(28)	(73)
Change in estimated fair value of financial instruments	46	(175)			(131)
Gain on extinguishment of debt					
Other (expense) income, net	(2)				
Total other income (expense), net	4	(209)	(2)	(28)	(204)
Income taxes					
Net loss	(195)%	(543)%	(251)%	(367)%	(394)%

(1) Includes 7%, 2% and 1% in cost of product revenues to related parties for the years ended December 31, 2013, 2012 and 2011, respectively. See Note 18 of our accompanying audited consolidated financial statements. Includes 7% in cost of product revenues to related parties for each of the three months ended March 31, 2014 and 2013. See Note 14 of our accompanying unaudited condensed consolidated financial statements.

Comparison of Three Months Ended March 31, 2014 and 2013

Product Revenues

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Product revenues	$ 2,097	$ 2,373
% of total revenues	75%	87%

Product revenues decreased by approximately $0.3 million, or 12%, which we believe was primarily due to changes in our customers timing of orders as fluctuations in the timing of pest control and plant health product sales orders are not uncommon given seasonality in the agricultural industry and the impact that weather may have on the timing of the application of our products.

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License Revenues

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
License revenues	$ 45	$ 48
% of total revenues	2%	2%

License revenues related to certain strategic collaboration and distribution agreements decreased by 6% but do not comprise a significant portion of our total revenues.

Related Party Revenues

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Related party revenues	$ 648	$ 309
% of total revenues	23%	11%

For the three months ended March 31, 2014 and 2013, related party revenues totaled $0.6 million and $0.3 million, respectively, of which $0.3 million and $0.3 million, respectively, was related to product revenues and $0.3 million and $33,000, respectively, was related to license revenues. Related party revenues increased by approximately $0.3 million, or 110%, as a result of approximately $0.3 million that was recognized during the three months ended March 31, 2014 upon the termination of one of our agreements with Syngenta, an affiliate of one of our 5% stockholders.

Cost of Product Revenues and Gross Profit

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Cost of product revenues	$ 1,652	$ 1,795
% of total revenues	59%	66%
Gross Profit	$ 1,138	$ 935
% of total revenues	41%	34%

Our cost of product revenues decreased by $0.1 million, or 8%, and our gross margins increased from 34% to 41%. Cost of product revenues decreased and gross margin increased primarily due to a change in product mix, with Regalia representing an increased percentage of total sales, which has a higher margin than Grandevo. In addition, as discussed above, there was an increase in related party revenues as a result of $0.3 million that was recognized during the three months ended March 31, 2014 upon the termination of one of our agreements with Syngenta for which there was no corresponding cost of product revenues.

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Research, Development and Patent Expenses

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Research, development and patent expenses	$ 4,282	$ 3,283
% of total revenues	153%	120%

Research, development and patent expenses increased by approximately $1.0 million, or 30%, due to an increase of $0.1 million in direct research and development testing costs, $0.7 million in employee related expenses driven by increased headcount, which includes an increase in share-based compensation of $0.2 million, $0.1 million in fixed expenses primarily related to depreciation and $0.1 million in supplies, outside services and general costs.

Selling, General and Administrative Expenses

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Selling, general and administrative expenses	$ 6,330	$ 2,847
% of total revenues	227%	104%

Selling, general and administrative expenses increased by approximately $3.5 million, or 122%, due to an increase of $2.3 million in employee related expenses driven by increased headcount, which includes an increase in share-based compensation of $1.0 million, $0.3 million in fixed expenses primarily related to depreciation, $0.6 million in outside services, $0.1 million in travel and $0.2 million in supplies and general costs.

Other Income (Expense), Net

	THREE MONTHS ENDED MARCH 31,	
	2014	2013
	(Dollars in thousands)	
Interest income	$ 10	$ 1
Interest expense	(773)	(1,985)
Change in estimated fair value of financial instruments		(3,563)
Other expense, net	(9)	(7)
Total other expense, net	$ (772)	$ (5,554)

Interest expense decreased due to the conversion of convertible notes into shares of our common stock immediately following the completion of the IPO in August 2013. Accordingly, we ceased to incur the interest expense associated with these convertible notes. This was partially offset by an increase in interest expense as we issued promissory notes in the amount of $4.95 million in April 2013.

The change in the estimated fair value of financial instruments was associated with outstanding warrants and convertible notes issued in 2012 and 2013. Upon the closing of the IPO, all shares of our outstanding convertible preferred stock and convertible notes automatically converted into shares of common stock and outstanding warrants

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to purchase convertible preferred stock and certain warrants to purchase common stock were exercised for shares of common stock. Accordingly, we ceased to incur the interest expense and change in estimated fair value of financial instruments associated with the convertible preferred stock and convertible notes.

Comparison of the Years Ended December 31, 2013, 2012 and 2011

Product Revenues

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Product revenues	$ 12,657	$ 6,777	$ 5,044
% of total revenues	87%	95%	96%

Product revenues increased by approximately $5.9 million, or 87%, in 2013 compared to 2012 and $1.7 million, or 34%, in 2012 compared to 2011. Product revenues increased in 2013 compared to 2012 due to increased acceptance of our products, with Grandevo representing an increased percentage of total sales as we launched the most popular formulation of Grandevo in the summer of 2012. In addition, revenue has increased as our products are used on an expanded number of crops, such as row crops.

Product revenues increased in 2012 compared to 2011 as a result of a $1.8 million increase in Regalia and Grandevo sales, including $0.9 million related to an increase in international sales. Grandevo was introduced in 2011, and the year ended December 31, 2012 represented the first full year of sales of this product. The increased revenues due to sales of Regalia and Grandevo were partially offset by a $0.1 million decrease in sales of our GreenMatch product, which we elected to discontinue marketing in mid-2011 to focus on more attractive opportunities and products.

License Revenues

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
License revenues	$ 193	$ 179	$ 57
% of total revenues	1%	2%	1%

License revenues related to certain strategic collaboration and distribution agreements increased by 8% in 2013 compared to 2012 and 214% in 2012 compared to 2011 but do not comprise a significant portion of our total revenues.

Related Party Revenues

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Related party revenues	$ 1,693	$ 184	$ 150
% of total revenues	12%	3%	3%

Related party revenues increased by approximately $1.5 million, or 820%, in 2013 compared to 2012 and $0.1 million, or 23%, in 2012 compared to 2011. Related party revenues increased in 2013 compared to 2012 and in 2012 compared to 2011 due to increased product sales to The Tremont Group, Inc. as they increased sales of our product to a larger number of end users as a result of increased acceptance of our products.

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Cost of Product Revenues and Gross Profit

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Costs of product revenues	$ 10,736	$ 4,333	$ 2,172
% of total revenues	74%	61%	41%
Gross profit	$ 3,807	$ 2,807	$ 3,079
% of total revenues (gross margin)	26%	39%	59%

Our cost of product revenues increased by $6.4 million, or 148%, in 2013 compared to 2012 and $2.2 million, or 99%, in 2012 as compared to 2011. Our gross margins decreased from 39% to 26% in 2013 compared to 2012 and from 59% to 39% in 2012 compared to 2011. Cost of product revenues increased and gross margin decreased in 2013 compared to 2012, in each case, primarily due to a change in product mix, with Grandevo representing an increased percentage of total sales as we launched the most popular formulation of Grandevo in the summer of 2012 along with increased product acceptance leading to an overall increase in sales and cost of product revenues. Since Grandevo is early in its life cycle, our gross margins have been negatively affected. However, we expect to see a gradual increase in gross margin over the life cycle of each of our products, including Grandevo, as we improve production processes, gain efficiencies and increase product yields. Cost of product revenues and gross margin were also negatively impacted by a $0.2 million write-down of the carrying value of Zequanox inventory to net realizable value, a $0.2 million write-off of inventory primarily due to abnormal scrap and the identification of inventory that was not suitable for sale, a $0.2 million write-down of the carrying value of deferred cost of product revenues to net realizable value and an increase in the discounts offered on product sales.

Cost of product revenues increased in 2012 compared to 2011 due to a $0.9 million charge in 2012 due to an inventory write-off of an early formulation of our Zequanox line of products that was not suitable for sale, and a $1.4 million increase in product costs consisting of $0.4 million and $0.6 million associated with higher revenues from Regalia and Grandevo, respectively, $0.3 million associated with increased royalties and purchase incentives and $0.1 million of other product costs, primarily associated with Zequanox. These higher costs were offset by a $0.1 million decrease in GreenMatch product costs.

Research, Development and Patent Expenses

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Research, development and patent expenses	$ 17,814	$ 12,741	$ 9,410
% of total revenues	122%	178%	179%

Research, development and patent expense increased by $5.1 million, or 40%, in 2013 compared to 2012 and $3.3 million, or 35%, in 2012 compared to 2011. Research, development and patent expense increased in 2013 compared to 2012 primarily due to an increase of $2.4 million in employee-related expenses, which consisted primarily of salaries, wages and share-based compensation, $1.5 million in direct testing costs, $0.4 million in outside services, $0.3 million in depreciation, a reduction of $0.2 million in grants received, and $0.3 million in travel and general costs.

Research, development and patent expense increased in 2012 compared to 2011 due to an increase of approximately $1.3 million in direct testing costs, $1.1 million in employee-related expenses driven by increased headcount, $0.2 million in supplies and materials, $0.2 million in fixed expenses primarily related to rent and depreciation, $0.2 million in outside consulting services and $0.3 million in travel expenses and general costs. Our direct testing costs in fiscal year 2012 were primarily driven by testing of Regalia and Zequanox for foreign markets.

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Non-Cash Charge Associated with a Convertible Note

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Non-cash charge associated with a convertible note	$	$ 3,610	$
% of total revenues	%	51%	%

This charge was associated with the issuance of a convertible note during 2012 for which the estimated fair value at the date of issuance was greater than the proceeds received from the convertible note. Because the holder of this convertible note was one of our preferred stockholders and was an affiliate of one of our distributors as of the date of issuance, we recorded $0.3 million of the expense as a reduction to the revenues associated with the affiliated distributor from inception through the date of issuance, and the remaining $3.6 million was recorded in operating expenses as a non-recurring non-cash charge associated with a convertible note.

Selling, General and Administrative Expenses

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Selling, general and administrative expenses	$ 15,018	$ 10,294	$ 6,793
% of total revenues	103%	144%	129%

Selling, general and administrative expense increased by $4.7 million, or 46%, in 2013 compared to 2012 and $3.5 million, or 52%, in 2012 compared to 2011. Selling, general and administrative expense increased in 2013 compared to 2012 primarily due to an increase of $2.3 million in employee-related expenses, driven by increased headcount, which primarily related to salaries, wages and share-based compensation and $0.4 million relating to a transition agreement with our Chief Financial Officer, $1.4 million was attributable to outside services such as consulting, audit and tax fees, as well as other professional services, $0.2 million in travel expenses and $0.4 million in other costs including rent, depreciation, supplies and materials.

Of the increase in 2012 compared to 2011, $2.0 million was employee-related driven by increased headcount, $1.1 million was attributable to marketing and professional services and overhead costs and $0.4 million was travel-related.

Other Income (Expense), Net

	YEAR ENDED DECEMBER 31,		
	2013	2012	2011
	(Dollars in thousands)		
Interest income	$ 49	$ 16	$ 22
Interest expense	(5,997)	(2,466)	(88)
Change in estimated fair value of financial instruments	6,717	(12,461)	1
Gain on extinguishment of debt	49		
Other (expense) income, net	(282)	(45)	9
Total other income (expense), net	$ 536	$ (14,956)	$ (56)

Interest income, consisting primarily of interest on cash and short-term investments, was largely unchanged. In regards to the increase in interest expense, in May 2013, we issued a $3.0 million convertible note, and we incurred $1.2 million of interest expense for the year ended December 31, 2013 as a result of the excess in the $4.2 million estimated fair value of the convertible note on the date of issuance compared to the cash received. Immediately

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following the completion of the IPO in August 2013, the convertible notes converted into shares of our common stock. Accordingly, we will cease to incur the interest expense associated with these convertible notes. In addition, in connection with the repayment of the April 2012 Senior Secured Promissory Note, we wrote-off the unamortized debt discount totaling $0.8 million and incurred an early termination fee of $0.3 million, which were recorded to interest expense during the year ended December 31, 2013. The remainder of the change in interest expense was due to increased borrowings under notes payable, convertible notes and capital lease agreements.

The change in the estimated fair value of financial instruments was associated with outstanding warrants and convertible notes issued in 2012 and 2013. We issued $30.6 million in convertible notes, warrants to purchase 0.2 million shares of Series C convertible preferred stock and warrants for the issuance of a variable number of shares of common stock based on a fixed monetary amount during that time. This was offset by the decrease in convertible notes of $1.25 million in May 2013 in connection with the conversion of a portion of a convertible note in exchange for a promissory note. Upon the closing of the IPO, all shares of our outstanding convertible preferred stock and convertible notes automatically converted into shares of common stock and outstanding warrants to purchase convertible preferred stock and certain warrants to purchase common stock were exercised for shares of common stock. Accordingly, we will cease to incur the interest expense and change in estimated fair value of financial instruments associated with the convertible preferred stock and convertible notes. See the notes to our accompanying audited consolidated financial statements for further discussion.

Other expense for the year ended December 31, 2013 primarily reflects a loss on disposal of fixed assets in the amount of $0.2 million. The remainder of other expense related to foreign currency transaction expenses incurred during the year.

Seasonality and Quarterly Results

Our sales of individual products are generally expected to be seasonal. For example, we expect that our Regalia, Grandevo and Venerate product lines will be sold and applied to crops in greater quantity in the second and fourth quarters. These seasonal variations may be especially pronounced because sales have been primarily limited to our Regalia and Grandevo product lines in the Northern Hemisphere. In addition, in May 2014, we began to sell Venerate, a bioinsecticide, in the Northern Hemisphere. As we expand the registration and commercialization of our product lines into the Southern Hemisphere, where seasonality of sales should be counter cyclical to the Northern Hemisphere, we expect worldwide sales volatility to decrease over time. In addition, we expect that our sales of Zequanox will be seasonal. Invasive zebra and quagga mussels typically feed and reproduce at water temperatures above 59°F. Treatments to kill these mussels are therefore most effective from June through September in the Eastern United States, Canada and Europe and from April through October in the Southwestern United States.

Planting and growing seasons, climatic conditions and other variables on which sales of our products are dependent vary from year to year and quarter to quarter. As a result, we have historically experienced substantial fluctuations in quarterly sales. In particular, weather conditions and natural disasters such as heavy rains, hurricanes, hail, floods, tornadoes, freezing conditions, drought or fire, affect decisions by our distributors, direct customers and end users about the types and amounts of pest management and plant health products to purchase and the timing of use of such products. For example, in 2013 and 2012, the United States experienced nationwide abnormally low rainfall or drought, reducing the incidence of fungal diseases such as mildews, and these conditions have been present in some of our key markets in the first quarter of 2014 as well. On the other hand, drought may increase the incidence of pest insect infestations, and therefore we believe sales of insecticides, including Grandevo and Venerate, may increase during times of drought. In addition, disruptions that cause delays by growers in harvesting or planting can result in the movement of orders to a future quarter, which would negatively affect the quarter and cause fluctuations in our operating results. For example, late snows and cold temperatures in the Midwestern and Eastern United States in the first quarter of 2014 have delayed planting and pesticide applications. Since Regalia and Grandevo products have different margins, changes in product mix due to these conditions could affect our overall margins.

The level of seasonality in our business overall is difficult to evaluate as a result of our relatively early stage of development, our relatively limited number of commercialized products, our expansion into new geographical

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territories, the introduction of new products and the timing of introductions of new formulations and products. It is possible that our business may be more seasonal, or experience seasonality in different periods, than anticipated. For example, if sales of Zequanox become a more significant component of our revenue, the separate seasonal sales cycles could cause further shifts in our quarterly revenue. Other factors may also contribute to the unpredictability of our operating results, including the size and timing of significant distributor transactions, the delay or deferral of use of our products and the fiscal or quarterly budget cycles of our distributors, direct customers and end users. Customers may purchase large quantities of our products in a particular quarter to store locally and use quickly when weather permits growers to get into the fields and also to use over longer periods of time as conditions may change rapidly thus customers may time their purchases to manage their inventories, which may cause significant fluctuations in our operating results for a particular quarter or year.

The following tables set forth our unaudited quarterly consolidated statements of operations data in dollars and as a percentage of total revenues for the first quarter of fiscal year 2014 and for each of the four quarters covering fiscal years 2013 and 2012. We have prepared the quarterly consolidated statements of operations data on a basis consistent with the audited consolidated financial statements included elsewhere in this prospectus. In the opinion of management, the financial information reflects all adjustments, consisting only of normal recurring adjustments, which we consider necessary for a fair presentation of this data. This information should be read in connection with the accompanying audited consolidated financial statements and related notes. The results of historical periods are not necessarily indicative of the results of operations for any future period.

Fiscal Year 2012:

	MARCH 31, 2012	JUNE 30, 2012	SEPTEMBER 30, 2012	DECEMBER 31, 2012
			(In thousands)	
Revenues:				
Product	$ 1,808	$ 1,385	$ 662	$ 2,922
License	43	44	43	49
Related party	148	80	33	(77)
Total revenues	1,999	1,509	738	2,894
Cost of product revenues [1]	860	684	521	2,268
Gross profit	1,139	825	217	626
Operating expenses:				
Research, development and patent	2,733	2,415	3,350	4,243
Non-cash charge associated with a convertible note				3,610
Selling, general and administrative	2,322	2,166	2,617	3,189
Total operating expenses	5,055	4,581	5,967	11,042
Loss from operations	(3,916)	(3,756)	(5,750)	(10,416)
Other income (expense):				
Interest income	2	4	10	
Interest expense	(56)	(601)	(593)	(1,216)
Change in estimated fair value of financial instruments	(15)	435	(7,473)	(5,408)
Other (expense) income, net	1	6	4	(56)
Total other expense, net	(68)	(156)	(8,052)	(6,680)
Income taxes				

Net loss	$ (3,984)	$ (3,912)	$ (13,802)	$ (17,096)

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	MARCH 31, 2012	JUNE 30, 2012	SEPTEMBER 30, 2012	DECEMBER 31, 2012
Revenues:				
Product	91%	92%	90%	101%
License	2	3	6	2
Related party	7	5	4	(3)
Total revenues	100	100	100	100
Cost of product revenues [2]	43	45	71	78
Gross profit	57	55	29	22
Operating expenses:				
Research, development and patent	137	160	454	147
Non-cash charge associated with a convertible note				125
Selling, general and administrative	116	143	355	110
Total operating expenses	253	303	809	382
Loss from operations	(196)	(248)	(780)	(360)
Other income (expense):				
Interest income			1	
Interest expense	(3)	(40)	(80)	(42