UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2012

or

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

For the transition period from to

Commission File Number 000-50791

SENOMYX, INC.

(Exact name of registrant as specified in its charter)

Delaware	**33-0843840**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4767 Nexus Centre Drive **San Diego, California**	**92121**
(Address of principal executive offices)	(Zip Code)

(858) 646-8300

Registrant's telephone number, including area code

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

Title of Each Class	Name of Exchange on Which Registered
Common Stock, par value $0.001 per share	The NASDAQ Stock Market LLC

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

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

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

As of June 30, 2012, the aggregate market value of the voting stock held by non—affiliates of the registrant, computed by reference to the last sale price of such stock as of such date on the NASDAQ Stock Market LLC, was approximately $70,643,000. Excludes an aggregate of 9,860,880 shares of common stock held by officers and directors and by each person known by the registrant to own 5% or more of the outstanding common stock as of June 30, 2012. Exclusion of shares held by any of these persons should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

As of March 8, 2013, there were 40,628,023 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2012 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Form 10-K, are incorporated by reference in Part III, Items 10-14 of this Form 10-K.

SENOMYX, INC.

Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2012

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements included or incorporated by reference in this annual report on Form 10-K other than statements of historical fact, are forward-looking statements. You can identify these and other forward-looking statements by the use of words such as "may," "will," "could," "anticipate," "expect," "intend," "believe," "continue" or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to such statements.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under the caption "Risk Factors" in Part I Item 1A and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II Item 7 of this annual report on Form 10-K and elsewhere in this annual report on Form 10-K. Readers are cautioned not to place undue reliance on forward-looking statements. The forward-looking statements speak only as of the date on which they are made and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they are made except as required by law.

PART I

Item 1. *Business*

Overview

We are a leading company using proprietary taste receptor technologies to discover, develop and commercialize innovative flavor ingredients for the packaged food, beverage and ingredient supply industries. We consider flavor ingredients to include flavors, such as savory flavors and cooling flavors, and flavor modulators, such as sweet and salt modifiers and bitter blockers. We also have an ongoing effort to discover and develop natural high intensity sweeteners. We believe our flavor ingredients will enable packaged food, beverage and ingredient supply companies to improve the nutritional profile of their products while maintaining or improving taste and, in certain cases, generating cost of goods savings.

We have historically derived our revenues from collaborative agreements. We license our flavor ingredients to our collaborators on an exclusive or co-exclusive basis, which we believe will provide these companies with a competitive advantage. We currently have collaborative agreements with several of the world's leading packaged food, beverage and ingredient companies, including Ajinomoto Co., Inc., or Ajinomoto, Firmenich SA, or Firmenich, Nestlé SA, or Nestlé, and PepsiCo, Inc., or PepsiCo. Depending upon the collaboration, our collaboration agreements generally provide for license fees, research and development funding, reimbursement of certain costs, milestone payments based upon our achievement of research or development goals and, in the event of commercialization, commercial milestones, minimum periodic royalties and royalties on sales of products incorporating our flavor ingredients.

We have initiated a complementary commercialization strategy under which we will conduct direct sales of certain Senomyx flavor ingredients to flavor companies. We will focus on selling certain of our flavor ingredients directly to flavor companies for re-sale to their food and beverage company customers. We expect the flavor companies will add value by incorporating our ingredients into proprietary flavor mixtures or systems for their customers. To implement the direct sales strategy, we will establish relationships for third party manufacturing and supply chain logistics. Our commercial revenues under the direct sales strategy will be the actual sales of our flavor ingredients.

Individuals experience the sensation of taste when flavor ingredients in food and beverage products interact with taste receptors in the mouth. A taste receptor functions either by physically binding to a flavor ingredient in a process analogous to the way a key fits into a lock or by acting as a channel to allow ions to flow directly into a taste cell. As a result of these interactions, signals are sent to the brain where a specific taste sensation is registered. There are currently five recognized primary tastes: sweet, umami (which is the savory taste of glutamate), bitter, salt and sour. In addition, there are secondary taste sensations, such as cool, hot and fat.

We are currently pursuing the discovery and/or development of flavor ingredients through five programs focused on sweet, savory, bitter, cooling and salt taste areas. The primary goal of our Sweet Taste Program is to add to our portfolio of new flavor ingredients that allow a significant reduction of sweeteners in food and beverage products while maintaining the

desired sweet taste. The primary goals of our Savory Flavor Program are to add to our portfolio of new flavor ingredients that mimic the taste of naturally occurring glutamate to enable the reduction or replacement of added monosodium glutamate, or MSG, and to provide new savory tastes to foods by combining Senomyx's savory flavor ingredients with other ingredients to create unique new flavors. The goals of our Bitter Blocker Program are to reduce or block bitter taste and to improve the overall taste characteristics of packaged foods, beverages, over the counter, or OTC, health care products and pharmaceutical products. The goal of our Cooling Taste Program is to discover novel cooling agents that have advantages over currently available agents for a variety of applications. The goal of our Salt Taste Program is to identify flavor ingredients that allow a significant reduction of sodium in foods and beverages yet maintain the salty taste desirable to consumers.

We were incorporated in September 1998 in Delaware. Our internet address is www.senomyx.com. We post links on our website to the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission, or SEC: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendment to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. All such filings are available through our website free of charge. Our filings may also be read and copied at the SEC's Public Reference Room at 100 F Street, NE Washington, DC 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

Industry Background

Flavor Industry Overview

Flavor ingredients are used in a variety of packaged food, beverage and ingredient products throughout the world. Flavor ingredients are either naturally occurring or artificial compounds. Flavors include compounds that impart a taste such as strawberry or vanilla, or a taste sensation such as cooling. In some instances, a high value flavor may be sold on a stand-alone basis to a packaged food and beverage company with internal capabilities to create their own proprietary flavor systems. However, in most instances flavor ingredients are sold as part of a flavor mixture or system that is developed by a flavor company, which is then sold for use by multiple packaged food and beverage companies, or companies that make pharmaceutical or OTC healthcare products. A flavor system is a combination or variety of flavor ingredients, such as a mixture of citrus, menthol and other cooling flavors. Flavor systems are also delivered in several forms such as powder or liquid, and may be specially processed to increase the functionality of the flavor.

While a few packaged food, beverage and ingredient companies have their own internal research and development programs, most have traditionally relied on purchases of flavor mixtures and systems from third parties. Historically, most third party flavor companies have purchased flavor ingredients on a commodity basis and then used these to create flavor mixtures and systems for their packaged food and beverage customers. The ability to incorporate unique flavors that deliver a great taste profile in end products is a key consideration of packaged food and beverage companies as they strive to differentiate their brands in the marketplace. As such, flavor companies are constantly looking to identify unique, value-added ingredients that will help to meet their customer's needs for innovative flavor solutions.

Traditionally, companies have discovered new flavor ingredients primarily using inefficient, non-automated and labor-intensive trial and error processes involving a limited number of trained taste testers. Using this approach, taste testers must physically taste each potential flavor ingredient to assess the taste characteristics of the compound. Taste testers can assess only a limited number of potential flavor ingredients at one time due to the sensory fatigue that results from repeated tasting. As a result, only a small fraction of the available universe of ingredients can be tested economically.

Flavor ingredients are regulated in the United States under provisions of the Food, Drug and Cosmetic Act, or FD&C Act, administered by the Food and Drug Administration, or FDA. Flavor ingredients sold in countries and regions outside the United States are also subject to regulations imposed by national governments or regional regulatory authorities, as is the case in the European Union. For further discussion of the regulatory regime for flavor ingredients, please see the "Regulatory" section below.

Packaged Food and Beverage Industry

Packaged food and beverage products include carbonated and non-carbonated beverages, baked goods, dairy products, frozen foods, snack foods, main meal and side dish mixes, canned soup and numerous other products. According to recent data from Euromonitor International, an independent research organization, worldwide sales of packaged food and beverage products in 2011 were approximately $2.0 trillion, of which approximately $317 billion was generated in the United States.

These figures represent annual growth rates of approximately 5% and 3%, respectively, over 2006 amounts. Based on these estimates, of the worldwide total, sales of packaged foods were approximately $1.5 trillion and sales of non-alcoholic beverages were approximately $505 billion.

Flavor Ingredients as a Source of Competitive Advantage

The packaged food, beverage and ingredient industries are comprised of a number of large and highly competitive market segments. Small market share gains in specific large market segments can translate into significant additional revenue for packaged food, beverage and ingredient companies. For example, according to recent Euromonitor data, estimated 2011 worldwide sales of non-alcoholic beverages were approximately $505 billion. Thus, an increase of a tenth of a percentage point in overall worldwide market share would result in additional revenues of approximately $505 million.

As a result of these market opportunities, packaged food, beverage and ingredient companies are constantly seeking ways to differentiate their products, demand for which can be greatly affected by very small actual or perceived improvements in flavor or health profiles. Flavor ingredients can potentially provide an important way to differentiate a particular product through enhanced taste, improvements in nutritional profile or labeling, flavor ingredient innovation and cost of goods savings.

- *Taste.* Product taste is a critical competitive factor for packaged food, beverage and ingredient companies. While these companies are very interested in incorporating flavor ingredients in their products to improve the nutritional profile or assist in reducing ingredient costs, they are not willing to sacrifice taste in the process.

- *Health Benefits.* Packaged food, beverage and ingredient companies are exploring ways to improve overall nutritional quality of their products. It is widely accepted that poor diet contributes to adverse health conditions such as cardiovascular disease, diabetes and obesity. To address these concerns, many companies have introduced reduced calorie, reduced sodium and reduced fat content products to the market. Flavor ingredients with specific modifying characteristics provide an innovative way to reduce the levels of ingredients that may contribute to these concerns without compromising desirable taste attributes.

- *Flavor Ingredient Innovation.* Failure of packaged food, beverage and ingredient companies to differentiate their brands from their competition, including private label products, may result in significant loss of market share, price pressure and erosion of profit margins. Packaged food, beverage and ingredient companies spend millions of dollars creating brands and brand images to compete with other products. Innovative flavor ingredients, used alone or within a flavor system, enable manufacturers to differentiate their products.

- *Cost of Goods Savings.* The packaged food, beverage and ingredient industries purchase enormous quantities of raw materials to produce their products. According to the Food and Agriculture Division of the United Nations and LMC International, an economic and business consultancy providing economic research and consultancy services, estimated worldwide sugar consumption was approximately 153.3 million metric tons during 2011. Using calendar year 2012 refined sugar prices, the market value of processed sugar produced worldwide is therefore in excess of $91.8 billion on an annual basis. Similarly, according to Ajinomoto's FY2011 *Market and Other Information* report and Pearson Sales Company, worldwide demand for MSG was approximately 2.6 million metric tons in 2011, which would have had a cost of $6.3 billion using January 2013 spot prices. According to LMC International, worldwide demand for high-fructose corn syrup for 2011 was approximately 13.5 million metric tons, which would have had a cost of approximately $8.3 billion using January 2013 spot prices. Flavor ingredients can potentially facilitate a reduction in the quantity of these ingredients used in packaged food, beverage and ingredient products, which could result in significant decreases in costs and associated increases in profit margins.

Our Solution

We use our proprietary taste receptor-based assays and screening technologies to discover and develop novel flavor ingredients. We have developed proprietary taste receptor-based assays for use in our high-throughput screening systems to rapidly and efficiently screen our compound libraries and identify large numbers of novel potential flavor ingredients. We believe our approach improves the likelihood that ingredients with the desired characteristics can be discovered and then optimized into novel flavor ingredients.

We believe our approach will result in the discovery and development of flavor ingredients that will address the following key challenges faced by the packaged food, beverage and ingredient industries:

- *Maintaining and Improving Taste.* Our goal is to discover, develop and commercialize flavor ingredients that will enable food and beverage manufacturers to improve or maintain the taste of their offerings while improving the nutritional profile of packaged food, beverage and ingredient products.

- *Reducing Sugar, Artificial Sweeteners, MSG and Salt in Packaged Food and Beverage Products.* Our resources are focused on discovering, developing and commercializing flavor ingredients to enable food and beverage manufacturers to significantly reduce the levels of sugar, artificial sweeteners, MSG and salt in packaged food and beverage products while maintaining or improving taste. We believe reducing the levels of such ingredients will improve the nutritional profile and/or taste of packaged food and beverage products.

- *Blocking Undesirable Tastes.* We have developed flavor ingredients that we believe will be useful in blocking bitter and other unwanted tastes associated with certain packaged food and beverage products. Our technology may also be useful to improve the taste of products outside of food and beverages, such as OTC health care products and pharmaceutical products.

- *Identifying Natural Ingredients.* We are using our technologies to screen libraries of natural samples isolated from plants and other natural sources to discover new natural ingredients.

- *Obtaining Exclusive or Co-Exclusive Use of Proprietary Flavor Ingredients.* We are able to offer our current and future collaborators exclusive or co-exclusive use of our proprietary flavor ingredients in defined packaged food, beverage and ingredient product categories and geographies. We believe this approach will assist our collaborators in differentiating their products from those of their competitors. This strategy has been executed with our existing collaborative agreements.

- *Accessing Proprietary Flavor Ingredients.* Through our direct sales strategy, we are able to offer flavor companies our proprietary flavor ingredients for re-sale to food and beverage manufacturers. We believe this approach will allow numerous food and beverage manufacturers to improve or maintain the taste of their offerings while improving the nutritional profile of packaged food, beverage and ingredient products.

- *Reducing Cost of Goods.* We believe our proprietary flavor ingredients will enable food and beverage manufacturers to reduce overall raw material ingredient costs in certain cases, particularly for those products containing high levels of natural and artificial sweeteners and MSG.

- *Reducing Environmental Impact.* Flavor ingredients such as our sweet taste modifiers can reduce the use of sweeteners such as sucrose, or common table sugar, and high fructose corn syrup. This can reduce the cost and impact of transportation of the goods, as well as the use of water and fertilizers to grow the associated crops. In addition, in the case of powdered or concentrated products, a reduction in the use of added sweeteners may allow manufacturers to reduce package sizes and therefore use less packaging materials without impacting serving sizes or the number of servings in a single package.

Our Strategy

Our goal is to use our flavor programs to become the leader in the discovery, development and commercialization of new and improved proprietary flavor ingredients that are commercialized either through collaborations with leading companies or through direct sales by us. Key elements of our strategy include:

- *Maintaining and Expanding Our Technology Position.* We believe our proprietary taste receptor-based technologies, including our receptor discovery, assay development and high-throughput screening technologies and natural and artificial compound libraries provide us and our collaborators with significant competitive advantages. We intend to continue to develop and acquire proprietary technologies and related intellectual property rights to expand and enhance our ability to discover, develop and commercialize new proprietary flavor ingredients.

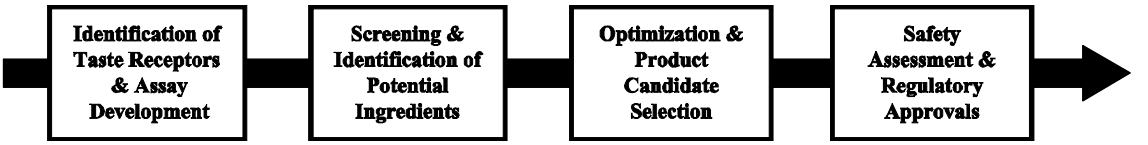
- *Developing Flavor Ingredients that are Eligible for Flavor and Extract Manufacturers Association, or FEMA, Generally Recognized as Safe, or GRAS, Determination.* Our primary focus is on the development of flavor ingredients that will qualify for a FEMA GRAS determination. Eleven flavor ingredients developed as part of our savory, sweet and bitter programs have received FEMA GRAS determination. Upon the GRAS determination, our collaborators and customers can begin to test market and commercialize retail products or flavor systems incorporating our flavor ingredients in many key markets. In the event that a particular product candidate is not eligible for FEMA GRAS determination, we may dedicate our development efforts to alternative flavor ingredients.

- *Collaborating With Leading Packaged Food, Beverage and Ingredient Companies.* We are collaborating with leading packaged food, beverage and ingredient companies to develop and commercialize certain of our product candidates. Under our license agreements, our collaborators are allowed exclusive or co-exclusive use of our proprietary flavor ingredients in defined packaged food, beverage and ingredient product categories and geographies. In general, our collaborators are responsible for manufacturing, marketing, selling and distributing their products incorporating flavor ingredients discovered and developed by us. In addition, our collaborators are responsible for all costs of manufacturing our flavor ingredients for their own use. As a result, we expect certain of our flavor ingredients will be commercialized without our incurring significant sales, marketing, manufacturing and distribution costs. As appropriate, we seek to establish additional collaborations with leading packaged food, beverage and ingredient companies to use flavor ingredients developed through our existing programs for exclusive or co-exclusive use within new packaged food, beverage and ingredient product fields.

- *Pursuing Market Opportunities through Direct Sales.* We seek to optimize the value of our flavor ingredients by creating new opportunities to increase their usage by food and beverage companies. In some cases, we may be able to commercialize our flavor ingredients in select product categories and geographies that have been licensed to collaborators. In these instances, we may elect to commercialize those flavor ingredients ourselves through a direct sales strategy in available product categories or geographies. We also have discovered and developed flavor ingredients which have not been licensed under collaborative agreements. Our efforts will focus on selling certain of our flavor ingredients directly to flavor companies. We expect the flavor companies will add value by incorporating our ingredients into proprietary flavor mixtures or systems for re-sale to their food and beverage company customers. We believe the direct sales strategy will enable a deeper and broader penetration of the food and beverage industry and accelerate commercialization by expanding the market for our products.

Our Discovery and Development Process

The following diagram summarizes our discovery and development process.



The key elements of our Discovery and Development process are:

- *Identification of Relevant Taste Receptors and Proprietary Taste Receptor-Based Assay Development.* The first steps in our discovery and development process are to identify the relevant taste receptors and to develop proprietary assays based on the identified receptors. Our assays are tests that measure interactions between the taste receptors and potential flavor ingredients. To date, we have developed assays to test for compounds that interact with receptors associated with savory, sweet, bitter and cooling tastes.

- *High-Throughput Screening and Identification of Potential Ingredients.* The next step in our discovery and development process is to use our proprietary taste receptor-based assays to identify compounds that bind to taste receptors, known as hits. We use automated high-throughput screening to evaluate rapidly our libraries of diverse artificial and natural compounds. A panel of taste testers then evaluates the taste effect of the most potent hits. Based on this evaluation, we designate hits that exhibit a positive taste effect as proof-of-concept compounds. We then select the most promising of those proof-of-concept compounds, which we call lead compounds, for optimization.

- *Optimization of Lead Compounds and Selection of Product Candidates.* The next step in our discovery and development process is to chemically modify our lead compounds to allow lower amounts of the compound to be used in the finished product or improve the activity to meet the taste attribute goals of our collaborators. Optimization may also be required to improve the safety profile and physical properties of a compound so that it is stable under manufacturing, storage and food preparation conditions. We refer to optimized compounds that provide desirable taste attributes in packaged food, beverage and ingredient product prototypes as product candidates. When screening natural libraries, optimization involves selecting the appropriate source and developing the most efficient process to obtain the active compound.

- *Safety Studies and Regulatory Approval of Product Candidates.* The next step in our discovery and development process is to select one or more product candidates for development and potential commercialization. We then evaluate the selected product candidate for safety, including preliminary in-vitro evaluation and additional in-vivo studies to confirm an acceptable safety profile. Following this evaluation, we submit the safety data along with the physical and chemical properties of the product candidate and a description of manufacturing and conditions of intended use to FEMA for review. The FEMA review is conducted by an Expert Panel identified and convened by FEMA. If the Expert Panel determines the product candidate to be GRAS, the conclusions of the Expert Panel are provided directly to the FDA and published in the journal Food Technology. The FEMA GRAS status allows the flavor ingredients to be commercialized in the United States and several other countries and regions. FEMA GRAS status also facilitates regulatory determinations in a number of additional countries.

  Eleven flavor ingredients developed as part of our savory, sweet and bitter programs have received FEMA GRAS determination. The process from selection for development until receipt of that determination has ranged from 12 to 18 months. Costs associated with the FEMA GRAS process, including external third-party safety studies and preparation of the application, ranged up to approximately $1.3 million per flavor ingredient. We expect that most of the flavor ingredients we develop in the future will require a similar amount of time and cost. However, the length of time and cost may vary depending on the properties of the flavor or flavor ingredient. In addition, regulatory approval of the flavor ingredients in other jurisdictions may require that we conduct additional studies or incur additional expenses. Furthermore, the regulatory approval of natural high intensity sweeteners will likely require submission through the Food Additive Petition process. For further discussion of the Food Additive Petition process, please see the "Regulatory" section below.

Technology

We have discovered or in-licensed many of the key receptors that mediate taste in mammals. Having isolated taste receptors, we have created proprietary taste receptor-based assay systems that provide a biochemical or electronic readout when a test compound affects the receptor. To enable faster compound discovery, we integrated our proprietary taste receptor-based screening assays into a robot-controlled automated system that uses plates containing an array of individual wells, each of which can screen a different compound. Our receptor-based discovery and development process has enabled us to improve our ability to find novel flavor ingredients over the traditional use of simple taste tests.

Receptor Discovery and Assay Development Technology. There are currently five recognized primary tastes: sweet, umami (which is the savory taste of glutamate), bitter, salt and sour. In addition, there are secondary taste sensations such as cool, hot and fat. Scientists generally believe that each of these taste sensations is recognized by a distinct taste receptor or family of taste receptors in the mouth or on the tongue. A taste receptor functions either by physically binding to a tastant in a process analogous to the way a key fits into a lock or by acting as a channel to allow ions to flow directly into a taste cell. The brain recognizes tastes by determining which of the numerous receptors in the mouth have been contacted by a given tastant. Savory, sweet and bitter flavor ingredients bind to taste receptors specific to each taste on the surface of taste bud cells. In contrast, the taste of salt and the sour taste are thought to be recognized by taste channels that allow the passage of particular ions into the taste bud cells. The tastes of cooling and heating are mediated by receptors found in certain nerves.

The current status in the development of proprietary taste receptor-based assay systems for taste receptors is as follows:

- *Savory Receptor.* Glutamate is a natural component of foods, including tomatoes, mushrooms, parmesan cheese, and meats. It is often added to foods in the form of MSG to provide a savory flavor. The savory receptor is composed of two proteins called hT1R1 and hT1R3. The T1R proteins are members of the G protein-coupled receptor, or GPCR, family and are expressed on the surface of certain taste bud cells. We created a proprietary high-throughput savory taste receptor-based assay system and demonstrated that it responded to MSG and inosine monophosphate, or IMP. Using this technology, we identified a number of savory flavor ingredients, including S807, S336, S263, S976, S9229 and S5456, which were determined to be GRAS.

- *Sweet Receptor.* The sweet receptor is composed of two proteins called hT1R2 and hT1R3. The hT1R3 protein is shared in common with the savory receptor. Like the savory receptor, the sweet receptor is also a member of the GPCR family and is expressed on the surface of certain taste bud cells. We created a proprietary high-throughput sweet taste receptor-based assay system and demonstrated that it responded to many different sweet-tasting compounds including carbohydrate sweeteners and artificial sweeteners. Our sucralose modifier, S2383, was determined to be GRAS in November 2008. Our sucrose modifiers, S6973 and S9632, were determined to be GRAS in October 2009 and September 2012, respectively. We have an ongoing research program to identify additional modifiers of sucrose, fructose and other sweeteners. In addition, we also have efforts in progress to discover natural high intensity sweeteners.

- *Bitter Receptors*. There are 25 bitter receptors in humans. These are also members of the GPCR protein family. Taste receptor expression studies showed that the 25 bitter receptors are likely present together in the same subset of taste cells. The bitter receptors are believed to have evolved as a defense mechanism to warn of and discourage the ingestion of poisonous substances. It is thought that each bitter receptor can recognize a subset of bitter-tasting compounds and that a single bitter tasting compound can activate multiple bitter receptors. During 2010, we received GRAS regulatory determinations for two bitter blockers, S6821 and a related compound, S7958. S6821 has demonstrated activity against bitter tasting foods and beverages that include soy and whey proteins, menthol, caffeine, cocoa, and Rebaudioside A, a major component of the sweetener stevia.

- *Cool Receptor*. The protein TRPM8 is an ion channel that is activated by both cool temperature and cooling agents such as menthol and WS-3. We developed a high-throughput screening assay using the TRPM8 protein, and we validated the assay using a set of known cooling agents. We have identified several sample classes of new cooling agents that demonstrate a taste proof-of-concept and display preferred cooling properties. A new cooling agent that has a ten-times greater potency in taste tests and other advantageous cooling properties compared to commonly used agents has been selected for development by us and our collaborator for this program. Our collaborator is also evaluating additional cooling agents for potential development.

- *Salt Receptor*. The primary receptor or receptors responsible for salt taste perception in humans have not been definitively identified in the scientific literature. Current activities include targeted analytical approaches to discover specific proteins that could be viable candidates for the receptors or co-factors responsible for salt taste. The Company has assembled a proprietary database of proteins found in taste buds and progress is being made exploring the role of a number of these proteins that may be involved in salt taste perception. In addition, we are currently focusing a greater effort on a smaller subset of proteins that include potential lead receptor candidates.

Screening Technologies and Compound Libraries. We have developed or acquired access to expansive libraries of potential flavor ingredients currently comprised of over one million natural and artificial compounds. We intend to continue to acquire or develop additional compounds and natural samples to add to our libraries. We have designed and selected our libraries to comprise compounds that we believe are likely to lead to safe and economical use in packaged food and beverage products. We are using our assay systems to screen the compounds in our libraries for their effects on specific taste receptors. These systems use many of the same technologies that pharmaceutical companies use to discover medicines. Our assay systems are much more sensitive than the human tongue, and can therefore be used to discover novel flavor ingredients that could not be identified using taste tests. We also use these systems to assist us in optimizing our lead compounds by rapidly and iteratively testing the potency of the potential flavor ingredients generated in the optimization process as the lead compound progresses to become a product candidate.

Regulatory Process

Flavoring substances, including flavor ingredients intended for use in foods and beverages in the United States, are regulated under provisions of the FD&C Act administered by the FDA. Flavor ingredients sold in countries and regions outside of the United States are also subject to regulations imposed by national governments or regional regulatory authorities, as is the case in the European Union. These regulations are subject to frequent revisions and interpretation.

Regulation of Flavor Ingredients in the United States. In the United States, flavor ingredients are regulated by the FDA as approved food additives, or as GRAS ingredients under the FD&C Act. The Food Additive Amendments of 1958 prompted the flavor industry to establish in 1960 the FEMA Expert Panel. FEMA has administered the GRAS program for flavor ingredients on behalf of the industry for over 50 years. Several countries outside of the United States, including Canada, Brazil, Argentina and the Philippines, allow flavor use in food based on FEMA GRAS recognition. Several other countries either add new FEMA GRAS compounds to their positive lists of approved flavoring agents or add the new FEMA GRAS lists to their flavor regulations by specific reference. The other possible route for approval of a flavor-modifying compound is a GRAS self-determination (independent of FEMA) with or without FDA notification. Our goal is that the flavor ingredients we may discover will be subject to one of the regulatory review processes described below.

GRAS Review Process. Flavor ingredients that qualify for the GRAS review process are generally intended to be consumed in small quantities and have data supporting their safety under conditions of intended use. An Expert Panel, convened to undertake a GRAS review, determines whether an ingredient is generally recognized as safe under the conditions of its intended use. These experts are qualified by scientific training and experience to evaluate the safety of certain new ingredients used in food and may declare them as having been adequately shown through scientific procedures to be generally recognized as safe under the conditions of their intended use. Under the GRAS process, manufacturers are required to obtain safety data from the scientific literature or through the conduct of safety studies, determine the estimated daily intake of the flavor ingredient per person and submit a report to the GRAS review panel describing the physical, chemical,

safety, and metabolic properties of the flavor ingredient. The entire GRAS determination process, including the safety and metabolic studies, application preparation and GRAS panel review, can take up to two years or longer. However, if there are prior safety data on the ingredient or an ingredient with a related structure, then fewer safety studies may be required for the GRAS review and the GRAS review process can be considerably shorter than two years.

The most common types of GRAS review are:

- *FEMA Expert Panel.* The FEMA Expert Panel is an independent panel of experts for which FEMA provides administrative assistance. The FEMA Expert Panel, which may be used by FEMA members and certain other parties, meets up to three times per year. The conclusions of the Expert Panel regarding a flavor ingredient are provided directly to the FDA and published in the journal Food Technology. To our knowledge, the FDA has not challenged the FEMA Expert Panel's conclusion that the use of a flavoring substance is GRAS. Eleven of our flavor ingredients have been determined to be GRAS by the FEMA Expert Panel.

- *Specifically Convened Independent Panel.* An independent, qualified panel of experts in pertinent scientific disciplines may be formed by the manufacturer to evaluate the safety of a specific compound for GRAS status. This process is known as "self-determination of GRAS status." The basis for the GRAS self-determination is not required to be submitted to the FDA. However, the FDA may request information on ingredients that have been self-determined to be GRAS, or the information may be provided voluntarily.

Regulation of Flavor Ingredients outside of the United States. Outside of the United States, flavor approvals vary by country. There is, however, some commonality in approach in many countries. As explained above, several countries either accept FEMA GRAS recognition as the basis for approval or GRAS recognition facilitates country approval. Many countries, particularly developing countries in Latin America and Africa, accept favorable review by the WHO/FAO Joint Expert Committee on Food Additives, or JECFA, as the basis for approval or to facilitate approval. FEMA automatically submits new GRAS ingredients to the Codex Alimentarius through the FDA for JECFA review. Some other countries have their own unique approval processes. The European Union, or EU, has established EU-wide regulations for flavor ingredient use based on safety evaluations by the European Food Safety Authority, or EFSA, and risk management (i.e. regulation development) by the Directorate General for Health. A number of countries in eastern Europe or in Africa accept EU approval as the basis for approved use. China, Japan, Indonesia and Russia also have independent regulatory review processes for flavors.

Food Additive Petition Process. Food ingredients may be evaluated through a food additive petition. If there is insufficient general knowledge or for a variety of other reasons, including unusual conditions of intended use, a food additive petition may be filed with the FDA. Food additive petitions contain information on the chemical nature of the ingredient, the manufacturing process, information on use in food, estimates of human exposure from use of the compound in food and all known information related to the safety of the ingredient. The FDA reviews the petition content, requests additional information if necessary, publishes a proposed rule for use in food, reviews comments on the proposed rule and publishes a final rule, if the use is determined to be acceptable. The safety data requirements for food additives are the same as for GRAS substances, although high use substances will require additional safety data. We estimate that a food additive petition could cost up to $10 million and may take up to four years to complete for submission. Furthermore, additional studies adding cost and time to approval may be required depending on the results of the initial safety studies. Examples of ingredients that have gone through a food additive petition process include the artificial sweeteners aspartame, acesulfame K and sucralose. It may be necessary for any high intensity sweeteners that we discover or develop to follow this regulatory route.

License Arrangements

We have licensed rights from several companies and academic institutions, including the following:

University of California. In March 2000, we entered into a license agreement with the University of California under which we obtained exclusive rights to certain technologies held by the University of California that are involved in the biology of taste, including specified receptors in two taste receptor families, T1Rs and T2Rs. The license may be converted to a non-exclusive license, or terminated, by the University of California if we fail to meet specified milestones relating to the discovery of specified products and the sale of specified products and services. Our exclusive rights are also subject to rights granted by the University of California to the United States Government and a private medical foundation. In October 2006, we entered into an amended and restated agreement with the University of California to include certain additional related technologies. In November 2009 we further amended this agreement to add additional technologies that were previously the subject of an exclusive letter of intent. The agreement, as originally drafted and as amended and restated, required a license issue fee, payable in installments through 2005, and calls for annual maintenance fees commencing in 2006 or royalties or service revenues on sales of any products developed using technologies licensed under the agreement. Royalties will accrue in each country for as long as there exists a valid patent claim covering a product developed under the agreement. The

agreement will remain in effect until the expiration of the last to expire patent licensed under the agreement. We may terminate the agreement at any time, without cause, upon notice to the University of California. The University of California may terminate the agreement upon a breach of our obligations under the agreement.

Patents and Proprietary Rights

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary rights are described by valid and enforceable patents or are effectively maintained as trade secrets. Accordingly, we are pursuing and will continue to pursue patent protection for our proprietary technologies. As of December 31, 2012 we are the owner or the exclusive licensee of 187 issued United States patents, 57 pending United States patent applications, 167 issued foreign patents and 237 pending foreign applications covering various aspects of our proprietary technology. Our issued patents have terms that expire in 2014 through 2029.

Our policy is to file patent applications and to protect technologies, inventions and improvements to inventions that are commercially important to the development of our business. For example, we may seek patent protection for receptors and nucleic acid sequences encoding receptors that are involved in taste and the use of such receptors to identify ingredients that modulate taste. We also rely on trademarks to protect our proprietary technology. Generally, United States patents have a term of 17 years from the date of issue or 20 years from the earliest claimed priority date, whichever is later, for patents issued from applications filed with the United States Patent and Trademark Office prior to June 8, 1995 or 20 years from the application filing date or earlier claimed priority date in the case of patents issued from applications filed on or after June 8, 1995. Patents in most other countries have a term of 20 years from the date of filing the patent application. Our success depends significantly upon our ability to develop ingredients and technologies that are protected by our intellectual property and that do not infringe any competitor patents. We intend to continue to file patent applications as we discover and develop new flavor ingredients and technologies.

Seeking and obtaining patents may provide some degree of protection for our intellectual property. However, our patent positions are highly uncertain and may involve complex legal and factual questions. No consistent standard regarding the allowability and enforceability of claims in many of the pending patent applications has emerged to date. As a result, we cannot predict the breadth of claims that will ultimately be allowed, if any, in our patent applications or any of those that we have in-licensed. It is equally difficult to predict whether or how we may be able to enforce our issued patent claims against our competitors. In addition, we may not have been the first to file patent applications for or to invent inventions relating to the technologies upon which we rely, which would preclude us from obtaining issued patents on the relevant inventions. We are aware of other companies and academic institutions which have been performing research and have applied for patents in the area of mammalian taste. In particular, other companies and academic institutions and inventor applicants have announced that they have identified taste receptors, published data on taste receptor sequence information or have filed patent applications on receptors and their use, including Ajinomoto, the California Institute of Technology, Columbia University, Chromocell, Dendreon, Duke University, the German Institute of Human Nutrition, Givaudan, Monell Chemical Senses, Mount Sinai School of Medicine, Novartis, Pfizer, The Scripps Research Institute, Sloan Kettering, the University of California, Virginia Commonwealth University and Wiessenbach. If any of these companies or academic institutions or inventor applicants are successful in obtaining broad patent claims, such patents could potentially block our ability to use various aspects of our discovery and development process and might prevent us from developing or commercializing newly discovered flavor ingredients or otherwise conducting our business.

We also rely in part on trade secret protection for our confidential and proprietary information and process. Our policy is to execute confidentiality agreements with our employees and consultants upon the commencement of an employment or consulting relationship. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of their employment shall be our exclusive property. However, there can be no assurance that we will be able to effectively enforce these agreements or that the subject proprietary information will not be disclosed.

We are not a party to any litigation, opposition, interference, or other potentially adverse ex parte or inter-party governmental or non-governmental proceeding with regard to our patent and trademark positions. However, if we become involved in litigation, interference proceedings, oppositions or other intellectual property proceedings, for example as a result of an alleged infringement, or a third-party alleging an earlier date of invention, we may have to spend significant amounts of money and time and, in the event of an adverse ruling, we could be subject to liability for damages, invalidation of our intellectual property and injunctive relief that could prevent us from using technologies or developing products, any of which could have a significant adverse effect on our business financial condition and results of operation. In addition, any claims relating to the infringement of third-party proprietary rights, or earlier date of invention, even if not meritorious, could result

in costly litigation, lengthy governmental proceedings, divert management's attention and resources and require us to enter royalty or license agreements which are not advantageous if available at all.

Our Discovery and Development Programs

We are currently pursuing the discovery and development of flavor ingredients through five programs focused on sweet, savory, bitter, cooling and salt taste areas. We may also investigate other areas of taste as part of our broader research related to human taste biology.

Sweet Taste Program

Our Sweet Taste Program has two main components. We are looking to develop natural and artificial sweet taste modifiers and we are also seeking to discover natural high intensity sweeteners.

Sweet Modifiers

The goals of the Sweet Modifier component of our Sweet Taste Program are to restore the desired taste profile of products in which natural and artificial sweeteners have been reduced. We have identified S2383, a novel modifier of the high-intensity sweetener sucralose, as well as S6973 and S9632, two modifiers of sucrose, or common table sugar.

Taste tests demonstrated that S2383 enabled up to a 75% reduction of sucralose in product prototypes such as beverages, yogurt and baked goods, yet maintained the same sweet intensity without any off-tastes. In November 2008 we announced receipt of FEMA GRAS status for S2383, and in July 2012 we announced that S2383 received a positive determination regarding safety from the JECFA. The JECFA determination allows immediate usage of a new ingredient in many countries and also enables regulatory approvals in other countries around the world. In October 2012 we announced regulatory approval of S2383 in the EU, with usage in the EU permitted beginning in late-April 2013.

The sucrose modifier S6973 allows an approximately 50% reduction of sucrose in taste tests with product categories such as baked goods, cereals, gum, condiments and relishes, confectioneries and frostings, frozen dairy offerings, fruit ices, gelatins and puddings, hard and soft candy, jams and jellies, milk products, and sauces. In October 2009 we announced receipt of FEMA GRAS status for S6973, and a positive determination from JECFA was announced in July 2012. Regulatory approval of S6973 in Europe is currently pending.

S9632 is a new sucrose modifier with very favorable taste and physical characteristics that enables an approximately 50% reduction of sugar in foods and beverages. In October 2012 we announced receipt of FEMA GRAS status for S9632. The GRAS status allows usage of S9632 in a broad range of non-alcoholic beverages including powdered and concentrated beverages, along with ready-to-drink and powdered forms of dairy, coffee and tea products. In addition, S9632 may be used with alcoholic beverages, as well as a variety of foods, including dairy products, confectioneries, snack foods, and sauces. We intend to pursue additional regulatory approvals for S9632 outside the United States.

In August 2012 we announced the initiation of development phase activities with S52617, also called S617, a new flavor ingredient intended to be used to restore the desired taste profile of products in which either sucrose or high fructose corn syrup, also known as HFCS, has been reduced. Taste tests have demonstrated that S617 is effective in a variety of beverage prototypes, including carbonated soft drinks, in which up to 35% of the HFCS or up to 50% of the sucrose has been reduced. Safety studies and other activities in support of potential future regulatory filings for S617 are ongoing. We are also continuing to optimize and evaluate other promising modifiers of HFCS, which is used widely as a sweetener for beverages and other products.

Natural High Intensity Sweeteners

The goal of the Natural High Intensity Sweetener component of our Sweet Taste Program is to discover and develop novel no- or low-calorie natural high intensity sweeteners. We continue to make progress in our efforts to discover and develop natural high-potency sweeteners. Ongoing activities include further expansion of our natural products library, high-throughput screening of these plant-derived samples, and taste tests of samples of interest.

Savory Flavor Program

The goals of our Savory Flavor Program are to mimic the taste of naturally occurring glutamate to enable the reduction or removal of added MSG and to provide new savory tastes to foods by combining Senomyx's savory flavor ingredients with other ingredients to create unique new flavors.

In March 2005, the FEMA Expert Panel determined that S336 and S807, which enhance the savory taste of glutamate, were GRAS. In addition, S263 and S976, two other savory flavor ingredients that are related to S336, were also determined by FEMA to be GRAS. During 2007, the Chinese Ministry of Health granted official regulatory approval in China for S336 and S807. Also in 2007, S336 and S807 received a positive review by JECFA. In October 2012 we announced regulatory approval of S336, S807, S263 and S976 in the European Union, with usage in the EU permitted beginning in late-April 2013.

In 2011, two additional savory flavor ingredients, S9229 and S5456, were also determined by FEMA to be GRAS. We intend to pursue additional regulatory approvals of S9229 and S5456 outside the United States. A new savory flavor ingredient is in development and we may elect to develop additional savory flavor ingredients in the future.

Bitter Blocker Program

The primary goals of this program are to reduce or block bitter taste and to improve the overall taste characteristics of foods, beverages, and ingredients. Two of our bitter blockers, S6821 and S7958, have received GRAS regulatory status. S6821 has demonstrated activity against bitter tasting foods and beverages that include soy and whey proteins, menthol, caffeine, cocoa, and Rebaudioside A (stevia). S7958, a related bitter blocker with similar functionality, has alternative desirable physical properties that may be useful for these or other product applications. In addition, we continue to evaluate and potential new bitter blockers that we may elect to develop in the future.

Cooling Taste Program

The goal of the Cooling Taste Program is to identify novel cooling agents that have advantages over currently available agents (i.e. menthol and WS-3). We have identified several sample classes of new cooling agents that demonstrate a taste proof-of-concept and display preferred cooling properties, and we are in the early stages of development with a new cooling agent. Firmenich has exclusive commercialization rights for new flavor ingredients developed under the Cooling Taste Program and is currently evaluating additional cooling agents for potential development in the future.

Salt Taste Program

The goal of the Salt Taste Program is to identify flavor ingredients that allow a significant reduction of sodium in foods and beverages yet maintain the salty taste desirable to consumers. This program is an important research focus for our longer-term pipeline. Current activities include targeted analytical approaches to discover specific proteins that could be viable candidates for the receptors or co-factors responsible for salt taste. We have assembled a proprietary database of proteins found in taste buds and progress is being made exploring the role of a number of these proteins that may be involved in salt taste perception. In addition, we are currently focusing a greater effort on a smaller subset of proteins that include potential lead receptor candidates.

Commercialization

Following regulatory approval in a given country, foods and beverages containing our proprietary flavor ingredients can be commercialized immediately. Our collaborators and customers have ultimate responsibility for commercialization of Senomyx flavor ingredients in their end product offerings. Prior to commercialization, collaborators and customers complete extensive product formulation work on targeted products. Food and beverage manufacturers may validate final formulations for these products through in-house sensory evaluation as well as external in-market taste tests by consumers. Upon confirming consumer acceptance of these products, the companies complete activities such as the development of packaging and sales materials, and initial manufacturing scale-up of the products, enabling their market launch.

Market Overview

Each of our programs focuses on developing flavor ingredients that address large, potentially overlapping markets. Our Sweet Taste Program is aimed at developing flavor ingredients or discovering natural high intensity sweeteners that could be used in product categories such as beverages, dairy products and baked goods. Our Savory Flavor Program is aimed at developing flavor ingredients that could be used in product categories such as ready meals, sauces, soups, pastas, dried foods

and snack foods. Our Bitter Blocker Program is focused on developing flavor ingredients that could be used in product categories such as products that contain bitter tastants, including beverages, ready meals, canned foods and soups, and products which utilize certain artificial sweeteners. Our Cooling Taste Program is aimed at developing flavor ingredients that could be used in products that incorporate cooling agents, such as cough medicines, confectionaries and OTC oral hygiene products. Our Salt Taste Program is aimed at developing flavor ingredients that could be used in virtually all product categories.

Our commercial revenues to date are based on predefined terms within our collaborative agreements, primarily royalties under a retail or ingredient supply model. In our retail-based agreements, royalties are calculated as a percentage of the net sales price of a manufacturer's finished products or is based on the volume of a manufacturer's finished product that it sells. In our ingredient supply-based agreements, royalties are calculated as a percentage of the sales price of either the Senomyx flavor ingredient itself or the flavor system in which the Senomyx flavor ingredient is contained or is based on the volume of the flavor ingredient itself used by a manufacturer in a finished product.

Beginning in 2013, we intend to pursue a direct sales strategy by selling certain novel flavor ingredients to targeted flavor companies for their use in proprietary flavor solutions. Some market opportunities are represented in the tables below as direct sales strategy; however, we may still establish collaborative agreements for select flavor ingredients to optimize their commercial value. Our commercial revenues under the direct sales strategy will be the actual sales of our flavor ingredients.

The market potential, licenses, partners and sales models for our key programs are described below.

Sweet Taste Program

Our Sweet Taste Program is focused on developing flavor ingredients or discovering natural high intensity sweeteners that address large global markets. The worldwide market for sucrose and fructose is estimated to be $100 billion at a volume of 166.8 million metric tons. The sucralose market is approximately $345 million at a volume of 5,500 metric tons. High intensity sweeteners form a global market worth $1.3 billion at a volume of 38,600 metric tons. These estimates are based on 2011 data from Euromonitor, Leatherhead Food Research, LMC International, *Milling & Baking News* and the USDA Economic Research Service.

Flavor Ingredient	Product Category	License	Partner	Sales Model
New sweet modifiers.....	Non-alcoholic beverages	Exclusive	PepsiCo	Retail
Sucrose modifier (S6973).....	All foods and certain selected beverages	Exclusive	Firmenich	Ingredient supply
Sucrose modifier (S9632).....	All foods and co-exclusive in powdered beverages	Exclusive	Firmenich	Ingredient supply
Sucrose modifier (S9632).....	Non-alcoholic beverages and co-exclusive in powdered beverages	None	None	Direct sales
Sucralose modifier (S2383)..	All foods and beverages	Exclusive	Firmenich	Ingredient supply
New sweet modifiers.....	All foods and co-exclusive in powdered beverages	Exclusive	Firmenich	Ingredient supply
New natural sweeteners.....	Non-alcoholic beverages	Exclusive	PepsiCo	Ingredient supply
New natural sweeteners.....	All foods	None	None or future licensee	Potential direct sales

Savory Flavor Program

Our Savory Flavor Program is aimed at developing flavor ingredients that address a worldwide market for monosodium glutamate (MSG) of $6.3 billion at a volume of 2,600 metric tons, based on 2011 data from Pearson Sales Company and Ajinomoto's *Market and Other Information*.

Flavor Ingredient	Product Category	License	Partner	Sales Model
Savory flavor (S336).....	Certain product categories and geographies per agreement	Exclusive	Nestlé	Ingredient supply
Savory flavors (S336, S5456).....	Virtually all product categories in Asia	Exclusive	Undisclosed	Retail & Ingredient supply
Savory flavor (S336).....	All product categories in North America	None	None or future licensee	Potential direct sales
Savory flavor (S5456).....	All product categories outside of Asia	None	None or future licensee	Potential direct sales
Savory flavor (S9229).....	All product categories worldwide	None	None or future licensee	Potential direct sales

Bitter Blocker Program

Our bitter taste modifier program is intended to reduce the bitterness associated with certain bitter tastants such as certain high intensity sweeteners, whey and other dairy proteins, cocoa, caffeine and menthol. These bitter tastants may be used in a wide variety of products including tea, nutritional beverages, protein bars, confectionary, ice cream, yogurt, desserts and baked goods. We currently have one partner on this program operating under an ingredient supply-based agreement with royalty payments based on the quantity of our flavor ingredient manufactured during the royalty period. We are considering a direct sales strategy for the open product categories by selling our novel flavor ingredients to targeted flavor companies for their use in proprietary flavor solutions.

Cooling Taste Program

Our cooling taste program is intended to improve upon the properties of existing cooling agents with benefits which may include odorless compared to menthol, greater potency or improved temporal sensory profiles. Existing cooling agents include menthol, WS-3, Frescolat ML & MGA, Cooler 1 & 2, and Evercool. These cooling agents may be used in a wide variety of products including tea, flavored waters, confectionary products such as chewing gum and mints, toothpaste and mouthwash. The estimated size of the cooling agent market is approximately $400 million (per Hill Consulting Group's 2006 *Cooling Agents* report) and we estimate the market size for flavor systems incorporating cooling agents to be three to four times that size. Size of the cooling market in volume is estimated at 30,000 metric tons (per *Perfumer & Flavorist*), driven largely by menthol. We currently have one exclusive partner, Firmenich, on this program operating under an ingredient supply-based agreement with royalty payments based on their flavor system sales incorporating our cool flavor ingredients.

Salt Taste Program

Our salt taste modifier program is intended to reduce the level of salt contained in packaged food and beverage products. High salt levels are used in a wide variety of products including ready meals, sauces, soups, snack foods, frozen foods, canned foods, dried foods, processed meats and certain baked goods. The actual cost of salt (sodium chloride) is extremely low but the annual usage of food grade salt is estimated at over 1.5 million metric tons (per K+S Group Financial Report 2011). We currently do not have a partner on this program and we intend to pursue a direct sales strategy by selling our novel flavor ingredients to targeted flavor companies for their use in proprietary flavor solutions.

Commercialization Status

As of December 31, 2012, our collaborators have commercialized products containing flavor ingredients from three of our programs: Savory Taste Program, Sweet Taste Program and Bitter Blockers Program. Below is a description of the status of these commercial efforts.

Initial market launch by Nestlé of products including our savory flavor ingredients occurred in June 2007. Nestlé's marketing strategy is focused on countries where regulatory approval is in place, and targets products that contain high levels of MSG. Since 2010, Nestlé has been expanding their commercialization efforts to include reformulated established products

that contain these ingredients. Ongoing activities include launches of new and reformulated products that incorporate Senomyx's savory flavor ingredients in 25 countries in Asia, Latin America, Africa, and the Middle East.

Ajinomoto has been introducing products that contain a Senomyx flavor ingredient in several Asian countries including China. Ajinomoto has continued to explore additional opportunities to expand their customer base and the number of product offerings within Asia.

Firmenich has exclusive worldwide rights to market S2383, Senomyx's modifier of sucralose, as either a stand-alone ingredient or as part of a flavor system in all food and beverage product categories. Retail products incorporating S2383 are currently being marketed in North America and Latin America. Firmenich continues to work with many other clients evaluating S2383 in a variety of products.

Firmenich also has exclusive worldwide rights to commercialize Senomyx's S6973 sucrose modifier for virtually all food and specified beverage categories. During 2012, market launches of retail products incorporating S6973 occurred in the U.S., Latin America, Asia and Africa. These products span a variety of categories including ready-to-drink and powdered beverages, dairy products and baked goods. Products launched with S6973 are showing promising performance based on re-order patterns and additional launches of products utilizing S6973 are expected during 2013.

Firmenich also has exclusive worldwide rights to commercialize our S9632 sucrose modifier in virtually all food categories and a co-exclusive worldwide right for powdered beverages. Firmenich is currently in the process of scaling up commercial quantities of S9632, which are expected in the second half of 2013, and is demonstrating S9632 to potential clients.

A collaborator initiated its first market launch of a retail product containing Senomyx's S6821 bitter blocker in a Southeast Asian country in 2012 and is continuing to evaluate the use of S6821 in additional products and geographies.

Sales and Marketing

Under our current collaboration agreements, our collaborators are responsible for sales, marketing, and distribution of any packaged food or beverage product incorporating our flavor ingredients for their own use. As a result, in the past our flavor ingredients were commercialized without our incurring significant sales, marketing and distribution costs and we expect our collaborators to continue to assume those same responsibilities for the use of any flavor ingredients in fields of use that they have licensed from us on an exclusive or co-exclusive basis. Our current collaborators, Ajinomoto, Firmenich, Nestlé and PepsiCo, are recognized leaders in the sales, marketing and distribution of packaged food, beverage and ingredient products.

In supporting the implementation of the direct sales strategy, we will develop demand creation capabilities for selected flavor ingredients. This will be handled by our existing commercial organization and other resources who will work with the flavor companies on sales and marketing, simple product applications, and customer service and orders. Our initial marketing and sales focus will be aimed at the global flavor companies with operations in the United States and other U.S. based flavor companies. We anticipate that global flavor companies will commercialize our flavor ingredients outside the United States in geographies where we have appropriate regulatory authorization, and in the future we may also market our flavor ingredients directly to more region specific flavor companies outside the United States.

Manufacturing

Under the majority of our existing collaborative agreements, our collaborator may, in its sole discretion, manufacture directly or through a third party manufacturer the flavor ingredients it licenses from us. For our direct sales strategy, we intend to utilize third parties to handle manufacturing and supply chain logistics for our flavor ingredients. We expect that these third parties will purchase raw materials, manufacture finished products and may also perform the necessary quality assurance and control functions. We may also utilize third parties to provide inventory warehousing, distribution, importation, and other supply chain support.

Our Collaborative Agreements

We pursue collaborations with leaders in the packaged food, beverage and ingredient supply markets. Under each of our current collaborative agreements, we have agreed to conduct research and develop flavor ingredients in one or more specified taste areas, such as sweet, savory, bitter, cool or salt. These collaborations are generally focused on one or more specific product fields, such as non-alcoholic beverages, confectionary products or frozen foods. We currently have collaborative agreements with Ajinomoto, Firmenich, Nestlé and PepsiCo.

All of our current collaboration agreements provide for royalty payments in the event the collaborator commercializes a product incorporating our flavor ingredients. The specific type of royalty and method for calculating royalty payments varies by agreement and many factors may affect the potential royalty payments under our agreements. In addition, royalty rates under some of our agreements may vary from period to period. Accordingly, any estimates of future royalties are uncertain and difficult to predict. We generally describe our collaborative agreements as retail-based agreements or ingredient supply-based agreements. Under our retail-based royalty agreements, any potential royalty payable to us is calculated as a percentage of the net sales price of a manufacturer's finished products or is based on the volume of a manufacturer's finished product that it sells. Our retail-based royalty agreements provide for an effective royalty of up to 4%. Our agreements with Ajinomoto and PepsiCo are either exclusively or partially retail-based royalty agreements. Under our ingredient supply-based agreements, any potential royalty payable to us is calculated as a percentage of the sales price of either the Senomyx flavor ingredient itself or the flavor system in which the Senomyx flavor ingredient is contained or is based on the volume of the flavor ingredient itself used by a manufacturer in a finished product. Our ingredient supply royalty agreements specify royalty rates that are typically greater than the rates specified by our retail-based agreements. Our agreements with Ajinomoto, Firmenich, Nestlé and PepsiCo are either exclusively or partially ingredient supply-based royalty agreements.

Most of our current collaboration agreements provide for research and development funding, milestone payments upon achievement of pre-defined research or development targets and cost reimbursement. Certain of our current collaboration agreements also provide for license fees and minimum periodic royalties. The research and development funding under each of these agreements is typically paid according to a fixed payment schedule, but may vary from period to period upon mutual agreement of the parties. Each of these collaborations provides us with a portion of the funding we require to pursue the discovery and development of flavor ingredients for the applicable program. Under each of these agreements, we are primarily responsible for the discovery and development phases and any associated expenses, while our collaborator is primarily responsible for selecting the products that may incorporate our flavor ingredients. Our collaborator is also responsible for manufacturing, marketing, selling and distributing any of these products for their own use, and any associated expenses. Under most of our agreements, we are primarily responsible for the development and regulatory approval phase for flavor ingredients, as well as the prosecution and maintenance of the underlying intellectual property for our flavor ingredients, and a portion of the associated expenses for all of those activities.

We believe our collaborations will allow us to benefit from our collaborators' well-established brand recognition, global market presence, established sales and distribution channels and other industry-specific expertise. Each of our collaborations is governed by a joint steering committee, consisting of an equal number of representatives of the collaborator and us. The steering committees provide strategic direction and establish performance criteria for the research, development and commercialization of our flavor ingredients. In most instances, decisions of the steering committees must be unanimous.

Our collaborative agreements provide that we will conduct research and development on flavor ingredients for use within clearly defined packaged food, beverage and ingredient product fields, typically on an exclusive or co-exclusive basis for the collaborator during the collaborative period specified in each of the agreements. Our current product discovery and development collaborators are not prohibited from entering into research and development collaboration agreements with third parties in any product field. Under the terms of each agreement, we will retain rights to flavor ingredients that we discover during the collaboration for use with the collaborator, or for our use with other collaborators outside of the defined product fields of that agreement. We will also generally retain rights to any flavor ingredients that we discover after the respective collaborative period. However, in some instances we have agreed to arrangements where we would not launch competing products that one of our collaborators has selected for development and commercialization. We have also agreed under the terms of one of our collaboration agreements that we would not license similar flavor ingredients to the collaborator's competitor for the same intended uses and product categories that we have licensed to our collaborator. In addition to the collaborative agreements, we have a commercialization and license agreement with Firmenich regarding our S2383 sucralose modifier. In the case of certain of our agreements, if the collaborator terminates the agreement or fails after a reasonable time following regulatory approval or GRAS determination to incorporate one or more of our flavor ingredients into a product, it will no longer be entitled to use, and we will have the right to sell or license the flavor ingredients to other packaged food, beverage and ingredient companies for use in any product field covered in the agreement.

Each of our agreements expires when we are no longer entitled to royalty payments under the agreement. In addition, each agreement may be terminated earlier by mutual agreement or by either party in the event of a breach by the other party of its obligations under the agreement. Furthermore, following the collaborative research period under a given agreement, our collaborators may elect to discontinue the commercialization of one of our flavor ingredients and unilaterally terminate the agreement. In the event of termination of an agreement prior to expiration, rights to sell or license flavor ingredients generally revert to us.

Key Collaborative Agreements

Firmenich (Sweet)

In July 2009, we entered into a collaboration agreement with Firmenich to work for a minimum two-year collaborative period to discover novel flavor ingredients intended to modify the sweet taste of sucrose, fructose, or various forms of rebaudioside. The agreement includes three consecutive options of one year each that could further extend the collaborative research funding period through July 2014. Under the agreement, Firmenich agreed to pay a license fee in three installments, research and development fees, cost reimbursements and specified payments upon the achievement of milestones. In January 2010, Firmenich elected to proceed with commercial development of S6973.

In conjunction with the decision, we received the final license fee installment payment in the amount of $8.0 million from Firmenich during the first quarter of 2010. In October 2010, we amended the agreement with Firmenich to include commercial development of S6973 for specific beverage applications in exchange for an incremental license fee, additional milestones and minimum annual royalties, in addition to royalties on sales of products containing S6973. In February 2011, Firmenich elected to exercise their first one-year option to extend the collaborative research funding period through July 2012. In April 2012, Firmenich elected to exercise their second one-year option to extend the collaborative research funding period through July 2013.

We earned a development milestone of $250,000 under this agreement in the fourth quarter of 2012, which we received in the first quarter of 2013. Through December 31, 2012, we have received $32.3 million in license fees, research and development funding and cost reimbursements and four milestones totaling $2.0 million. If all milestones are achieved and all extension options are exercised, and including the $34.3 million in license fees, research and development funding, milestones and cost reimbursements paid through December 31, 2012, we may be entitled to up to $49.4 million. There is no guarantee that we will receive any further milestone payments under this collaboration. We are entitled to receive royalties on future net sales of products containing a discovered flavor ingredient from the date of introduction of each product in each country until the expiration of relevant patents. Any future royalties under this collaboration are uncertain and difficult to predict. If our collaborative agreement with Firmenich were to terminate earlier than currently anticipated, or if Firmenich were to discontinue or reduce its actual commercialization efforts related to currently marketed Senomyx flavor ingredients, we may experience a material decline in our revenues.

PepsiCo

In August 2010, we entered into a collaboration agreement with PepsiCo. The agreement relates to a four-year research program to discover and develop (i) novel natural and artificial flavor ingredients intended to modify the sweet taste of sucrose and fructose, including high fructose corn syrup, and (ii) natural high intensity sweeteners, in each case for use in non-alcoholic beverage product categories on a worldwide basis. Under the agreement, we received an upfront payment of $30.0 million from PepsiCo, $7.5 million of which was paid in the second quarter of 2010 in connection with the signing of a letter agreement between the parties and $22.5 million of which was paid in the third quarter of 2010. We are entitled to $32.0 million in committed research and development payments, payable in equal quarterly installments over the four-year research period. We are also entitled to milestone payments and reimbursement of certain out-of-pocket expenses. Upon commercialization, we are entitled to minimum annual royalties and royalty payments on products that incorporate selected flavor ingredients and/or natural high intensity sweeteners. Royalties on products sold by PepsiCo or its affiliates that incorporate a selected flavor ingredient will be equal to a base amount plus a portion of the cost savings, if any, derived from the use of the flavor ingredient in the applicable product. Royalties on products sold by PepsiCo or its affiliates that incorporate a selected natural high intensity sweetener will be equal to a portion of the cost of the sweetener. PepsiCo has the option to extend one or more of the research programs for two additional years, which would result in additional research funding commitments and payments during the extension of the research program. PepsiCo has the unilateral right to terminate the agreement in the event that a direct competitor of PepsiCo acquires more than 30% of our outstanding voting securities.

With respect to the sweet taste modifiers and natural high intensity sweeteners that PepsiCo selects for commercial development, generally PepsiCo will have (i) exclusive rights to use the flavor ingredient or natural high intensity sweetener, as the case may be, for all forms of non-alcoholic beverages other than powdered beverages for so long as PepsiCo continues to pay the applicable minimum annual royalty, and (ii) co-exclusive rights to use the flavor ingredient or natural high intensity sweetener, as the case may be, for all powdered non-alcoholic beverages. However, PepsiCo has agreed to sublicense its rights to any flavor ingredients that they select for development to one or more third party ingredient suppliers that will be authorized to supply the flavor ingredient, either alone or in combination with other flavors, to any third party manufacturer of non-alcoholic beverages for use in the categories of: functional beverages, including meal replacement drinks and energy drinks, coffee based drinks, milk and soy based beverages and sour-milk beverages. We will receive royalties based on a percentage of the net sales price of products that are sold by a sublicensee ingredient supplier and that incorporate a selected flavor ingredient. PepsiCo was not granted a right to sublicense its rights to selected flavor ingredients for use in the categories of non-alcoholic carbonated beverages, fruit drinks, teas, waters and sports drinks. Also, PepsiCo was not granted a right to sublicense its rights to natural high intensity sweeteners for use in any non-alcoholic beverages. Accordingly, we anticipate that PepsiCo will use flavor ingredients and natural high intensity sweeteners in those categories on an exclusive basis unless PepsiCo and we mutually agree to other arrangements at some time in the future.

We earned a development milestone of $750,000 under this agreement in the fourth quarter of 2012, for which we received payment in the first quarter of 2013. Under this agreement, through December 31, 2012, we have received $51.9 million in upfront fees, research and development funding and cost reimbursements and two milestones totaling $1.5 million. If all milestones are achieved and all extension options are exercised, and including the $53.4 million in upfront fees, research and development funding, milestones and cost reimbursements paid through December 31, 2012, we may be entitled to up to $97.0 million. There is no guarantee that we will receive any additional milestone payments or royalties under this collaboration. In the event of commercialization, we are entitled to receive royalties on future net sales of products containing a discovered flavor ingredient from the date of introduction of each product in each country until the expiration of relevant patents. We cannot assure you that we will receive any royalties under this collaboration. If our collaborative agreement with PepsiCo were to terminate earlier than currently anticipated, we may experience a material decline in our revenues.

Other Collaborative Agreements

Ajinomoto

In March 2006, we entered into a collaborative research, development, commercialization and license agreement with Ajinomoto for the discovery and commercialization of novel flavor ingredients on an exclusive basis in the soup, sauce and culinary aids, and noodle product categories, and on a co-exclusive basis in the bouillon product category within Japan and other Asian markets. Under the terms of the initial collaboration, Ajinomoto agreed to pay us an upfront license fee and research and development funding for up to three years. In addition, we are eligible to receive milestone payments upon achievement of specific product discovery and development goals and reimbursement for certain expenses that we incur. In April 2007, we amended the agreement to expand Ajinomoto's rights into North America. In August 2007, we further amended the agreement to expand Ajinomoto's rights into additional product categories and geographies that were not previously licensed by us. In January 2013, Ajinomoto relinquished and returned to us the rights to the previously licensed flavor ingredients in North America and in the other geographies granted in the August 2007 amendment. Ajinomoto is continuing to commercialize products that include one of our flavor ingredients in Asia. We received research and development funding through March 2010. In addition, we have received milestone payments, cost reimbursements and minimum periodic royalty payments from Ajinomoto.

Firmenich (Cool)

In December 2007, we entered into a collaboration agreement with Firmenich to work for a three-year collaborative period to discover and develop novel flavor ingredients that may be used by Firmenich on an exclusive basis worldwide to impart a cool taste in flavor systems. In November 2010, we amended the agreement to extend the collaborative period until December 2012. In December 2012, we amended the agreement to extend the collaborative period until June 2013. Under the agreement, Firmenich has agreed to pay research fees and specified payments upon the achievement of milestones. Firmenich has also agreed to reimburse us for a portion of the costs associated with the development and regulatory approval process of flavor ingredients that it selects for development, as well as a portion of certain expenses that we incur related to the research program. In addition, in the event of regulatory approval of a discovered flavor ingredient, we are entitled to minimum periodic royalties; in the event of commercialization, we are entitled to royalties on future sales of products containing a discovered flavor ingredient until the expiration of relevant patents. We cannot assure you that we will agree with Firmenich to extend the collaborative period under this agreement beyond June 2013 or that we will receive any future milestone payments or royalties under this collaboration.

Firmenich (Sucralose)

In November 2008, we entered into a second collaboration agreement with Firmenich for S2383, our novel modifier of the high-intensity sweetener sucralose. Under the agreement, Firmenich has agreed to pay to us royalty payments based on sales of S2383 when it is sold on either a stand-alone basis or within a flavor system. We have received royalty payments under this collaboration.

Nestlé SA

In April 2002, we entered into an initial collaboration agreement with Nestlé to discover specified flavor ingredients in the food and beverage product fields of dehydrated and culinary food, frozen food and wet soup. In April 2005, we amended the agreement to provide for an extension of the collaborative research phase. In March 2006, we further amended the agreement to include commercialization of novel flavor ingredients in the pet food category on a worldwide, co-exclusive basis. In addition to the expansion, under the amendment we reacquired rights to certain of our flavor ingredients in certain geographic regions. As a result of this amendment, Nestlé now has rights to flavor ingredients in Europe, Asia, Israel, Oceania, Africa, the Middle East and Latin America in specified product categories within the dehydrated and culinary food, frozen food, and/or wet soup product categories, as well as worldwide rights for the pet food category. In April 2008, we further amended the agreement to extend the collaborative period through April 2010. In September 2008, we further amended the agreement to provide for a specified escalating payment arrangement in lieu of a sales-based royalty for a limited period of time. In July 2010, we again amended the agreement to provide for an alternative methodology for calculating payments to us in lieu of a sales-based royalty. This amendment, among other things, also grants Nestlé with additional non-exclusive rights to commercialize certain retail products containing S336, our savory flavor ingredient, in additional countries in Asia. We received research and development funding through April 2010. In addition, we have received milestone payments, cost reimbursements, royalty payments and minimum periodic royalty payments from Nestlé.

Nestlé SA

In October 2004, we entered into a collaborative agreement with Nestlé focused on the discovery and commercialization of specified novel flavor ingredients in the coffee and coffee whiteners field. Under the terms of the agreement, Nestlé paid certain research and development funding through July 2010 and specified payments upon the achievement of milestones. In May 2012, we amended the agreement such that, in lieu of a royalty based on sales of Nestlé products, royalty payments would be based on the quantity of our flavor ingredient manufactured by or on behalf of Nestlé during the applicable royalty period.

Competition

Our goal is to be the leader in discovering novel flavor ingredients for use in a wide range of packaged food, beverage and ingredient products. Other companies are possibly pursuing similar technologies and the commercialization of products and services relevant to flavor ingredients. Although we are not aware of any other companies that have the scope of proprietary technologies and processes that we have developed in our field, there are a number of competitors who possess capabilities relevant to the flavor ingredient field.

In particular, we face substantial competition from companies pursuing the commercialization of products and services relevant to taste using more traditional methods for the discovery of flavor ingredients, or for the reduction of salt, sugar, monosodium glutamate, or MSG, or bitter taste. These competitors include leading flavor companies, such as Firmenich, Givaudan SA, International Flavors & Fragrances Inc., Symrise and Takasago. These companies provide flavors and other products, such as oils, extracts and distillates, to consumer products companies for use in a wide variety of products including foods, beverages, confectionaries, dairy products and pharmaceuticals. Competitors currently developing or marketing high intensity sweeteners include Ajinomoto, BRAIN AG (Biotechnology Research and Information Network AG), Cargill, GLG Life Tech, Natur Research Ingredients, Nutrasweet, Nutrinova GMBH, PureCircle Limited, Symrise and Tate & Lyle. Competitors currently developing or marketing menthol or cooling agents include International Flavors and Fragrances, Jindal Drugs, Mentha & Allied, Sharp Menthol, Symrise, Takasago and Renessenz. We will continue to compete in the future with these companies in collaborating with and selling flavor ingredients and technologies to manufacturers of food, beverage and ingredient products. Many of these companies have substantially greater capital resources, research and development resources and experience, manufacturing capabilities, regulatory expertise, sales and marketing resources, and more established relationships with consumer products companies than we do.

We may in the future face competition from life sciences and other technology companies and other commercial enterprises. These entities engage as we do in biotechnology, biology or chemistry and could apply this technology to the

discovery and development of flavor ingredients. We are aware of another company, Chromocell, Inc., that is involved in research for the discovery and development of sweet enhancers and salt substitutes. Products developed as a result of our competitors' existing or future collaborations may compete with our flavor ingredients.

Universities and public and private research institutions are also potential competitors. While these organizations primarily have educational objectives, they may develop proprietary technologies related to the sense of taste or secure patent protection that we may need for the development of our technologies and products. We may attempt to license these proprietary technologies, but these licenses may not be available to us on acceptable terms, if at all.

Methods for reducing sodium include the use of potassium chloride in combination with flavors and masking agents. Although savory flavor enhancers are commercially available, they are not very potent, are not patent protected and are sold as a commodity. The blocking of bitter taste is typically accomplished by attempting to mask the bitter taste with a sweetener or another flavor ingredient. Existing cooling agents, such as menthol and WS-3, are currently in use. However, our competitors, either alone or with their collaborative partners, may succeed in developing technologies or discovering flavor ingredients that are similar or preferable in the areas of, among others, effectiveness, safety, cost and ease of commercialization, and our competitors may obtain intellectual property protection or commercialize such products sooner than we do. Developments by others may render our product candidates or our technologies obsolete. In addition, our current product discovery and development collaborators are not prohibited from entering into research and development agreements with third parties in any particular field.

Employees

As of December 31, 2012, we had 111 full-time employees, including 29 with Ph.D. degrees. Of our full-time workforce, 85 employees are engaged in research and development and 26 are engaged in business development, intellectual property management, finance and administration. We also retain outside consultants. None of our employees are covered by collective bargaining arrangements, and our management considers its relationships with our employees to be good.

Item 1A. ***Risk Factors***

You should consider carefully the following information about the risks described below, together with the other information contained in this annual report on Form 10-K and in our other public filings, in evaluating our business. If any of the following risks actually occurs, our business, financial condition, results of operations and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock would likely decline.

Risks Related To Our Business

We are dependent on our current and any future product discovery and development collaborators for our research and development funding.

A key element of our current strategy is to commercialize our flavor ingredients through collaborative agreements. To date, substantially all of our research and development funding has been derived solely from research and development payments, license fees, milestone payments and cost reimbursement payments received under our collaborations. Substantially all of our research and development funding in the foreseeable future will result from these types of payments from these collaborations until such time, if ever, that we earn more significant royalties on future sales of consumer products incorporating our flavor ingredients or begin to generate meaningful revenues from our direct sales strategy.

Our current collaborators may amend or not renew their agreements with us or, if they do, they may not be on terms that are as favorable to us as our current agreements. If any or all of our current material agreements with our collaborators are amended, expire or are terminated, or if we are unable to, or elect not to, renew or enter into new collaborative agreements, our research and development funding could significantly decline or be substantially eliminated, which would have a material adverse effect on our business, financial condition and results of operations.

A substantial portion of our revenues is derived from only two collaborators. If our agreements with these two collaborators terminate earlier than anticipated for any reason, our revenues may materially decline.

Over 87% of our total revenues are derived from two collaborators, Firmenich and PepsiCo. During 2012, revenues from PepsiCo comprised $17.7 million, or 56% of total revenues and revenues from Firmenich comprised $9.6 million, or 31% of total revenues. A portion of the revenues under our agreements with PepsiCo and Firmenich during 2012 relates to the achievement of specific development milestones and there is no certainty that we will earn comparable milestones during 2013 or any future periods.

Our current collaborative agreement with Firmenich related to the Cooling Taste Program is scheduled to expire in June 2013. Our current collaborative agreements with Firmenich and PepsiCo related to our Sweet Taste Program are scheduled to expire in July 2013 and August 2014, respectively. If any of our collaborative agreements with Firmenich or PepsiCo were to terminate earlier than currently anticipated, or if Firmenich were to discontinue or reduce its actual commercialization efforts related to currently marketed Senomyx flavor ingredients, including S2383 and S6973, we may experience a decline in our revenues.

We are substantially dependent on our current and any future product discovery and development collaborators to develop and commercialize any flavor ingredients we may discover.

Under our current business model, we are substantially dependent on our current and any other possible future collaborators to commercialize any flavor ingredients that we successfully develop and to provide the sales, marketing and distribution capabilities required for the success of our business. We have limited or no control over the amount and timing of resources that our current or any future collaborators may devote to our programs or potential products. Our collaborators may decide not to devote the necessary resources to the commercialization of our flavor ingredients and may choose not to incorporate our flavor ingredients into any or all of their products within their exclusive or co-exclusive product fields on a timely basis or at all. Although our collaboration agreements vary, in some situations a collaborator may have the ability to return rights to one or more of our licensed flavor ingredients in some or all product categories or licensed territories and discontinue any associated minimum annual royalty obligations for those flavor ingredients, product categories or territories, as the case may be. A collaborator may elect to take any of these actions for any number of reasons, including as a result of unfavorable publicity regarding our flavor ingredients or our research methods, or if our flavor ingredients do not have the characteristics desired by the collaborator. These characteristics include, among other things, enhancement properties, stability under various manufacturing and use conditions, solubility, taste, cost and an adequate safety profile. If these collaborators fail to conduct their commercialization, sales and marketing or distribution activities successfully and in a timely manner, or if our existing collaborators terminate their collaboration agreements with us prior to the expiration of the

agreements, it will delay our ability to commercialize our flavor ingredients, we will earn little or no royalty revenues from our flavor ingredients and we will not be able to achieve our objectives or build a sustainable or profitable business.

We may not be able to commercialize the flavor ingredients in our portfolio that we currently control, which could negatively impact our results of operations and market share.

We have several flavor ingredients in our portfolio that we have discovered and developed but that are not currently licensed to a third party collaborator for one or more product categories and/or geographies, including our S9632 flavor ingredient for which we have rights for use in non-alcoholic beverages and our S336 and S807 savory flavor ingredients for which we have recently regained rights in North America and in certain product categories in various other geographies outside of Asia. We currently intend to commercialize S9632 and potentially other flavor ingredients under our direct sales strategy; however, we also retain the flexibility to consider licensing the rights to any flavor ingredients that we control to a third party collaborator.

We have no prior experience marketing, distributing or selling flavor ingredients directly to customers. There can be no assurance that our direct sales strategy will be successful or that we will enter into any new business arrangements for any of our flavor ingredients that are not currently licensed to a third party collaborator. We may encounter difficulties or delays to implement our direct sales strategy or enter into any new business arrangements that we elect to pursue. Any of these events could also delay our anticipated timelines, prevent the successful commercialization of our flavor ingredients, negatively impact our financial results, and delay or prevent us from ever achieving or sustaining profitability.

Our business and operating results may be adversely affected by unfavorable economic and market conditions.

A significant portion of our current business model depends on our ability to maintain and enter into new collaborative research, development and commercialization agreements with leading food, beverage and ingredient companies. Our collaborative agreements typically require our collaborators to make a significant commitment of capital and other resources. In most instances these investments are discretionary on the part of our collaborators. The current weak global economic conditions may reduce the amount of discretionary investment that our current and prospective collaborators may be willing to make in our programs as well as the demand for our flavor ingredients in general. In some instances the result may be that companies elect to defer or delay entering into a collaborative agreement with us, or existing collaborators may amend, terminate or not renew an existing program when it expires. Therefore, weak economic conditions, or a reduction in research and development funding, even if economic conditions improve, would likely adversely impact our business, operating results and financial condition in a number of ways, including longer business development cycles, unfavorable financial or other commercial terms, and longer development timelines.

We may not be able to negotiate additional collaboration agreements having terms satisfactory to us or at all.

We may not be able to enter into additional collaborative agreements due to the exclusive nature of our current product discovery and development collaborations. Each of our current collaboration agreements provides for the use of flavor ingredients within one or more defined food, beverage and ingredient product fields on an exclusive or co-exclusive basis for the respective collaborator during the collaborative period specified in the agreement. In the case of exclusive agreements, or co-exclusive agreements where all fields and geographies are granted, we will not be able to enter into additional collaborations with any other food, beverage and ingredient company covering the same product field during the applicable collaborative period. In addition, our collaborators' competitors may not wish to do business with us at all due to our relationship with our collaborators and under some agreements we have agreed to arrangements where we would not launch competing products or collaborate with a collaborator's competitor for a limited period of time even after the conclusion of the applicable collaborative period. Consolidation in our target markets may also limit the number of potential collaborators. Further, if we do not achieve our research and development objectives under our existing collaboration agreements prior to the expiration of the collaborative period, our collaborators may elect not to renew these agreements on terms that are acceptable to us. If we are unable to enter into additional product discovery and development collaborations on satisfactory terms, our ability to sustain or expand our business may be significantly diminished.

Disagreements or disputes with a collaborator could adversely impact our business operations and prospects.

From time to time we have disagreements or disputes with our collaborators regarding various subject matters, such as the interpretation of contractual rights and obligations under our agreements, the design of development studies for our flavor ingredients and intellectual property matters. Because we depend on our collaborators to fund our research and development programs and commercialize our flavor ingredients, any disputes or disagreements with our collaborators could disrupt our business operations and adversely impact our ability to maintain existing collaborations or secure new collaborations.

Whenever we become involved in a dispute or litigation with any collaborator, we might have to spend significant amounts of money, time and effort to defend our position and we may not be successful. Even if we are successful, any dispute could divert management attention and resources from other strategic and research priorities.

We may not be successful in developing flavor ingredients useful for formulation into products.

In order to develop flavor ingredients, we must have first identified the correct taste receptor for the taste of interest and develop high-throughput assays to test for compounds that affect the taste of interest. If we are not able to identify the correct taste receptor for the taste of interest, our assays may not successfully identify compounds that affect the taste of interest. For example, if we are not able to identify the protein or proteins that function as the salt taste receptor, we may not be able to develop an effective salt flavor modifier. In addition, we may not be successful in the development of a high-throughput assay to each taste receptor of interest to us. Even if we succeed in the identification of a taste receptor of interest to us and develop an appropriate high-throughput assay, we may not succeed in developing flavor ingredients with the appropriate attributes required for use in successful commercial products. Successful flavor ingredients require, among other things, appropriate biological activity, including the correct taste property for the product application, an acceptable safety profile, including lack of toxicity or allergenicity, and appropriate physical or chemical properties, including relative levels of solubility, stability, volatility and resistance to heat. Our development programs are intended to evaluate these characteristics of novel flavor ingredients. Therefore, until we complete our development of a given novel flavor ingredient we will not be able to determine whether that flavor ingredient will possess all of the appropriate attributes necessary for commercialization. Successful flavor ingredients must also be cost-efficient, which includes, among other things, the cost to manufacture a flavor ingredient at commercial scale as well as other costs associated with the reformulation of products that include our flavor ingredients. We have only limited experience in evaluating these costs and we may not be able to accurately predict whether our flavor ingredients will be cost-efficient for use in commercial applications. We may not be able to develop flavor ingredients that meet all of these criteria and possess the appropriate attributes necessary for commercialization. It is possible that flavor ingredients that initially appear to meet these criteria are later found to fail these criteria or other criteria that we later deem important. In that case, we may not commercialize such an ingredient when anticipated, or at all, or the potential commercial utility for such an ingredient may be more limited than we expected.

Because food and beverage pricing is very competitive, in cases where the use of our flavor ingredients adds to the cost of a food or beverage, those products may never be priced at levels that will allow acceptance by consumers.

Food and beverage pricing is very competitive and the market is very sensitive to product price changes. Moreover, these consumer sensitivities are further heightened during periods of economic uncertainty and downturn. Because the inclusion of our flavor ingredients may add to the manufacturing cost of these products, there is the risk that potential customers for our flavor ingredients may not be able to sell products that incorporate our flavor ingredients at prices that will allow them to gain market acceptance while, at the same time, remaining profitable. This may lead to potential customers delaying or suspending product launches, or, at a minimum, may lead to price pressure on us or our collaborators. If food and beverage customers delay commercialization of products that incorporate our flavor ingredients or we or our collaborators have to reduce the prices of our flavor ingredients in order to gain market acceptance, our commercial revenues may be adversely impacted.

If we or our collaborators are unable to obtain and maintain the Generally Recognized as Safe, or GRAS, determination or other regulatory approval required before certain of our flavor ingredients can be incorporated into products that are sold, we would be unable to commercialize our flavor ingredients and our business would be adversely affected.

In the United States, the development, sale and incorporation of our flavor ingredients into products are subject to regulation by the Food and Drug Administration, or FDA, and in some instances other government bodies. Obtaining and maintaining a GRAS determination or other regulatory approval can be costly and take many years.

Depending on the amount or intended use of a particular flavor ingredient added to a product and the number of product categories in which the flavor ingredient will be incorporated, specific safety assessment protocols and regulatory processes must be satisfied before we or our collaborators can commercially market and sell products containing any flavor ingredients that we may discover. A key element of our strategy is to develop flavor ingredients that may be subject to review under the Flavor and Extract Manufacturers Association, or FEMA, GRAS process. In our experiences with the savory, sweet and bitter programs, safety studies, preparation and FEMA GRAS review has ranged from 12 to 18 months and cost up to approximately $1.3 million per flavor ingredient. This experience may not be representative of the timing and cost for current and future programs. This approach is less expensive than the alternative of filing a food additive petition with the FDA, approval of which can take up to four years. The FEMA GRAS process may take longer than 12 to 18 months and cost more than $1 million depending on the properties of the flavor ingredient, and if we elect to perform additional safety studies or if

additional safety studies are requested by the FEMA Expert Panel or one of our collaborators or are necessary to explain unexpected safety study findings. There is a risk that one or more of our product candidates for which we seek FEMA GRAS determination may not qualify for a FEMA GRAS determination for specific categories or at all. This may occur for a variety of reasons, including the flavor ingredient's intended use, the amount of the flavor ingredient intended to be added to foods and beverages, the number of product categories in which the flavor ingredient will be incorporated, whether the flavor ingredient imparts sweetness, the safety profile of the flavor ingredient and the FEMA Expert Panel's interpretation of the safety data. For example, we do not believe that any natural high intensity sweetener that we discover would qualify for a FEMA GRAS determination for its use as a sweetener. Even if we obtain a GRAS determination with respect to a flavor ingredient, the FDA has the ability to challenge such determination or one or more of our collaborators may insist on additional studies, which could materially adversely affect our ability to market products on schedule or at all. In the event that a particular flavor ingredient does not qualify for FEMA GRAS determination or if one or more of our collaborators requires additional studies, we could be required to pursue a lengthy FDA approval process or dedicate our development efforts to alternative ingredients, which would further delay commercialization. In addition, laws, regulations or FDA practice governing the regulatory approval process, the availability of the GRAS determination process or the manufacture or labeling of such products, may change in a manner that could adversely affect our ability to commercialize products on schedule or at all.

We must secure and maintain regulatory approvals of our flavor ingredients through various governmental bodies outside the United States. The applicable regulations are complex and subject to change, which may adversely impact our ability to commercialize our flavor ingredients internationally.

Sales of our flavor ingredients outside of the United States will be subject to foreign regulatory requirements, which are determined by multiple governing bodies, such as the Joint FAO/WHO Expert Committee on Food Additives, or JECFA, and the European Food Safety Authority, or EFSA, and in some instances individual countries, such as China, Indonesia and Japan. These foreign regulatory requirements are complex and constantly changing, sometimes quite unpredictably, due, in part, to changes in agendas of political, business and social activist groups as well as government priorities. We may be required to incur substantial costs to comply with current or future laws and regulations, or new interpretations of existing laws and regulations, and our operations, business or financial condition could be adversely affected by such future requirements or interpretations of existing requirements.

In most cases, whether or not a GRAS determination has been obtained, approval of a product by the applicable regulatory authorities for a foreign country must still be obtained prior to manufacturing or marketing the product in that country. A GRAS determination in the United States or in any other jurisdiction does not ensure approval in other jurisdictions because the requirements from jurisdiction to jurisdiction may vary widely and may change over time. For example, we are aware of ongoing activities that are intended to clarify the regulatory approval process for flavor ingredients within the European Union. Because of the inherent uncertainty associated with the regulatory approval process outside the United States, predicting the outcome or timing of review of any of our submissions to foreign regulatory authorities, present or in the future, is difficult. Accordingly, our estimates and forecasts for those submissions and potential approvals may not be accurate. The process of obtaining foreign approvals could result in significant delays, difficulties and costs for us and require additional safety studies and additional expenses. If we experience delays or if we fail to comply with these regulatory requirements or to obtain and maintain required approvals, our ability to generate revenue will be diminished.

We and our collaborators may not be successful in overcoming these regulatory hurdles, which could result in product launch delays, unanticipated expenses, termination of collaborations and flavor ingredients not being approved for incorporation into consumer products in one or more geographies. In addition, even after regulatory approval of our flavor ingredients, we may become aware of new information that suggests our flavor ingredients are unsuitable for consumer use, in which case our regulatory approvals may be revoked or we may elect to voluntarily cease the commercialization of those ingredients. These consequences would have a material adverse effect on our business financial condition and results of operations.

Even if we or our collaborators receive regulatory approval and incorporate our flavor ingredients into products, those products may never be commercially successful.

Even if we discover and develop flavor ingredients that obtain the necessary GRAS determination or other regulatory approval, our success depends to a significant degree upon the commercial success of food, beverage and ingredient products incorporating those flavor ingredients. If these products fail to achieve or subsequently maintain market acceptance or commercial viability, our business would be significantly harmed because our royalty revenue is dependent upon consumer sales of these products. In addition, we could be unable to maintain our existing collaborations or attract new product discovery and development collaborators. Many factors may affect the willingness of food and beverage companies to launch

new or reformulated products incorporating our flavor ingredients and the market acceptance and commercial success of any potential products incorporating flavor ingredients, including:

- health concerns, whether actual or perceived, regarding our flavor ingredients or those of our competitors;
- unfavorable publicity regarding our flavor ingredients or our research methods;
- the timing of market entry as compared to competitive products;
- whether our collaborators devote sufficient financial and other resources to promote our flavor ingredients;
- the pricing of products that contain our flavor ingredients relative to other competing products;
- the costs and market risks of reformulating existing products;
- the rate of adoption of products by our collaborators and other companies in the flavor industry; and
- any product labeling that may be required by the FDA or other United States or foreign regulatory agencies for products incorporating our flavor ingredients.

We have a history of operating losses and we may not achieve or maintain profitability.

We have not been profitable and have generated substantial operating losses since we were incorporated in September 1998. We incurred net losses of approximately $9.2 million for the year ended December 31, 2012. As of December 31, 2012, we had an accumulated deficit of approximately $230.8 million. We expect to incur additional losses for at least the next year. The extent of our future losses will depend, in part, on the rate of increase in our operating expenses and the rate of growth, if any, in our revenues from our existing and any future product discovery and development collaborations as well as from our direct sales strategy and other sources that may become available to us in the future. To date, substantially all of our revenues have come from research and development funding, license fees, cost reimbursement and milestone payments under our product discovery and development collaborations. In order for us to generate further royalty revenues and become profitable, we must successfully retain our existing product discovery and development collaborations and our collaborators must further commercialize products incorporating one or more of our flavor ingredients, from which we can derive additional royalty revenues, or we must successfully implement our direct sales strategy or alternative strategies where we receive revenues from other sources. Our ability to generate commercial revenue is uncertain and will depend upon, among other things, our ability to meet particular research, development and commercialization objectives.

We expect that our results of operations will fluctuate from period to period, and this fluctuation could cause our stock price to decline.

Our operating results have fluctuated in the past and are likely to vary significantly in the future based upon a number of factors, many of which we have little or no control over. We operate in a highly dynamic industry and future results could be subject to significant fluctuations. These fluctuations could cause us to fail to meet or exceed our published guidance or financial expectations of securities analysts or investors, which could cause our stock price to decline rapidly and significantly. Revenue and expenses in future periods may be greater or less than revenue and expenses in the immediately preceding period or in the comparable period of the prior year. Therefore, period-to-period comparisons of our operating results are not necessarily a good indication of our future performance. Some of the factors that could cause our operating results to fluctuate include:

- termination, expiration or amendment of any of our product discovery and development collaboration agreements;
- our ability to discover and develop flavor ingredients or the ability of our product discovery and development collaborators to incorporate them into food, beverage and ingredient products;
- our receipt of milestone payments in any particular period;
- the ability and willingness of food and beverage companies to commercialize products incorporating our flavor ingredients on expected timelines, or at all;
- our ability to implement our direct sales strategy;
- our ability to enter into new product discovery and development collaborations and technology collaborations or to extend the terms of our existing collaboration agreements and our payment obligations, expected revenue and other terms of any of our agreements;
- our ability, or our collaborators' ability, to successfully satisfy all pertinent regulatory requirements;
- the demand for our collaborators' and other customers' products containing our flavor ingredients; and
- general and industry specific economic conditions, including the current economic and credit crisis, which may affect our collaborators' research and development expenditures and commercialization efforts.

We may seek additional capital to fund our operations.

If we are unable to successfully commercialize our flavor ingredients, maintain our existing product discovery and development collaborations or enter into new collaborations, we will likely need to obtain additional capital, reduce our ongoing expenses and/or modify our strategy to continue our operations. In addition, our business and operations may change in a manner that would consume available resources at a greater rate than anticipated, or we may decide that for other reasons it is in our best interests to seek additional capital. In such an event, we may need to raise substantial additional capital to, among other things:

- fund research, discovery or development programs;
- advance product candidates into and through the safety evaluation and regulatory approval process;
- acquire rights to products or product candidates, technologies or businesses;
- support the commercialization of our flavor ingredients; and
- prosecute, maintain and enforce our intellectual property rights.

If we pursue additional capital to continue our operations, we cannot assure you that additional financing will be available on terms acceptable to us, or at all. If adequate funds are not available or are not available on acceptable terms, our ability to fund our operations, take advantage of opportunities, identify and develop flavor ingredients, develop technologies or otherwise respond to competitive pressures could be significantly limited. In addition, if financing is not available, we may need to alter our strategies, reduce our ongoing expenses or cease operations. In addition, issuances of debt or additional equity could impact the rights of the holders of our common stock, may dilute our stockholders' ownership and may impose restrictions on our operations. These restrictions could include limitations on additional borrowing, specific restrictions on the use of our assets as well as prohibitions on our ability to create liens, pay dividends, redeem our stock or make investments.

If we elect to modify our business operations in order to reduce our expenses, our research, discovery and development programs could be negatively impacted.

If we modify our business operations to meaningfully reduce our expenses we may not be able to fund our current research, discovery and development programs at the levels we require in order to achieve our corporate goals or we may need to suspend or discontinue one or more programs altogether. A reduction in funding in the near term may be accomplished through a number of measures, including reduction in variable internal or external costs or by deferring certain expenses until a later date. Any meaningful funding reduction scenario will likely result in a delay in any affected programs, and may also negatively impact our existing collaborations and harm our ability to attract new collaborators for those and other programs. In addition, a suspension or discontinuation of a program may result in an indefinite and significant delay of any affected program, and we may incur significant inefficiencies if we later elect to resume any such program.

If we lose our key personnel or are unable to attract and retain qualified personnel, it could adversely affect our business.

Our success depends to a significant degree upon the continued contributions of our executive officers, management and scientific staff. We have entered into employment letter agreements with each of our executive officers; however, all of our employees are at-will employees, which means that either we or the employee may terminate their employment at any time. In addition, we currently have no key person insurance. We expect to recruit specific personnel to support our direct sales strategy. If we are not able to attract and retain the necessary personnel to accomplish all of our business objectives, we may experience constraints that will adversely affect our ability to meet the demands of our current or any future product discovery and development collaborators in a timely fashion, to support our independent discovery and development programs or to pursue our direct sales strategy. In addition, we may be delayed or unable to develop new product candidates, commercialize our existing product candidates or achieve our other business objectives as a result of any future loss of our other executive officers or key members of our management or scientific staff, which could cause our stock price to decline. Moreover, the loss of the services of one or more of our executive officers or key members of our management or scientific staff could negatively impact the relationships we have with our collaborators.

We may encounter difficulties managing our growth, which could adversely affect our business.

Our strategy includes entering into and working on simultaneous flavor ingredient discovery and development programs across multiple markets. We may choose to increase headcount in the future in order to meet our strategic objectives. If our growth continues, it will continue to place a strain on us, our management and our resources. Our ability to effectively manage our operations, growth and various projects requires us to continue to improve our operational, financial and management controls, reporting systems and procedures and to attract and retain sufficient numbers of talented employees. We may not be able to successfully implement these tasks on a larger scale and, accordingly, we may not achieve our

research, development and commercialization goals. If we fail to improve our operational, financial and management information systems, or fail to effectively monitor or manage our new and future employees or our growth, our business would suffer significantly. In addition, no assurance can be made that we will be able to maintain adequate facilities to house our staff, conduct our research or achieve our business objectives.

If we acquire products, technologies or other businesses, we will incur a variety of costs, may have integration difficulties and may experience numerous other risks that could adversely affect our business.

If appropriate opportunities become available, we may consider acquiring businesses, technologies or products that we believe are a strategic fit with our business. We may also consider reacquiring rights to flavor ingredients that are currently licensed to one or more of our collaborators. We currently have no commitments or agreements with respect to any material acquisitions. We have limited, if any, experience in identifying acquisition targets, successfully acquiring them and integrating them into our current infrastructure. We may not be able to successfully integrate any businesses, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. In addition, future acquisitions might be funded by issuances of debt or additional equity, which could impact your rights as a holder of our common stock and may dilute your ownership percentage. Any of the foregoing could have a significant adverse effect on our business, financial condition and results of operations.

Risks Related To Production and Supply

We rely on third parties to manufacture our flavor ingredients on a commercial scale.

We do not have experience in manufacturing, nor do we have the resources or facilities to manufacture, flavor ingredients on a commercial scale. Therefore, the commercialization of our flavor ingredients depends in part on our or our collaborators' ability to manufacture, or to contract with third-party manufacturers of our flavor ingredients, on a large scale, at a competitive cost, with the specified quality and in accordance with relevant food, beverage and ingredient regulatory requirements. Any such collaborators or third-party manufacturers may encounter manufacturing difficulties at any time that could result in delays in the commercialization of potential flavor ingredients. We currently do not have any agreements with any third party for the commercial scale manufacturing of our flavor ingredients to support our direct sales strategy.

Our inability to find capable manufacturing capacity or to enter into agreements on acceptable terms with third party manufacturers could delay commercialization of any products we may develop and may harm our relationships with our existing and any future product discovery and development collaborators and our customers. Moreover, if we or our collaborators are required to change from one third-party manufacturer to another for any reason, the commercialization of our products may be delayed further. In addition, if any manufacturer of our flavor ingredients fail to comply with the FDA's good manufacturing practice regulations or similar regulations in other countries, then we or our collaborators may be subject to adverse regulatory action including product recalls, warning letters and withdrawal of our products, or our collaborators' or customers' products, from the market, any of which may harm our reputation and our business.

Further, because our flavor ingredients are regulated as food products under the Food, Drug and Cosmetic, or FD&C, Act, we and the third parties with which we collaborate or contract to manufacture, process, pack, import or otherwise handle our products or our product ingredients, may be required to comply with certain registration, prior notice submission, recordkeeping and other regulatory requirements. Failure of any party in the chain of distribution to comply with any applicable requirements under the FD&C Act or the FDA's implementing regulations, or similar regulations in other countries, may adversely affect the manufacture and/or distribution of our products in commerce.

In the future, we may need to hold inventory and commit to future inventory purchases. If our inventory on-hand or committed amounts cannot be sold, our results of operations and/or financial position may be adversely affected.

We do not currently hold any inventory of commercial quantities of any of our flavor ingredients. In connection with the launch of our direct sales strategy we may find it necessary or useful to hold commercial quantities of our flavor ingredients in inventory or we may need to commit to future purchases of our flavor ingredients in advance of customer orders. We have no prior experience in managing inventory for the commercialization of our flavor ingredients. In particular during the initial launch of our direct sales strategy we may have excess inventory on-hand, we may be forced to purchase excessive amounts of flavor ingredients in order to establish manufacturing relationship with third parties, which may have a material adverse effect on our results of operations and/or financial position.

Risks Related To Our Industry

Our ability to compete in the flavor ingredient market may decline if we do not adequately protect our proprietary technologies.

Our success depends in part on our ability to obtain and maintain intellectual property that protects our technologies and flavor ingredients. Patent positions may be highly uncertain and may involve complex legal and factual questions, including the ability to establish patentability of sequences relating to taste receptors, proteins, chemical synthesis techniques, compounds and methods for using them to modulate taste for which we seek patent protection. No consistent standard regarding the allowability or enforceability of claims in many of our pending patent applications has emerged to date. As a result, we cannot predict the breadth of claims that will ultimately be allowed in our patent applications, if any, including those we have in-licensed or the extent to which we may enforce these claims against our competitors. The degree of future protection for our proprietary rights is therefore highly uncertain and we cannot assure you that:

- we were the first to file patent applications or to invent the subject matter claimed in patent applications relating to the technologies upon which we rely;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- others did not publicly disclose our claimed technology before we conceived the subject matter included in any of our patent applications;
- any of our patent applications will result in issued patents;
- any of our patent applications will not result in interferences or disputes with third parties regarding priority of invention or the validity of any issued patent;
- any patents that have issued or may be issued to us, our collaborators or our licensors will provide a basis for commercially viable products or will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies that are patentable;
- the patents of others will not have an adverse effect on our ability to do business; or
- new proprietary technologies from third parties, including existing licensors, will be available for licensing to us on reasonable commercial terms, if at all.

In addition, patent law outside the United States is uncertain and in many countries intellectual property laws are undergoing review and revision. The laws of some countries do not protect intellectual property rights to the same extent as domestic laws. It may be necessary or useful for us to participate in opposition proceedings to determine the validity of our competitors' patents, litigation to enforce our or our licensed intellectual property against others or to defend the validity of any of our or our licensors' future patents, which could result in substantial costs and would divert our efforts and attention from other aspects of our business. We cannot be certain of the outcome of any such proceedings or litigation.

Technologies licensed to us by others, or in-licensed technologies, are important to our business. In particular, we depend on high-throughput screening technologies that we licensed from Aurora Biosciences, technology related to certain taste receptor sequences that we license from the University of California and others and technology related to compound libraries that we license from third parties. In addition, we may in the future acquire rights to additional technologies by licensing such rights from existing licensors or from third parties. Such in-licenses may be costly. Also, we generally do not control the patent prosecution, maintenance or enforcement of in-licensed technologies. Accordingly, we are unable to exercise the same degree of control over this intellectual property as we do over our internally developed technologies. Moreover, some of our academic institution licensors, collaborators and scientific advisors have rights to publish data and information to which we have rights. If we cannot maintain the confidentiality of our technologies and other confidential information in connection with our collaborations, our ability to protect our proprietary information or obtain patent protection in the future may be impaired, which could have a significant adverse effect on our business, financial condition and results of operations.

Many of the patent applications we and our licensors have filed have not yet been substantively examined and may not result in patents being issued.

Many of the patent applications filed by us and our licensors were filed recently with the United States Patent and Trademark Office and some have not been substantively examined and may not result in patents being issued. Some of these patent applications claim sequences that were identified from different publicly available sequence information sources such as the High-Throughput Genomic Sequences division of GenBank. It is difficult to predict whether any of our or our licensors' applications will ultimately be found to be patentable or, if so, to predict the scope of any allowed claims. In

addition, the disclosure in our or our licensors' patent applications, particularly in respect of the utility of our claimed inventions, may not be sufficient to meet the statutory requirements for patentability in all cases. Furthermore, recent changes in rules promulgated by the European Patent Office may adversely affect the patentability of inventions claimed in some of our and our licensors' patent applications. As a result, it is difficult to predict whether any of our or our licensors' applications will be allowed, or, if so, to predict the scope of any allowed claims or the enforceability of the patents. Even if enforceable, others may be able to design around any patents or develop similar technologies that are not within the scope of such patents. Our and our licensors' patent applications may not issue as patents that will provide us with any protection or competitive advantage.

Disputes concerning the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be time consuming and extremely costly and could delay our research and development efforts.

Our commercial success, if any, will be significantly harmed if we infringe the patent rights of third parties or if we breach any license or other agreements that we have entered into with regard to our technology or business. Our success will also depend, in part, on our ability to prevent others from infringing our patent rights.

We are aware of other companies and academic institutions that have been performing research in the areas of taste modulation and flavor ingredients. In particular, other companies, academic institutions and inventor applicants have announced that they have conducted taste-receptor or ion channel research and have published data on taste receptor sequence information and taste receptors or filed patent applications or obtained patent protection on taste modulation or taste receptors and their uses, including Ajinomoto, California Institute of Technology, Cargill, Chromocell, Colorado State University, Columbia University, Dendreon, Duke University, the German Institute of Human Nutrition, Givaudan SA, International Flavors & Fragrances Inc., Johannes Gutenberg University, Kyushu University, Monell Chemical Senses Corp., Mount Sinai School of Medicine, the National Institutes of Health, Nestlé, Novartis, NutraSweet, Nutrinova GMBH, Pfizer, Inc., Sloan Kettering, Symrise, Tate & Lyle, The Scripps Research Institute, Unilever, the University of California, the University of Miami, the University of Tokyo, the University of Wisconsin, Virginia Commonwealth University and Wiessenbach. To the extent any of these companies, academic institutions or inventor applicants currently have, or obtain in the future, broad patent claims, such patents could block our ability to use various aspects of our discovery and development process and might prevent us from developing or commercializing newly discovered flavor ingredients or otherwise conducting our business. The University of California, for example, claims certain patent rights relating to the coexpression of T1R receptors that may not have been licensed to us. While our technology is focused on the use of human T1R receptors, we cannot assure you that it does not infringe such patent rights. In such event, if we are not able to amend our license with the University of California to include such patent rights and our technology is found to interfere with or infringe such patent rights, our business, financial condition and results of operations could suffer a significant adverse effect. In addition, it is possible that some of the flavor ingredients that are discovered using our technology may not be patentable or may be covered by intellectual property of third parties.

We are not currently a party to any litigation, interference, opposition, protest, reexamination, reissue or any other potentially adverse governmental, ex parte or inter-party proceeding with regard to our patent or trademark positions. However, the life sciences and other technology industries are characterized by extensive litigation regarding patents and other intellectual property rights. Many life sciences and other technology companies have employed intellectual property litigation as a way to gain a competitive advantage. We may become involved in litigation, interference proceedings, oppositions, reexamination, protest or other potentially adverse intellectual property proceedings as a result of alleged infringement by us of the rights of others or as a result of priority of invention disputes with third parties. Third parties may also challenge the validity of any of our issued patents. Similarly, we may initiate proceedings to enforce our patent rights and prevent others from infringing our or our licensed intellectual property rights. In any of these circumstances, we might have to spend significant amounts of money, time and effort defending our position and we may not be successful. In addition, any claims relating to the infringement of third-party proprietary rights or proprietary determinations, even if not meritorious, could result in costly litigation, lengthy governmental proceedings, divert management's attention and resources, or require us to enter into royalty or license agreements that are not advantageous to us.

Should any person have filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in an interference proceeding declared by the relevant patent regulatory agency to determine priority of invention and, thus, the right to a patent for these inventions in the United States. Such a proceeding could result in substantial cost to us even if the outcome is favorable. Even if successful on priority grounds, an interference action may result in loss of claims based on patentability grounds raised in the interference action. Litigation, interference proceedings or other proceedings could divert management's time and efforts. Even unsuccessful claims could result in significant legal fees and other expenses, diversion of management's time and disruption in our business. Uncertainties resulting from initiation

and continuation of any patent proceeding or related litigation could harm our ability to compete and could have a significant adverse effect on our business, financial condition and results of operations.

An adverse ruling arising out of any intellectual property dispute, including an adverse decision as to the priority of our inventions or invalidity of our patents, could undercut or invalidate our intellectual property position. An adverse ruling could also subject us to significant liability for damages, including possible treble damages, prevent us from using technologies or developing products, or require us to negotiate licenses to disputed rights from third parties. Although patent and intellectual property disputes in the technology area are often settled through licensing or similar arrangements, costs associated with these arrangements may be substantial and could include license fees and ongoing royalties. Furthermore, necessary licenses may not be available to us on satisfactory terms, if at all. Failure to obtain a license in such a case could have a significant adverse effect on our business, financial condition and results of operations.

If we are unable to protect our trade secrets and other proprietary information, we could lose any competitive advantage we may have, which could adversely affect our business.

We rely in part on trade secret protection for our confidential and proprietary information, knowhow and processes. Our policy is to execute proprietary information and invention agreements with our employees and consultants upon the commencement of an employment or consulting relationship. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not be disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of their employment shall be our exclusive property. Similarly, in the course of our collaborations or in the negotiation of potential collaborations we often disclose confidential and proprietary information under written agreements that obligate those third parties to keep our information confidential and to use our confidential information only for the purposes that we specify. There can be no assurance that we will be able to effectively enforce these agreements or that proprietary information is our exclusive property. There can be no assurance that the subject proprietary information will not be disclosed, that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or that we can meaningfully protect our trade secrets. 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.

Many potential competitors, including those who have greater resources and experience than we do, may develop products or technologies that make ours obsolete or noncompetitive.

The life sciences and other technology industries are characterized by rapid technological change, and the area of sensory or taste receptor research is a rapidly evolving field. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological developments by others may result in our flavor ingredients and technologies becoming obsolete.

In particular, we face substantial competition from companies pursuing the commercialization of products and services relevant to taste using more traditional methods for the discovery of flavor ingredients, or for the reduction of salt, sugar, monosodium glutamate, or MSG, or bitter taste. These competitors include leading flavor companies, such as Firmenich, Givaudan SA, International Flavors & Fragrances Inc., Symrise and Takasago. These companies provide flavors and other products, such as oils, extracts and distillates, to consumer products companies for use in a wide variety of products including foods, beverages, confectionaries, dairy products and pharmaceuticals. Competitors currently developing or marketing high intensity sweeteners include Ajinomoto, BRAIN AG, or Biotechnology Research and Information Network AG, Cargill, GLG Life Tech, Natur Research Ingredients, Nutrasweet, Nutrinova GMBH, PureCircle Limited, Symrise and Tate & Lyle. Competitors currently developing or marketing menthol or cooling agents include International Flavors and Fragrances, Jindal Drugs, Mentha & Allied, Sharp Menthol, Symrise, Takasago and Renessenz LLC. We currently compete and will continue to compete in the future with these companies in collaborating with and selling flavor products and technologies to manufacturers of food, beverage and ingredient products. Many of these companies have substantially greater capital resources, research and development resources and experience, manufacturing capabilities, regulatory expertise, sales and marketing resources, established relationships with consumer products companies and production facilities.

Savory flavor ingredients, particularly inosine monophosphate, or IMP, are commercially available, and we will compete with the companies that produce these flavor ingredients. IMP is widely available and is a generally accepted food additive by the food, beverage and ingredient industries. As a result, our existing and future collaborators may choose to incorporate IMP or similar savory flavor ingredients into their food, beverage and ingredient products instead of our savory flavor ingredients. We may compete with bitter masking or bitter blocking compounds, such as adenosine 5' monophosphate, or AMP. We may also compete with known methods for reducing sodium, such as the use of potassium chloride in combination

with flavors and masking agents. In addition, we may compete with existing cooling agents, such as menthol and WS-3, which are currently in use.

We may in the future face competition from life sciences and other technology companies and other commercial enterprises. These entities engage as we do in biotechnology, biology or chemistry research and could apply this technology to the discovery and development of flavor ingredients. We are aware of one other company, Chromocell, which is involved in research for the discovery and development of sweet flavor modifiers, bitter blockers and salt substitutes. We cannot guarantee that products developed as a result of our competitors' existing or future collaborations will not compete with our flavor ingredients.

Universities and public and private research institutions are also potential competitors. While these organizations primarily have educational objectives, they may develop proprietary technologies related to the sense of taste or secure patent protection that we may need for the development of our technologies and products. We may attempt to license these proprietary technologies, but these licenses may not be available to us on acceptable terms, if at all.

Our competitors, either alone or with their collaborative partners, may succeed in developing technologies or discovering flavor ingredients that are more effective, safer, more affordable or more easily commercialized than ours, and our competitors may obtain intellectual property protection or commercialize products sooner than we do. Developments by others may render our product candidates or our technologies obsolete. In addition, our current product discovery and development collaborators are not prohibited from entering into research and development collaboration agreements with third parties in any product field. Our failure to compete effectively would have a significant adverse effect on our business, financial condition and results of operations.

Risks Related to Quality and Safety

Concerns with safety and quality could cause customers to avoid products that contain our flavor ingredients.

Adverse publicity about the safety of certain foods due to the actual or potential existence of certain artificial flavors or other ingredients has heightened the sensitivities of many consumers. These safety and quality issues, whether real or perceived, may discourage customers from buying products containing or perceived to contain the compounds which give rise to such concerns. We could be adversely affected if our customers or the ultimate consumers of our products lose confidence in the safety and quality of our flavor ingredients. Any negative perceptions about the safety and quality of our flavor ingredients could adversely affect our business and financial condition.

We may be sued for product liability and exposed to other product safety-related risks, which could adversely affect our business and harm our reputation.

Because our business strategy involves the development and sale of commercial products incorporating our flavor ingredients, we may be sued for product liability and we may also be the subject of product recalls, product seizures and related adverse publicity. Product liability claims and recalls of products that contain any of our flavor ingredients could result from such things as contamination, spoilage, product misbranding or product tampering, whether real or perceived.

From time to time we receive reports of observed effects after individuals taste solutions or products that include novel flavor ingredients that we are testing or developing, including reports such as irritation of the mouth, tingling of the tongue, lips or gums, and modulation or loss of taste sensation. Our practice is to track reports of any observed effects and, in particular, to evaluate whether any adverse effect may be related to our novel flavor ingredient or whether another cause is determinable. In some instances, these effects may be observed only at higher levels of use or exposure, in which case we may elect to proceed with development, and subsequent commercialization, of a novel flavor ingredient at use levels that we believe are appropriate for only a subset of all potential applications. Nevertheless, we may be held liable if any flavor ingredient we test, develop or commercialize, or any product our collaborators test, develop or commercialize that incorporates any of our flavor ingredients, causes injury or illness or is found otherwise unsuitable during product testing, manufacturing, marketing, sale or consumer use. In addition, the safety studies we must perform and the regulatory approvals we must obtain prior to incorporating our flavor ingredients into a commercial product will not protect us from any such liability.

Any alleged illness or injury associated with any of our flavor ingredients, product defect, product liability judgment or product recall may negatively impact our financial results depending on the reaction of our collaborators, scope, competitive reaction, and consumer attitudes. Even if such an allegation or product liability claim lacks merit, cannot be substantiated, is unsuccessful or is not fully pursued, the negative publicity surrounding any assertion that our flavor ingredients or products

that incorporate our flavor ingredients caused illness, injury or death could adversely affect our reputation with existing and potential collaborators and licensees and our corporate image and could cause a decline in our stock price.

Our product liability insurance may not be sufficient to cover our potential liabilities in the case of a product recall or other safety-related claims.

Our product liability insurance may not fully cover our potential liabilities associated with the sale of commercial products incorporating any of our flavor ingredients. Insurance coverage for such risks may be expensive and difficult to obtain, and we may be unable to obtain coverage in the future on acceptable terms, if at all. Our inability to obtain sufficient insurance coverage to protect against potential product liability claims could prevent or inhibit the commercialization of products developed by us or our product discovery and development collaborators. We may be obligated to indemnify our product discovery and development collaborators for product liability or other losses they incur as a result of our flavor ingredients. Any indemnification we receive from such collaborators for product liability that does not arise from our flavor ingredients may not be sufficient to satisfy our liability to injured parties. If we are sued for any injury caused by our flavor ingredients or products incorporating our flavor ingredients, our liability could exceed our total assets.

We use hazardous materials. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our discovery and development process requires our employees to routinely handle hazardous chemical, radioactive and biological materials. Our operations also produce hazardous waste products. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these materials. As a result of the increase in size of our operations, we are now classified as a large quantity generator of hazardous waste. This classification may result in increased scrutiny of our operations by the Environmental Protection Agency. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental regulations may impair our discovery and development efforts.

In addition, we cannot entirely eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. Our insurance policies have limited coverage for damages or cleanup costs related to hazardous waste disposal or contamination. We may be forced to curtail operations or be sued for any injury or contamination that results from our use or the use by others of these materials, and our liability may exceed our total assets.

Risks Related To Our Common Stock

The price of our common stock is volatile.

The market prices for securities of biotechnology companies historically have been highly volatile, and the market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. Since our initial public offering in June 2004, the price of our common stock has ranged from approximately $1 per share to approximately $23 per share. The market price of our common stock may fluctuate in response to many factors, including:

- developments concerning our collaborative agreements;
- delays in commercialization of our flavor ingredients;
- our ability to implement a direct sales strategy;
- results of safety evaluation of our flavor ingredients;
- developments related to the United States and international regulatory approval of our products;
- results of consumer acceptance testing of our flavor ingredients by our collaborators or other customers;
- announcements of technological innovations by us or others;
- the discovery of a product defect or the commencement of a product recall;
- an allegation of illness or injury relating to our flavor ingredients, whether meritorious or not, or any product liability judgment;
- developments in patent or other proprietary rights;
- changes in our management, key personnel or members of our Board of Directors;
- future sales of our common stock by existing stockholders;
- comments by securities analysts;
- general market conditions;
- fluctuations in our operating results;

- government regulation;
- failure of any of our flavor ingredients, if approved, to achieve commercial success; and
- public concern as to the safety of our flavor ingredients or other unfavorable publicity regarding our flavor ingredients or our research methods.

Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us more complicated and the removal and replacement of our directors and management more difficult.

Provisions of our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us, even if doing so would benefit our stockholders. These provisions may also make it difficult for stockholders to remove and replace our board of directors and management. These provisions:

- authorize the issuance of "blank check" preferred stock by our board of directors, without stockholder approval, which could increase the number of outstanding shares and prevent or delay a takeover attempt;
- limit who may call a special meeting of stockholders;
- prohibit stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders; and
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

In addition, the requirements of Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a third party from acquiring us.

Our shareholder rights plan may hinder or prevent change of control transactions.

Our shareholder rights plans may discourage transactions involving an actual or potential change in our ownership. In addition, our board of directors may issue shares of preferred stock without any further action by you. Such issuances may have the effect of delaying or preventing a change in our ownership. If changes in our ownership are discouraged, delayed or prevented, it would be more difficult for our current board of directors to be removed and replaced, even if you and other stockholders believe such actions are in the best interests of us and our stockholders.

We have never paid cash dividends on our capital stock and we do not anticipate paying dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any future debt or credit facility may preclude us from paying any dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of potential gain for the foreseeable future.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

We currently lease approximately 65,000 square feet of laboratory and office space at 4767 Nexus Center Drive, San Diego, California, 92121. Our lease for this facility expires on February 28, 2017. Our current monthly lease obligation for rent is approximately $230,000. We are responsible for expenses associated with the use and maintenance of the building, such as utilities and maintenance. These costs will vary each month, and we expect that these costs will be approximately $100,000 per month.

We believe that our facilities are adequate to meet our business requirements for the near-term and that additional space will be available on commercially reasonable terms, if required.

Item 3. ***Legal Proceedings***

We are not a party to any material legal proceedings at this time.

Item 4. ***Mine Safety Disclosures***

None.

PART II

Item 5. *Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

Common Stock Market Price

Our common stock commenced trading on the NASDAQ Stock Market on June 22, 2004 under the symbol "SNMX." The following table sets forth the high and low sales prices per share of our common stock as traded on the NASDAQ Stock Market for the periods indicated.

Fiscal 2012 Quarter ended	March 31, 2012	June 30, 2012	September 30, 2012	December 31, 2012
High	$ 3.94	$ 2.79	$ 2.65	$ 2.13
Low	$ 2.60	$ 1.96	$ 1.72	$ 1.55

Fiscal 2011 Quarter ended	March 31, 2011	June 30, 2011	September 30, 2011	December 31, 2011
High	$ 7.51	$ 6.70	$ 6.26	$ 5.25
Low	$ 5.51	$ 4.50	$ 3.35	$ 3.10

The last sale price for our common stock as reported by the NASDAQ Stock Market on March 8, 2013 was $2.77 per share. As of March 8, 2013, there were approximately 59 shareholders of record of our common stock.

We have never declared or paid any cash dividends to our shareholders. We do not presently plan to pay cash dividends in the foreseeable future and intend to retain any future earnings for reinvestment in our business.

Information about our equity compensation plans is included in Item 12 of Part III of this annual report on Form 10-K.

Repurchases of Equity Securities

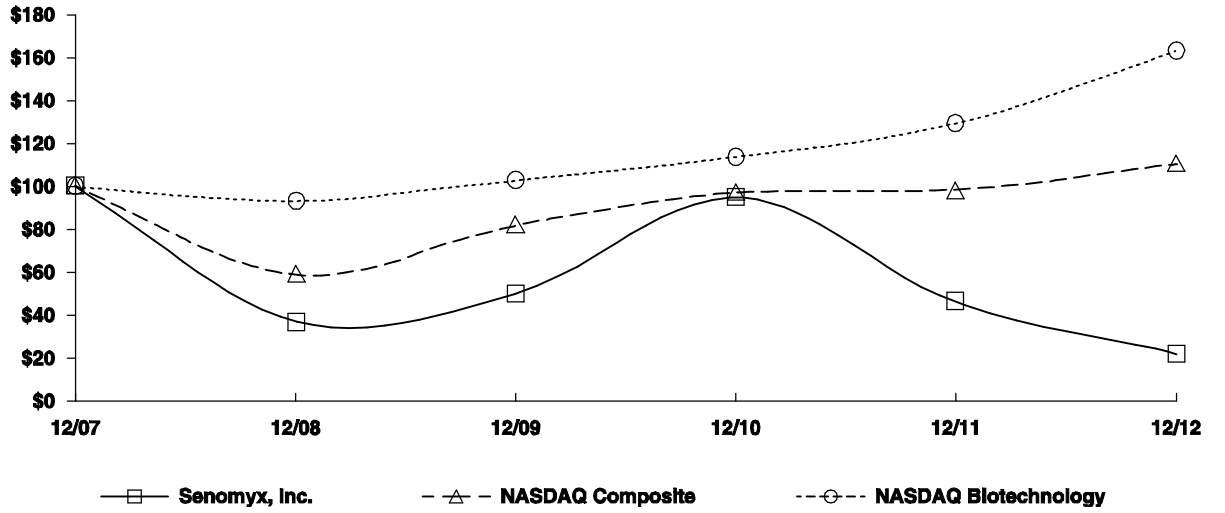
There were no repurchases of equity securities in 2012.

Performance Measurement Comparison (1)

The following graph compares the cumulative five-year total return to stockholders on Senomyx, Inc.'s common stock relative to the cumulative total returns of the NASDAQ Composite index and the NASDAQ Biotechnology index. The graph assumes that the value of the investment in our common stock and in each of the indexes (including reinvestment of dividends) was $100 on December 31, 2007 and tracks it through December 31, 2012. To date, we have not declared any dividends. The comparisons in the graph are required by the SEC and are not intended to forecast or be indicative of the possible future performance of our common stock.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Senomyx, Inc., the NASDAQ Composite Index, and the NASDAQ Biotechnology Index



*$100 invested on 12/31/07 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

(1) This section is not "soliciting material," is not deemed "filed" with the SEC, is not subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Item 6. ***Selected Financial Data***

The Statement of Operations Data and Balance Sheet Data presented below should be read in conjunction with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, and Item 8, Financial Statements and Supplementary Data included in this annual report on Form 10-K. Amounts are in thousands, except share and per share amounts.

	Years ended December 31,				
	2012	2011	2010	2009	2008
Statements of Operations Data:					
Revenues:					
Development revenues	$ 26,981	$ 28,182	$ 26,153	$ 14,590	$ 16,819
Commercial revenues	4,332	3,372	2,709	990	372
Total revenues	31,313	31,554	28,862	15,580	17,191
Operating expenses:					
Cost of commercial revenues	303	219	154	69	25
Research and development	28,644	28,687	26,636	28,201	31,800
General and administrative	11,619	11,500	13,077	13,682	13,555
Total operating expenses	40,566	40,406	39,867	41,952	45,380
Loss from operations	(9,253)	(8,852)	(11,005)	(26,372)	(28,189)
Other income	67	128	339	207	1,255
Net loss	$ (9,186)	$ (8,724)	$ (10,666)	$ (26,165)	$ (26,934)
Basic and diluted net loss per share	$ (0.23)	$ (0.22)	$ (0.28)	$ (0.85)	$ (0.88)
Shares used to compute basic and diluted net loss per share	39,956,283	39,571,094	37,726,285	30,935,090	30,602,481

	As of December 31,				
	2012	2011	2010	2009	2008
Balance Sheet Data:					
Cash, cash equivalents and investments available-for-sale	$ 41,823	$ 55,106	$ 71,612	$ 31,074	$ 40,106
Working capital	22,051	36,255	33,323	18,064	31,869
Total assets	53,280	67,646	84,672	42,454	54,466
Accumulated deficit	(230,789)	(221,603)	(212,879)	(202,213)	(176,048)
Total stockholders' equity	25,728	29,721	32,182	17,507	36,940

Item 7. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

The following discussion of our financial condition and results of operations should be read in conjunction with our Financial Statements and the related Notes to Financial Statements in Item 8, "Financial Statements and Supplementary Data" in this annual report on Form 10-K.

Certain statements contained in this annual report on Form 10-K, including statements regarding the development, growth and expansion of our business, our intent, belief or current expectations, primarily with respect to our future operating performance, and the products we expect to offer and other statements regarding matters that are not historical facts, are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the "safe harbor" created by these sections. Future filings with the SEC, future press releases and future oral or written statements made by us or with our approval, which are not statements of historical fact, may also contain forward-looking statements. Because such statements include risks and uncertainties, many of which are beyond our control, actual results may differ materially from those expressed or implied by such forward-looking statements. Some of the factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements can be found under the caption "Risk Factors" and elsewhere in this annual report on Form 10-K. Readers are cautioned not to place undue reliance on forward-looking statements. The forward-looking statements speak only as of the date on which they are made, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they are made.

Overview and Recent Developments

We are a leading company using proprietary taste receptor technologies to discover, develop and commercialize innovative flavor ingredients for the packaged food, beverage and ingredient supply industries. We consider flavor ingredients to include flavors, such as savory flavors and cooling flavors, and flavor modulators, such as sweet and salt modifiers and bitter blockers. We also have an ongoing effort to discover and develop natural high intensity sweeteners. We believe our flavor ingredients will enable packaged food, beverage and ingredient companies to improve the nutritional profile of their products while maintaining or improving taste and generating cost of goods savings.

We have historically licensed our flavor ingredients to our collaborators on an exclusive or co-exclusive basis. We currently have product discovery, development and commercialization collaborations with several of the world's leading packaged food, beverage and ingredient companies: Ajinomoto, Firmenich, Nestlé and PepsiCo. Depending upon the collaboration, our collaboration agreements provide for license fees, research and development funding, reimbursement of certain costs, development milestones based upon our achievement of research or development goals and, in the event of commercialization, commercial milestones, minimum periodic royalties and royalties on sales of products incorporating our flavor ingredients. We anticipate that we will derive all of our revenues from existing and future collaborations and from a direct sales strategy initiated in 2013 whereby we will sell certain of our flavor ingredients directly to flavor companies for re-sale to food and beverage companies.

In May 2012, we entered into an amendment of our Collaborative Research and License Agreement with Nestlé dated as of October 26, 2004, as amended. Under this most recent amendment, in lieu of a royalty based on sales of Nestlé products, we agreed with Nestlé that for all periods through December 31, 2013 royalty payments from Nestlé to us would be based on the amount of our flavor ingredient manufactured by or on behalf of Nestlé, measured in kilograms, during the applicable royalty period. If the parties do not mutually agree to an alternative royalty arrangement prior to January 1, 2014, this method for calculating royalty payments, based on the kilograms of our flavor ingredient manufactured by or on behalf of Nestlé, will also apply for future royalty periods.

In September 2012, S9632 was determined to be Generally Recognized As Safe, or GRAS, under the provisions of the Federal Food, Drug and Cosmetic Act, administered by the United States Food and Drug Administration, or FDA. S9632 can be used in a wide variety of foods and selected beverages to restore the desired taste profile in products wherein sucrose (common table sugar) has been reduced. The GRAS determination allows S9632 to be incorporated into specified products in the U.S. and in numerous other countries.

In October 2012, our four initial savory flavor ingredients and our S2383 flavor ingredient received regulatory approval in the European Union, or EU. The four savory flavor ingredients may be used to create new savory flavor blends. S2383 is a flavor ingredient with modifying properties that restores the taste profile in products that have reduced amounts of sucralose, a high-intensity sweetener. The savory flavor ingredients and S2383 have been evaluated by the European Food Safety Authority, or EFSA, and the European Commission published a regulation that permits usage of the flavor ingredients in the EU beginning in late April 2013.

We have incurred significant losses since our inception in 1998 and, as of December 31, 2012 our accumulated deficit was $230.8 million. Our results of operations have fluctuated from period to period and likely will continue to fluctuate substantially in the future based upon:

- termination of any of our product discovery and development collaboration agreements;
- our ability to discover and develop flavor ingredients or the ability of our product discovery and development collaborators to incorporate them into packaged food, beverage and ingredient products;
- our receipt of milestone payments in any particular period;
- the ability and willingness of food and beverage companies to commercialize products incorporating our flavor ingredients on expected timelines, or at all;
- our ability to implement our direct sales strategy;
- our ability to enter into new product discovery and development collaborations and technology collaborations or to extend the terms of our existing collaboration agreements;
- our ability, or our collaborators' ability, to successfully satisfy all pertinent regulatory requirements;
- the demand for our collaborators' and other customers' products containing our flavor ingredients; and
- general and industry specific economic conditions, including the current economic and credit crisis, which may affect our collaborators' research and development expenditures and commercialization efforts.

Revenues

Our revenues to date have come solely from license fees, research and development funding, reimbursement of certain patent and regulatory costs, milestone payments and royalty payments under our collaborative agreements.

We anticipate that our future revenues will come from collaborations and from sales of our flavor ingredients directly to flavor companies for re-sale to food and beverage companies.

As of December 31, 2012, we have recognized cumulative revenues under our collaborations of $191.9 million. If any of our collaborative agreements were to terminate earlier than currently anticipated, we may experience a significant decline in our revenues. Based on current collaborations, we anticipate that a significant portion of our revenues in the near future will be derived from research and development payments and license fees. We may receive additional milestone payments in the future upon the achievement of certain goals set forth in our collaboration agreements.

As our collaborators launch products incorporating our flavor ingredients, we receive minimum periodic royalties and royalty payments based upon the sales of those products. In addition, we anticipate generating future revenues from flavor ingredient sales directly to flavor companies for re-sale to food and beverage companies. Such royalty payments and flavor ingredient sales in the future could be significantly larger than research and development funding, license fees or milestone payments. In order for us to generate significant royalty revenues and flavor ingredient sales and to become profitable, we must retain our existing or establish new product discovery, development and commercialization collaborations and our collaborators and other customers must successfully commercialize products incorporating one or more of our flavor ingredients. Our ability to generate significant royalty revenues or flavor ingredient sales is inherently uncertain and will depend upon our ability to meet particular research, development and commercialization objectives and the ability and willingness of food and beverage companies to commercialize products incorporating our flavor ingredients on expected timelines.

Cost of Commercial Revenues

Cost of commercial revenues currently consists of royalties payable under our third-party licensing agreements. In prior years, such amounts were reported as an offset to commercial revenues. In the future, we anticipate that cost of commercial revenues will also include cost of goods sold for sales of our flavor ingredients under our direct sales strategy.

Research and Development

Our research and development expenses consist primarily of costs associated with our discovery and development efforts in connection with our primary programs focused on the development of savory flavors, sweet and salt modifiers, bitter blockers and cooling agents. We track research and development costs by the type of cost incurred rather than by project. Research and development costs are comprised of salaries and other personnel-related expenses, facilities and depreciation,

research and development supplies, patent and licensing, outside services and non-cash stock-based compensation expenses. We charge research and development expenses to operations as incurred.

The research and development payments we have received from our collaboration agreements historically have not covered all of our research and development expenses.

At this time, due to the risks inherent in the discovery of flavor ingredients, we are unable to estimate with any certainty the costs we will incur in the continued development of our flavor ingredients for commercialization. We anticipate that we will make determinations regarding the research and development projects to pursue and the funding of each project on an ongoing basis in response to the progress of each discovery and development program, as well as an ongoing assessment of its market potential. We cannot be certain when any material net cash inflow from the commercialization of our flavor ingredients will commence.

Our ability to complete the development of our current product candidates is subject to many risks and uncertainties. These risks include the risks, among others, that:

- we are substantially dependent upon our collaborators for research and development funding;
- our collaborators may terminate their respective collaboration programs early;
- we may not be able to discover flavor ingredients with the desired taste attributes;
- we may not be successful in developing flavor ingredients with other attributes required for use in commercial products; and
- we may be unable to obtain and maintain FEMA GRAS determination for our flavor ingredients, or equivalent regulatory approvals in other geographies.

If we do not complete the development of our flavor ingredients on a timely basis, our collaborators may terminate or not renew our collaboration agreements, we may begin receiving revenue from the commercialization of products incorporating our flavor ingredients later than anticipated, or not at all, and it may be more difficult to enter into new collaboration agreements. In any of these cases, we may require substantial additional funding in order to continue development of our flavor ingredients.

General and Administrative

General and administrative expenses consist primarily of salaries and other personnel-related expenses related to business development, legal, financial, commercial development and other administrative functions. General and administrative expenses also include non-cash stock-based compensation expenses.

Results of Operations

Years Ended December 31, 2012, 2011 and 2010

Revenues

We recorded revenues of $31.3 million, $31.6 million and $28.9 million during the years ended December 31, 2012, 2011 and 2010, respectively. Research and development payments, license fees, milestone payments and royalty revenues under our material collaborations with Firmenich and PepsiCo accounted for 80% of the total revenues for the year ended December 31, 2012. The decrease of $0.3 million from 2011 to 2012 was primarily due to a $2.4 million decrease in development revenues from our Sweet Taste Program collaboration with Firmenich, partially offset by a $1.1 million increase in development revenues from our Sweet Taste Program collaboration with PepsiCo and a $1.0 million increase in commercial revenues.

Development revenues from our Sweet Taste Program collaboration with Firmenich decreased $2.4 million to $6.8 million in 2012 from $9.2 million in 2011 primarily due to a change in the service period over which the upfront license fee related to this collaboration is being recognized. In the second quarter of 2012, Firmenich elected in accordance with our agreement to extend the service period of the collaboration an additional year, through July 2013.

Partially offsetting this decrease was a $1.1 million increase in development revenues from our Sweet Taste Program collaboration with PepsiCo from $16.6 million in 2011 to $17.7 million in 2012, largely attributable to an increase of $750,000 in development milestones earned. Also offsetting the decrease in development revenues from our collaboration

with Firmenich was increases in commercial revenues from our Savory Flavor Program, Sweet Taste Program and Bitter Blocker program totaling $1.0 million.

Research and development payments, license fees, milestone payments and royalty revenues under our material collaborations with Firmenich and PepsiCo accounted for 84% of the total revenue for the year ended December 31, 2011. The increase of $2.6 million from 2010 to 2011 was primarily due to the recognition of revenues associated with upfront license payments and research and development funding associated with our Sweet Taste Program collaboration with PepsiCo, which commenced in August 2010. Our Sweet Taste Program collaboration with PepsiCo contributed approximately $16.6 million to revenues during 2011, as compared to approximately $5.2 million during 2010.

This increase was partially offset by a decrease in revenues associated with our Sweet Taste Program collaboration with Firmenich. Our Sweet Taste Program collaboration with Firmenich contributed approximately $9.6 million to revenues in 2011, as compared to approximately $15.0 million in 2010. The reduction in revenues from 2010 to 2011 was primarily due to a change in the service period over which the upfront license fee related to this collaboration is being recognized. In the first quarter of 2011, Firmenich elected in accordance with our agreement to extend the service period of the collaboration an additional year. The increase was also partially offset by reduced revenues of approximately $3.0 million in the aggregate under six other collaborations where the research and development funding periods reached their conclusions during either the year ended December 31, 2010 or during the three months ended March 31, 2011.

For 2013, we expect revenues to remain relatively constant compared to 2012. For 2013, if all goals are met, we could earn up to $2.3 million in development milestone payments.

Cost of Commercial Revenues

Our cost of commercial revenues were $303,000, $219,000 and $154,000 for the years ended December 31, 2012, 2011 and 2010, respectively. The increases from 2010 to 2011 and 2011 to 2012 are consistent with corresponding increases in commercial revenues.

Research and Development Expenses

Our research and development expenses (including stock-based compensation expenses charged to research and development) were $28.6 million, $28.7 million and $26.6 million for the years ended December 31, 2012, 2011 and 2010, respectively. A comparison of research and development expenses by category is as follows (in thousands):

	Years Ended December 31,		
	2012	2011	2010
Salaries and personnel	$ 13,131	$ 13,096	$ 11,093
Facilities and depreciation	5,510	5,316	5,142
Research and development supplies	2,758	3,338	2,888
Outside services	2,391	1,972	2,492
Patent and licensing	2,144	2,061	2,208
Non-cash stock-based compensation	1,876	2,129	1,835
Miscellaneous	834	775	978
Total research and development expenses	$ 28,644	$ 28,687	$ 26,636

Salaries and Personnel. Our expenses for research and development personnel, including consultants, were $13.1 million, $13.1 million and $11.1 million for the years ended December 31, 2012, 2011 and 2010, respectively. Salaries and personnel expenses increased $35,000 from 2011 to 2012 because annual salary increases were mostly offset by a decrease in research and development staff from an average of 89 for 2011 to an average of 87 for 2012. The increase of $2.0 million from 2010 to 2011 was primarily due to increases in payroll expenses of approximately $1.7 million and employee benefits-related expenses of approximately $234,000. The increase in payroll expenses and employee benefits-related expenses was due to an increase in headcount during 2011 and due to the full year impact of employees hired during 2010. Our research and development staff increased from an average of 79 to 89 from 2010 to 2011. The increase in headcount resulted primarily from the hiring of additional personnel in the fourth quarter of 2010 to support additional research efforts. The increase in headcount was also attributable to the reclassification, effective January 1, 2011, of certain employees from General and Administrative to Research and Development due to a change in the nature of the employees' responsibilities and the assumption of additional supervisory responsibilities. For 2013, we expect salaries and personnel expenses to remain relatively constant compared to 2012.

Facilities and Depreciation. Our facilities and depreciation expenses were $5.5 million, $5.3 million and $5.1 million for the years ended December 31, 2012, 2011 and 2010, respectively. The increase of $194,000 from 2011 to 2012 was primarily due to increased depreciation expense on certain scientific equipment placed in service in early 2012. The increase of $174,000 from 2010 to 2011 was primarily due to higher expenses for service contracts and repairs on scientific equipment, as well as higher equipment rental costs for rented scientific equipment, partially offset lower depreciation expense on instrumentation and equipment used in research and development activities as assets became fully depreciated. For 2013, we expect a slight increase in facilities and depreciation expenses as compared to 2012.

Research and Development Supplies. Our expenses for supplies used in research and development were $2.8 million, $3.3 million and $2.9 million for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease of $580,000 from 2011 to 2012 was primarily due to decreased purchases of compounds and a decrease in expensed supplies used in high-throughput screening. The increase of $450,000 from 2010 to 2011 was primarily due to increased expenditures for screening-related supplies used in research and development activities. For 2013, we expect a slight decrease in research and development supplies as compared to 2012.

Outside Services. Our outside services expenses were $2.4 million, $2.0 million and $2.5 million for the years ended December 31, 2012, 2011 and 2010, respectively. The increase of $419,000 from 2011 to 2012 was primarily due to an increase in costs for safety studies and scale-up activities. The decrease of $520,000 from 2010 to 2011 was primarily due to lower costs for outsourced activities in support of product candidate regulatory filings. For 2013, we expect an increase in outside services expenses as compared to 2012 due to costs for safety studies related to product candidates advancing into development.

Patent and Licensing. Our patent and licensing expenses were $2.1 million, $2.1 million and $2.2 million for the years ended December 31, 2012, 2011 and 2010, respectively. The increase of $83,000 from 2011 to 2012 and the decrease of $147,000 from 2010 to 2011 were primarily due to varying patent legal expenses due to the timing of filings and other activities. For 2013, we expect our patent and licensing expenses to remain relatively constant as compared to 2012.

Non-cash Stock-based Compensation. Our non-cash stock-based compensation expenses were $1.9 million, $2.1 million and $1.8 million for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease of $253,000 from 2011 to 2012 was primarily due to a decrease in the valuation of options granted to employees, which results in less expense incurred. The increase of $294,000 from 2010 to 2011 was primarily due to the reclassification, effective January 1, 2011, of expenses related to certain employees from General and Administrative to Research and Development due to a change in the nature of the employees' responsibilities and the assumption of additional supervisory responsibilities. For 2013, we expect a decrease in non-cash stock-based compensation expenses in comparison to 2012.

General and Administrative Expenses

Our general and administrative expenses (including non-cash stock-based compensation expenses charged to general and administrative) were $11.6 million, $11.5 million and $13.1 million for the years ended December 31, 2012, 2011 and 2010, respectively.

The $119,000 increase in expenses from 2011 to 2012 was primarily due to an increase in payroll and related expenses. The $1.6 million decrease in expenses from 2010 to 2011 was primarily attributable to a decrease in payroll-related expenses and a decrease in stock-based compensation expenses due to the reclassification of expenses related to certain employees from General and Administrative to Research and Development due to a change in the nature of the employees' responsibilities and the assumption of additional supervisory responsibilities.

For 2013, we expect an increase in our general and administrative expenses in comparison to 2012, driven by the implementation of our direct sales strategy.

Other Income

Other income was $67,000, $128,000 and $339,000 for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease of $61,000 from 2011 to 2012 was primarily due to decreased interest income due to lower average investable balances in 2012 as compared to 2011. The decrease of $211,000 from 2010 to 2011 was primarily due to the receipt of a federal grant in 2010 and to decreased interest income due to lower average investable balances in 2011 as compared to 2010.

Liquidity and Capital Resources

Since our inception, we have financed our business primarily through private and public placements of stock, research and development payments under our product discovery and development collaborations and interest income. As of December 31, 2012, we had received $194.9 million in non-refundable license fees, research and development payments, cost reimbursements and milestone payments from our collaboration agreements. In addition, we had received $193.8 million in proceeds from the sales of common and preferred stock, $12.5 million in interest income and $10.6 million in royalties and commercial milestone payments. Commencing January 1, 2013, over the remaining life of our current collaboration agreements, but excluding any payments due upon the election of any extension options unexercised as of the date of the publication of these statements, we are entitled to receive an additional $13.7 million in non-refundable research and development payments from our collaborators. If our collaborators elect to utilize their extension options, over the remaining life of our current collaboration agreements we would be entitled to receive $35.5 million in non-refundable research and development payments. We may not receive these payments if the collaborations are terminated or amended. In addition, we may receive payments in the event we achieve research or development milestones and royalty payments in the event our collaborators commercialize products incorporating our flavor ingredients.

At December 31, 2012, we had $41.8 million in cash, cash equivalents and investments available-for-sale as compared to $55.1 million at December 31, 2011, a decrease of $13.3 million. This decrease resulted primarily from the use of cash to fund our operations.

Operating Activities

Operating activities in 2012 used cash of $12.4 million, a decrease of $1.9 million from $14.3 million cash used for operating activities in 2011. This decrease in cash used in 2012 reflects a $1.2 million increase in cash received from collaborations compared to 2011, primarily resulting from increased cash received from development milestones in 2012. Also affecting cash used in operating activities is the change in deferred revenues, primarily due to an extension of the service period over which the upfront license fee related to the Firmenich Sweet Taste Program collaboration is being recognized. In the second quarter of 2012, Firmenich elected in accordance with our agreement to extend the service period of the collaboration an additional year, through July 2013.

Operating activities in 2011 used cash of $14.3 million, a change of $35.9 million from $21.6 million in cash provided by operating activities in 2010. The change in 2011 was primarily attributable to a decrease of $36.7 million is cash from collaborations, reflecting $38.0 million in payments received from PepsiCo and Firmenich in 2010. Operating cash flow in 2011 compared to the prior year also reflects a decrease in our net loss of $1.9 million.

Investing Activities

Investing activities provided cash of $11.1 million in 2012 compared to $7.6 million in 2011, an increase of $3.5 million. The increase in cash flow in 2012 reflects a decrease of $1.6 million in purchases of property and equipment, with certain significant purchases of scientific equipment occurring in 2011. The increase in cash provided by investing activities in 2012 also reflects changes in the timing of maturities and purchases of available-for-sale securities from 2011.

Investing activities provided cash of $7.6 million in 2011, a change of $53.4 million compared to $45.8 million use of cash for investing activities in 2010. The higher use of cash for investing activities in 2010 resulted from the purchase of available-for-sale securities with $38.0 million of payments received from PepsiCo and Firmenich in 2010 and net proceeds of $18.6 million from a common stock offering in 2010.

Financing Activities

Financing activities provided cash of $746,000, $1.4 million and $20.4 million for the years ended December 31, 2012, 2011 and 2010, respectively. Cash provided by financing activities during 2012 and 2011 reflects the net proceeds from the issuance or sale of common stock from our employee stock purchase program and the exercise of employee stock options. Cash provided by financing activities in 2010 reflects proceeds from our February 2010 offering, which raised approximately $18.6 million, net of offering costs. In addition, cash provided by financing activities in the year ended December 31, 2010 reflects the net proceeds from the issuance or sale of common stock from our employee stock purchase program and the exercise of employee stock options of approximately $1.8 million.

As of December 31, 2012 future minimum payments due under our contractual obligations are as follows (in thousands):

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Operating leases	$ 12,414	$ 2,861	$ 5,940	$ 3,613	$ —
License payments	284	279	5	—	—
Total	$ 12,698	$ 3,140	$ 5,945	$ 3,613	$ —

As of December 31, 2012, we had no long-term debt obligations.

As of December 31, 2012, we have net open purchase orders (defined as total open purchase orders at year end less any accruals or invoices charged to or amounts paid against such purchase orders) totaling approximately $500,000. In the next 12 months, we also plan to spend approximately $1.0 to $1.5 million on capital expenditures.

Our license agreement with the University of California calls for annual maintenance fees, which commenced in 2006, or royalties or service revenues on sales of any products developed using technologies licensed under the agreement. Royalties are calculated as a percentage of covered sales and are included in cost of commercial revenues. The agreement specifies minimum annual royalty payments commencing in 2014 and continuing through the expiration of the last to expire patent licensed under the agreement. Royalties paid under the agreement for 2012 exceeded the level of future minimum annual royalty payments.

Our future capital uses and requirements depend on numerous forward-looking factors. These factors may include, but are not limited to, the following:

- the rate of progress and cost of research and development activities;
- our ability to establish and maintain product discovery, development and commercialization collaborations;
- the cost of implementation of our direct sales strategy;
- our ability to generate flavor ingredient sales under our direct sales strategy;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the number and scope of our research activities;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the effect of competing technological and market developments; and
- the extent to which we acquire or in-license new products, technologies or businesses.

We believe our available cash, cash equivalents, investments and existing sources of funding will be sufficient to satisfy our anticipated operating and capital requirements through at least the next 12 months.

Until we can generate significant cash from our operations, we expect to continue to fund our operations with existing cash resources that were primarily generated from the proceeds of offerings of our equity securities and license payments, research and development payments and milestone payments under our product discovery and development collaborations. From time to time we may also consider raising additional cash from the sale of equity or other securities. Commencing January 1, 2013, over the remaining life of our current collaboration agreements but excluding any payments due upon the election of any extension options unexercised as of the date of the publication of these statements, we are entitled to receive an additional $13.7 million in research and development payments from our collaborators. If our collaborators elect to utilize their extension options, over the remaining life of our current collaboration agreements we would be entitled to receive $35.5 million in research and development payments. Commencing January 1, 2013, assuming all milestones are achieved for all program goals for all collaborations and we receive all research and development funding, including any amounts due upon the election of extension options, we may be entitled to up to $60.5 million. In the next twelve months (through December 31, 2013), we anticipate receiving $12.8 million in research and development funding and $1.0 million in payments related to milestones earned in the fourth quarter of 2012. This does not include any additional payments we may receive related to the following events:

- the achievement of additional milestones;
- the signing of new collaborations or extensions of existing collaborations not currently contemplated under existing extension options;
- the earning of royalties from the sale of products containing our flavor ingredients;
- the earning of any minimum periodic royalty payments;

- direct sales of flavor ingredients; and
- the earning of any cost reimbursements.

We may not receive the payments if the collaborations are terminated, amended or not renewed, or if we do not achieve the milestones set forth in the collaboration agreements. In addition, the timing of the receipt of milestone payments in particular is uncertain, as we may achieve milestones significantly earlier or later than we currently expect. We cannot predict at this time the level of our collaborators' royalty-generating sales, as these sales to date have been based on launches of new products without established sales histories, or the level of flavor ingredient sales under our direct sales strategy.

We continue to pursue additional collaborations which could result in additional revenue. We may not recognize revenues for license fees, research and development funding, milestones, minimum periodic royalties or royalties if the collaborations are terminated or amended, or if we do not achieve the milestones set forth in the collaboration agreements. Our expenses will vary based upon the forward-looking factors listed above.

Off-Balance Sheet Arrangements

As of December 31, 2012 and 2011, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as special purpose or structured finance entities, which would have been established for the purposes of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles, or GAAP. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate these estimates, including those related to revenue recognition, stock-based compensation, long-lived assets, accrued liabilities, and income taxes. These estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. While our significant accounting policies are described in more detail in Note 1 to our financial statements, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements:

Revenue Recognition

Our revenue recognition policies are in compliance with the Revenue Recognition Topic of the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC. Some of our agreements contain multiple elements, including technological and territorial licenses and research and development services. In accordance with these agreements, we may be eligible for license fees, research and development funding, cost reimbursements, development milestones, commercial milestones, minimum periodic royalty payments and royalty payments. Development revenues include revenues from license fees, research and development funding, development milestones and cost reimbursements. Commercial revenues include revenues from commercial milestones, royalties on sales made by our collaborators of products incorporating our flavor ingredients, minimum periodic royalty payments and direct sales of our flavor ingredients.

In October 2009, the FASB issued a new accounting standard which amends the guidance on the accounting for arrangements involving the delivery of more than one element. This standard addresses the determination of the unit(s) of accounting for multiple-element arrangements and how the arrangement's consideration should be allocated to each unit of accounting. We adopted this new accounting standard on a prospective basis for all multiple-element arrangements entered into on or after January 1, 2011 and for any multiple-element arrangements that were entered into prior to January 1, 2011 but materially modified on or after January 1, 2011. The adoption of this standard did not have a material impact on the Company's financial statements.

Pursuant to the new standard, each required deliverable is evaluated to determine if it qualifies as a separate unit of accounting. For us, this determination is generally based on whether the deliverable has "stand-alone value" to the customer. The arrangement's consideration is then allocated to each separate unit of accounting based on the relative selling price of each deliverable. The estimated selling price of each deliverable is determined using the following hierarchy of values: (i) vendor-specific objective evidence of fair value; (ii) third-party evidence of selling price; and (iii) best estimate of selling price, or BESP. The BESP reflects our best estimate of what the selling price would be if the deliverable was regularly sold

by us on a stand-alone basis. We expect, in general, to use the BESP for allocating consideration to each deliverable. In general, the consideration allocated to each unit of accounting is then recognized as the related goods or services are delivered limited to the consideration that is not contingent upon future deliverables. For multiple-element arrangements entered into prior to January 1, 2011 and not materially modified thereafter, we continue to apply our prior accounting policy with respect to such arrangements.

Non-refundable license fees, if not associated with our future performance, are recognized when received. Non-refundable license fees, if associated with future performance obligations, are attributed to a specific program or collaboration and recognized over the period of service for that specific program or collaboration. Amounts received for research funding are recognized as revenue as the services are performed. Revenue is deferred for fees received before earned. Revenue from development milestones is accounted for in accordance with the Revenue Recognition - Milestone Method Topic of the FASB ASC. Development milestones are recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence that the milestone has been achieved, provided that the milestone event is substantive. A milestone event is considered to be substantive if its achievability was not reasonably assured at the inception of the agreement and our efforts led to the achievement of the milestone or the milestone was due upon the occurrence of a specific outcome resulting from our performance. If both of these criteria are not met, the milestone payment is recognized over the remaining minimum period of our performance obligations under the agreement. Revenue from cost reimbursement is recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence.

Revenue from commercial milestones is recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence that the milestone has been achieved, as these milestone payments do not require our efforts to achieve, but result from the efforts of our collaborator. Royalties on sales made by our collaborators of products incorporating our flavor ingredients are recognized when a royalty report or other persuasive evidence is received, which is generally one quarter in arrears. Non-refundable minimum periodic royalty payments are recognized as revenues over related annual royalty periods. Royalty terms are specific to each collaboration and collaborator and can vary from year to year. These terms vary based on factors such as the characteristics of the flavor ingredient and the product categories and geographies licensed by the collaborator. Periodically, as contractually specified, our collaborators are required to provide a report detailing all sales of products containing our flavor ingredients. To the extent that minimum periodic royalty payments through the end of any applicable period exceed calculated royalties, the collaborators are required to remit to us the difference between royalties calculated and minimum periodic royalty payments made to date. We recognize this difference as royalties on product sales at the time the report is received. To the extent that minimum periodic royalty payments made to date exceed calculated royalties, we are not required to refund the difference. Although we do not currently have any collaborations that include refundable minimum periodic royalty payments, in such a case, revenue would be deferred for refundable minimum periodic royalty payments received before earned.

Stock-based Compensation Expense

We grant options to purchase our common stock to our employees and directors under our equity incentive plan. Eligible employees can also purchase shares of our common stock under our employee stock purchase plan at the lower of: (i) 85% of the fair market value on the first day of a two-year offering period; or (ii) 85% of the fair market value on the last date of each six-month purchase period within the two-year offering period. In addition, we grant options to purchase our common stock to non-employees under our equity incentive plan.

Stock-based compensation expenses were $4.5 million, $4.8 million and $4.9 million for the years ended December 31, 2012, 2011 and 2010, respectively. At December 31, 2012, total unrecognized estimated compensation expense related to non-vested stock options granted prior to that date was $6.7 million, which is expected to be recognized over a weighted average period of 1.7 years. Total stock options granted during the years ended December 31, 2012, 2011 and 2010 represented 4.6%, 4.6% and 3.5%, respectively, of outstanding shares of the end of each fiscal year.

We estimate the value of stock-based awards on the date of grant using the Black-Scholes option pricing model. The weighted average estimated fair value of stock options granted during the year ended December 31, 2012 was $2.01 per share. The determination of the fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, risk-free interest rate and the expected term of the awards. For purposes of estimating the fair value of stock options granted during 2012 using the Black-Scholes model, we have made a subjective estimate regarding our stock price volatility (weighted average of 69.6%). We used the historical volatility of our stock for the period of the expected term of the stock options granted, consistent with the guidance in the Compensation — Stock Compensation Topic of the FASB ASC. If our stock price volatility assumption were

increased to 75%, the weighted average estimated fair value of stock options granted during 2012 would increase by $0.11 per share, or 5.6%.

The expected term of options granted is derived from the average midpoint between vesting and the contractual term, as described in the Compensation — Stock Compensation Topic of the FASB ASC. We used this "simplified" method for determining term as we currently do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term due to the period of time our equity shares have been publicly traded. For options granted during 2012, we have calculated a weighted average expected term of 6.0 years. If the expected term of the options granted was increased to 8.0 years, the weighted average estimated fair value of stock options granted during 2012 would increase by $0.22 per share, or 11.0%.

The risk-free interest rate for the expected term of the option is based on the average U.S. Treasury yield curve at the balance sheet date for the expected term (weighted average of 1.2% for 2012) which, if increased to 5.0%, would increase the weighted average estimated fair value of stock options granted during 2012 by $0.14 per share, or 6.9%.

For 2012, 2011 and 2010, we have reduced stock-based compensation expense recognized in the Statement of Operations to reflect for estimated forfeitures. The Compensation — Stock Compensation Topic of the FASB ASC requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Pre-vesting forfeitures were estimated to be approximately 6.3% for 2012, 6.7% for 2011 and 7.9% for 2010, based on historical experience. To date, we have not required any material adjustments to our expected forfeitures.

Income Taxes

We follow the provisions of FASB ASC 740-10, *Income Taxes*, that defines a recognition threshold and measurement attributes for financial statement recognition and measurement of a tax provision taken or expected to be taken in a tax return. The topic also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Under the topic, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

We have analyzed our filing positions in all of the federal and state jurisdictions where we are required to file income tax returns for all open tax years in these jurisdictions. Our analysis concluded that, due to past ownership changes, our deferred tax assets for net operating losses and research and development credits will be subject to an annual limitation. As such, $3.1 million of net operating losses will expire and $944,000 of research and development credits will expire for federal purposes as a result of multiple ownership changes which occurred in prior years. California net operating losses of $3.8 million will expire as well.

Item 7A. ***Quantitative and Qualitative Disclosures About Market Risk***

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of United States interest rates. Due to the nature of our investments, we believe that we are not subject to any material market risk exposure. We do not have any foreign currency or other derivative financial instruments.

Item 8. ***Financial Statements and Supplementary Data***

Index to Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Senomyx, Inc.

We have audited the accompanying balance sheets of Senomyx, Inc. as of December 31, 2012 and 2011, and the related statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Senomyx, Inc. at December 31, 2012 and 2011, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2012, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Senomyx Inc.'s internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 15, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
March 15, 2013

Senomyx, Inc.
Balance Sheets
(In thousands, except share and per share data)

	December 31, 2012	December 31, 2011
Assets:		
Current assets:		
Cash and cash equivalents	$ 15,427	$ 15,964
Short-term investments available-for-sale	21,365	37,142
Accounts receivable	2,702	2,434
Other current assets	845	706
Total current assets	40,339	56,246
Long-term investments available-for-sale	5,031	2,000
Property and equipment, net	7,910	9,400
Total assets	$ 53,280	$ 67,646
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable, accrued expenses and other current liabilities	$ 6,538	$ 6,117
Deferred rent	183	105
Leasehold incentive obligation	987	987
Deferred revenues	10,580	12,782
Total current liabilities	18,288	19,991
Deferred rent	1,138	1,321
Leasehold incentive obligation	3,126	4,113
Deferred revenues	5,000	12,500
Commitments		
Stockholders' equity:		
Preferred stock, $0.001 par value, 7,500,000 shares authorized; no shares issued or outstanding at December 31, 2012 and 2011	—	—
Common stock, $0.001 par value, 120,000,000 shares authorized; 40,100,483 and 39,759,137 shares issued and outstanding at December 31, 2012 and 2011, respectively	40	40
Additional paid-in-capital	256,470	251,254
Accumulated other comprehensive income	7	30
Accumulated deficit	(230,789)	(221,603)
Total stockholders' equity	25,728	29,721
Total liabilities and stockholders' equity	$ 53,280	$ 67,646

See accompanying notes to financial statements.

Senomyx, Inc.
Statements of Operations and Comprehensive Loss
(In thousands, except share and per share data)

	Years Ended December 31,		
	2012	2011	2010
Revenues:			
Development revenues	$ 26,981	$ 28,182	$ 26,153
Commercial revenues	4,332	3,372	2,709
Total revenues	31,313	31,554	28,862
Operating expenses:			
Cost of commercial revenues	303	219	154
Research and development	28,644	28,687	26,636
General and administrative	11,619	11,500	13,077
Total operating expenses	40,566	40,406	39,867
Loss from operations	(9,253)	(8,852)	(11,005)
Other income	67	128	339
Net loss	$ (9,186)	$ (8,724)	$ (10,666)
Net loss per share, basic and diluted	$ (0.23)	$ (0.22)	$ (0.28)
Shares used in calculating net loss per share, basic and diluted	39,956,283	39,571,094	37,726,285
Statements of Comprehensive Loss:			
Net loss	$ (9,186)	$ (8,724)	$ (10,666)
Other comprehensive income (loss):			
Unrealized gain (loss) on investments	(23)	37	(10)
Total other comprehensive income (loss)	(23)	37	(10)
Comprehensive loss	$ (9,209)	$ (8,687)	$ (10,676)

See accompanying notes to financial statements.

Senomyx, Inc.
Statements of Stockholders' Equity
(In thousands, except for share data)

	Common Stock		Additional paid-in	Accumulated other comprehensive	Accumulated	Total stockholders'
	Shares	Amount	capital	income/(loss)	deficit	equity
Balance at December 31, 2009	31,108,201	$ 31	$ 219,686	$ 3	$ (202,213)	$ 17,507
Issuance of common stock related to the exercise of options	256,369	—	929	—	—	929
Issuance of common stock related to employee stock plan purchases	583,690	1	912	—	—	913
Issuance of common stock in a public offering, net of issuance costs	7,142,857	7	18,564	—	—	18,571
Compensation related to stock options granted to consultants	—	—	110	—	—	110
Compensation related to stock options granted to employees and non-employee directors	—	—	4,828	—	—	4,828
Unrealized loss on investments	—	—	—	(10)	—	(10)
Net loss	—	—	—	—	(10,666)	(10,666)
Balance at December 31, 2010	39,091,117	39	245,029	(7)	(212,879)	32,182
Issuance of common stock related to the exercise of options	135,290	—	379	—	—	379
Issuance of common stock related to employee stock plan purchases	532,730	1	1,039	—	—	1,040
Compensation related to stock options granted to consultants	—	—	137	—	—	137
Compensation related to stock options granted to employees and non-employee directors	—	—	4,670	—	—	4,670
Unrealized gain on investments	—	—	—	37	—	37
Net loss	—	—	—	—	(8,724)	(8,724)
Balance at December 31, 2011	39,759,137	40	251,254	30	(221,603)	29,721
Issuance of common stock related to the exercise of options	17,068	—	26	—	—	26
Issuance of common stock related to employee stock plan purchases	324,278	—	720	—	—	720
Compensation related to stock options granted to consultants	—	—	6	—	—	6
Compensation related to stock options granted to employees and non-employee directors	—	—	4,464	—	—	4,464
Unrealized gain on investments	—	—	—	(23)	—	(23)
Net loss	—	—	—	—	(9,186)	(9,186)
Balance at December 31, 2012	40,100,483	$ 40	$ 256,470	$ 7	$ (230,789)	$ 25,728

See accompanying notes to financial statements.

Senomyx, Inc.
Statements of Cash Flows
(In thousands)

	Years Ended December 31.		
	2012	2011	2010
Operating Activities			
Net loss	$ (9,186)	$ (8,724)	$ (10,666)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation	2,789	2,629	2,724
Accretion of premium on available-for-sale securities	181	550	240
Amortization of leasehold incentive obligation	(987)	(987)	(988)
Stock-based compensation for employees and non-employee directors	4,464	4,670	4,828
Stock-based compensation for non-employees	6	137	110
Change in operating assets and liabilities:			
Accounts receivable	(268)	(885)	(1,301)
Other current assets	(199)	1,154	(953)
Accounts payable, accrued expenses and other current liabilities	592	(422)	1,056
Deferred revenues	(9,702)	(12,410)	26,499
Deferred rent	(105)	(26)	52
Net cash (used in) provided by operating activities	(12,415)	(14,314)	21,601
Investing activities			
Purchases of property and equipment	(1,470)	(3,061)	(974)
Purchases of available-for-sale securities	(30,408)	(34,242)	(95,860)
Maturities of available-for-sale securities	43,010	44,904	51,003
Net cash provided by (used in) investing activities	11,132	7,601	(45,831)
Financing activities			
Proceeds from issuance of common stock	746	1,419	20,413
Net cash provided by financing activities	746	1,419	20,413
Net change in cash and cash equivalents	(537)	(5,294)	(3,817)
Cash and cash equivalents at beginning of year	15,964	21,258	25,075
Cash and cash equivalents at end of year	$ 15,427	$ 15,964	$ 21,258
Supplemental disclosure of cash flow information:			
Purchases of property and equipment included in accounts payable, accrued expenses and other current liabilities	$ 33	$ 204	$ 924

See accompanying notes to financial statements.

Senomyx, Inc.
Notes to Financial Statements

1. Organization and Summary of Significant Accounting Policies

Organization and Business

Senomyx, Inc. (the "Company") was incorporated on September 16, 1998 in Delaware and commenced operations in January 1999. The Company is focused on using proprietary taste receptor-based assays and optimization techniques to discover and develop novel flavor ingredients for the packaged food, beverage and ingredient supply industries. The Company has product discovery and development collaborations with several of the world's leading packaged food, beverage and ingredient companies: Ajinomoto Co., Inc. ("Ajinomoto"), Firmenich SA ("Firmenich"), Nestlé SA ("Nestlé") and PepsiCo, Inc. ("PepsiCo"). The Company's collaboration agreements generally provide for license fees, research and development funding, reimbursement of certain regulatory and patent costs, milestone payments if the Company achieves development or commercialization goals, minimum periodic royalties and royalties on sales of products incorporating the Company's flavor ingredients. The Company's current programs focus on the development of sweet, savory and salt flavor ingredients, bitter blockers and cooling agents.

Use of Estimates

The preparation of financial statements in conformity with United States generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a remaining maturity of three months or less when purchased to be cash equivalents. Cash equivalents are recorded at cost, which approximates market value.

Investments Available-for-Sale

The Company's surplus cash is invested in United States Treasuries and United States government agency bonds with maturity dates of two years or less from the settlement date. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity with all amortization and accretion included in interest income. The Company's investments are classified as available-for-sale and carried at estimated fair value, with unrealized gains and losses reported in a separate component of accumulated other comprehensive loss. Realized gains and losses and declines in value judged to be other-than-temporary, if any, on available-for-sale securities are included in interest income. The cost of securities sold is based on the specific identification method. Interest on securities classified as available-for-sale is included in interest income.

Fair Value of Financial Instruments other than Investments Available-for-Sale

The carrying amount of cash and cash equivalents, accounts receivables, accounts payable and accrued expenses are considered to be representative of their respective fair value because of the short-term nature of those items.

Concentration of Credit Risk and Major Collaborations

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist of cash, cash equivalents and investments available-for-sale. The Company limits its exposure to credit loss by placing its cash, cash equivalents, and investments with high credit quality financial institutions in instruments with short maturities.

The Company derives significant portions of its revenues from a relatively small number of collaborators. For the years ended December 31, 2012, 2011 and 2010, revenues from any single collaborator that contributed 10% or more of revenues for the period were as follows:

	Years Ended December 31,		
	2012	2011	2010
PepsiCo	$17.7 million (56%)	$16.6 million (53%)	$5.2 million (18%)
Firmenich	$9.6 million (31%)	$11.3 million (36%)	$16.6 million (58%)
Nestlé			$3.3 million (12%)

Accounts receivable from collaborators which contributed 10% or more of accounts receivable at December 31, 2012 and 2011 were as follows:

	December 31,	
	2012	2011
PepsiCo	$0.9 million (32%)	$0.8 million (33%)
Firmenich	$1.0 million (37%)	$0.9 million (39%)
Ajinomoto	$0.7 million (24%)	$0.5 million (21%)

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and are depreciated over the estimated useful lives of the assets (ranging from three to five years) using the straight-line method. Leasehold improvements are amortized over the estimated useful life of the asset or the lease term, whichever is shorter.

Impairment of Long-Lived Assets

In accordance with the Property, Plant and Equipment Topic of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC"), if indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the amount of such impairment by comparing the fair value to the carrying value. There have been no indicators of impairment through December 31, 2012.

Deferred Rent

Rent expense is recorded on a straight-line basis over the initial term of any lease. The difference between rent expense accrued and amounts paid under any lease agreement is recorded as deferred rent in the accompanying balance sheets.

Leasehold Incentive Obligation

In conjunction with the lease agreement covering the facility occupied by the Company (the "Nexus Lease"), the Company received a tenant improvement allowance of $155 per square foot leased, or $10.1 million. As the tenant improvements were constructed, the Company recorded both the covered tenant improvements (as property and equipment) and an offsetting leasehold incentive obligation on the Company's balance sheet. Through the initial term of the Nexus Lease, the Company records depreciation expense to depreciate the tenant improvements and records an offsetting reduction to rent expense (to amortize the leasehold incentive obligation), in accordance with the Leases Topic of the FASB ASC.

Revenue Recognition

The Company's revenue recognition policies are in compliance with the Revenue Recognition Topic of the FASB ASC. Some of the Company's agreements contain multiple elements, including technological and territorial licenses and research and development services. In accordance with these agreements, the Company may be eligible for license fees, research and development funding, cost reimbursements, development milestones, commercial milestones, minimum periodic royalty payments and royalty payments. Development revenues include revenues from license fees, research and development funding, development milestones and cost reimbursements. Commercial revenues include revenues from commercial milestones, royalties on sales made by the Company's collaborators of products incorporating the Company's flavor ingredients and minimum periodic royalty payments.

In October 2009, the FASB issued a new accounting standard which amends the guidance on the accounting for arrangements involving the delivery of more than one element. This standard addresses the determination of the unit(s) of

accounting for multiple-element arrangements and how the arrangement's consideration should be allocated to each unit of accounting. The Company adopted this new accounting standard on a prospective basis for all multiple-element arrangements entered into on or after January 1, 2011 and for any multiple-element arrangements that were entered into prior to January 1, 2011 but materially modified on or after January 1, 2011. The adoption of this standard did not have a material impact on the Company's financial statements.

Pursuant to the new standard, each required deliverable is evaluated to determine if it qualifies as a separate unit of accounting. For the Company this determination is generally based on whether the deliverable has "stand-alone value" to the customer. The arrangement's consideration is then allocated to each separate unit of accounting based on the relative selling price of each deliverable. The estimated selling price of each deliverable is determined using the following hierarchy of values: (i) vendor-specific objective evidence of fair value; (ii) third-party evidence of selling price; and (iii) best estimate of selling price ("BESP"). The BESP reflects the Company's best estimate of what the selling price would be if the deliverable was regularly sold by the Company on a stand-alone basis. The Company expects, in general, to use the BESP for allocating consideration to each deliverable. In general, the consideration allocated to each unit of accounting is then recognized as the related goods or services are delivered limited to the consideration that is not contingent upon future deliverables. For multiple-element arrangements entered into prior to January 1, 2011 and not materially modified thereafter, the Company continues to apply the Company's prior accounting policy with respect to such arrangements.

Non-refundable license fees, if not associated with future Company performance, are recognized when received. Non-refundable license fees, if associated with future Company performance obligations, are attributed to a specific program or collaboration and recognized over the period of service for that specific program or collaboration. Amounts received for research funding are recognized as revenues as the services are performed. Revenue is deferred for fees received before earned. Revenue from development milestones are accounted for in accordance with the Revenue Recognition - Milestone Method Topic of the FASB ASC. They are recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence that the milestone has been achieved, provided that the milestone event is substantive. A milestone event is considered to be substantive if its achievability was not reasonably assured at the inception of the agreement and the Company's efforts led to the achievement of the milestone or the milestone was due upon the occurrence of a specific outcome resulting from the Company's performance. If both of these criteria are not met, the milestone payment is recognized over the remaining minimum period of the Company's performance obligations under the agreement. The Company assesses whether a milestone is substantive at the inception of each agreement. Revenue from cost reimbursement is recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence.

Revenues from commercial milestones are recognized when earned, as evidenced by written acknowledgment from the collaborator or other persuasive evidence that the milestone has been achieved, as these milestone payments do not require the Company's efforts, but result from the efforts of the collaborator. Royalties on sales made by the Company's collaborators of products incorporating the Company's flavor ingredients are recognized when a royalty report or other persuasive evidence is received, which is generally one quarter in arrears. Non-refundable minimum periodic royalty payments are recognized as revenues over the related royalty periods. Royalty terms are specific to each collaboration and collaborator and can vary from year to year. These terms vary based on factors such as the characteristics of the flavor ingredient and the product categories and geographies licensed by the collaborator. Periodically, as contractually specified, the Company's collaborators are required to provide a report detailing all sales of products containing the Company's flavor ingredients. To the extent that calculated royalties on sales of such products exceed the minimum periodic royalty payments made to date, the collaborators are required to remit to the Company the difference between royalties calculated and minimum periodic royalty payments made to date. The Company recognizes this difference as royalties on product sales at the time the report is received. To the extent that minimum periodic royalty payments through the end of any applicable period exceed calculated royalties, the Company is not required to refund the difference. Although the Company currently does not have any collaborations that include refundable minimum periodic royalty payments, in such a case, revenues would be deferred for refundable minimum periodic royalty payments received before earned.

Cost of Commercial Revenues

Cost of commercial revenues represent royalties payable under the Company's third-party licensing agreements. Such amounts from prior years have been reclassified from commercial revenues to conform to the current year presentation.

Research and Development

Research and development costs, including those incurred in relation to the Company's collaborative agreements, are expensed in the period incurred. Research and development costs primarily consist of salaries and related expenses for personnel, facilities and depreciation, research and development supplies, patents and licenses and outside services.

Patent Costs

Costs related to filing and pursuing patent applications are expensed as incurred, as recoverability of such expenditures is uncertain. The Company includes all external costs related to the filing of patents on developments in Research and Development expenses.

Employee Benefit Plans

The Company has a defined contribution plan under Section 401(k) of the Internal Revenue Code covering employees who meet certain eligibility requirements. Eligible employees may defer their pre-tax compensation up to the maximum allowed by the Internal Revenue Service. Under the plan, the Company may match a portion of employee contributions up to a defined maximum. Such matching contributions become vested and non-forfeitable according to a defined vesting schedule. The Company made matching contributions of $165,000, $150,000 and $148,000 for the years ended December 31, 2012, 2011 and 2010, respectively.

Stock-Based Compensation

Compensation cost for stock-based awards is based on the estimated grant-date fair value. The Company uses the Black-Scholes option-pricing model for determining the estimated fair value for stock-based awards with the following weighted average assumptions (annualized percentages):

	Years Ended December 31,		
	2012	2011	2010
Stock Options			
Expected volatility	69.6%	66.2%	66.8%
Risk-free interest rate	1.22%	2.44%	2.70%
Dividend yield	0.0%	0.0%	0.0%
Expected term	6 years	6 years	6 years
Employee Stock Purchase Plan			
Expected volatility	69.8%	60.2%	62.8%
Risk-free interest rate	0.16%	0.25%	0.40%
Dividend yield	0.0%	0.0%	0.0%
Expected term	1.25 years	1.25 years	1.25 years

Expected volatility is based on the Company's historical volatility. The risk-free interest rate for the expected term of the option is based on the average United States Treasury yield curve at the balance sheet date for the expected term. The assumed dividend yield is based on the Company's expectation of not paying dividends in the foreseeable future. The expected term of options granted is derived from the average midpoint between vesting and the contractual term, as described in the Compensation-Stock Compensation Topic of the FASB ASC. The assumptions related to expected volatility and risk-free interest rate used for the valuation of stock options differ from those used for the valuation of stock purchase rights primarily due to the difference in their respective expected terms.

The weighted-average estimated fair value of employee stock options granted during the years ended December 31, 2012, 2011 and 2010 were $2.01, $4.06 and $1.67 per share, respectively. The weighted-average estimated fair value of employee stock purchase rights granted during the years ended December 31, 2012, 2011 and 2010 were $0.96, $2.33 and $1.44 per share, respectively.

As stock-based compensation expenses recognized in the Statements of Operations for 2012, 2011 and 2010 is based on awards ultimately expected to vest, it is reduced for estimated forfeitures. The Compensation-Stock Compensation Topic of the FASB ASC requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Pre-vesting forfeitures were estimated to be approximately 6.3%, 6.7% and 7.9% for the years ended December 31, 2012, 2011 and 2010, respectively, based on historical experience.

Compensation expenses related to stock-based compensation for options and awards is recognized on a straight-line basis. Compensation expenses related to stock-based compensation is allocated to research and development or general and administrative based upon the department to which the associated employee or non-employee reports.

Total stock-based compensation expenses recognized for the years ended December 31, 2012, 2011 and 2010 was comprised as follows (in thousands):

	Years Ended December 31,		
	2012	2011	2010
Research and development	$ 1,876	$ 2,129	$ 1,834
General and administrative	2,594	2,678	3,104
Total stock-based compensation expenses	$ 4,470	$ 4,807	$ 4,938

The total fair value of options that vested during the years ended December 31, 2012, 2011 and 2010 was $4.7 million, $3.3 million and $4.5 million, respectively. At December 31, 2012, total unrecognized estimated compensation expenses related to non-vested stock options granted prior to that date were $6.7 million, expected to be recognized over a weighted average period of 1.7 years.

Income Taxes

The Company accounts for income taxes in accordance with provisions which set forth an asset and liability approach that requires the recognition of deferred tax assets and deferred tax liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Valuation allowances are established when necessary to reduce deferred tax assets to the amount that is more likely than not expected to be realized. In making such a determination, a review of all available positive and negative evidence is considered, including scheduled reversal of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial performance.

The Company follows the provisions of the Income Taxes Topic of the FASB ASC, which defines a recognition threshold and measurement attributes for financial statement recognition and measurement of a tax provision taken or expected to be taken in a tax return. The Topic also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Under the Topic, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. The Company recognizes interest and penalties related to uncertain tax positions as a component of the income tax provision.

Net Loss Per Share

The Company calculated net loss per share in accordance with the Earnings Per Share Topic of the FASB ASC. Basic earnings per share ("EPS") is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted EPS is computed by dividing the net income or loss by the weighted average number of common share equivalents outstanding for the period determined using the treasury-stock method. Dilutive common share equivalents include the dilutive effect of in-the-money shares, which is calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of a share, the amount of compensation cost, if any, for future service that the Company has not yet recognized, and the amount of estimated tax benefits that would be recorded in paid-in capital, if any, when the share is exercised are assumed to be used to repurchase shares in the current period. For purposes of this calculation, common stock subject to repurchase by the Company, convertible preferred stock, options, and warrants are considered to be common stock equivalents and are only included in the calculation of diluted earnings per share when their effect is dilutive.

The following table sets forth the computation of basic and diluted net loss per share for the respective periods.

	Years Ended December 31,		
	2012	2011	2010
Numerator:			
Net loss (in thousands)	$ (9,186)	$ (8,724)	$ (10,666)
Denominator:			
Weighted average common shares	39,956,283	39,571,094	37,726,285
Basic and diluted net loss per share	$ (0.23)	$ (0.22)	$ (0.28)

	Years Ended December 31,		
	2012	2011	2010
Outstanding antidilutive securities not included in diluted net loss per share calculation:			
Options to purchase common stock	10,574,368	8,991,063	7,405,296
	10,574,368	8,991,063	7,405,296

Comprehensive Income (Loss)

The Comprehensive Income Topic of the FASB ASC requires that all components of comprehensive income (loss), including net income (loss), be reported in the financial statements in the period in which they are recognized. Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company's accumulated other comprehensive income as of December 31, 2012 and 2011 and accumulated other comprehensive loss as of December 31, 2010, consisted of unrealized gains or losses on investments available-for-sale and is reported in stockholders' equity.

Segment Reporting

The Company currently operates in a single operating segment.

2. Balance Sheet Details

Investments Available-for-Sale

The following is a summary of investments available-for-sale securities at December 31, 2012 (in thousands):

	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
United States Treasuries	$ 5,533	$ 1	$ —	$ 5,534
United States Government Agency Bonds	20,856	6	—	20,862
	$ 26,389	$ 7	$ —	$ 26,396

The following is a summary of investments available-for-sale securities at December 31, 2011 (in thousands):

	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
United States Treasuries	$ 11,516	$ 13	$ —	$ 11,529
United States Government Agency Bonds	22,548	9	—	22,557
Corporate Notes	5,048	8	—	5,056
	$ 39,112	$ 30	$ —	$ 39,142

Gross realized gains and losses on available-for-sale securities were immaterial during the years ended December 30, 2012 and 2011. As of December 31, 2012, the Company held $21.4 million of available-for-sale securities with maturity dates within one year and $5.0 million with maturity dates over one year and less than two years.

Property and Equipment

Property and equipment consists of the following (in thousands):

	As of December 31,	
	2012	2011
Scientific equipment	$ 12,639	$ 11,936
Computer equipment	3,365	3,155
Furniture and fixtures	1,087	1,035
Leasehold improvements	13,109	13,050
	30,200	29,176
Less accumulated depreciation and amortization	(22,290)	(19,776)
	$ 7,910	$ 9,400

Depreciation expense was $2.8 million, $2.6 million and $2.7 million for the years ended December 31, 2012, 2011 and 2010, respectively.

Accounts Payable, Accrued Expenses and Other Current Liabilities

Accounts payable and accrued expenses consist of the following (in thousands):

	As of December 31,	
	2012	2011
Accounts payable	$ 393	$ 335
Accrued employee benefits	4,968	4,718
Other accrued expenses	1,177	1,064
	$ 6,538	$ 6,117

3. Fair Value Disclosures

The following table presents information about the Company's financial assets and financial liabilities measured at fair value on a recurring basis as of December 31, 2012, and indicates the fair value hierarchy of the valuation techniques utilized by the Company to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access. The Company classifies money market funds and United States Treasuries as Level 1 assets.

Fair values determined by Level 2 inputs utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets and liabilities in active markets, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. The Company obtains the fair value of Level 2 financial instruments from a third-party professional pricing service using quoted market prices for identical or comparable instruments. The Company's professional pricing service gathers market prices from a variety of industry standard data providers, security master files from large financial institutions and other third-party sources. The service uses these multiple prices as inputs into a distribution-curve based algorithm to determine a fair value. The Company then validates the quoted fair values provided by the professional pricing service by comparing the service's assessment of the fair values of the Company's Level 2 investment portfolio balance against the fair values of the Company's Level 2 investment portfolio balance provided by the Company's investment managers. The Company classifies United States government agency securities as Level 2 assets. There were no transfers between Level 1 and Level 2 during 2012 or 2011.

Level 3 inputs are unobservable inputs for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. The Company does not hold any Level 3 assets. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and considers factors specific to the asset or liability.

The fair value as of December 31, 2012 and 2011 for assets that have recurring measurements are shown below (in thousands):

Description	Balance as of December 31, 2012	Fair Value Measurement at Reporting Date Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial instruments owned:				
Money market funds	$ 15,278	$ 15,278	$ —	$ —
U.S. Treasuries	5,534	5,534	—	—
U.S. Government Agency Bonds	20,862	—	20,862	—
Total financial instruments owned	$ 41,674	$ 20,812	$ 20,862	$ —

Description	Balance as of December 31, 2011	Fair Value Measurement at Reporting Date Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial instruments owned:				
Money market funds	$ 15,503	$ 15,503	$ —	$ —
U.S. Treasuries	11,529	11,529	—	—
U.S. Government Agency Bonds	22,557	—	22,557	—
Corporate Notes	5,056	—	5,056	—
Total financial instruments owned	$ 54,645	$ 27,032	$ 27,613	$ —

4. Product Discovery, Development and Commercialization Collaborations

The Company's current collaboration agreements generally provide for research and development funding, milestone payments, cost reimbursement and royalty payments in the event the collaborator commercializes a product incorporating the Company's flavor ingredients.

For the Company's agreements that include development milestones and commercial milestones, development milestones generally range from $250,000 to $1.0 million each. Development milestones are generally due upon selection and regulatory events. Development milestones are considered to be due to the Company's performance and are accounted for in accordance with the Revenue Recognition - Milestone Method Topic of the FASB ASC. Development milestones are recorded as development revenues. An example of a selection event would be a collaborator selecting a compound for development. The Company's efforts that support the compound selection process include the identification of relevant taste receptors and the development of proprietary taste receptor-based assays based in the identified receptor, the screening and identification of compounds that bind to the identified receptor and optimization of compounds for selection. An example of a regulatory event would be a selected compound obtaining either U.S. or foreign regulatory approval. As of December 31, 2012, the Company's agreements contain 23 unearned potential development milestones totaling $15.0 million. There are circumstances under which the Company and its collaborators in the future may mutually agree to pursue additional program goals, in which case the Company could then be eligible to earn additional milestones. Any such additional milestones remain uncertain at this time. The Company does not consider any individual development milestone to be material due to the relatively small size of any individual development milestone payment in relation to the Company's annual revenues, and due to the uncertainty associated with the scientific progress required for the Company to earn such milestones.

Commercial milestones generally range from $100,000 to $1.5 million each and are due upon commercial events. The Company does not consider commercial events to be due to the Company's performance, and as such, are not accounted for in accordance with the Revenue Recognition - Milestone Method Topic of the FASB ASC. Examples of commercial events would be the first commercial sale of a product containing a developed compound or upon sales of a product containing a developed compound reaching a certain level. As of December 31, 2012, the Company's agreements contain 11 unearned potential commercial milestones totaling $9.0 million. There are circumstances under which the Company and its collaborators in the future may mutually agree to pursue additional program goals, in which case the Company could then be eligible to earn additional milestones. Any such additional milestones remain uncertain at this time. The Company considers milestones for commercial events to be commercial revenues.

The specific type of royalty and method for calculating royalty payments varies by agreement. The Company has retail-based royalty agreements, where any potential royalty payable to us is calculated as a percentage of the net sales price of a manufacturer's finished products or is based on the volume of a manufacturer's finished product that it sells. The Company's retail-based royalty agreements provide for an effective royalty rate of up to 4%. The Company's agreements with Ajinomoto and PepsiCo are either exclusively or partially retail-based royalty agreements. The Company has ingredient supply agreements, where any potential royalty payable to us is calculated as a percentage of the sales price of either the Senomyx ingredient itself or the flavor system in which the Senomyx ingredient is contained or is based on the volume of the ingredient itself used by a manufacturer in a finished product. The Company's ingredient supply royalty agreements specify royalty rates that are typically greater than the rates specified by the Company's retail-based agreements. The Company's agreements with Firmenich, Nestlé and PepsiCo are either exclusively or partially ingredient supply-based royalty agreements. Certain of the Company's current collaboration agreements also provide for upfront license fees and minimum periodic royalties. Below is a discussion of the Company's material agreements.

Material Agreements

Firmenich. In July 2009, the Company entered into a collaboration agreement with Firmenich to work for a minimum two-year collaborative period to discover novel flavor ingredients intended to modify the sweet taste of sucrose, fructose or various forms of rebaudioside. The agreement includes three consecutive options of one year each that could further extend the collaborative research funding period. The agreement was subsequently amended in October 2009. Under the agreement as amended, Firmenich agreed to pay a license fee, payable in three installments, research and development fees and specified payments upon the achievement of milestones. In the event of commercialization, the Company is entitled to receive royalties on future sales of products containing a discovered flavor ingredient.

In October 2010 the Company and Firmenich further amended the agreement to include, among other things, commercial development of S6973, Senomyx's novel sucrose modifier, for specific beverage applications. The amendment also converts Firmenich's license for use of S6973 in powdered beverages from co-exclusive to exclusive and grants Firmenich an exclusive right to commercialize any compound that they select for development for use in confectionary food products. In return, under the terms of the amendment the Company received an additional license fee, and incremental milestone payments and minimum annual royalties.

In November 2010, Firmenich exercised its option to expand the companies' agreement to include the discovery, development, and worldwide commercialization of natural flavor ingredients that modify the taste of sucrose, fructose, and various forms of rebaudioside. In consideration of the expansion of the agreement, Firmenich is paying Senomyx additional research funding as well as milestones, minimum annual royalties, and royalties on sales of natural sweet enhancers developed under the collaboration.

As of December 31, 2012, Firmenich had exercised two of their three one-year options to extend the collaborative research funding period through July 2013.

In connection with this collaborative agreement, the Company recognized development revenues of $6.8 million, $9.1 million and $15.0 million for the years ended December 31, 2012, 2011 and 2010, respectively. Development revenues in 2012 included $750,000 related to the earning of two development milestones. Included in development revenues in 2011 was $250,000 related to the earning of one development milestone. Included in development revenues in 2010 was $1.3 million related to the earning of two development milestones. The Company also recognized commercial revenues of $553,000 and $501,000 for the years ended December 31, 2012 and 2011. As of December 31, 2012 and 2011, the Company had deferred revenues of $747,000 and $2.4 million.

Through December 31, 2012, the Company has received $32.3 million in license fees, research and development funding and cost reimbursements and $2.0 million in milestones. If all milestones are achieved and all extension options are exercised, and including the $34.3 million in license fees, research and development funding, milestones and cost reimbursements paid through December 31, 2012, the Company may be entitled to up to $49.4 million. There is no guarantee that the Company will receive any further milestone payments under this collaboration.

PepsiCo. In August 2010 the Company entered into a collaboration agreement with PepsiCo. The agreement relates to a four-year research program to discover and develop (1) novel natural and artificial flavor ingredients intended to modify the sweet taste of sucrose and fructose, including high fructose corn syrup, and (2) natural high intensity sweeteners, in each case for use in non-alcoholic beverage product categories on a worldwide basis. Under the agreement, the Company received an upfront payment of $30.0 million from PepsiCo, $7.5 million of which was paid in the second quarter of 2010 in connection with the signing of a letter agreement between the parties and $22.5 million of which was paid in the third quarter of 2010.

Senomyx is recognizing this upfront payment over the four-year research period of the agreement. The Company is entitled to $32.0 million in committed research and development payments, payable in equal quarterly installments over the four-year research period. The Company is also entitled to milestone payments and reimbursement of certain out-of-pocket expenses. Upon commercialization, the Company is entitled to minimum annual royalties and royalty payments on products that incorporate selected flavor ingredients and/or natural high intensity sweeteners. PepsiCo has the option to extend one or more of the research programs for two additional years, which would result in additional research funding commitments and payments during the extension of the research program.

In connection with this agreement, the Company recognized development revenues of $17.7 million, $16.6 million and $5.2 million for the years ended December 31, 2012, 2011 and 2010, respectively. Included in development revenues was $1.5 million and $750,000 related to the earnings of development milestones for the years ended December 31, 2012 and 2011, respectively. As of December 31, 2012 and 2011, the Company had deferred revenues of $14.8 million and $22.5 million. Under this agreement, through December 31, 2012, the Company has received $51.9 million in upfront fees, research and development funding and cost reimbursements and $1.5 million in milestones. If all milestones are achieved and all extension options are exercised, and including the $53.4 million in upfront fees, research and development funding, milestones and cost reimbursements, the Company may be entitled to up to $97.0 million. There is no guarantee that the Company will receive any further milestone payments or royalties under this collaboration.

This footnote only discloses amounts recognized for individually material collaboration agreements during 2012, 2011 and 2010, and does not represent the entire amount of development and commercial revenues recognized during those periods.

5. Commitments

Leases and Loans

The Company leases its primary office facility under the Nexus Lease that expires on February 28, 2017. The Nexus Lease provides for an annual 3% rent increase. Rent expense for the years ended December 31, 2012, 2011 and 2010 was $1.7 million for all years. The Company has also entered into various operating lease agreements for office equipment.

The estimated annual future minimum rental payments under the Company's operating leases in effect at December 31, 2012, which expire through 2017, for the years ending December 31 are as follows (in thousands):

	Operating Leases
2013	$ 2,861
2014	2,933
2015	3,007
2016	3,094
2017	519
Thereafter	—
Total minimum lease payments	$ 12,414

In connection with certain license agreements, the Company's annual future minimum obligation payments are $279,000 for the year ending December 31, 2013.

6. Stockholders' Equity

Convertible Preferred Stock

The Company's certificate of incorporation, as amended and restated, authorizes the Company to issue up to 7,500,000 shares of preferred stock, with a par value of $0.001, in one or more series. The Board of Directors may authorize the issuance of convertible preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of convertible preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of the Company and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. No shares of convertible preferred stock were outstanding as of December 31, 2012 or 2011.

Equity Incentive Plan

During 1999, the Company adopted the 1999 Equity Incentive Plan, which was amended and restated by the 2004 Equity Incentive Plan in connection with the Company's initial public offering (the "Plan"), which provides for the grant of incentive and non-statutory stock options and restricted stock purchase rights to employees, directors and consultants of the Company. The Plan, as amended, authorizes the Company to issue up to 17,235,450 shares of common stock. At December 31, 2012, the Company has repurchased a total of 131,152 shares and 4,123,534 shares remain available for grant under the Plan. The Company issues new shares upon the exercise of stock options.

The Plan allows the Company to grant restricted stock purchase rights at no less than 85% of the fair value of the Company's common stock as determined by the Board of Directors at the date of the grant. All restricted stock purchase rights vest in accordance with a vesting schedule determined by the Board of Directors, typically over a four-year period. Since the Plan's inception, under the Plan, 457,069 restricted stock purchase rights have been granted at exercise prices ranging from $0.35 to $0.94 per share, all of which have been exercised as of December 31, 2012, of which no shares are subject to repurchase. No restricted stock purchase rights were granted during the years ended December 31, 2012, 2011 or 2010.

Options granted under the Plan generally expire no later than 10 years from the date of grant (five years for a 10% stockholder). Options generally vest and become fully exercisable over a period of four years. In certain cases, grants to officers, directors and consultants can be made fully exercisable at the date of grant. The exercise price of incentive stock options must be equal to at least the fair value of the Company's common stock on the date of grant, and the exercise price of non-statutory stock options may be no less than 85% of the fair value of the Company's common stock on the date of grant. The exercise price of any option granted to a 10% stockholder may be no less than 110% of the fair value of the Company's common stock on the date of grant. The Company has an option to repurchase all unvested shares, at the original purchase price, upon the voluntary or involuntary termination of employment with, or consulting services provided to, the Company for any reason. At December 31, 2012, no shares of common stock were unvested and subject to repurchase.

The following is a summary of stock option and stock award activity under the Plan through December 31, 2012:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2011	8,991,063	$ 6.80		
Granted	1,849,770	$ 3.23		
Exercised	(17,068)	$ 1.55		
Cancelled	(249,397)	$ 6.96		
Outstanding at December 31, 2012	10,574,368	$ 6.18	6.1	$ 306
Vested or expected to vest at December 31, 2012	10,357,436	$ 6.22	6.0	$ 306
Exercisable at December 31, 2012	7,410,142	$ 7.04	5.0	$ 306

The aggregate intrinsic value represents the difference between the closing market price of the Company's common stock at December 31, 2012 of $1.68 and the exercise price of in-the-money options. The total intrinsic value of options exercised was $29,000, $367,000, and $563,000 during the years ended December 31, 2012, 2011 and 2010, respectively. The Company received $26,000, $379,000 and $929,000 in proceeds from the exercise of stock options during the years ended December 31, 2012, 2011 and 2010, respectively.

Employee Stock Purchase Plan

During 2004, the Company adopted the 2004 Employee Stock Purchase Plan (the "Purchase Plan"), which allows all eligible employees to purchase shares of the Company's common stock at the lower of: (i) 85% of the fair market value on the first day of a two-year offering period; or (ii) 85% of the fair market value on the last date of each six-month purchase period within the two-year offering period. Employees may authorize the Company to withhold up to 15% of their compensation during any purchase period, subject to certain limitations. The Purchase Plan authorizes up to 2,353,096 shares

to be granted. At December 31, 2012, 2,353,063 shares of common stock have been issued under the Purchase Plan at an average price of $2.73 per share.

Shares Reserved for Future Issuance

The following shares of common stock are reserved for future issuance:

	December 31, 2012
Common stock options granted and outstanding	10,574,368
Common stock options reserved for future grant	4,123,534
Common stock reserved under Purchase Plan	33
Total common stock shares reserved for future issuance	14,697,935

Shareholders' Rights Plan

In February 2005, the Company entered into a Share Purchase Rights Plan (the "Rights Plan") which provided for a dividend distribution of one preferred share purchase right (a "Right") for each outstanding share of the Company's common stock. The Rights trade with the common shares, unless and until they are separated upon the occurrence of certain future events. Each Right entitles the registered holder to purchase from the Company one one-hundredth of a share of Series A Junior Participating Preferred Stock, par value $0.001 per share (the "Preferred Shares"), at a price of $100.00 per one one-hundredth of a Preferred Share, subject to adjustment. Each one one-hundredth of a share of Preferred Shares has designations and powers, preferences and rights, and the qualifications, limitations and restrictions which make its value approximately equal to the value of a common share. The Rights will be exercisable only if a person or group acquires 15% or more of common shares or announces a tender offer for 15% or more of the common shares. If a person acquires 15% or more of the common shares, all rightsholders except the buyer will be entitled to acquire common shares at a discount. The Company's Board of Directors may terminate the Rights Plan at any time or redeem the Rights prior to the time the Rights are triggered. The Rights will expire on February 21, 2015 if not previously redeemed or exchanged by the Company.

7. Income Taxes

Significant components of the Company's net deferred tax assets at December 31, 2012 and 2011 are shown below (in thousands). A valuation allowance of $82.1 million and $79.0 million has been established to offset the net deferred tax assets as of December 31, 2012 and 2011, respectively, due to uncertainties surrounding the Company's ability to generate future taxable income to realize these assets.

	Years ended December 31,	
	2012	2011
Deferred tax assets:		
Net operating loss carryforwards	$ 34,300	$ 33,000
Capitalized research and development	21,700	17,500
Research and development credits	8,800	8,600
Deferred revenues	6,300	10,300
Stock compensation	8,200	7,200
Other, net	2,800	2,400
Total deferred tax assets	82,100	79,000
Total deferred tax liabilities	—	—
Net deferred tax assets	82,100	79,000
Valuation allowance for deferred tax assets	(82,100)	(79,000)
Net deferred tax assets	$ —	$ —

The provision for income taxes on earnings subject to income taxes differs from the statutory federal rate at December 31, 2012, 2011 and 2010, due to the following (in thousands):

	2012	2011	2010
Federal income taxes at 35%	$ (3,215)	$ (3,053)	$ (3,733)
State income tax, net of Federal benefit	(409)	(449)	(614)
Tax effect on non-deductible expenses and credits	542	(4,956)	1,137
Other	(28)	3,351	—
Increase in valuation allowance	3,110	5,107	3,210
	$ —	$ —	$ —

The Company recognizes windfall tax benefits associated with the exercise of stock options directly to stockholders' equity only when realized. Accordingly, deferred tax assets are not recognized for net operating loss carryforwards resulting from windfall tax benefits occurring from January 1, 2006 onward. At December 31, 2012 deferred tax assets do not include excess tax benefits from stock-based compensation of approximately $1.7 million.

At December 31, 2012, the Company had Federal and California tax net operating loss carryforwards of approximately $92.3 million and $63.8 million, respectively. The Federal and California tax loss carryforwards will begin to expire in 2019 and 2014, respectively, unless previously utilized.

At December 31, 2012, the Company also had Federal and California research and development tax credit carryforwards of approximately $7.6 million and $6.5 million, respectively. The Federal credit carryforward will begin to expire in 2020 unless previously utilized and the California credit will carry forward indefinitely until utilized.

The Company has analyzed filing positions in all of the Federal and state jurisdictions where it is required to file income tax returns for all open tax years in these jurisdictions. The Company's analysis concluded that, due to past ownership changes, the Company's deferred tax assets for net operating losses and research and development credits will be subject to an annual limitation. As such $3.1 million of net operating losses will expire and $944,000 of research and development credits will expire for Federal purposes as a result of the multiple ownership changes which occurred in prior years. California net operating losses of $3.8 million will expire. As a result of the completion of the analysis, the Company has included the net operating loss and research and development credit carryforward net of the amount to be expired as a deferred tax asset. However, the Company has determined that sufficient future taxable income may not be available to realize the deferred tax assets for net operating loss and research and development credit carryforwards. Therefore, the Company has recognized a full valuation allowance for these deferred tax assets.

The Company updated its Section 382 and 383 analyses through December 31, 2012 and determined that there has not been a subsequent ownership change since February 2007. The completion of the Company's Section 382 and 383 analyses through December 31, 2012 does not prevent further limitations to the Company's net operating loss and research and development credit carryforwards. Additional limitations may arise if the Company experiences an ownership change in subsequent periods.

A rollforward of changes in the Company's unrecognized tax benefits is shown below (in thousands).

	2012	2011	2010
Balance at beginning of year	$ 3,521	$ 1,538	$ 1,541
Additions based on tax positions related to the current year	94	302	—
Additions for tax positions of prior years	14	1,681	—
Reductions for tax positions of prior years	—	—	(3)
Settlements	—	—	—
Balance at end of year	$ 3,629	$ 3,521	$ 1,538

Due to the existence of the valuation allowance, future changes in unrecognized tax benefits will not impact the Company's effective tax rate.

The Company is subject to taxation in the U.S. and state jurisdictions. The Company's tax years for 2009 and forward are subject to examination by the IRS and tax years 2008 and forward are subject to examination by California tax authorities. Due to the carryforward of unutilized net operating losses and research and development credits, the IRS and the California tax authorities may go back to the taxable years in which the net operating losses and research and development

credits became available to recompute such amounts, but not redetermine the tax liability for such years. The Company is currently not under examination by any taxing authorities.

The Company recognizes interest and penalties related to income tax matters in income tax expense. For the years ended December 31, 2012, 2011 and 2010, the Company did not recognize any interest or penalties.

The American Taxpayer Relief Act of 2012, which reinstated the United States federal research and development tax credit retroactively from January 1, 2012 through December 31, 2013, was not enacted into law until the first quarter of 2013. Therefore, the expected tax benefit resulting from such reinstatement for 2012 will not be reflected in the Company's estimated annual effective tax rate until 2013.

8. Summary of Quarterly Financial Data (unaudited)

The following is a summary of the unaudited quarterly results of operations for the years ended December 31, 2012 and 2011, including a reconciliation to amounts reported on the respective Forms 10-Q (in thousands, except per share amounts):

	Year Ended December 31, 2012			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Selected Quarterly Financial Data:				
Revenues per Form 10-Q	$ 8,202	$ 6,872	$ 7,852	
Reclassification of cost of commercial revenues	80	59	64	
Revenues	8,282	6,931	7,916	$ 8,184
Total operating expenses per Form 10-Q	10,080	9,985	9,891	
Reclassification of cost of commercial revenues	80	59	64	
Total operating expenses	10,160	10,044	9,955	10,407
Net loss	(1,852)	(3,094)	(2,027)	(2,213)
Basic and diluted net loss per common share	$ (0.05)	$ (0.08)	$ (0.05)	$ (0.06)

	Year Ended December 31, 2011			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Selected Quarterly Financial Data:				
Revenues per Form 10-Q	$ 8,716	$ 6,965	$ 7,111	
Reclassification of cost of commercial revenues	50	51	52	
Revenues	8,766	7,016	7,163	$ 8,609
Total operating expenses per Form 10-Q	10,010	10,183	9,765	
Reclassification of cost of commercial revenues	50	51	52	
Total operating expenses	10,060	10,234	9,817	10,295
Net loss	(1,255)	(3,188)	(2,624)	(1,657)
Basic and diluted net loss per common share	$ (0.03)	$ (0.08)	$ (0.07)	$ (0.04)

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

There were no changes in or disagreements with Ernst & Young LLP on accounting and financial disclosure required to be reported under this Item 9.

Item 9A. ***Controls and Procedures***

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and our Vice President and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control — Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2012.

The effectiveness of our internal control over financial reporting as of December 31, 2012 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Senomyx, Inc.

We have audited Senomyx, Inc.'s internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Senomyx, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Senomyx, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on the COSO criteria**.**

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of Senomyx, Inc. as of December 31, 2012 and 2011, and the related statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2012 of Senomyx, Inc. and our report dated March 15, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
March 15, 2013

Item 9B. ***Other Information***

None.

PART III

Certain information required by Part III of this Form 10-K is omitted from this report because registrant will file a definitive Proxy Statement within 120 days after the end of its fiscal year pursuant to Regulation 14A for its 2013 Annual Meeting of Stockholders to be held on May 30, 2013, referred to as the Proxy Statement, and the information included therein is incorporated herein by reference.

Item 10. *Directors, Executive Officers and Corporate Governance*

We have adopted a Code of Business Conduct and Ethics Policy that applies to our directors and employees (including our principal executive officer, principal financial officer, principal accounting officer and controller), and have posted the text of the policy on our website (www.senomyx.com) in connection with "Investor Relations" materials. In addition, we intend to promptly disclose (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals, the name of such person who is granted the waiver and the date of the waiver on our website in the future.

The other information required by this item is incorporated by reference to the Proxy Statement under the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance."

Item 11. *Executive Compensation*

The information required by this item is incorporated herein by reference to the information from the Proxy Statement under the sections entitled "Executive Compensation," "Compensation Committee Report" and "Compensation Committee Interlocks and Insider Participation."

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information required by this item is incorporated herein by reference to the information from the Proxy Statement under the sections entitled "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance under Equity Compensation Plans."

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information required by this item is incorporated herein by reference to the information from the Proxy Statement under the sections entitled "Election of Directors" and "Certain Relationships and Related Transactions."

Item 14. *Principal Accountant Fees and Services*

The information required by this item is incorporated herein by reference to the information from the Proxy Statement under the section entitled "Principal Accountant Fees and Services."

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) 1. ***Financial Statements***

See Index to Financial Statements in Item 8 of this annual report on Form 10-K, which is incorporated herein by reference.

2. ***Financial Statement Schedules***

All schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Financial Statements or notes thereto included in Item 8 of this annual report on Form 10-K.

3. ***Exhibits***

Exhibit Footnote	Exhibit Number	Description of Document
(1)	3.1	Amended and Restated Certificate of Incorporation as currently in effect.
(2)	3.2	Amended and Restated Bylaws as currently in effect.
(3)	3.3	Certificate of Designation of Series A Junior Participating Preferred Stock, as filed with the Secretary of State of Delaware on February 14, 2005.
(1)	4.1	Form of Common Stock Certificate.
(3)	4.2	Form of Rights Certificate.
(3)	4.3	Rights Agreement, dated February 14, 2005 by and between Senomyx, Inc. and Mellon Investor Services LLP.
(1)	10.1+	Form of Indemnity Agreement.
(1)	10.2+	1999 Equity Incentive Plan and Form of Stock Option Agreement thereunder.
(1)	10.3+	Amended and Restated 2004 Equity Incentive Plan and Form of Employee and Consultant Stock Option Agreement thereunder.
(4)	10.4+	Form of Non-Employee Director Stock Option Agreement under the 2004 Equity Incentive Plan.
(1)	10.5+	2004 Employee Stock Purchase Plan and Form of Offering Document thereunder.
(5)	10.6+	Senomyx, Inc. 2012 Executive Bonus Plan.
(6)	10.7+	Senomyx, Inc. 2013 Executive Bonus Plan.
	10.8+	Non-Employee Director Compensation Policy.
(7)	10.9+	Description of director compensation provided to Jay Short.
(1)	10.10+	Employment letter agreement dated June 2, 2003 between Senomyx, Inc. and Kent Snyder.
(8)	10.11+	First Amendment to Employment Agreement dated June 2, 2003, as amended effective December 31, 2008, between Senomyx, Inc. and Kent Snyder.
(1)	10.12+	Employment letter agreement dated September 8, 2003 between Senomyx, Inc. and John Poyhonen.
(9)	10.13+	Employment letter agreement dated March 14, 2006 between Senomyx, Inc. and Sharon Wicker.
(8)	10.14+	First Amendment to Employment Agreement dated March 14, 2006, as amended effective December 31, 2008, between Senomyx, Inc. and Sharon Wicker.
(10)	10.15+	Employment letter agreement dated April 13, 2007 between Senomyx, Inc. and Donald S. Karanewsky, Ph.D..
(11)	10.16+	Employment letter agreement dated February 20, 2002 between Senomyx, Inc. and Antony E. Rogers.
(8)	10.17+	Form of Amended and Restated Change in Control Agreement.
(12)	10.18*	Lease Agreement between ARE-NEXUS CENTRE II, LLC and Senomyx, Inc..
(13)	10.19	Subordination, Non-Disturbance and Attornment Agreement dated October 23, 2009 by and between Pacific Life Insurance Co., Senomyx, Inc. and ARE-Nexus Centre II, LLC.
(9)	10.20*	License Agreement between Senomyx, Inc. and The Regents of the University of California dated October 11, 2006.

(14)	10.21*	First Amendment dated February 7, 2007 to the License Agreement between Senomyx, Inc. and The Regents of the University of California dated October 11, 2006.
(13)	10.22*	Second Amendment dated November 20, 2009 to the License Agreement between Senomyx, Inc. and The Regents of the University of California dated October 11, 2006.
(15)	10.31*	Collaborative Research, Development, Commercialization and License Agreement dated July 28, 2009 between Senomyx, Inc. and Firmenich SA.
(13)	10.32*	First Amendment dated October 30, 2009 to the Collaborative Research, Development, Commercialization and License Agreement dated July 28, 2009 between Senomyx, Inc. and Firmenich SA.
(10)	10.33*	Second Amendment dated October 22, 2010 to the Collaborative Research, Development, Commercialization and License Agreement dated July 28, 2009 between Senomyx, Inc. and Firmenich SA, as amended October 30, 2009.
(16)	10.34*	Collaborative Research, Development, Commercialization and License Agreement dated August 16, 2010 between Senomyx, Inc. and PepsiCo, Inc.
(17)	10.35*	First Amendment dated August 2, 2012 to the Collaborative Research, Development, Commercialization and License Agreement dated August 16, 2010, by and between Senomyx, Inc. and PepsiCo, Inc.
	23.1	Consent of Independent Registered Public Accounting Firm.
	24.1	Power of Attorney. Reference is made to the signature page.
	31.1	Certification of Kent Snyder, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
	31.2	Certification of Antony Rogers, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
	32.1	Certification of Kent Snyder, Chief Executive Officer, and Antony Rogers, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
	101	The following financial statements from the Senomyx, Inc. Annual Report on Form 10-K for the year ended December 31, 2012, formatted in Extensive Business Reporting Language (XBRL): (i) balance sheets, (ii) statements of operations, (iii) statements of stockholders' equity, (iv) statements of cash flows, and (v) notes to financial statements (tagged as blocks of text).

+ Indicates management contract or compensatory plan.

* Confidential treatment has been granted or requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(1) Filed as an exhibit to Registration Statement File No. 333-113998 and incorporated herein by reference.
(2) Filed as an exhibit to our Current Report on Form 8-K filed with the Securities and Exchange Commission on December 20, 2007 and incorporated herein by reference.
(3) Filed as an exhibit to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2004 and incorporated herein by reference.
(4) Filed as an exhibit to our Current Report on Form 8-K filed with the Securities and Exchange Commission on September 25, 2009 and incorporated herein by reference.
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(9) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2006 and incorporated herein by reference.
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(17) Filed as an exhibit to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 and incorporated herein by reference.

(b) Exhibits

See Item 15(a) above.

(c) Financial Statement Schedules

See Item 15(a) above.

SIGNATURES

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

Senomyx, Inc.
By: /S/ KENT SNYDER
Kent Snyder
Chief Executive Officer and Chairman of the Board of Directors

Dated: March 15, 2013

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kent Snyder and Antony Rogers, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming that all said attorneys-in-fact and agents, or any of them or their or his substitute or substituted, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ KENT SNYDER Kent Snyder	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 15, 2013
/S/ ANTONY ROGERS Antony Rogers	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2013
/S/ ROGER D. BILLINGSLEY Roger D. Billingsley, Ph.D.	Director	March 15, 2013
/S/ STEPHEN A. BLOCK Stephen A. Block, Esq.	Director	March 15, 2013
/S/ MARY ANN GRAY Mary Ann Gray, Ph.D.	Director	March 15, 2013
/S/ MICHAEL E. HERMAN Michael E. Herman	Director	March 15, 2013
/S/ JAY M. SHORT Jay M. Short, Ph.D.	Director	March 15, 2013
/S/ CHRISTOPHER TWOMEY Christopher Twomey	Director	March 15, 2013

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