As filed with the Securities and Exchange Commission on June 9, 2005. **Registration No. 333**

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM SB-2
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

ORAGENICS, INC.

(Name of small business issuer in its charter)

Florida	**2836**	**59-3410522**
(State or Other Jurisdiction of Organization	(Primary Standard Industrial Classification Code)	(IRS Employer Identification #)

ORAGENICS, INC. **13700 Progress Boulevard** **Alachua, Florida 32615** **Tel: (386) 418-4018**	**Mento A. Soponis** **4730 SW 103 Way** **Gainesville, Florida 32608** **Tel: (386) 418-4018**
(Address and telephone of registrant's executive office)	(Name, address and telephone number of agent for service)

Copies of all communications and notices to:
Darrell C. Smith, Esq.
Shumaker, Loop & Kendrick, LLP
101 E. Kennedy Boulevard
Suite 2800
Tampa, Florida 33602
Tel: (813) 229-7600
Fax: (813) 229-1660

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this registration statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the *Securities Act of 1933*, as amended (the "Securities Act") check the following box. **[X]**

If this Form is filed to register additional securities for an offering under Rule 462(b) of the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. **[ ]**

If this Form is a post-effective amendment filed under Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. **[ ]**

If this Form is a post-effective amendment filed under Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. **[ ]**

If delivery of the prospectus is expected to be made under Rule 434, please check the following box. **[ ]**

CALCULATION OF REGISTRATION FEE

Securities to be Registered	Amount to be Registered(2)	Proposed Maximun Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(1)
Shares of common stock, par value $0.001	4,727,921	$ 2.45	$ 11,583 406	$ 1,346

(1) Estimated solely for the purpose of computing the registration fee required by Section 6(b) of the Securities Act and computed pursuant to Rule 457(c) under the Securities Act based upon the average $2.45 of the high ($2.49) and low ($2.40) prices of the common stock on June 6, 2005, as quoted on the American Stock Exchange. It is not known how many shares will be purchased under this registration statement or at what price shares will be purchased.

(2) The shares being registered consist of (i) 565,421 shares of our common stock issued and outstanding, (ii) 4,000,000 shares issuable to Fusion Capital Fund II, LLC, and (iii) 162,500 shares issuable upon exercise of common stock purchase warrants outstanding as of the date hereof issued in connection with a private placement to accredited investors and placement agents, and such indeterminate number of additional shares of common stock issuable for no additional consideration pursuant to the anti-dilution provisions of such warrants and by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration, which results in an increase in the number of outstanding shares of our common stock. In the event of a stock split, stock dividend or similar transaction involving our common stock, in order to prevent dilution, the number of shares registered shall be automatically increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act of 1933.

REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING UNDER SAID SECTION 8(A), MAY DETERMINE.

SUBJECT TO COMPLETION, DATED June 9, 2005

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the securities and exchange commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

ORAGENICS, INC.

4,727,921 Shares of Common Stock

This prospectus relates to the sale of up to 4,315,421 shares of our common stock by Fusion Capital Fund II, LLC and up to 412,500 shares of our common stock by certain other selling stockholders. The prices at which the selling stockholders may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive proceeds from the sale of our shares by the selling stockholders.

Our common stock is quoted on the American Stock Exchange under the symbol "ONI." On June 6, 2005, the last reported sale price for our common stock as reported on the American Stock Exchange was $2.40 per share. We have applied to have the shares of common stock offered pursuant to this prospectus approved for trading on the American Stock Exchange.

Investing in the common stock involves certain risks. See "Risk Factors" beginning on page 4 for a discussion of these risks.

Fusion Capital is an "underwriter" within the meaning of the Securities Act of 1933, as amended.

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

The date of this Prospectus is

TABLE OF CONTENTS

	Page
PROSPECTUS SUMMARY	1
RISK FACTORS	3
FORWARD-LOOKING STATEMENTS	13
USE OF PROCEEDS	14
MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS	14
THE FUSION TRANSACTION	16
MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION	20
BUSINESS	26
LEGAL PROCEEDINGS	39
MANAGEMENT	40
EXECUTIVE COMPENSATION	42
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	44
CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS	45
DESCRIPTION OF SECURITIES	46
SHARES ELIGIBLE FOR FUTURE SALE	49
SELLING STOCKHOLDERS	50
PLAN OF DISTRIBUTION	51
DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES	52
LEGAL MATTERS	52
EXPERTS	52
WHERE YOU CAN FIND ADDITIONAL INFORMATION	52
FINANCIAL STATEMENTS	F-1

You should rely only on the information contained in this prospectus. We have not, and the selling stockholders have not, authorized anyone to provide you with different information. If anyone provides you with different information you should not rely on it. We are not, and the selling stockholders are not, making an offer to sell the common stock in any jurisdiction where the offer is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

Unless the context otherwise requires, the terms "we,""our,""us,""the company" and "Oragenics" refer to Oragenics, Inc., a Florida corporation, and not to the selling stockholders.

PROSPECTUS SUMMARY

This summary is not complete and does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, including the more detailed information regarding our company, the risks of purchasing our common stock discussed under "Risk Factors" on page [4] and our financial statements and the accompanying notes.

Business

We are an emerging, early-stage biotechnology company aimed at developing novel technologies and products licensed from innovative research at the University of Florida and other academic centers. Our strategy is to in-license and to develop products through human proof-of-concept studies (Phase I and II clinical trials of the U.S. Food and Drug Administration's regulatory process) prior to partnering with major pharmaceutical, biotechnology or healthcare product firms for advanced clinical development and commercialization. Since inception, we have funded a significant portion of our operations from the public and private sales of our securities. We have generated no significant revenues from operations during the last two years. All of our revenues have been from a sponsored research agreement and Small Business Innovation Research (SBIR) grants which have expired. We have not generated revenues from sales of products.

We are currently seeking to develop several products, each of which address potentially large market opportunities:

Replacement therapy is a single, painless one-time topical treatment that has the potential to offer lifelong protection against dental caries (tooth decay). The therapy is based on genetically altering the bacterium, *Streptococcus mutans ("S. mutans"),* which is the primary etiologic agent in tooth decay. Present in the normal flora of the mouth, *S. Mutans* converts dietary sugar to lactic acid; the lactic acid, in turn, causes the erosion of tooth enamel that results in the destruction of the tooth surface and eventually the entire tooth. Replacement therapy permanently replaces resident acid-producing *S. mutans* with a patented, genetically engineered strain of *S. mutans* that does not produce lactic acid. Applied topically to tooth surfaces with a swab, the therapy requires only one application. We have begun Phase I clinical trials and expect to partner with a major healthcare products or pharmaceutical company prior to initiating later stages of clinical testing.

Probiotics are live microorganisms that may confer health benefits to the host when administered in adequate amounts; the use of yogurt containing live *Lactobacillus* cultures is an example of a probiotic application. We have identified three natural strains of bacteria that provide significant protection against the causative organisms of periodontal disease and dental caries. Because probiotic treatments may be marketed in certain markets as "health supplements" without the need for extensive regulatory oversight, we believe that we may achieve commercialization of our probiotic product in certain markets in 2006. If successfully developed, our oral rinse product will be one of the first probiotics to be marketed for the maintenance of oral health.

Mutacin 1140 is a highly potent bactericidal peptide that is produced by our strain of *S. mutans*. Our proprietary mutacin bacteria was discovered by our researchers during the course of developing replacement therapy and is a novel antibiotic that has broad-spectrum antimicrobial activity against essentially all Gram-positive bacteria including vancomycin-resistant *Staphylococcus aureus*. The antibiotic currently is in preclinical stages of development. We currently plan to wait to begin animal studies until we obtain sufficient financial resources.

IVIAT and CMAT are technologies we licensed from iviGene Corporation, a company related to us by common ownership. These technologies enable the simple, fast identification of novel and potentially important gene targets associated with the natural onset and progression of infections, cancers and other diseases in humans and other living organisms, including plants. This licensed technology offers us the potential to generate and develop a number of product candidates for future out-licensing to corporate partners, particularly in the area of cancer and tuberculosis, as well as agricultural and other non-human uses. We currently plan to apply for a Phase II SBIR grant in order to continue any significant research using these licensed technologies.

We were incorporated in Florida in 1996. We amended our articles of incorporation on May 8, 2002, in order to change our name from Oragen, Inc. to Oragenics, Inc. and to increase our authorized capital from 100,000 shares of common stock to 100,000,000 shares of common stock and 20,000,000 shares of preferred stock. Our executive office is located at 13700 Progress Boulevard, Alachua, FL 32615. This is also our mailing address. Our registered office is 4730 S.W. 103 Way, Gainesville, Florida 32608. Our telephone number is (386) 418-4018. Our corporate website is at www.oragenics.com. We do not intend the reference to our web address to incorporate by reference in this prospectus the information on our website. The information on our website is not intended to be part of this prospectus and you should not rely on it when making a decision to invest in our securities.

The Offering

On May 23, 2005, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion Capital), pursuant to which Fusion Capital has agreed, under certain conditions, to purchase on each trading day $15,000 of our common stock up to an aggregate of $9.0 million over a 30 month period. In our discretion, we may elect to sell more of our common stock to Fusion Capital than the minimum daily amount. The purchase price of the shares of common stock will be equal to a price based upon the future market price of the common stock without any fixed discount to the market price. Fusion Capital does not have the right or the obligation to purchase shares of our common stock in the event that the price of our common stock is less than $0.75.

Fusion Capital, is offering for sale up to 4,315,421 shares of our common stock. In connection with entering into the agreement, we authorized the sale to Fusion Capital of up to 4,000,000 shares of our common stock for a maximum proceeds of $9.0 million, provided however, that in the event that we decide to issue more than 2,900,000, i.e. greater than 19.99% of our outstanding shares of common stock as of the date of the agreement, we would first seek shareholder approval in order to be in compliance with American Stock Exchange rules. Assuming Fusion Capital purchases all $9.0 million of common stock, we estimate that the maximum number of shares we will sell to Fusion Capital under the common stock purchase agreement will be 4,000,000 shares (exclusive of the 315,421 shares issued to Fusion Capital as the commitment fee). Subject to approval by our board of directors, we have the right but not the obligation to issue more than 4,000,000 shares to Fusion Capital. In the event we elect to issue more than 4,000,000 shares offered hereby, we will be required to file a new registration statement and have it declared effective by the U.S. Securities & Exchange Commission. The number of shares ultimately offered for sale by Fusion Capital is dependent upon the number of shares purchased by Fusion Capital under the common stock purchase agreement. The other selling stockholders are offering for sale up to 412,500 shares of our common stock, which includes up to 162,500 shares issuable upon exercise of warrants.

As of May 31, 2005, there were 14,912,645 shares outstanding, including the 315,421 shares that we have issued to Fusion Capital as compensation for its purchase commitment and 250,000 shares offered by the other selling stockholder, but excluding the 4,000,000 shares offered by Fusion Capital pursuant to this prospectus which it has not yet purchased from us and up to 162,500 shares issuable upon exercise of warrants by the other selling stockholders. If all of shares offered by this prospectus were issued and outstanding as of the date hereof, the number of shares offered by this prospectus would represent 24.79% of the total common stock outstanding as of May 31, 2005.

RISK FACTORS

You should carefully consider the risks described below together with the other information presented in this prospectus, including the financial statements and notes thereto, before making an investment decision in our common stock. These risk factors are effective as of the date of this prospectus. All of these risks may impair our business operations. The forward-looking statements in this prospectus involve risks and uncertainties and actual results may differ materially from the results we discuss in the forward-looking statements. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected. In that case, the trading price of our stock could decline, and you may lose all or part of your investment.

Risks Associated with Our Company

We Have A Limited Operating History With Significant Losses And Expect Losses To Continue For The Foreseeable Future

We have yet to establish any history of profitable operations. We have incurred annual operating losses of $3,077,888, $1,672,954 and $699,603, respectively, during the past three fiscal years of operation. As a result, at March 31, 2005 we had an accumulated deficit of $6,338,114. Our revenues have not been sufficient to sustain our operations. We expect that our revenues will not be sufficient to sustain our operations for the foreseeable future. Our profitability will require the successful commercialization of our replacement therapy, probiotic and Mutacin 1140 technologies. No assurances can be given when this will occur or that we will ever be profitable.

Our independent registered public accounting firm has added an explanatory paragraph to their audit opinion issued in connection with the financial statements for the year ended December 31, 2004 relative to our ability to continue as a going concern. Our ability to obtain additional funding will determine our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We Will Require Additional Financing To Sustain Our Operations And Without It We Will Not Be Able To Continue Operations

At March 31, 2005, we had working capital of $2,119,999. The independent registered public accounting firm's report for the year ended December 31, 2004, includes an explanatory paragraph to their audit opinion stating that our recurring losses from operations and limited working capital raise substantial doubt about our ability to continue as a going concern. We have an operating cash flow deficit of $1,282,635 for the three months ended March 31, 2005, and have sustained operating cash flow deficits of $2,745,243 in 2004, $1,218,910 in 2003 and $677,442 in 2002. We do not currently have sufficient financial resources to fund our operations. Therefore, we need additional funds to continue these operations.

We only have the right to receive $15,000 per trading day under the agreement with Fusion Capital unless our stock price equals or exceeds $2.20 in which case the daily amount may be increased under certain conditions as the price of our common stock increases. Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock on any trading days that the market price of our common stock is less than $0.75. Since we are initially registering 4,000,000 shares for sale by Fusion Capital pursuant to this Prospectus, the selling price of our common stock to Fusion Capital will have to average at least $2.25 per share for us to receive the maximum proceeds of $9,000,000 without registering additional shares of common stock.

We have authorized the sale and issuance of 4,000,000 shares of our common stock to Fusion Capital under the common stock purchase agreement of which we are registering 4,000,000 shares. We estimate that the maximum number of shares we will sell to Fusion Capital under the common stock purchase agreement will be 4,000,000 shares (exclusive of the 315,421 shares issued to Fusion Capital as the commitment fee) assuming Fusion Capital purchases all $9.0 million of common stock. Subject to approval by our board of directors, we have the right, but not the obligation, to issue more than 4,000,000 shares to Fusion Capital. In the event we elect to issue more than 4,000,000 shares offered hereby, we will be required to file a new registration statement and have it declared effective by the U.S. Securities & Exchange Commission.

In the event that we decide to issue more than 2,917,985 (19.99% of our outstanding shares of common stock as of the date of our agreement), we would first be required to seek stockholder approval in order to be in compliance with American Stock Exchange rules. We have issued 315,421 shares to Fusion Capital as a commitment fee and accordingly may issue up to 2,602,564 shares to Fusion Capital before we would be required to seek stockholder approval in order to be in compliance with American Stock Exchange rules. Assuming a purchase price of $2.40 per share (the closing sale price of the common stock on June 6, 2005) and the purchase by Fusion Capital of 2,602,564 shares under the common stock purchase agreement, proceeds to us would only be $6,246,154, unless we elect to sell more than 2,602,564 shares to Fusion Capital, which we have the right, but not the obligation, to do.

The extent we rely on Fusion Capital as a source of funding will depend on a number of factors including, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources, such as through the sale of products developed from our technologies. Specifically, Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock on any trading days that the market price of our common stock is less than $0.75. If obtaining sufficient financing from Fusion Capital were to prove unavailable or prohibitively dilutive and if we are unable to commercialize and sell products resulting from the development of our technologies, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we are able to access the full $9.0 million under the common stock purchase agreement with Fusion Capital, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences would be a material adverse effect on our business, operating results, financial condition and prospects.

We must spend at least $1 million annually on development of our replacement therapy and* Mutacin *1140 technologies under our license agreements with the University of Florida Research Foundation, Inc. We must also comply with certain other conditions of our licenses. If we do not, our licenses to these technologies may be terminated, and we may have to cease operations.

We hold our replacement therapy and Mutacin 1140 technologies under licenses from the University of Florida Research Foundation, Inc. Under the terms of the licenses, we must spend at least $1 million per year on development of those technologies before the first commercial sale of products derived from those technologies. If we do not, our licenses could be terminated. Until commercial sales of such products take place, we will not be earning revenues from the sale of products and will, therefore, have to raise the money we must spend on development of our technologies by other means, such as the sale of our common stock. There is no assurance we will be able to raise the financing necessary to meet our obligations under our licenses. If we cannot, we may lose our licenses to these technologies and have to cease operations.

The University of Florida Research Foundation, Inc. may terminate our licenses in respect of our replacement therapy technology and our Mutacin 1140 technology if we breach our obligations to timely pay monies to it, submit development reports to it or commit any other breach of the covenants contained in the license agreement. There is no assurance that we will be able to comply with these conditions. If our license is terminated, our investment in development of our replacement therapy and Mutacin 1140 technologies will become valueless and we may have to cease operations.

If we are unable to maintain regulatory clearance or obtain approval for our technologies, we will be unable to generate revenues and may have to cease operations.

Only our replacement therapy technology has been granted clearance to begin Phase 1 human clinical trials by the Food and Drug Administration (FDA). Clinical trials on our replacement therapy are expected to take 4-5 years to fully complete. Our other technologies have not been cleared for testing in humans. Our technologies have not been cleared for marketing by the FDA or foreign regulatory authorities and they will not be able to be commercially distributed in the United States or any international markets until such clearances are obtained. Before regulatory approvals can be obtained, our technologies will be subject to extensive preclinical and clinical testing. These processes are lengthy and expensive. We cannot assure that such trials will demonstrate the safety or effectiveness of our technologies. There is a possibility that our technologies may be found to be unsafe or ineffective or otherwise fail to satisfy regulatory requirements. If we are unable to resolve the FDA's concerns, we will not be able to proceed further to obtain regulatory approval for that technology. If we fail to maintain regulatory clearance for our replacement therapy or fail to obtain FDA clearance for our other technologies, we may have to cease operations.

Our product candidates are in the preliminary development stage, and may not be effective at a level sufficient to support a profitable business venture. If they are not, we will be unable to create marketable products, and we may have to cease operations.

All of our product candidates are in the preliminary development state. Although we have current data which indicates the promise of the concept of our replacement therapy and Mutacin 1140 technologies, we can offer you no assurance that the technologies will be effective at a level sufficient to support a profitable business venture. If they are not, we will be unable to create marketable products, we will not generate revenues from our operations, and we may have to cease operations. The science on which our replacement therapy and Mutacin 1140 technologies are based may also fail due to flaws or inaccuracies on which the data are based, or because the data are totally or partially incorrect, or not predictive of future results. If our science proves to be flawed, incorrect or otherwise fails, we will not be able to create a marketable product or generate revenues and we may have to cease operations.

The success of our research and development activities is uncertain. If they do not succeed, we will be unable to generate revenues from our operations and we will have to cease doing business.

We intend to continue with research and development of our technologies for the purpose of licensing these technologies to third parties or obtaining regulatory approval to manufacture and market them. Research and development activities, by their nature, preclude definitive statements as to the time required and costs involved in reaching certain objectives. Actual costs may exceed the amounts we have budgeted and actual time may exceed our expectations. If research and development requires more funding than we anticipate, then we may have to reduce technological development efforts or seek additional financing. There can be no assurance that we will be able to secure any necessary additional financing or that such financing would be available on favorable terms. Additional financings could result in substantial dilution to existing stockholders. We anticipate we will remain engaged in research and development for a considerable period of time, and there can be no assurance that we will be able to generate adequate revenue from operations.

Each of the technologies we are developing for eventual commercialization will face various forms of competition from other products in the marketplace.

The pharmaceutical and biotechnology industries are characterized by intense competition, rapid product development and technological change. Most of the competition that the products developed from our technologies will face will come from companies that are large, well established and have greater financial, marketing, sales and technological resources than we have. Commercial success of our technologies will depend on our ability and the ability of our sublicensees to compete effectively in product development areas such as, but not limited to, drug safety, efficacy, ease of use, patient or customer compliance, price, marketing and distribution. There can be no assurance that competitors will not succeed in developing products that are more effective than the products developed from our technologies or that would render our products obsolete and non-competitive.

We rely on the significant experience and specialized expertise of our senior management and must retain and attract qualified scientists and other highly skilled personnel in a highly competitive job environment to maintain and grow our business.

Our performance is substantially dependent on the continued services and on the performance of our senior management and our team of research scientists, who have many years of experience and specialized expertise in our business. Our performance also depends on our ability to retain and motivate our other executive officers and key employees. The loss of the services of our Chief Executive Officer, Mento A. Soponis and our Chief Scientific Officer, Dr. Jeffrey D. Hillman, and any of our other executive officers or of our researchers could harm our ability to develop and commercialize our technologies. We have no “key man” life insurance policies. We have three year employment agreements with Mr. Soponis and Dr. Hillman, which automatically renew for one-year terms unless 90 days written notice is given by either party.

Our future success also depends on our ability to identify, attract, hire, train, retain and motivate highly skilled technical, managerial and research personnel. If we fail to attract, integrate and retain the necessary personnel, our ability to maintain and build our business could suffer significantly.

It is possible that our replacement therapy and oral probiotic technologies will be less effective in humans than they have been shown to be in animals. It is possible our* Mutacin *1140 technology will be shown to be ineffective or harmful in humans. If any of these technologies are shown to be ineffective or harmful in humans, we will be unable to generate revenues from them, and we may have to cease operations.

To date the testing of our replacement therapy technology has been undertaken solely in animals. Those studies have proven our genetically altered strain of *S. mutans* to be effective in preventing tooth decay in animals. It is possible that our strain of *S. mutans* will be shown to be less effective in preventing tooth decay in humans in clinical trials. If our replacement therapy technology is shown to be ineffective in preventing tooth decay in humans, we will be unable to commercialize and generate revenues from this technology. To date the testing of our oral probiotic technology has been undertaken solely in animals. Those studies have shown our technology to be effective at helping to reduce certain bacteria that are believed to cause periodontal disease. It is possible that our probiotic technology will not be effective in reducing those bacteria and will not improve periodontal health. If our oral probiotic technology is shown to be ineffective or harmful to humans, we will be unable to commercialize it and generate revenues from sales. To date the testing of the antibiotic substance, Mutacin 1140, has been undertaken solely in the laboratory. We have not yet conducted animal or human studies of Mutacin 1140. It is possible that when these studies are conducted, they will show that Mutacin 1140 is ineffective or harmful. If Mutacin 1140 is shown to be ineffective or harmful, we will be unable to commercialize it and generate revenues from sales of Mutacin 1140. If we are unable to generate revenues from our technologies, we may have to cease operations.

It is possible we will be unable to find a method to produce Mutacin 1140 in large-scale commercial quantities. If we cannot, we will be unable to undertake the clinical trials that are required in order to obtain FDA permission to sell it, we will be unable to generate revenues from product sales, and we may have to cease operations.

Our antibiotic technology, Mutacin 1140, is a substance produced by our genetically altered strain of *S. mutans*. To date, it has been produced only in laboratory cultures. In March 2005 we successfully developed a methodology for manufacturing Mutacin 1140 in quantities sufficient to undertake the preclinical studies necessary to prepare an Investigational New Drug (IND) application to the FDA. We believe we will be able to optimize this methodology to allow large-scale commercial production of the antibiotic. However, this methodology may not be feasible for large-scale manufacture of the Mutacin 1140 antibiotic. If we are not able to optimize this methodology, we will be unable to generate revenues from this technology and we may have to cease operations.

If clinical trials for our product candidates are unsuccessful or delayed, we will be unable to meet our anticipated development and commercialization timelines, which could cause our stock price to decline and we may have to cease operations.

Before obtaining regulatory approvals for the commercial sale of any products, we must demonstrate through preclinical testing and clinical trials that our products are safe and effective for use in humans. Conducting clinical trials is a lengthy, time-consuming and expensive process.

Completion of clinical trials may take several years. Commencement and rate of completion of clinical trials may be delayed by many factors, including:

- lack of efficacy during the clinical trials;
- unforeseen safety issues;
- slower than expected patient recruitment; and
- government or regulatory delays.

Results from preclinical testing and early clinical trials are often not predictive of results obtained in later clinical trials. A number of new products have shown promising results in clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals. Data obtained from preclinical and clinical activities are susceptible to varying interpretations, which may delay, limit or prevent regulatory approval. In addition, regulatory delays or rejections may be encountered as a result of many factors, including perceived defects in the design of the clinical trials and changes in regulatory policy during the period of product development. Any delays in, or termination of, our clinical trials will materially and adversely affect our development and commercialization timelines, which would adversely affect our business and cause our stock price to decline and may cause us to cease operations.

We intend to consider relying on third parties to pay the majority of costs relating to regulatory approvals necessary to manufacture and sell products using our technologies. If we are unable to obtain agreements with third parties to fund such costs, we will have to fund the costs ourselves. We may be unable to do so, and if we are not, we may have to cease operations.

We intend to consider sublicensing our technologies to strategic partners prior to commercialization. If we do so, our sublicensees will pay the costs of any remaining clinical trials, and manufacturing and marketing of our technologies. If we are unable to sublicense our technologies, we will have to pay for the costs of Phase II and III trials and new drug applications to the FDA ourselves. We would also have to set up our own manufacturing facilities and find our own distribution channels. This would greatly increase our future capital requirements and we cannot be assured we would be able to obtain the necessary financing. If we cannot obtain financing, we may have to cease operations.

If our expected collaborative partnerships do not materialize or fail to perform as expected, we will be unable to develop our products as anticipated.

We expect to enter into collaborative arrangements with third parties to develop certain products by sublicensing our technologies to strategic partners. We cannot assure you that we will be able to enter into these collaborations or that, if entered, they will produce successful products. If we fail to maintain our existing collaborative arrangements or fail to enter into additional collaborative arrangements, the number of products from which we could receive future revenues would decline.

Our dependence on collaborative arrangements with third parties subjects us to a number of risks. These collaborative arrangements may not be on terms favorable to us. Agreements with collaborative partners typically allow partners significant discretion in electing whether or not to pursue any of the planned activities. We cannot control the amount and timing of resources our collaborative partners may devote to products based on the collaboration, and our partners may choose to pursue alternative products. Our partners may not perform their obligations as expected. Business combinations or significant changes in a collaborative partner's business strategy may adversely affect a partner's willingness or ability to complete its obligations under the arrangement. Moreover, we could become involved in disputes with our partners, which could lead to delays or termination of the collaborations and time-consuming and expensive litigation or arbitration. Even if we fulfill our obligations under a collaborative agreement, our partner can terminate the agreement under certain circumstances. If any collaborative partner were to terminate or breach our agreement with it, or otherwise fail to complete its obligations in a timely manner, our chances of successfully commercializing products would be materially and adversely affected.

If our intellectual property rights do not adequately protect our products or technologies, or if third parties claim we are infringing their intellectual property rights, others could compete against us more directly or we could suffer significant litigation. Such results could prevent us from marketing our products and hurt our profitability

Our success depends in part on our ability to obtain patents or rights to patents, protect trade secrets, operate without infringing upon the proprietary rights of others, and prevent others from infringing on our patents, trademarks and other intellectual property rights. We will be able to protect our intellectual property from unauthorized use by third parties only to the extent that it is covered by valid and enforceable patents, trademarks and licenses. Patent protection generally involves complex legal and factual questions and, therefore, enforceability of patent rights cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated or circumvented. Thus, any patents that we own or license from others may not provide adequate protection against competitors. In addition, any future patent applications may fail to result in patents being issued. Also, those patents that are issued may not provide us with adequate proprietary protection or competitive advantages against competitors with similar technologies. Moreover, the laws of certain foreign countries do not protect intellectual property rights to the same extent as do the laws of the United States.

In addition to patents and trademarks, we rely on trade secrets and proprietary know-how. We seek protection of these rights, in part, through confidentiality and proprietary information agreements. These agreements may not provide meaningful protection or adequate remedies for violation of our rights in the event of unauthorized use or disclosure of confidential and proprietary information. Failure to protect our proprietary rights could seriously impair our competitive position.

In the event of an infringement or violation, we may face litigation and may be prevented from pursuing product development or commercialization. We may receive in the future, notice of claims of infringement of other parties' proprietary rights. Infringement or other claims could be asserted or prosecuted against us in the future and it is possible that past or future assertions or prosecutions could harm our business. We received notification from B.C. International Corporation on July 29, 2002 that a gene utilized in our licensed, patented strain of *S. mutans* infringes a patent which it holds under a license. Their notification did not state that they intended to pursue legal remedies. Our management does not believe the gene in question infringes that patent. We have sent them correspondence setting out our position and we have not heard anything further from them. If necessary, we are prepared to assert our rights vigorously with respect to such matter. If litigation should ensue and we are unsuccessful in that litigation, we could be enjoined for a period of time from marketing products which infringe any valid patent rights held or licensed by B.C. International Corporation and/or we could owe substantial damages.

We are subject to substantial government regulation, which could materially adversely affect our business.

The production and marketing of products which may be developed from our technologies and our ongoing research and development, preclinical testing and clinical trial activities are subject to extensive regulation and review by numerous governmental authorities. Most of the technologies we are developing must undergo rigorous preclinical and clinical testing and an extensive regulatory approval process before they can be marketed. This process makes it longer, harder and more costly to bring products which may be developed from our technologies to market, and we cannot guarantee that any of such products will be approved. The pre-marketing approval process can be particularly expensive, uncertain and lengthy, and a number of products for which FDA approval has been sought by other companies have never been approved for marketing. In addition to testing and approval procedures, extensive regulations also govern marketing, manufacturing, distribution, labeling, and record-keeping procedures. If we do not comply with applicable regulatory requirements, such violations could result in warning letters, non-approval, suspensions of regulatory approvals, civil penalties and criminal fines, product seizures and recalls, operating restrictions, injunctions, and criminal prosecution.

Delays in or rejection of FDA or other government entity approval of our technologies may also adversely affect our business. Such delays or rejection may be encountered due to, among other reasons, government or regulatory delays, lack of efficacy during clinical trials, unforeseen safety issues, slower than expected rate of patient recruitment for clinical trials, inability to follow patients after treatment in clinical trials, inconsistencies between early clinical trial results and results obtained in later clinical trials, varying interpretations of data generated by clinical trials, or changes in regulatory policy during the period of product development in the United States. In the United States more stringent FDA oversight in product clearance and enforcement activities could result in our experiencing longer approval cycles, more uncertainty, greater risk, and higher expenses. Even if regulatory approval of a product is granted, this approval may entail limitations on uses for which the product may be labeled and promoted. It is possible, for example, that we may not receive FDA approval to market products based on our licensed, patented technologies for broader or different applications or to market updated products that represent extensions of our basic technologies. In addition, we may not receive FDA approval to export our products based on our licensed, patented technologies in the future, and countries to which products are to be exported may not approve them for import.

Any manufacturing facilities would also be subject to continual review and inspection. The FDA has stated publicly that compliance with manufacturing regulations will be scrutinized more strictly. A governmental authority may challenge our compliance with applicable federal, state and foreign regulations. In addition, any discovery of previously unknown problems with one of our products or facilities may result in restrictions on the product or the facility, including withdrawal of the product from the market or other enforcement actions.

From time to time, legislative or regulatory proposals are introduced that could alter the review and approval process relating to our technologies. It is possible that the FDA will issue additional regulations further restricting the sale of our proposed products. Any change in legislation or regulations that govern the review and approval process relating to our future technologies could make it more difficult and costly to obtain approval for new products based on our technologies, or to produce, market, and distribute such products if approved.

We can offer you no assurance the government and the public will accept our licensed patented technologies. If they do not, we will be unable to generate sufficient revenues from our technologies, which may cause us to cease operations.

The commercial success of our replacement therapy, oral probiotics and Mutacin 1140 technologies will depend in part on government and public acceptance of their production, distribution and use. Biotechnology has enjoyed and continues to enjoy substantial support from the scientific community, regulatory agencies and many governmental officials in the United States and around the world. Future scientific developments, media coverage and political events may diminish such support. Public attitudes may be influenced by claims that health products based on biotechnology are unsafe for consumption or pose unknown risks to the environment or to traditional social or economic practices. Securing governmental approvals for, and consumer confidence in, such products poses numerous challenges, particularly outside the United States. The market success of technologies developed through biotechnology such as ours could be delayed or impaired in certain geographical areas because of such factors. Products based on our technologies may compete with a number of traditional dental therapies and drugs manufactured and marketed by major pharmaceutical companies and other biotechnology companies. Market acceptance of products based on our technologies will depend on a number of factors including potential advantage over alternative treatment methods. We can offer you no assurance that dentists, physicians, patients or the medical and dental communities in general will accept and utilize products developed from our technologies. If they do not, we may be unable to generate sufficient revenues from our technologies, which may cause us to have to cease operations.

We may be exposed to product liability claims if products based on our technologies are marketed and sold. Because our liability insurance coverage will have limitations, if a judgment is rendered against us in excess of the amount of our coverage, we may have to cease operations.

Because we are testing new technologies, and will be involved either directly or indirectly in the manufacturing and distribution of the technologies, we are exposed to the financial risk of liability claims in the event that the use of the technologies results in personal injury or death. There can be no assurance that we will not experience losses due to product liability claims in the future, or that adequate insurance will be available in sufficient amounts, at an acceptable cost, or at all. A product liability claim, product recall or other claim, or claims for uninsured liabilities or in excess of insured liabilities, may have a material adverse effect on our business, financial condition and results of operations. Although we currently carry $2,000,000 in general liability insurance, such insurance may not be sufficient to cover any potential liability. We could be sued for a large sum of money and held liable in excess of our liability coverage. If we cannot pay the judgment, we may have to cease operations.

There is uncertainty relating to favorable third-party reimbursement in the United States. If we can't obtain third party reimbursement for products based on our technologies, it could limit our revenue.

In the United States, success in obtaining payment for a new product from third parties such as insurers depends greatly on the ability to present data which demonstrates positive outcomes and reduced utilization of other products or services as well as cost data which shows that treatment costs using the new product are equal to or less than what is currently covered for other products. If we are unable to obtain favorable third party reimbursement and patients are unwilling or unable to pay for our products out-of-pocket, it could limit our revenue and harm our business.

Risks Associated With and Investment in Our Common Stock

The sale of shares by the selling stockholders as contemplated by this prospectus may encourage our other shareholders to sell their stock and have an adverse impact on the market price of our common stock, and the sale to Fusion Capital Fund II, LLC of shares under the common stock purchase agreement will result in dilution to our existing shareholders.

The sale by the selling stockholders of our common stock as contemplated by this prospectus will increase the number of our publicly traded shares, which could depress the market price of our common stock. Moreover, the mere prospect of resales by the selling stockholders as contemplated by this prospectus could depress the market price for our common stock. The issuance of shares to Fusion Capital under the common stock purchase agreement will dilute the equity interest of existing shareholders and could have an adverse effect on the market price of our common stock.

The perceived risk of dilution may cause our shareholders to sell their shares, which would contribute to a decline in the price of our common stock. Moreover, the perceived risk of dilution and the resulting downward pressure on our stock price could encourage investors to engage in short sales of our common stock. By increasing the number of shares offered for sale, material amounts of short-selling could further contribute to progressive price declines in our common stock.

The sale of our common stock to Fusion Capital may cause dilution and the sale of the shares of common stock acquired by Fusion Capital could cause the price of our common stock to decline.

The purchase price for the common stock to be sold to Fusion Capital pursuant to the common stock purchase agreement will fluctuate based on the price of our common stock. All shares in this offering are freely tradable. Fusion Capital may sell none, some or all of the shares of common stock purchased from us at any time. We expect that the shares offered by this prospectus will be sold over a period of up to 30 months from the date of this prospectus. Depending upon market liquidity at the time, a sale of shares under this offering at any given time could cause the trading price of our common stock to decline. The sale of a substantial number of shares of our common stock under this offering, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

Our stock price historically has been volatile and our stock's trading volume has been low.

The market price of our common stock has been and is expected to continue to be highly volatile. Factors, including announcements of technological innovations by us or other companies, regulatory matters, new or existing products or procedures, concerns about our financial position, operating results, litigation, government regulation, developments or disputes relating to agreements, patents or proprietary rights, may have a significant impact on the market price of our stock. In addition, potential dilutive effects of future sales of shares of common stock by stockholders and by the Company, including Fusion Capital pursuant to this prospectus and subsequent sale of common stock by the holders of warrants and options could have an adverse effect on the market price of our shares.

Although our common stock began trading on the American Stock Exchange under the symbol “ONI” on May 20, 2004, the trading price of our common stock has been, and may be, subject to wide fluctuations in response to a number of factors, many of which are beyond our control. These factors include:

- quarter-to-quarter variations in our operating results;
- the results of testing, technological innovations, or new commercial products by us or our competitors;
- governmental regulations, rules, and orders;
- general conditions in the healthcare, dentistry, or biotechnology industries;
- comments and/or earnings estimates by securities analysts;
- developments concerning patents or other intellectual property rights;
- litigation or public concern about the safety of our products;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- release of escrow or other transfer restrictions on our outstanding shares of common stock or sales of additional shares of common stock;
- potential litigation;
- adverse announcements by our competitors; and
- the additional sale of common stock by us in a capital raising transaction.

Historically, the daily trading volume of our common stock has been relatively low. We cannot guarantee that an active public market for our common stock will be sustained or that the average trading volume will remain at present levels or increase. In addition, the stock market in general, has experienced significant price and volume fluctuations. Volatility in the market price for particular companies has often been unrelated or disproportionate to the operating performance of those companies. Broad market factors may seriously harm the market price of our common stock, regardless of our operating performance. In addition, securities class action litigation has often been initiated following periods of volatility in the market price of a company's securities. A securities class action suit against us could result in substantial costs, potential liabilities, and the diversion of management's attention and resources. Since our initial public offering and through March 31, 2005 our stock price has fluctuated from $4.45 to $1.59 per share. To the extent our stock price fluctuates and/or remains low, it could impair our ability to raise capital through the offering of additional equity securities.

Future sales of our common stock may depress our stock price.

The market price of our common stock could decline as a result of sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur. In addition, these factors could make it more difficult for us to raise funds through future offerings of common stock. As of May 31, 2005, there were 14,912,645 shares of our common stock outstanding, with another 436,380 shares of common stock issuable upon exercise of warrants to investors and underwriters, 970,000 shares issuable upon exercise of options issued and an additional 530,000 shares available for issuance under our stock option plans. The issuance of our stock underlying these options is covered by an S-8 registration statement we filed with the SEC and may be resold into the market. As of May 31, 2005, we had approximately 3,960,317 shares of common stock held in escrow pursuant to Canadian law and underwriter requirements in connection with our initial public offering pursuant to escrow agreements. These shares are released from escrow periodically in three- and six -month increments and are subject to the limitations of the respective escrow agreements. Of these shares 3,690,344 are held by principals of the Company and 269,973 are held by the University of Florida Research Foundation, Inc. Through May 31, 2005, approximately 4,510,447 shares held by principals (including a former director) and 329,967 shares held by the University of Florida Research Foundation, Inc. were released from escrow. The released shares held by the principals (excluding the former director) may now be resold into the market under Rule 144. This could cause the market price of our common stock to drop significantly. The shares held by the University of Florida Research Foundation, Inc. are eligible for resale without restriction.

We may be unable to maintain the listing of our common stock on the American Stock Exchange and that would make it more difficult for stockholders to dispose of their common stock.

Our common stock is listed on the American Stock Exchange. We cannot guarantee that it will always be listed. The American Stock Exchange rules for continual listing include minimum market capitalization and other requirements, which we may not meet in the future, particularly if the price of our common stock declines.

If our common stock is de-listed from the American Stock Exchange, trading in our common stock would be conducted, if at all, on the NASD's OTC Bulletin Board in the United States. This would make it more difficult for stockholders to dispose of their common stock and more difficult to obtain accurate quotations on our common stock. This could have an adverse effect on the price of our common stock.

We must maintain a current prospectus and registration statement in connection with shares and warrants issued in connection with our private placement.

We may need to meet state registration requirements for sales of securities in states where an exemption from registration is not otherwise available. There are currently 273,880 shares of common stock issuable upon exercise of the underwriter warrants at $1.25 per share that were issued in connection with our initial public offering and expire on June 24, 2005. In addition, there are 162,500 shares of common stock issuable upon exercise of warrants issued in connection with our private placement, 25,000 at an exercise price of $2.75 and 137,500 at an exercise price of $3.50 expiring November 30, 2008. We are obligated to maintain an effective registration statement in connection with the resale of shares issued and acquired upon exercise of warrants issued in connection with our private placement. It is possible that we may be unable to cause a registration statement covering the common stock underlying these shares and shares issuable upon exercise of the warrants to be effective or to maintain the effectiveness of such registration. There can be no assurance that we will be able to maintain an effective registration statement relating to the resale of our common stock. If we are unable to maintain an effective registration for the resale of common stock issued in connection with our private placement and upon exercise of the warrants, we may be subject to claims by the holders of such shares and warrants.

We have limited resources which exposes us to potential risks resulting from new internal control requirements under Section 404of the Sarbanes-Oxley Act of 2002.

We are evaluating our internal controls in order to allow management to report on, and our independent registered public accounting firm to attest to, our internal controls, as required by Section 404 of the Sarbanes-Oxley Act of 2002. We may encounter unexpected delays in implementing the requirements relating to internal controls, therefore, we cannot be certain about the timing of completion of our evaluation, testing and remediation actions or the impact that these activities will have on our operations. We also expect to incur additional expenses and diversion of management's time as a result of performing the system and process evaluation, testing and remediation required in order to comply with the management certification and auditor attestation requirements. We are a small company with limited resources that will make it difficult for us to timely comply with the requirements of Section 404. If we are not able to timely comply with the requirements set forth in Section 404, we might be subject to sanctions or investigation by regulatory authorities. Any such action could adversely affect our business and financial results. The requirement to comply with Section 404 of the Sarbanes-Oxley Act of 2002 will become effective for our fiscal year ending December 31, 2006.

In addition, in our system of internal controls we may rely on the internal controls of third parties such as payroll service providers. In our evaluation of our internal controls, we will consider the implication of our reliance on the internal controls of third parties. Until we have completed our evaluation, we are unable to determine the extent of our reliance on those controls, the extent and nature of the testing of those controls, and remediation actions necessary where that reliance cannot be adequately evaluated and tested.

FORWARD-LOOKING STATEMENTS

This prospectus 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. Such forward-looking statements include statements regarding, among other things, (a) our projected sales and profitability, (b) our growth strategies, (c) anticipated trends in our industry, (d) our future financing plans, and (e) our anticipated needs for working capital. Forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations, are generally identifiable by use of the words "may,""will,""should,""expect,""anticipate,""estimate,""believe,""intend," or "project" or the negative of these words or other variations on these words or comparable terminology. This information may involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from the future results, performance, or achievements expressed or implied by any forward-looking statements. These statements may be found under "Management's Discussion and Analysis or Plan of Operation" and "Business," as well as in this prospectus generally. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under "Risk Factors" and matters described in this prospectus generally. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this filing will in fact occur. In addition to the information expressly required to be included in this filing, we will provide such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading.

USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholders. We will receive no proceeds from the sale of shares of common stock in this offering. However, we may receive up to $9.0 million in proceeds from the sale of our common stock to Fusion Capital under the common stock purchase agreement and we will receive proceeds from the exercise of the warrants to acquire common stock in the amount of $434,375, assuming all of the warrants are exercised. Any proceeds from Fusion Capital we receive under the common stock purchase agreement will be used for working capital and general corporate purposes.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Our common stock began trading on the American Stock Exchange under the symbol ONI on May 20, 2004. Previously our common stock was traded on the TSX Venture Exchange under the symbol ORA.U. We voluntarily de-listed from the TSX Venture Exchange on October 12, 2004. The following sets forth the high and low closing bid prices for the common stock on the TSX Venture Exchange from the beginning of 2004 through May 19, 2004 and on the American Stock Exchange from May 20, 2004 through June 6, 2005. Such prices represent prices between dealers without adjustment for retail mark ups, mark downs, or commissions and may not necessarily represent actual transactions.

	2005		2004		2003	
	High	Low	High	Low	High	Low
COMMON STOCK						
First quarter	$ 4.00	$ 1.59	$ 4.35	$ 3.20	N/A	N/A
Second quarter	---	---	$ 4.40	$ 2.80	$ 2.30	$ 1.80
Third quarter	---	---	$ 3.75	$ 2.00	$ 4.45	$ 2.62
Fourth quarter	---	---	$ 4.45	$ 2.65	$ 4.40	$ 3.50

On June 6, 2005, the closing bid price of the common stock, as reported by the American Stock Exchange, was $2.40. As of June 6, 2005, there were approximately 20 record holders of our common stock according to our transfer agent. The number of record holders does not reflect the number of beneficial owners of the common stock for whom shares are held by banks, brokerage firms and others.

Equity Compensation Plan Information

We have reserved an aggregate of 1,500,000 shares of our common stock for issuance pursuant to our 2002 Stock Option and Incentive Plan. The per share exercise price of each stock option or similar award granted under these plans must be at least equal to the closing fair market value of the stock on the date of grant. The following table represents the number of shares issuable upon exercise and reserved for future issuance under these plans as of May 31, 2005.

Plan Category	Number of Securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	970,000	$ 2.58	530,000
Equity compensation plans not approved by security holders	273,880(1)	$ 1.25	---
	37,500(2)	$ 2.42	---
Total	1,281,380	$ 2.29	530,000

(1) Represents outstanding underwriter warrants issued in connection with the Company's initial public offering to acquire shares of common stock at an exercise price of $1.25.

(2) Represents warrants issued to the placement agent in connection with the initial closing of the Company's private placement to acquire 25,000 shares of common stock at an exercise price of $2.25, subject to adjustment and 12,500 shares of common stock at an exercise price of $2.75.

Dividends

To date, we have neither declared nor paid any dividends on our common stock nor do we anticipate that such dividends will be paid in the foreseeable future. Rather, we intend to retain any earnings to finance the growth and development of our business. Any payment of cash dividends on our common stock in the future will be dependent, among other things, upon our earnings, financial condition, capital requirements and other factors which the board of directors deems relevant. In addition, restrictive covenants contained in our business loan agreement preclude the payment of dividends without our lenders consent.

THE FUSION TRANSACTION

General

On May 23, 2005 we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC, pursuant to which Fusion Capital has agreed, under certain conditions, to purchase on each trading day $15,000 of our common stock up to an aggregate of $9.0 million over a 30 month period. In our discretion, we may elect to sell more of our common stock to Fusion Capital than the minimum daily amount. The purchase price of the shares of common stock will be equal to a price based upon the future market price of the common stock without any fixed discount to the market price. Fusion Capital does not have the right or the obligation to purchase shares of our common stock in the event that the price of our common stock is less than $0.75.

Fusion Capital is offering for sale up to 4,315,421 shares of our common stock. In connection with entering into the agreement, we authorized the sale to Fusion Capital of up to 4,000,000 shares of our common stock for maximum proceeds of $9.0 million. Assuming Fusion Capital purchases all $9.0 million of our common stock, we estimate that the maximum number of shares we will sell to Fusion Capital under the common stock purchase agreement will be 4,000,000 shares (exclusive of the 315,421 shares issued to Fusion Capital as the commitment fee). Subject to approval by our board of directors, we have the right but not the obligation to issue more than 4,000,000 shares to Fusion Capital. In the event we elect to issue more than 4,000,000 shares offered hereby, we will be required to file a new registration statement and have it declared effective by the U.S. Securities & Exchange Commission. In the event that we decide to issue more than 2,900,000, i.e. greater than 19.99% of our outstanding shares of common stock as of the date of the agreement, we would first be required to seek stockholder approval in order to be in compliance with American Stock Exchange rules. The number of shares ultimately offered for sale by Fusion Capital is dependent upon the number of shares purchased by Fusion Capital under the common stock purchase agreement.

Purchase Of Shares Under The Common Stock Purchase Agreement

Under the common stock purchase agreement, on each trading day Fusion Capital is obligated to purchase a specified dollar amount of our common stock subject to our right to suspend such purchases at any time, and our right to terminate the agreement with Fusion Capital at any time, each as described below, Fusion Capital shall purchase on each trading day during the term of the agreement $15,000 of our common stock. This daily purchase amount may be decreased by us at any time. We also have the right to increase the daily purchase amount at any time, provided however, we may not increase the daily purchase amount above $15,000 unless our stock price is above $2.20 per share for five consecutive trading days. The purchase price per share is equal to the lesser of:

- the lowest sale price of our common stock on the purchase date; or

- the average of the three (3) lowest closing sale prices of our common stock during the twelve (12) consecutive trading days prior to the date of a purchase by Fusion Capital.

The purchase price will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the trading days in which the closing bid price is used to compute the purchase price. Fusion Capital may not purchase shares of our common stock under the common stock purchase agreement if Fusion Capital, together with its affiliates, would beneficially own more than 9.9% of our common stock outstanding at the time of the purchase by Fusion Capital. Fusion Capital has the right at any time to sell any shares purchased under the common stock purchase agreement which would allow it to avoid the 9.9% limitation. Therefore, we do not believe that Fusion Capital will ever reach the 9.9% limitation.

The following table sets forth the amount of proceeds we would receive from Fusion Capital from the sale of shares of our common stock offered by this prospectus at varying purchase prices:

Assumed Average Purchase Price	Number of Shares to be Issued if Full Purchase	Percentage of Outstanding After Giving Effect to the Issuance to Fusion Capital[1]	Proceeds from the Sale of Shares to Fusion Capital Under the Common Stock Purchase Agreement
$0.75	4,000,000	21.15%	$ 3,000,000
$1.00	4,000,000	21.15%	$ 4,000,000
$2.40[2]	3,750,000	20.09%	$ 9,000,000
$3.00	3,000,000	16.75%	$ 9,000,000
$4.00	2,250,000	13.11%	$ 9,000,000
$5.00	1,800,000	10.77%	$ 9,000,000

(1) Based on 14,912,645 shares outstanding as of May 31, 2005. Includes the issuance of 315,421 shares of common stock issuable to Fusion Capital as a commitment fee and the number of shares issuable at the corresponding assumed purchase price set forth in the adjacent column.

(2) Closing sale price of our common stock on June 6, 2005.

In connection with entering into the agreement, we authorized the sale to Fusion Capital of up to 4,000,000 shares of our common stock. We estimate that we will issue no more than 4,000,000 shares to Fusion Capital under the common stock purchase agreement (exclusive of the 315,421 shares issued to Fusion Capital as the commitment fee), all of which are included in this offering. We have the right to terminate the agreement without any payment or liability to Fusion Capital at any time, including in the event that more than 4,000,000 shares are issuable to Fusion Capital under the common stock purchase agreement. Subject to approval by our board of directors, we have the right but not the obligation to issue more than 4,000,000 shares to Fusion Capital. In the event we elect to issue more than the 4,000,000 shares offered hereby, we will be required to file a new registration statement and have it declared effective by the U.S. Securities & Exchange Commission.

Minimum Purchase Price

Under the common stock purchase agreement, we have set a minimum purchase price (“floor price”) of $0.75. Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock in the event that the purchase price would be less than the floor price. Specifically, Fusion Capital shall not have the right or the obligation to purchase shares of our common stock on any trading day that the market price of our common stock is below $0.75.

Our Right To Suspend Purchases

We have the unconditional right to suspend purchases at any time for any reason effective upon one trading day’s notice. Any suspension would remain in effect until our revocation of the suspension. To the extent we need to use the cash proceeds of the sales of common stock under the common stock purchase agreement for working capital or other business purposes, we do not intend to restrict purchases under the common stock purchase agreement.

Our Right To Increase and Decrease the Amount to be Purchased

Under the common stock purchase agreement, Fusion Capital has agreed to purchase on each trading day during the 30 month term of the agreement, $15,000 of our common stock or an aggregate of $9.0 million. We have the unconditional right to decrease the daily amount to be purchased by Fusion Capital at any time for any reason effective upon one trading day's notice.

In our discretion, we may elect to sell more of our common stock to Fusion Capital than the minimum daily amount. First, in respect of the daily purchase amount, we have the right to increase the daily purchase amount as the market price of our common stock increases. Specifically, for every $0.20 increase in Threshold Price (as defined below) above $2.00, the Company shall have the right to increase the daily purchase amount by up to an additional $4,500. For example, if the Threshold Price is $2.20 we would have the right to increase the daily purchase amount to up to an aggregate of $19,500. The "Threshold Price" is the lowest sale price of our common stock during the five trading days immediately preceding our notice to Fusion Capital to increase the daily purchase amount. If at any time during any trading day the sale price of our common stock is below the Threshold Price, the applicable increase in the daily purchase amount will be void.

In addition to the daily purchase amount, we may elect to require Fusion Capital to purchase on any single trading day our shares in an amount up to $300,000, provided that our share price is above $3.00 during the ten (10) trading days prior thereto. The price at which such shares would be purchased will be the lowest Purchase Price (as defined above) during the previous fifteen (15) trading days prior to the date that such purchase notice was received by Fusion Capital. We may increase this amount to $500,000 if our share price is above $4.00 during the ten (10) trading days prior to our delivery of the purchase notice to Fusion Capital. We may deliver multiple purchase notices; however at least ten (10) trading days must have passed since the most recent non-daily purchase was completed.

Events of Default

Generally, Fusion Capital may terminate the common stock purchase agreement without any liability or payment to the Company upon the occurrence of any of the following events of default:

- the effectiveness of the registration statement of which this prospectus is a part of lapses for any reason (including, without limitation, the issuance of a stop order) or is unavailable to Fusion Capital for sale of our common stock offered hereby and such lapse or unavailability continues for a period of five (5) consecutive trading days or for more than an aggregate of thirty (30) trading days in any 365-day period;
- suspension by our principal market of our common stock from trading for a period of three consecutive trading days;
- the de-listing of our common stock from the American Stock Exchange, our principal market, provided our common stock is not immediately thereafter trading on the Nasdaq National Market**,** the Nasdaq SmallCap Market, the New York Stock Exchange or the OTC Bulleting Board;
- the transfer agent's failure for five trading days to issue to Fusion Capital shares of our common stock which Fusion Capital is entitled to under the common stock purchase agreement;
- any material breach of the representations or warranties or covenants contained in the common stock purchase agreement or any related agreements which has or which could have a material adverse affect on us subject to a cure period of ten trading days;
- any participation or threatened participation in insolvency or bankruptcy proceedings by or against us;
- a material adverse change in our business**;** or
- the issuance of an aggregate of 2,917,985 shares to Fusion Capital under our agreement if we fail to obtain the requisite stockholder approval.

Our Termination Rights

We have the unconditional right at any time for any reason to give notice to Fusion Capital terminating the common stock purchase agreement. Such notice shall be effective one trading day after Fusion Capital receives such notice.

Effect of Performance of the Common Stock Purchase Agreement on our Stockholders

All shares registered in this offering will be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 30 months from the date of this prospectus. The sale of a significant amount of shares registered in this offering at any given time could cause the trading price of our common stock to decline and to be highly volatile. Fusion Capital may ultimately purchase up to 4,000,000 shares of common stock registered in this offering, and it may sell some, none or all of the shares of common stock it acquires upon purchase. Therefore, the purchases under the common stock purchase agreement may result in substantial dilution to the interests of other holders of our common stock. However, we have the right at any time for any reason to: (1) reduce the daily purchase amount, (2) suspend purchases of the common stock by Fusion Capital and (3) terminate the common stock purchase agreement.

No Short-Selling or Hedging by Fusion Capital

Fusion Capital has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the common stock purchase agreement.

Commitment Shares Issued to Fusion Capital

Under the terms of the common stock purchase agreement Fusion Capital has received 315,421 shares of our common stock as a commitment fee. Unless an event of default occurs, these shares must be held by Fusion Capital until 30 months from the date of the common stock purchase agreement or the date the common stock purchase agreement is terminated.

No Variable Priced Financings

Until the termination of the common stock purchase agreement, we have agreed not to issue, or enter into any agreement with respect to the issuance of, any variable priced equity or variable priced equity-like securities unless we have obtained Fusion Capital's prior written consent.

Participations Rights

For a period of 30 months from May 23, 2005, the date of the common stock purchase agreement, we have granted to Fusion Capital the right to participate in the purchase of any New Securities (as defined below) that we may, from time to time, propose to issue and sell in connection with any financing transaction to a third party. In particular, Fusion Capital can purchase up to 25% of such New Securities at the same price and on the same terms as such other investor. "New Securities" means any shares of our common stock, our preferred stock or any other of our equity securities or our securities convertible or exchangeable for our equity securities. New Securities shall not include, (i) shares of our common stock issuable upon conversion or exercise of any securities outstanding as of the date of our agreement, (ii) shares, options or warrants for our common stock granted to officers, directors and employees of the company pursuant to stock option plans approved by our board of directors, (iii) shares of our common stock or securities convertible or exchangeable for our common stock issued pursuant to the acquisition of another company by consolidation, merger, or purchase of all or substantially all of the assets of such company or (iv) shares of our common stock or securities convertible or exchangeable into shares of our common stock issued in connection with a strategic transaction involving us and issued to an entity or an affiliate of such entity that is engaged in the same or substantially related business as we are. Fusion Capital's participation rights shall not prohibit or limit us from selling any securities so long as we make the same offer to Fusion Capital.

MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

The following discussion and analysis should be read in conjunction with the Financial Statements and Notes thereto included elsewhere in this prospectus. This discussion contains certain forward-looking statements that involve risks and uncertainties. Our actual results and the timing of certain events could differ materially from those discussed in these forward-looking statements as a result of certain factors, including, but not limited to, those set forth herein.

Overview

We are an emerging, early-stage biotechnology company developing novel technologies and products sourced from innovative research at the University of Florida and other academic centers. Our strategy is to in-license and to develop products through human proof-of-concept studies (Phase I and II clinical trials of the U.S. Food and Drug Administration's regulatory process) prior to partnering with major pharmaceutical, biotechnology or healthcare product firms for advanced clinical development and commercialization. Since inception, we have funded a significant portion of our operations from the public and private sales of our securities. We have generated no significant revenues from operations during the last two years. All of our revenues have been from a sponsored research agreement and SBIR grants which have expired. We have not generated revenues from sales of products.

We are currently seeking to develop several products, each of which address potentially large market opportunities:

Replacement therapy is a single, painless one-time topical treatment that has the potential to offer lifelong protection against dental caries (tooth decay). The therapy is based on genetically altering the bacterium, *S. mutans,* which is the primary etiologic agent in tooth decay. Present in the normal flora of the mouth, *S. mutans* converts dietary sugar to lactic acid; the lactic acid, in turn, causes the erosion of tooth enamel that results in the destruction of the tooth surface and eventually the entire tooth. Replacement therapy permanently replaces resident acid-producing *S. mutans* with a patented, genetically engineered strain of *S. mutans* that does not produce lactic acid. Applied topically to tooth surfaces with a swab, the therapy requires only one application. We have begun Phase I clinical trials of our replacement therapy technology and expect to partner with a major healthcare products or pharmaceutical company prior to initiating later stages of clinical testing.

Probiotics are live microorganisms that may confer health benefits to the host when administered in adequate amounts; the use of yogurt containing live *Lactobacillus* cultures is an example of a probiotic application. We have identified three natural strains of bacteria that provide significant protection against the causative organisms of periodontal disease and dental caries. Because probiotic treatments may be marketed as "health supplements" without the need for extensive regulatory oversight in certain countries, we believe that we may achieve commercialization of our probiotic product in certain markets in 2006. If successfully developed, our oral rinse product will be one of the first probiotics to be marketed for the maintenance of oral health.

Mutacin 1140 is a highly potent bactericidal peptide that is produced by our strain of *S. mutans*. Our proprietary mutacin bacteria was discovered by our researchers during the course of developing replacement therapy and is a novel antibiotic that has broad-spectrum antimicrobial activity against essentially all Gram-positive bacteria including vancomycin-resistant *Staphylococcus aureus*. The antibiotic currently is in preclinical stages of development. We currently plan to wait to begin animal studies of Mutacin 1140 until we obtain sufficient financial resources. See Liquidity and Capital Resources discussion below.

IVIAT and CMAT are technologies we licensed from iviGene Corporation, a company related to us by common ownership. These technologies enable the simple, fast identification of novel and potentially important gene targets associated with the natural onset and progression of infections, cancers and other diseases in humans and other living organisms, including plants. This licensed technology offers us the potential to generate and develop a number of product candidates for future out-licensing to corporate partners, particularly in the area of cancer and tuberculosis, as well as agricultural and other non-human uses.

Business Objectives and Milestones

The specific goal of our business is to successfully develop, clinically test and obtain FDA approval for sales of products based on our licensed, patented technologies. Our strategy is to develop novel technologies through human proof-of-concept studies (Phase I or II clinical trials) prior to partnering with major pharmaceutical, biotechnology or health care product firms for advanced clinical development and commercialization. Upon successful completion of proof-of-concept studies, we intend to consider sublicensing our licensed, patented technologies to one or more strategic partners that would be responsible for advanced clinical development, completing the U.S. Food and Drug Administration's approval process, and manufacturing and marketing our products. In order to accomplish these objectives, we must take the following actions:

Replacement Therapy

1. Successfully complete Phase I clinical trials.
2. Obtain FDA approval for a pivotal trial.

Probiotic Technology

1. Develop appropriate manufacturing and packaging systems.
2. Complete one human study.

Mutacin 1140

1. Complete preclinical studies, including animal toxicity and efficacy, required for an investigational new drug application submission.
2. Submit an investigational new drug application to the FDA.

The above actions, individually and in the aggregate, are expected to be costly and will require additional capital to undertake and complete. To the extent our current capital limits our ability to pursue our technologies being developed, we expect our progress to be limited in the near-term to focus on Replacement Therapy. See Liquidity and Capital Resources below. We currently believe, provided we obtain adequate funding, that we will be able to begin to generate ongoing revenue from our development efforts with our oral probiotics technology sometime in the next eighteen to twenty-four months. This time period could change depending on the progress of our development efforts and our ability to negotiate a partnering arrangement.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect reported amounts and related disclosures. We consider an accounting estimate to be critical if it requires assumptions to be made that were uncertain at the time the estimate was made; and changes in the estimate or different estimates that could have been made could have a material impact on our results of operations or financial condition. Our financial statements do not include any significant estimates that would have a material impact on our results of operations or financial condition.

New Accounting Pronouncements

In December 2004, the Financial Accounting Standards Board (FASB) issued FASB Statement No. 123 (revised 2004), *Share-Based Payment (*"Statement 123(R)"), a revision of FASB Statement No. 123, *Accounting for Stock-Based Compensation*. Statement 123(R) supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees,* and amends FASB Statement No. 95, *Statement of Cash Flows.* Statement 123(R), which we expect to adopt in the first quarter of 2006, is generally similar to Statement 123, however, it will require all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values. Thus, pro forma disclosure will no longer be an alternative to financial statement recognition. We do not believe the adoption of Statement 123(R) will have a material impact on our results of operations or financial position.

Results of Operations

	Three Months Ended March 31	
	2005	**2004**
Revenue	**$ --**	**$ --**
Operating expenses:		
Research and development	647,186	262,295
General and administration	231,919	282,166
Total operating expenses	879,105	544,461
Loss from operations	(879,105)	(544,461)
Other income (expense):		
Interest income	14,620	7,021
Interest expense	(1,645)	---
Total other income, net	12,975	7,021
Loss before income taxes	(866,130)	(537,440)
Income tax benefit	--	--
Net loss	**$** (866,130)	$ (537,440)

	Years ended December 31	
	2004	**2003**
Revenue	**$ 196,210**	**$ --**
Operating expenses:		
Research and development	**1,990,979**	929,355
General and administration	**1,329,983**	738,596
Total operating expenses	**3,320,962**	1,667,951
Loss from operations	**(3,124,752)**	(1,667,951)
Other income (expense):		
Interest income	**47,306**	7,874
Interest expense	**(442)**	(12,877)
Total other income (expense), net	**46,864**	(5,003)
Loss before income taxes	**(3,077,888)**	(1,672,954)
Income tax benefit	**--**	--
Net loss	**$ (3,077,888)**	$ (1,672,954)

For the Three Months Ended March 31, 2005 and 2004

We had no revenues in the three months ended March 31, 2005 and 2004. Our operating expenses increased 61% to $879,105 in the three months ended March 31, 2005 from $544,461 in the same period in 2004. Research and development expenses increased 147% to $647,186 in the three months ended March 31, 2005 from $262,295 in the same period in 2004, reflecting the hiring of additional research staff amounting to approximately $93,000, contract manufacturing and conduct of the replacement therapy clinical trials totaling approximately $212,000, use of consultants costing approximately $40,000 on our Mutacin 1140 and probiotic technologies, increased depreciation for new equipment purchased amounting to approximately $39,000, increased costs for supplies of approximately $30,000 as a result of the increase in our research staff and increased costs to operate our new facilities amounting to approximately $22,000, minimum royalty payments for our technologies of $25,000, less a reduction in expenses in connection with compensation expense for options approximating $76,000 caused by a significantly lower stock price in 2005. General and administration expenses decreased 18% to $231,919 in the three months ended March 31, 2005 from $282,166 in the same period in 2004, reflecting the reduction in expenses in connection with compensation expense for options approximating $127,000 caused by a significantly lower stock price in 2005, offset by increased costs for additional personnel amounting to approximately $35,000, for financial audit services approximating $28,000, and for directors' and officers' liability insurance coverage approximating $14,000.

Interest income increased 108% to $14,620 in the three months ended March 31, 2005 from $7,021 during the same period in 2004, reflecting the higher average cash balances maintained during most of the quarterly period in 2005, as well as higher interest rates in 2005. We incurred interest expense of $1,645 in the three months ended March 31, 2005 as result of the initial draw on a note payable to our bank of approximately $229,500 on February 24, 2005. There was no interest expense in the same period in 2004 as we had no outstanding debt that incurred interest charges.

We incurred net losses of $866,130 and $537,440 during the three months ended March 31, 2005 and 2004, respectively. The increase in our net loss amounting to $328,690 was principally caused by our hiring additional personnel and the increase in costs associated with supporting those employees, the costs to support our clinical trial for our replacement therapy technology and the increase in consulting fees to support our other research efforts.

For the Years Ended December 31, 2004 and 2003

We had revenues of $196,210 in the year ended December 31, 2004 and no revenues in 2003. This is a result of having two Small Business Innovation Research Grants for our Mutacin 1140 and IVIAT technologies in 2004. Our operating expenses increased 99% to $3,320,962 in the year ended December 31, 2004 from $1,667,951 in 2003. Research and development expenses increased 114% to $1,990,979 in 2004 from $929,355 in 2003, reflecting the hiring of research personnel, increased consumption of laboratory supplies and the costs associated with preparing for human clinical trials. General and administration expenses increased 80% to $1,329,983 in 2004 from $738,596 in 2003, reflecting the hiring of personnel, the hiring of outside professionals for investor and public relations, costs associated with public entity filings and increased coverage in directors' and officers' liability insurance.

Interest income increased 501% to $47,306 in the year ended December 31, 2004 from $7,874 in 2003, which was a result of the higher interest rates and higher average cash balances maintained in 2004 due to the exercise of Series A and Series B common stock warrants in December 2003 and March 2004, respectively. Interest expense decreased 97% to $442 in the year ended December 31, 2004 from $12,877 in 2003 as a result of the pay-off of stockholder notes in December 2003.

Our net loss increased 84% to $3,077,888 in the year ended December 31, 2004 from $1,672,954 in 2003. The increase in our net loss was principally caused by the hiring of additional personnel, increased fees paid to outside professionals for clinical trial preparation and public entity filings, and the increased use of supplies.

Liquidity and Capital Resources

Our operating activities used cash for the twelve months ended December 31, 2004, 2003 and the three months ended March 31, 2005 was $2,745,243, $1,218,910 and $1,282,635, respectively. Our working capital was $3,345,512 as of December 31, 2004 and $2,119,999 as of March 31, 2005. Cash used by operations in the twelve months ended December 31, 2004 resulted primarily from operating losses from operations of $3,077,888. Cash used by operations in the three months ended March 31, 2005 resulted primarily from our net loss from operations of $866,130, as well as an increase in prepaid expenses of approximately $100,000, a decrease in accounts payable and accrued expenses of approximately $152,000, and adjustments for non-cash expenses for depreciation of approximately $49,000 and non-cash reversal of expenses for stock-based compensation of approximately $213,000.

Our investing activities used cash of $690,548 for the twelve months ended December 31, 2004 for the acquisition of property and equipment. Our investing activities used cash of $561,462 for the three months ended March 31, 2005 for the acquisition of property and equipment. We anticipate spending approximately $100,000 on additional property and equipment during the remainder of 2005.

Our financing activities provided $3,518,278 in cash for the twelve months ended December 31, 2004, which consists primarily of $3,035,788 in proceeds from exercised warrants. On November 30, 2004 we issued a total of 250,000 shares of our common stock and warrants to purchase 125,000 shares of our common stock pursuant to a subscription agreement between us and three investors. We received gross proceeds of $687,500, and incurred offering costs of approximately $142,500 resulting in net proceeds of approximately $545,000. Westminster Securities Corp., a member of the National Association of Securities Dealers, Inc. and a registered broker-dealer, acted as the placement agent in connection with this private placement transaction. The private placement agreement and offering was terminated by mutual assent of the Company and the placement agent because a sufficient level of funding was not being achieved. Each warrant is exercisable on or before November 30, 2008 to acquire one share of common stock at a price of $3.50 per share. The issuance of the shares of common stock and warrants was made pursuant to the exemption from registration provided by Section 4(2) of the Securities Act. Each investor is accredited under the Securities Act and the securities were sold without any general solicitation. As the placement agent, Westminster received (i) $35,000 (ii) commission of 8% on the gross proceeds to us, and (iii) a warrant to purchase 25,000 shares of common stock at a purchase price of $2.75 per share and a warrant to purchase 12,500 shares of common stock at 3.50. In addition to Westminster's fee and commission, we incurred further expenses in connection with the offering of approximately $52,500.

We anticipate that direct costs in 2005 associated with preparing for and conducting clinical testing on our replacement therapy technology will be approximately $1,700,000. Such costs are expected to consist of approximately $875,000 for manufacturing clinical materials, $475,000 for conducting the clinical trials and $350,000 for employee salaries, fringe benefits, supplies and other related direct costs. We also anticipate spending approximately $525,000 performing animal studies on our Mutacin 1140 technology. Such costs are expected to consist of approximately $175,000 for contract research, $200,000 for employee salaries and fringe benefits and $150,000 for laboratory supplies and other related direct costs.

Our financing activities provided $559,236 in cash for the three months ended March 31, 2005, which consists primarily of $556,361 in proceeds from a note payable to our bank. On February 24, 2005, we entered into a Business Loan Agreement with our bank that will fund approximately $615,000 of laboratory equipment purchases. The loan has a term of 37 months with the first month’s payment of interest only and the remaining monthly payments of principal and interest of approximately $18,900 per month. Interest will be calculated at the prime rate as published in the Wall Street Journal (5.75% at March 31, 2005) plus 1.00%. Interest can never be below 5.75% or above 17.5%. The loan is collateralized by the equipment being purchased as well as all equipment currently owned by the Company and the agreement requires the Company to maintain working capital of $750,000. It is anticipated that the Company will draw $59,000 in additional proceeds under the terms of this loan in the second quarter of 2005.

We anticipate that direct costs in 2005 associated with preparing for and conducting clinical testing on our replacement therapy technology will be approximately $1,700,000, of which $330,000 was spent in the three months ended March 31, 2005. During the remainder of 2005, provided additional financing is obtained, we expect to spend approximately $670,000 for manufacturing clinical materials, $410,000 for conducting the clinical trials and $290,000 for employee salaries, fringe benefits, supplies and other related direct costs. Provided additional financing is obtained, we would also anticipate spending during the remainder of 2005 approximately $434,000 for performing animal studies on our Mutacin 1140 technology. Such costs are expected to consist of approximately $165,000 for contract research, $135,000 for employee salaries and fringe benefits and $134,000 for laboratory supplies and other related direct costs.

Our business is based on commercializing entirely new and unique technologies, and our current business plan contains a variety of assumptions and expectations that are subject to uncertainty, including assumptions and expectations about manufacturing capabilities, clinical testing cost and pricing, continuing technological improvements, strategic licensing relationships and other relevant matters. These assumptions take into account recent financings, as well as expected but currently unidentified additional financings. We have experienced losses from continuing operations during the last two fiscal years and have an accumulated deficit of $6,338,114 as of March 31, 2005. Cash used in operating activities for 2004 was $2,745,243 and for the first three months of 2005 was $1,282,635. At March 31, 2005, our principal source of liquidity was $2,381,383 of cash and cash equivalents. These operating results occurred while developing and attempting to commercialize and manufacture products from entirely new and unique technologies. Our business plan requires significant spending related primarily to clinical testing expenditures. These factors place a significant strain on our limited financial resources and adversely affect our ability to continue as a going concern. Our ultimate success depends on our ability to continue to raise capital for our operations.

Our capital requirements during the remainder of 2005 will depend on numerous factors, including the success of our research and development, the resources we devote to develop and support our technologies, and the success of pursuing strategic licensing and funded product development relationships with external partners. We expect to incur substantial expenditures to further develop each of our technologies including continued increases in personnel and costs related to research, preclinical testing and clinical studies, as well as significant costs associated with being a public company. We believe our working capital at March 31, 2005 is not sufficient to meet our business objectives as presently structured. We will require substantial funds to conduct research and development and preclinical and Phase I clinical testing of our licensed, patented technologies and to develop sublicensing relationships for the Phase II and III clinical testing and manufacture and marketing of any products that are approved for commercial sale. We recognize that we must generate additional capital resources to enable us to continue as a going concern. Our plans include seeking financing, alliances or other partnership agreements with entities interested in our technologies, or other business transactions that would generate sufficient resources to assure continuation of our operations and research and development programs.

Our future success depends on our ability to raise capital and ultimately generate revenue and attain profitability. We cannot be certain that additional capital, whether through selling additional debt or equity securities or obtaining a line of credit or other loan, will be available to us or, if available, will be on terms acceptable to us. If we issue additional securities to raise funds, these securities may have rights, preferences, or privileges senior to those of our common stock, and our current stockholders may experience substantial dilution.

On May 23, 2005, we entered into a Common Stock Purchase Agreement (“Purchase Agreement”) with Fusion Capital Fund II, LLC (“Fusion Capital”). Pursuant to the terms of the Purchase Agreement, Fusion Capital has agreed to purchase from us up to $9,000,000 of our common stock over a 30 month period. Pursuant to the terms of a Registration Rights Agreement, dated May 23, 2005, we agreed to file a registration statement on Form SB-2 (the “Registration Statement”) with the Securities and Exchange Commission covering shares which may be purchased by Fusion Capital under the Purchase Agreement. Once the Registration Statement has been declared effective, on each trading day during the term of the Purchase Agreement we have the right to sell to Fusion Capital $15,000 of our common stock at a price based upon the market price of the common stock on the date of each sale without any fixed discount to the market price. At our option, Fusion Capital can be required to purchase fewer or greater amounts of common stock each month. We have the right to control the timing and the number of shares sold to Fusion Capital.

BUSINESS

This description contains certain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results discussed in the forward-looking statements as a result of certain of the risks set forth herein. We assume no obligation to update any forward-looking statements contained herein.

Overview

We are an early-stage biotechnology company focused on the acquisition and development of novel technologies and products to address significant, unmet medical needs. Our strategy is to in-license and to develop products through human proof-of-concept studies (Phase I and II clinical trials of the U.S. Food and Drug Administration's regulatory process) prior to partnering with major pharmaceutical, biotechnology or healthcare product firms for advanced clinical development and commercialization. Our most advanced product, which we refer to as replacement therapy, is a one-time topical treatment to prevent tooth decay. The FDA has approved our Investigational New Drug application ("IND") for replacement therapy and we began the Phase I trials in 2005.

Since inception, we have funded a significant portion of our operations from the public and private sales of our securities. We have generated no significant revenues from operations during the last two years. All of our revenues have been from a sponsored research agreement and Small Business Innovation Research ("SBIR") grants which have expired. We have not generated revenues from sales of products.

We are currently developing several products, each of which addresses large market opportunities:

- **Replacement therapy** is a single, painless, one-time topical treatment that has the potential to offer lifelong protection against dental caries (tooth decay). Replacement therapy refers to a process which permanently replaces bacteria normally present in the mouth which are strongly associated with tooth decay with a genetically altered strain of bacteria that has been modified so that it no longer contributes to the disease. Present in the normal flora of the mouth, *S. mutans* converts dietary sugar to lactic acid; the lactic acid, in turn, causes the erosion of tooth enamel that results in the destruction of the tooth surface and eventually the entire tooth. Replacement therapy permanently replaces resident acid-producing *S. mutans* with a patented, genetically engineered strain of *S. mutans* that does not produce lactic acid. Applied topically to tooth surfaces with a swab, the therapy requires only one application. We began Phase I clinical trials in 2005 and intend to partner with a major healthcare products or pharmaceutical company prior to initiating later stages of clinical testing.

- **Probiotics** are live microorganisms that confer health benefits to the host when administered in adequate amounts; the use of yogurt containing live *Lactobacillus* cultures is an example of a probiotic application. We have identified three natural strains of bacteria that provide significant protection against the causative organisms of periodontal disease and dental caries. We are developing a formulation and method of delivery of these beneficial bacteria that we plan to commercialize as a dental care probiotic. Because probiotic treatments may be marketed as "health supplements" without the need for extensive regulatory oversight in certain countries, we believe that we may achieve commercialization of our probiotic product in certain markets in 2006. If successfully developed, our oral probiotic product will be one of the first probiotics to be marketed for the maintenance of oral health.

- **Mutacin 1140** is a highly potent bactericidal peptide produced by *S. mutans*. This proprietary peptide was discovered by our researchers during the course of developing replacement therapy and is a novel antibiotic that has broad-spectrum antimicrobial activity against essentially all Gram-positive bacteria including vancomycin-resistant *Staphylococcus aureus*. The antibiotic currently is in preclinical stages of development. We currently plan to begin animal studies in 2005, provided sufficient funding is available.

- **IVIAT and CMAT** are technologies we licensed from iviGene Corporation (a company related to us by common ownership). These technologies enable the simple, fast identification of novel and potentially important gene targets associated with the natural onset and progression of infections, cancers and other diseases in humans and other living organisms, including plants. This licensed technology offers us the potential to generate and develop a number of product candidates for future out-licensing to corporate partners, particularly in the area of cancer and tuberculosis, as well as agricultural and other non-human uses. We currently plan to apply for a Phase II SBIR grant in order to continue any significant research using these licensed technologies.

Our Business Strategy

Our strategy is to develop novel technologies through human proof-of-concept studies (Phase I or II clinical trials) prior to partnering with major pharmaceutical, biotechnology or health care product firms for advanced clinical development and commercialization. Upon successful completion of proof-of-concept studies, we intend to consider sublicensing our licensed, patented technologies to one or more strategic partners that would be responsible for advanced clinical development, completing the U.S. Food and Drug Administration's ("FDA") approval process, and manufacturing and marketing our products. We plan to structure our agreements with strategic partners sublicensing our technology to include an upfront licensing fee upon execution of the agreement, milestone payments upon achievement of specific product development goals and royalties from product sales.

In pursuing this strategy, we expect to avoid the high cost of later stage clinical trials and generate revenues in the form of license fees from our technologies sooner than if we were to complete the lengthy FDA approval-process ourselves. Once one or more of our technologies are successfully licensed, we plan to license additional promising technologies within our field of expertise from leading academic institutions and other biotechnology companies. There can be no assurance that we will be able to enter into such sublicenses.

Our Technologies

Replacement Therapy

Dental caries (tooth decay) is a worldwide epidemic that affects the majority of populations in industrialized and developing countries. According to the World Health Organization, tooth decay is the most prevalent infectious disease, affecting approximately 5 billion people. Much of the tooth decay in low-income countries remains untreated until the teeth are extracted.

Tooth decay is characterized by the dissolution of enamel and dentin which eventually results in the destruction of the entire tooth. The immediate cause of tooth decay is organic acid produced by microorganisms on the tooth surface. Studies suggest that of the 400 to 500 microbial species in the mouth, *S. mutans,* a common bacterium found in virtually all humans, is the principal causative agent in the development of tooth decay. Residing within dental plaque, *S. mutans* derives its energy from carbohydrate metabolism as it converts dietary sugar to lactic acid which, in turn, erodes the tooth enamel.

Our replacement therapy technology employs a genetically modified strain of *S. mutans* that does not produce lactic acid. When applied to the teeth, this non acid-producing organism displaces and permanently replaces the indigenous acid-producing strains of *S. mutans,* thereby potentially providing lifelong protection against most forms of tooth decay.

Replacement therapy is suitable for use by the general population. The ideal application would be to treat infants at the onset of tooth eruption when initial bacterial colonization of the tooth surfaces is occurring. Replacement therapy requires only a single 5-minute application. Applied topically to the teeth with a swab, the therapy can be administered by dentists to patients during routine office visits.

We submitted an IND for replacement therapy to the FDA in 1998 seeking permission to begin Phase I clinical trials. In March 2003, we submitted a new IND. In November 2004, the FDA approved our clinical design and protocol for the Phase I clinical trial. In March 2005, we initiated enrollment in the clinical trial and began enrolling subjects in May 2005.

Technical Background

Replacement therapy represents a novel approach to preventing bacterial infections by capitalizing on interactions between different species of bacteria inhabiting the same ecosystem. This approach involves permanently implanting a harmless strain of bacteria in the host's microflora. Once established, the harmless strain prevents the colonization and outgrowth of a potential pathogen. In the case of dental caries, beneficial bacteria are implanted in the mouth of the host to prevent colonization of the harmful bacteria that cause tooth decay.

Our replacement therapy involves replacing the naturally occurring, acid-producing strains of *S. mutans* with a genetically engineered strain of *S. mutans* that does not produce lactic acid. Our researchers discovered a strain of *S. mutans* that did not produce the decay-causing lactic acid. This strain, however, could not permanently replace the acid-producing strains of *S. mutans* naturally occurring in the normal flora of the mouth. Thus, it was first necessary to find a strain of *S. mutans* that could permanently replace the naturally occurring decay-causing strains of *S. mutans*.

Through extensive scientific research, we eventually found a rare strain of *S. mutans,* present in only 1% of the population, which secretes a natural antibiotic capable of killing virtually all other strains of *S. mutans.* We believe this natural antibiotic, referred to as Mutacin 1140, enables the bacteria to persistently and preemptively colonize the oral cavity, displace pre-existing strains and gain dominance in its ecosystem, dental plaque.

Using this rare strain as the starting strain, we eliminated the gene encoding for the enzyme responsible for producing lactic acid. Our research revealed the gene deletion eliminated the bacteria's ability to produce lactic acid; however, it also prevented the strain from growing. So as to correct the imbalance, an auxiliary gene was inserted which restored the strain's growth. Instead of lactic acid, the strain produced ethanol and acetoin which are the normal end products of metabolism in many other microorganisms colonizing the oral cavity. We named this strain BCS3-L1, and filed for composition of matter intellectual property protection for the strain.

Regulatory Status

We submitted an Investigational New Drug application for our replacement therapy to the U.S. Food and Drug Administration in 1998 seeking permission to begin clinical trials. Subsequent to review by the Office of Vaccines Research and Review Division of Vaccines and Related Products Application at the Center for Biologics Evaluation and Research (CBER), the FDA placed the application on clinical hold pending the development of a recall mechanism to completely eradicate the organism from human subjects, should it be necessary, until complete safety could be experimentally established in the Phase I clinical trials.

In response to this requirement, we genetically engineered a second strain of *S. mutans* (A2JM) identical in every aspect to the original strain (BCS3-L1) except that it requires d-alanine for survival. d-alanine was selected because the nutrient is not normally found in human diets; humans do not produce it; and it can be easily administered via a mouth rinse. With d-alanine nutrient supplementation, the organism lives; without nutrient supplementation, the organism cannot survive. Therefore, we believe the organism can be completely eradicated from human subjects by withdrawing d-alanine nutrient supplementation.

In the initial studies to assess product safety (Phase I clinical trials) that began in March 2005, the genetically altered strain of *S. mutans* requiring d-alanine supplementation is administered to study subjects in conjunction with a twice daily dose of a d-alanine mouth rinse. Once safety is experimentally established, the replacement therapy to be commercialized will consist of the original strain which does not require d-alanine to survive.

The initial study will be conducted in six couples and an additional nine unattached males at Hill Top Research in West Palm Beach, Florida and will look at the safety of Replacement Therapy and the potential for transmission of the Replacement Therapy organism to the non-treated member of each couple (referred to as horizontal transmission). All of the participants in the trial must be without teeth, with full sets of dentures, and under the age of 55. The study will involve four days of pretreatment with an antibiotic (chlorhexidine) to kill resident *S. mutants* in each participant's mouth. Male study subjects will then receive Replacement Therapy. The non-treated member of each couple will be tested repeatedly to see if there is any horizontal transmission of the Replacement Therapy organism from one person to another. The investigators will determine the genetic stability of the Replacement Therapy organism over time. Seven days after treatment, the subjects will undergo an eradication phase of the study for one month, using the same antibiotic and the withholding of a D-alanine amino acid supplement that the Replacement Therapy organism requires for its survival. The investigators will subsequently follow each study participant for three months to ensure that the eradication was effective.

Preclinical Studies

From 1976 to 2002, our researchers and others have conducted several animal studies on replacement therapy for dental caries. We believe these studies support our belief in the ability of our novel technology to prevent tooth decay. Additionally, we believe these studies demonstrate the ability of our genetically engineered strain of *S. mutans* to persistently and preemptively colonize the oral cavity and aggressively displace the indigenous wild-type strain, filling its bacterial niche in all respects except for the production of lactic acid.

In the most recent animal study, our patented effector strain (BCS3-L1) and the wild-type strain were both grown in culture in the presence of sugar. The wild-type strain produced mostly lactic acid from the metabolism of sugar; it also produced small amounts of other acids as well as the non-acidic compounds, ethanol and acetoin. By contrast, our genetically modified strain produced mostly the non-acidic compounds, ethanol and acetoin, from the metabolism of sugar. No lactic acid was detectable. Two identical groups of conventional rats were then infected with either the wild-type strain or the genetically modified strain. A third identical group was not infected and served as the control group.

In both preemptive colonization and aggressive displacement rat model studies, the genetically engineered effector strain performed well and was able to occupy the niche normally occupied by wild-type *S. mutans*. The Mutacin 1140 produced by the effector strain appeared to provide a selective advantage in colonization suitable for use in replacement therapy for dental caries.

A six-month study was also conducted to evaluate possible toxic effects of exposure to the genetically modified effector strain. No adverse gross or histological side effects were observed in conventional rats. Sufficient amounts of Mutacin 1140 have not yet been purified to be able to directly test its toxicity but it belongs to the same class of antibiotics as nisin, which has very low toxicity and is used as a food preservative worldwide.

In summary, we believe the preclinical studies demonstrate that our genetically modified strain of *S. mutans*:

- Does not cause significant tooth decay in rats;
- Persistently and preemptively colonizes the tooth surfaces of rats;
- Displaces other strains of *S. mutans;*
- Is genetically stable in the laboratory and in rats;
- Shows no toxicity in acute and chronic tests; and
- Does not disrupt the normal flora of the mouth.

Intellectual Property

We have exclusively licensed the intellectual property for our replacement therapy from the University of Florida Research Foundation, Inc. The license is dated August 4, 1998 and was amended on September 15, 2000, July 10, 2002, September 25, 2002 and March 17, 2003. The agreement provides us with an exclusive worldwide license to make, use and sell products and processes covered by Patent No. 5,607,672, which is dated March 4, 1997 and will expire on March 3, 2014. Our license is for the period of the patent, subject to the performance of terms and conditions contained therein. The patent covers the genetically altered strain of *S. mutans* which does not produce lactic acid, a pharmaceutical composition for administering the genetically altered strain and the method of preventing tooth decay by administering the strain. The University of Florida Research Foundation, Inc. has reserved for itself and the University of Florida the right to use and sell such products and services for research purposes only. Our license also provides the University of Florida Research Foundation, Inc. with a license, for research purposes only, to any improvements that we make to the products and processes covered by the patent.

Under the terms of the license, we have entered into an Equity Agreement with the University of Florida Research Foundation, Inc. under which we issued 599,940 shares of our common stock as partial consideration for the license. We are obligated to pay 5% of the selling price of any products developed from the licensed technology to the University of Florida Research Foundation, Inc. and, if we sublicense the license, we are obligated to pay 20% of all amounts received from the sublicensee. On December 31, 2005 and each year thereafter we are obligated to make a minimum royalty payment of $50,000. We spent in excess of $600,000 in 2003 and $1,000,000 in 2004 which were the minimum amounts required under our license in order to maintain it. In each future calendar year, we are obligated to spend, or cause to be spent, an aggregate of $1,000,000 on the research, development and regulatory prosecution of our replacement therapy and Mutacin 1140 technologies combined, until a product which is covered wholly or partially by the claims of the patent, or is manufactured using a process which is covered wholly or partially by the claims of the patent, is sold commercially. If we fail to make these minimum expenditures, the University of Florida Research Foundation, Inc. may terminate our license.

We must also pay all patent costs and expenses incurred by the University of Florida Research Foundation, Inc. for the preparation, filing, prosecution, issuance and maintenance of the patents beyond $105,000. We have paid $100,000 to the University of Florida Research Foundation, Inc. for patent expenses already incurred. We have agreed to indemnify and hold the University of Florida Research Foundation, Inc. harmless from any damages caused as a result of the production, manufacture, sale, use, lease, consumption or advertisement of the product. Further, we are required to maintain liability insurance coverage appropriate to the risk involved in marketing the products, for which we obtained liability insurance in the amount of $2,000,000 that expires in August, 2005. There is no assurance that we can obtain continued coverage on reasonable terms.

We received notification from B.C. International Corporation on July 29, 2002 that a gene utilized in its licensed, patented strain of *S. mutans* infringes a patent which it holds under a license. Their notification did not state that they intended to pursue legal remedies. We do not believe that the gene in question infringes that patent and we sent them correspondence setting out our position. We have received no further communication from them.

Manufacturing, Marketing and Distribution

The manufacturing methods for producing our genetically engineered strain of *S. mutans* are standard fermentation methods. These methods involve culturing bacteria in large vessels and harvesting them when mature by centrifuge or filtration. The cells are then suspended in a pharmaceutical medium appropriate for application in the human mouth. These manufacturing methods are commonplace and readily available within the pharmaceutical industry.

Upon successful completion of Phase I clinical trials, we intend to consider sublicensing our replacement therapy technology to one or more strategic partners that would be responsible for advanced clinical development and commercialization including product manufacturing, marketing and distribution.

Market Opportunity

Despite the introduction of fluorides in public water systems, fluoridated toothpastes, fluoride treatments in the dental office and dental sealants, tooth decay still affects the majority of children and adults. There are a number of factors that are likely to increase the incidence and frequency of tooth decay which include:

- increasing consumption of dietary sugar;
- increasing consumption of bottled water, which generally does not contain fluoride; and
- increasing age of the population.

During the last 20 years, sugar consumption has increased. Higher dietary intake of sugar predisposes individuals to higher rates of tooth decay. Moreover, according to the Beverage Marketing Corporation, by 2005 consumers will drink more bottled water than any other alcoholic or non-alcoholic beverage, with the exception of carbonated soft drinks. Since bottled water generally does not contain fluoride, the protective effects of fluoridated public water systems are lost. With the aging of the population, the incidence and frequency of tooth decay is likely to further increase as most of the baby boomers upon reaching retirement age will have a relatively intact dentition unlike previous generations. Teeth lose density with age and become more susceptible to decay. Therefore, more teeth will be at risk for tooth decay.

Replacement therapy represents a novel approach to preventing tooth decay. The technology confers potentially lifelong protection against tooth decay with one treatment, is suitable for use by the general population and involves minimal patient education and compliance.

Competition

We are not aware of any direct competitors with respect to our licensed, patented replacement therapy technology. However, there may be several ways to disable or eradicate *S. mutans*. We know that certain companies and several academic and research institutions are developing and testing caries vaccines aimed at eradicating *S. mutans.* An alternative approach involves topical application of adhesion-blocking synthetic peptides that prevent *S. mutans* from attaching to the tooth surface. Products that result in the elimination of *S. mutans* from the natural ecosystem would require major studies to determine whether such eradication of a naturally occurring bacteria might not create serious, unintended consequences. The problem with eradicating *S. mutans* is that it disrupts the natural ecosystem leaving a void for another pathogen potentially more harmful than *S. mutans* to dominate.

Academic institutions, government agencies and other public and private research organizations may conduct research, seek patent protection and establish collaborative arrangements for discovery, research and clinical development of technologies and products that are similar to our replacement therapy technology. Also many of the potential competitors have research and development capabilities that may allow them to develop new or improved products that may compete with products based on our technologies.

Any product based on our replacement therapy technology will compete against traditional oral care products used to combat tooth decay. These products include fluoride-based toothpastes as well as fluoride treatments and tooth sealants administered by dentists. These competitors could include, among others, Colgate; Procter & Gamble; Unilever; GlaxoSmithKline; and Dentsply. All of these companies are much larger and have far greater technical and financial resources than us.

Probiotics

Probiotics are live microorganisms that are believed to confer a health benefit to their host when administered in adequate amounts. In probiotic therapy, beneficial microorganisms are colonized in areas normally colonized by pathogens. By being better adapted to their ecosystem than the pathogens, these beneficial bacteria crowd out harmful bacteria and inhibit colonization and growth of the disease-causing pathogens. Examples of common probiotic applications are the use of yogurt containing live cultures to improve digestion, immune system response, and vaginal and urinary tract health.

The oral cavity provides an ecological niche for 400 -500 bacterial species, some of which are responsible for periodontal disease (gum disease) and dental caries (tooth decay). Of all of the bacteria normally residing in a person's mouth, only about half a dozen are the primary cause of periodontal disease and are bacteria believed to be principally responsible for dental caries. Our oral rinse probiotics' technology employs three natural strains of beneficial bacteria which promote oral health and inhibit the growth of harmful bacteria that cause periodontal disease and tooth decay.

Technical Background

Through our research, we have developed a probiotic product containing three natural strains of beneficial bacteria that we believe promote oral health. The three bacterial strains are *Streptococcus oralis* and *Streptococcus uberis* for the maintenance of periodontal health and *Streptococcus rattus* for the maintenance of dental health.

Streptococcus oralis and *Streptococcus uberis* are among several hundred bacterial species of bacteria that constitute normal dental plaque. These bacteria, by virtue of their ability to produce hydrogen peroxide, appear to promote periodontal health by keeping the number of potentially pathogenic organisms below the threshold level necessary to initiate disease. These bacteria have demonstrated an ability to inhibit bacteria implicated in periodontal disease in both laboratory and animal studies. Human studies have correlated presence of these bacteria with the absence of periodontal pathogens. Probiotics containing these bacteria applied frequently may provide significant protection against causative organisms of periodontal disease.

Similarly, we have identified a bacterial strain closely related to *S. mutans, Streptococcus rattus,* which is naturally deficient in its ability to produce lactic acid. Studies have shown that daily treatment with this strain results in decreased numbers of *S. mutans*, most likely by competition for essential nutrients or attachment sites on the tooth surfaces. Daily application of this strain may provide significant protection against tooth decay.

Preclinical Studies

We believe preclinical studies have demonstrated the ability of our probiotic to maintain a healthy oral environment. The probiotic creates a healthful balance of total bacteria by reducing the numbers of bacteria that are causative agents of periodontal disease and dental caries.

Periodontal disease. We believe research conducted by our scientists and others has shown that certain types of natural bacteria normally present in dental plaque can prevent the growth of bacteria that are widely believed to be responsible for periodontal disease. *Streptococcus oralis* and *Streptococcus uberis* have been shown in studies to inhibit the growth of disease-causing bacteria both in laboratory and animal models of infection. Data indicate that the presence of *Streptococcus oralis* and *Streptococcus uberis* provide a good indication of the health of the periodontium (gums). In healthy periodontal sites, *Streptococcus oralis* and *Streptococcus uberis* are commonly found in significant amounts while levels of the pathogenic bacteria are usually low. In diseased periodontal sites, the opposite situation prevails; *Streptococcus oralis* and *Streptococcus uberis* are usually undetectable. When these bacteria are absent from sites in the periodontium, the sites are much more prone to disease.

Dental caries. We believe probiotics can also be used to suppress levels of *S. mutans*, the principal cause of tooth decay. *S. mutans* converts dietary refined sugar to lactic acid. The lactic acid, in turn, erodes the mineral in enamel and dentin, which weakens the tooth resulting in tooth decay. Research conducted by our scientists have led to the discovery of a close relative of *S. mutans*, a strain of *Streptococcus rattus,*which is naturally deficient in its ability to produce lactic acid and thus unable to cause tooth decay. Because *Streptococcus rattus* is very closely related to *S. mutans*, *Streptococcus rattus* reduces the number of *S. mutans* by competing for nutrients, attachment sites, and other important colonization factors. As animal studies have revealed, daily treatment with this beneficial strain can promote dental health by significantly reducing the numbers of dental caries-causing *S. mutans.*

We are currently performing acute and chronic toxicity tests of our probiotic technology in laboratory rats. Further work will involve studies to determine an appropriate and stable delivery system, and to determine the optimum dosage levels to be used in human clinical trials.

Regulatory Status

Probiotic products that claim to confer a health benefit are generally able to enter certain market without the need for extensive regulatory filings and clinical testing. This avenue is available for products that do not make any claim that they treat, prevent, or cure a disease, which are considered to be drug claims. We intend to market our probiotic product without any drug claims. In the European Union, regulatory approval is not required for commercialization of the product.

Intellectual Property

In August 2003, we filed a patent application for our probiotic technology for use in developing oral care products for the maintenance of dental and periodontal health. We own the patent rights to this technology.

Manufacturing, Marketing and Distribution

Manufacturing methods used to produce probiotic strains are the standard fermentation methods which involve culturing bacteria in large vessels and harvesting them when mature by centrifuge or filtration. These methods are relatively commonplace and readily available within the pharmaceutical industry. We intend to seek one or more strategic partners for the manufacturing, marketing and distribution of our oral probiotic technology in Asia and Europe. Product launch in select markets is currently expected to occur in 2006 and 2007.

Market Opportunity

Probiotics are common in Japan and are being adopted with increasing frequency in Europe. The probiotics market in the U.S. is still in a nascent state and we expect the U.S. market will develop slowly. If successfully developed, we expect our technology will be one of the first probiotics to be marketed for the promotion of oral health.

Competition

Many companies sell probiotics that are principally designed for digestive health, vaginal and urinary tract health, and immune system support. Our product will not compete directly with the products of these companies. Recently, researchers at the University of Hiroshima have published studies indicating that *Lactobacillus reuteri* aids in the prevention of tooth decay. *Lactobacillus reuteri* is widely used as a probiotic for other indications and may be used in the future for dental health. We are not aware of any product on the market today that is targeted to maintain periodontal health.

Mutacin 1140

Mutacin 1140 is an antibiotic which we believe has the potential to treat a wide variety of infectious diseases. Extensive in vitro studies we have conducted demonstrate its effectiveness against all tested Gram-positive bacteria, including such commercially relevant pathogens as *Staphylococcus aureus, Streptococcus pneumoniae, Enterococcus faecalis* and *Listeria monocytogenes*. To date, our research has not identified any pathogen resistance to Mutacin 1140.

Currently, Mutacin 1140 is in the early stages of preclinical development and we have not yet filed an IND with the FDA, however, such filing is expected after successful completion of animal studies that are currently expected to begin in 2005, provided sufficient funding is available.

Preclinical Studies

Our researchers and others have conducted laboratory studies on Mutacin 1140 to determine its efficacy as an antibacterial agent. To test Mutacin 1140's ability to kill bacteria, standard microbiological testing methods were employed. Mutacin 1140 was purified and incorporated into growth medium at different concentrations. The medium was then inoculated with the bacterium under study, and its ability to grow in the presence of Mutacin 1140 was observed. The minimal inhibitory concentration (MIC), which is defined as the lowest concentration of Mutacin 1140 observed to inhibit growth of the test bacterium, was recorded.

We believe the results of our laboratory studies demonstrate that Mutacin 1140 is effective at killing a broad spectrum of bacteria, including the streptococci that cause pharyngitis ("strep throat"), the predominant type of pneumonia, and bacterial endocarditis. The antibiotic has also been shown to be effective against vancomycin-resistant *Staphylococcus aureus* and *Enterococcus faecalis* infections, both of which are rapidly growing problems within the medical community. Mutacin 1140 was found to kill all Gram-positive bacteria tested at concentrations comparable to many therapeutically effective antibiotics. A particularly interesting feature of Mutacin 1140 is that none of the sensitive species of bacteria tested was able to acquire genetically stable resistance to purified Mutacin 1140.

Mutacin 1140 currently is in preliminary stages of development. We currently plan to initiate animal studies in 2005. Upon completion of the animal studies, we will submit an IND for Mutacin 1140 to the FDA. Once the FDA has approved an IND and we have completed Phase I clinical trials, we would expect to seek a strategic partner for further clinical development and commercialization. We will continue to work to optimize production of the product.

Intellectual Property

We have exclusively licensed the intellectual property for our Mutacin 1140 technology from the University of Florida Research Foundation, Inc. See the discussion regarding our license in the *Intellectual Property* section under our Replacement Therapy technology.

Market Opportunity

The need for novel antibiotics is increasing as a result of the growing resistance of target pathogens. The Center for Disease Control estimates that bacteria resistant to known antibiotics cause 44% of hospital infections. Vancomycin, introduced in 1956, serves as the last line of defense against certain life-threatening infections. Unfortunately, certain bacteria have developed strains which resist even vancomycin.

Our antibiotic, Mutacin 1140, is a new broad-spectrum antibiotic that has demonstrated effectiveness against a wide variety of disease-causing bacteria in preclinical studies. Moreover, we believe there is no evidence of pathogen resistance to Mutacin 1140 based on such preclinical studies. In light of the fact that pathogen resistance has become a major problem associated with the six leading classes of antibiotics in use today, Mutacin 1140 offers the potential to fulfill a significant medical need.

Competition

Mutacin 1140 competes directly with antibiotic drugs such as vancomycin. Given the growing resistance of target pathogens to many antibiotics, even vancomycin, we believe that there is ample room in the marketplace for new antibiotics. We are aware of a mutacin peptide similar to Mutacin 1140 patented by the University of Laval. Successful development of that technology would constitute major competition for Mutacin 1140.

Many of our competitors are taking approaches to drug development differing from our approach. These approaches include traditional screening of natural products, genomics to identify new targets and combinatorial chemistry to generate new chemical structures. Competition in the pharmaceutical industry is based on drug safety, efficacy, ease of use, patient compliance, price, marketing and distribution. Commercial success of Mutacin 1140 technology will depend on our ability and the ability of our sublicensees to compete effectively in all of these areas. There can be no assurance that competitors will not succeed in developing products that are more effective than Mutacin 1140 or would render Mutacin 1140 obsolete and non-competitive.

Any products based on the Mutacin 1140 technology will compete against a large number of prescription antibiotics currently on the market, and against new antibiotic products that will enter the market over the next several years. Producers of antibiotic products include many large, international pharmaceutical companies, all of which have much greater financial and technical resources than us. We intend to compete in the market for antibiotic products by obtaining a strategic partner with an established sales force calling on doctors and hospitals. There can be no assurance that we will be able to obtain any such partner. If not, we will be obliged to develop our own channels of distribution for products based on the Mutacin 1140 technology. There can be no assurance that we will be able to do so.

IVIAT and CMAT

In March 2004, we licensed from iviGene Corporation, a company whose major stockholders also own a significant number of shares of our common stock, applications of a novel technology that enables the simple, fast identification of novel and potentially important gene targets associated with the natural onset and progression of cancers and other diseases in humans and other living organisms, including plants. This licensed technology will offer us the potential to generate and develop a number of product candidates for future out-licensing to corporate partners, particularly in the area of cancer.

To support the research for this technology in 2004, we received a $100,000 Phase I SBIR Grant from the National Institute of Allergy and Infections Diseases (NIAID) of the National Institutes of Health (NIH). This grant supported initial research to help us identify genes of *Mycobacterium tuberculosis* that are specifically induced during human infections with that pathogen. This licensed technology is in its early stages and will require further development which will require additional capital.

Technical Background

This technology platform was developed by our founder and chief scientific officer, Jeffrey D. Hillman, and University of Florida scientists. It is called *in vivo* induced antigen technology (IVIAT). IVIAT can quickly and easily identify *in vivo* induced genes in human infections without the use of animal models, facilitating the discovery of new targets for the development of vaccines, antimicrobials and diagnostics. Dr. Hillman and his collaborators have further developed methods based on this approach to create Change Mediated Antigen Technology (CMAT). CMAT can be used to identify gene targets associated with the onset and progression of cancerous processes and autoimmune diseases. It can also be used to identify novel genes in plant diseases, including genes expressed by the pathogen when it causes the disease and genes expressed by the plant in response to the disease.

Intellectual Property

Our license provides us with exclusive worldwide rights to this broad platform technology in the areas of cancer and tuberculosis, as well as agricultural and other non-human uses. In return, we will pay royalties on revenues we are able to generate from any products developed using the technology, including royalties on sublicense fees, milestone payments and future product sales. Under the terms of our license with iviGene we are not obligated to make any payments to iviGene until we have achieved certain milestone or royalty payments. However, we are required to pay all patent-related expenses and commit two full-time staff or spend at least $200,000 toward product development annually to maintain our license.

Federal Food and Drug Administration (FDA) Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of drugs. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, record-keeping, approval, advertising and protection of most products we may develop.

General

The steps required before a new drug may be produced and marketed in the United States are:

1. Preclinical laboratory and animal tests
2. Investigational new drug application
3. Clinical trials (Phases I, II and III)
4. New drug application (review and approval)
5. Post-marketing surveys

The testing and approval procedures require substantial time, effort and financial resources and we cannot assure you that any approval will be timely granted, or at all.

Preclinical Trials and Investigational New Drug Application

Preclinical tests are conducted in the laboratory, and usually involve animals. They are done to evaluate the safety and efficacy of the potential product. The results of the preclinical tests are submitted as part of the investigational new drug application and are fully reviewed by the FDA prior to granting the applicant permission to commence clinical trials in humans. Submission of an investigational new drug application may not result in FDA approval to commence clinical trials.

Clinical Trials

Clinical trials are conducted in three phases, normally involving progressively larger numbers of patients.

Phase I

Phase I clinical trials consist of administering the drug and testing for safety and tolerated dosages as well as preliminary evidence of efficacy in humans. They are concerned primarily with learning more about the safety of the drug, though they may also provide some information about effectiveness. Phase I testing is normally performed on healthy volunteers. The test subjects are paid to submit to a variety of tests to learn what happens to a drug in the human body; how it is absorbed, metabolized and excreted, what effect it has on various organs and tissues; and what side effects occur as the dosages are increased. The principal objective is to determine the drug's toxicity.

Phase II

Assuming the results of Phase I testing present no toxicity or unacceptable safety problems, Phase II trials may begin. In many cases Phase II trials may commence before all the Phase I trials are completely evaluated if the disease is life threatening and preliminary toxicity data in Phase I shows no toxic side effects. In life threatening disease, Phase I and Phase II trials are sometimes combined to show initial toxicity and efficacy in a shorter period of time. Phase II trials involve a study to evaluate the effectiveness of the drug for a particular indication and to determine optimal dosages and dose interval and to identify possible adverse side effects and risks in a larger patient group. The primary objective of this stage of clinical testing is to show whether the drug is effective in treating the disease or condition for which it is intended. Phase II studies may take several months or longer and involve a few hundred patients in randomized controlled trials that also attempt to disclose short-term side effects and risks in people whose health is impaired. A number of patients with the disease or illness will receive the treatment while a control group will receive a placebo. At the conclusion of Phase II trials, we and the FDA will have a clear understanding of the short-term safety and effectiveness of our technologies and their optimal dosage levels.

Phase III

Phase III clinical trials will generally begin after the results of Phase II are evaluated. If a product is found to be effective in Phase II, it is then evaluated in Phase III clinical trials. The objective of Phase III is to develop information that will allow the drug to be marketed and used safely. Phase III trials consist of expanded multi-location testing for efficacy and safety to evaluate the overall benefit or risk index of the investigational drug in relation to the disease treated. Phase III trials will involve thousands of people with the objective of expanding on the clinical evidence.

Some objectives of Phase III trials are to discover optimum dose rates and schedules, less common or even rare side effects, adverse reactions, and to generate information that will be incorporated into the drug's professional labeling and the FDA-approved guidelines to physicians and others about how to properly use the drug.

Pharmaceutical Development

The method of formulation and manufacture may affect the efficacy and safety of a drug. Therefore, information on manufacturing methods and standards and the stability of the drug substance and dosage form must be presented to the FDA and other regulatory authorities. This is to ensure that a product that may eventually be sold to the public has the same composition as that determined to be effective and safe in the clinical studies. Production methods and quality control procedures must be in place to ensure a relatively pure compound, essentially free of contamination and uniform with respect to all quality aspects.

New Drug Application

The fourth step that is necessary prior to marketing a new drug is the new drug application submission and approval. In this step, all the information generated by the preclinical and human clinical trials, as well as manufacturing information for the drug, will be submitted to the FDA and, if successful, the drug will be approved for marketing.

Post Marketing Surveys

The final step is the random surveillance or surveys of patients being treated with the drug to determine its long-term effects. This has no effect on the marketing of the drug unless highly toxic conditions are found.

The required testing, data collection, analysis and compilation of an investigational new drug application and a new drug application are labor intensive and costly and may take a great deal of time. Tests may have to be redone or new tests performed in order to comply with FDA requirements. Therefore, we cannot estimate with any certainty the length or the costs of the approval process. We can offer no assurance that we will ever receive FDA approval of products derived from our licensed, patented technologies.

Competition

Industry. The pharmaceutical and biotechnology industries are characterized by intense competition, rapid product development and technological change. Competition is intense among manufacturers of dental therapeutics and prescription pharmaceuticals. Most of our potential competitors are large, well established pharmaceutical, chemical or healthcare companies with considerably greater financial, marketing, sales and technological resources than are available to us. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for discovery, research and clinical development of technologies and products similar to ours. Many of our potential competitors have research and development capabilities that may allow them to develop new or improved products that may compete with products based on our technologies. Products developed from our technologies could be rendered obsolete or made uneconomical by the development of new products to treat the conditions to be treated by products developed from our technologies, technological advances affecting the cost of production, or marketing or pricing actions by our potential competitors. This could materially affect our business, financial condition and results of operations. We cannot assure you that we will be able to compete successfully.

Personnel. Competition among biotechnology and biopharmaceutical companies for qualified employees is intense, and there can be no assurance we will be able to attract and retain qualified individuals. If we fail to do so, this would have a material, adverse effect on the results of our operations.

We do not maintain any life insurance on the lives of any of our officers and directors. We are highly dependent on the services of our directors and officers, particularly on those of Jeffrey Hillman and Mento Soponis. If one or all of our officers or directors die or otherwise become incapacitated, our operations could be interrupted or terminated.

Employees

We are an early-stage biotechnology research and development company and currently have 17 full-time employees, none of whom is represented by a labor union. We believe that our relationship with our employees is excellent

Property

Our administrative office and laboratory facilities are located at 13700 Progress Boulevard, Alachua, Florida 32615. We began leasing this property pursuant to a five-year operating lease in November 2004. The facility is approximately 5,300 square feet of which approximately 60% is laboratory space and the remainder is office space and common areas. The twelve months rental is $76,850, net of insurance, taxes and utilities that are paid by us. Lease payments in subsequent years escalate by 3% annually. In 2004, we paid approximately $469,000 for leasehold improvements to outfit this facility. Such improvements included equipping the building with sufficient air-handling and building laboratory stations. We believe our facilities are sufficient for our current needs, however, we expect to purchase an additional $100,000 of equipment for use in the laboratories and offices in 2005.

LEGAL PROCEEDINGS

We are not a party to any material legal proceedings and there are no material legal proceedings pending with respect to our property. We are not aware of any legal proceedings contemplated by any governmental authorities involving either us or our property. None of our directors, officers or affiliates is an adverse party in any legal proceedings involving us, or has an interest in any proceeding which is adverse to us.

MANAGEMENT

The following table and text set forth the names and ages of all directors and executive officers of our company as of May 31, 2005. The Board of Directors is comprised of only one class. All of the directors will serve until the next annual meeting of stockholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal. There are no family relationships between or among the directors, executive officers or persons nominated or charged by our company to become directors or executive officers. Executive officers serve at the discretion of the Board of Directors, and are appointed to serve by the Board of Directors. Also provided herein are brief descriptions of the business experience of each director and executive officer during the past five years and an indication of directorships held by each director in other companies subject to the reporting requirements under the Federal securities laws.

As of May 31, 2005, the directors and executive officers of the company are as follows:

Name	Age	Position
David J. Gury	66	Chairman of the Board
Jeffrey D. Hillman	56	Director, Chief Scientific Officer
Mento A Soponis	61	Director, Chief Executive Officer and President
Robert T. Zahradnik	60	Director
Brian Anderson	58	Director
Paul Hassie	54	Chief Financial Officer
Eric W.T. Chojnicki	46	Vice President of Product Development
Edmund Mickunas	50	Vice President of Regulatory and Clinical Affairs

David J. Gury. Mr. Gury has been a director since October 2003, serving as chairman of the board of directors since December 2004. Mr. Gury was Chief Executive Officer of NABI Biopharmaceuticals from April 1992 to June 2003 and was the chairman of the board from April 1992 to May 2004. From May 1984 until April 1992, Mr. Gury was President and Chief Operating Officer of NABI. During his tenure, the Company successfully transitioned from a plasma supplier into a fully integrated biopharmaceutical company. Prior to joining NABI Biopharmaceuticals, Mr. Gury spent his career with Abbott Laboratories in various administrative and executive positions and with Alpha Therapeutics Corporation, a spin out from Abbott. Mr. Gury completed his A.B. in economics at Kenyon College, Gambier, Ohio, in 1960 and received his MBA at the University of Chicago in 1962, specializing in accounting and finance. Mr. Gury was Founding Chairman and is a Board Member of the Florida Research Consortium and past Chairman and a member of BioFlorida.

Jeffrey D. Hillman. Dr. Hillman has been our chief scientific officer since November 1996 and served as chairman of the board of directors from November 1996 to December 2004. From November 1991, Dr. Hillman has been Professor in the College of Dentistry at the University of Florida in Gainesville, Florida where he teaches classes, trains doctoral candidates and conducts research. However, Dr. Hillman has been on leave from the University of Florida, since February 2001, in order to develop our technologies and technologies owned by IviGene Corporation, Alachua, Florida. Dr. Hillman received undergraduate training from the University of Chicago (Phi Beta Kappa), his D.M.D. degree (cum laude) from the Harvard School of Dental Medicine and Ph.D. from Harvard Medical School. He has authored or co-authored more than 100 publications and textbook chapters on subjects related to the etiology and cure of tooth decay, periodontal diseases, antibiotics and molecular genetics.

Mento A. Soponis. Mr. Soponis has been our president, chief executive officer and a member of the board of directors since August 2000. From December 2000 to June 2002, Mr. Soponis was president and chief executive officer of IviGene Corporation, Alachua, Florida. IviGene is engaged in the business of developing vaccines and therapeutics. Mr. Soponis remains as Chairman of the Board of Directors of IviGene Corporation. From January 2000 to May 2000, Mr. Soponis was a consultant for the office of technology licensing at the University of Florida, Gainesville, Florida where he reviewed agreements and negotiated the terms of technology licenses. From December 1995 to December 1999, Mr. Soponis was president and chief executive officer of USBiomaterials Corporation, Alachua, Florida. US Biomaterials developed healthcare products for bone regeneration and for dental care. He has served as CEO for a number of early stage biotechnology companies. He has broad experience in strategic positioning and negotiation of corporate partnerships. Mr. Soponis is a graduate of Princeton University and the George Washington University law school with honors.

Robert T. Zahradnik. Dr. Zahradnik has been a member of our board of directors since November 1996. Since July 2000 Dr. Zahradnik has been a director of IviGene Corporation, Alachua, Florida. IviGene is engaged in the business of developing vaccines and therapeutics. Since September 1999, Dr. Zahradnik has been general manager of ProHealth, Inc., Batesville, Arkansas. ProHealth, Inc. is a manufacturer of nutritional supplements and household and skin care products. Since February 1993, Dr. Zahradnik has been a partner and general manager of Professional Dental Technologies and Therapeutics, Batesville, Arkansas, an oral pharmaceutical manufacturer. Since February 1986, Dr. Zahradnik has been the chief executive officer and chairman of the board of directors of Advanced Clinical Technologies, Inc., Medfield, Massachusetts, a medical diagnostic manufacturer and technical consulting firm. Dr. Zahradnik is a graduate of Penn State University with a Bachelor of Science degree in Chemistry and Boston University with a PhD in Physical Chemistry.

Brian Anderson. Mr. Anderson has been a member of our board of directors since August 2002. Mr. Anderson is Executive Vice President at Medicinova, Inc., San Diego, California. From August 2002 to January 2002, Mr. Anderson was an advisor and consultant for Montridge, LLC, Ridgefield CT, an investor relations firm. From 1998 to June of 2002, Mr. Anderson was the President and Chief Executive Officer of Cognetix, Inc., Salt Lake City, Utah, a research and therapeutics development company. From 1995 to 1998, Mr. Anderson was Senior Vice President, Marketing and Commercial Development of Interneuron Pharmaceuticals, Inc., Lexington, Massachusetts (now called Indevus Pharmaceuticals Inc.), a specialty pharmaceutical company whose shares are listed on the NASDAQ National Market. From 1987 to 1995 Mr. Anderson held a number of executive positions at Bristol-Myers Squibb, including responsibilities in business development, strategic planning and marketing. Mr. Anderson is a graduate of the University of Manitoba with a Bachelor of Science degree in Physical Education.

Paul A. Hassie. Mr. Hassie has been our chief financial officer, Secretary and Treasurer since July 2002. From February 2000 to December 2003, Mr. Hassie was president of BioFlorida, a trade organization located in Gainesville, Florida that supports biosciences in Florida. From November 1999 to December 2003, Mr. Hassie was also engaged in the business of financial consulting to bioscience companies in the Gainesville, Florida area. From June 1997 to November 1999, Mr. Hassie was chief financial officer of USBiomaterials Corporation located in Alachua, Florida. USBiomaterials develops healthcare products for bone regeneration and for dental care. From January 1992 to May 1997, Mr. Hassie was controller for Transkaryotic Therapies, Inc. located in Cambridge, Massachusetts. Transkaryotic Therapies is engaged in the business of research and development of gene therapy products. From January 1984 to September 1991, Mr. Hassie was senior manager in the Boston office of Ernst & Young LLP, Certified Public Accountants. Mr. Hassie received a Bachelor of Science degree in Accounting from Bryant University, Smithfield, Rhode Island in 1977; an MBA in Management from Bryant University in 1981; and, a Masters of Science degree in Taxation from Bryant University in 1996. Mr. Hassie is a member of the American Institute of Certified Public Accountants and is a licensed Certified Public Accountant in the Commonwealth of Massachusetts.

Eric W.T. Chojnicki. Dr. Chojnicki joined Oragenics in February 2004 as the Vice President, Product Development. He most recently held the position of Director of Product Development at Acorda Therapeutics, Inc. and has held positions of increasing managerial responsibilities at Bristol-Myers Squibb Co., Athena Neurosciences, Inc. and Amgen. He brings to Oragenics a broad based hands-on management experience in drug development gained in the environments of both large pharmaceutical and small biotech startup companies. He holds a B.A. from Washington & Jefferson College, an M.S. and Ph.D. in Genetics & Development Biology from West Virginia University and an M.B.A. in Pharmaceutical Management from Fairleigh Dickinson University.

Edmund Mickunas. Prior to joining Oragenics in September 2004, Mr. Mickunas was an independent consultant offering professional services in the areas of regulatory, clinical and compliance consulting. Before that time, he held a variety of management positions from 1996 to 2003 in the area of regulatory affairs and compliance with such companies as Control Delivery Systems, Inc., Bioheart, Inc., Leukosite, Inc., and Del Laboratories. From 1989 to 1996, Mr. Mickunas was a clinical and regulatory affairs consultant for the CLINNOVATION Company, and before that held a series of increasingly responsible positions in the field of clinical research at such companies as PAREXEL International Corporation, Analytical Biosystems, Sandoz Research Institute, and Vicks Research Center. He holds an M.A. degree in corporate and political communications from Fairfield University in Connecticut and received his B.S. degree from Fairleigh Dickinson University.

Scientific Advisory Board

We use scientists and physicians with expertise related to our technologies to advise us on scientific and medical matters. Currently, our scientific advisory board members are:

Howard K. Kuramitsu, Ph.D. Dr. Kuramitsu is a retired UB Distinguished Professor at the State University of New York at Buffalo. He is a leading expert in the area of the biology of the oral cavity and studies diseases associated with the oral cavity. Dr. Kuramitsu serves on the Editorial Boards of the International Journal of Oral Biology, Oral Microbiology and Immunology and Infection and Immunity. He also serves on the NIH-NIDCR Advisory Council. Dr. Kuramitsu's work includes more than 170 publications.

Per-Erik J. Saris, Ph.D. Dr. Saris is a professor in food microbiology at the University of Helsinki in Finland. He is an expert in antibacterial peptides produced by bacteria. His team is part of the Centre of Excellence "Microbial Resources" appointed by the Academy of Finland. He was the first to amplify DNA directly from bacteria in 1990 and has since been active in different fields of molecular biology of bacteria including vaccine development, protein production, metabolic engineering and targeting of bacteria.

EXECUTIVE COMPENSATION

The following table sets forth the compensation paid by us from January 1, 2002 to December 31, 2004, for our Chief Executive Officer and our next most highly compensated officers who earned more than $100,000 during the fiscal year ended December 31, 2004 (the “Named Officers”).

Summary Compensation Table

		Annual Compensation		
Name and Principal Position	**Year**	**Salary**	**Bonus**	**All Other (1)**
Mento A. Soponis	2004	$ 180,000	$ 18,000	$ 5,490
Chief Executive Officer & President	2003	180,000	0	0
	2002	121,978	0	0
Jeffrey D. Hillman	2004	180,000	0	4,950
Chief Scientific Officer	2003	135,000	0	0
	2002	63,824	0	0
Paul A. Hassie	2004	135,000	13,500	4,118
Chief Financial Officer, Secretary and Treasurer	2003	43,000	0	0
	2002	15,000	0	0
Eric Chojnicki	2004	124,667	12,467	17,424
Vice President, Product Development				

(1) The Company retirement plan requires the Company to match employee contributions up to the first 3% of compensation earned and amounts presented represent the Company’s matching contribution. For Mr. Chojnicki, the amount presented also includes $13,450 paid to Mr. Chojnicki in connection with his commencement of employment with the Company in 2004 to assist with relocation expenses.

Options to Purchase Securities

Our directors and stockholders have previously approved the adoption of our 2002 Stock Option and Incentive Plan and subsequent amendment ("Plan"). The shares of common stock available for issuance under the Plan are 1,500,000. The purpose of the Plan is to enable our company to attract, retain and motivate qualified directors and employees, to reward directors and employees and key consultants, such as members of our Scientific Advisory Board, for their contribution toward our long term goals, and to enable and encourage such individuals to acquire our shares as long term investments.

We will not require or seek stockholder approval for the grant of options under the stock option plan, or the exercise of options. We may grant options under the stock option plan to employees of our company regularly employed on a full-time or part-time basis, our directors and officers, and persons who perform services for us on an ongoing basis or who have provided, or are expected to provide, services of value to us.

There are no stock option plans or profit sharing plans for the benefit of our officers and directors other than as described herein.

We do not have any long-term incentive plans that provide compensation intended to serve as incentive for performance.

Option Grants in Last Fiscal Year

The following table sets forth grants of options to purchase our common stock during the fiscal year ended December 31, 2004 to each Named Officer.

Name	Number of Securities Underlying Options	Percentage of Total Options granted to Employees in Fiscal Year	Exercise Price	Expiration Date
Mento A. Soponis	0	0	---	---
Jeffrey D. Hillman	0	0	---	---
Eric Chojnicki	60,000	16.0%	$ 3.30	February 2, 2009
Eric Chojnicki	25,000	6.67%	$ 2.30	September 30, 2009
Paul A. Hassie	25,000	6.67%	$ 2.30	September 30, 2009
Edmund Mickunas	75,000	20.0%	$ 2.30	September 30, 2009

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table sets forth information with respect to the aggregate stock option exercises by Named Officers during 2004 and the year end value of unexercised options held by the Named Officers.

Name	Number of Shares Acquired on Exercise	Value Realized (US $)	Number of Securities Under-lying Options at Fiscal Year End Unexercised Options Exercisable/ Unexercisable	Value of Unexercised In-the-Money Options at Fiscal Year End Exercisable/ Unexercisable (US $) (1)
Mento A. Soponis	0	0	0 / 0	0 / 0
Jeffrey D. Hillman	0	0	0 / 0	0 / 0
Paul A. Hassie	0	0	31,666 / 58,334	61,249 / 83,251
Eric W.T. Chojnicki	0	0	0 / 85,000	0 / 71,750
Edmund Mickunas	0	0	0 / 75,000	0 / 116,250

(1) Values shown in this column reflect the difference between the closing price of the Company's common stock on December 31, 2004 on the American Stock Exchange of $3.85 per share, and the exercise prices of the underlying options.

Employment Contracts and Change in Control Arrangements

We have employment agreements with Mento A. Soponis, Jeffrey D. Hillman and Paul A. Hassie. On January 1, 2004, we entered into employment agreements with Messrs. Hassie, Hillman and Soponis, which superseded our prior employment agreements with Mr. Soponis and Dr. Hillman. Each of the agreements is for three years and provides for automatic one-year extensions after December 31, 2007. Under the terms of our employment agreements with Mr. Soponis, Dr. Hillman and Mr. Hassie dated January 1, 2004, we are obligated to pay initial compensation of $180,000, $180,000 and $135,000 per annum, respectively. These executive officers are also eligible for participation in incentive bonus compensation plans. The employment agreements also provide for other benefits including the right to participate in fringe benefit plans, life and disability insurance plans, expense reimbursement and 4 weeks accumulating vacation/sick leave annually. If any of these executive officers' employment is terminated by the Company without cause (as defined in the agreements) or within twelve months following a change of control (as defined in the agreements), they will be entitled to severance payments, at their then annual base salary and all stock options granted to the executive and any benefits under any benefit plans shall become immediately vested and to the extent applicable, exercisable. The employment agreements also include non-disclosure and non-compete provisions, as well as salary payments for a three month period in the event of an executive's death or disability during the term of the agreements.

Messrs. Hillman, Zahradnik, Anderson, Chojnicki, Kuramitsu, Gury, Saris, and Mickunas have entered into Proprietary Information and Invention Agreements with us. Under these agreements, they have each agreed to hold all our proprietary information in the strictest confidence, and assigned to us all of their right, title and interest in any inventions which they make during the term of their employment or affiliation with us that incorporate, are based on or relate to any of our proprietary intellectual property rights.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of Common Stock of the Company as of May 31, 2005 by (i) each person who is known by the Company to beneficially own more than five percent of the Common Stock, (ii) each nominee for Director of the Company, (iii) each of the Named Officers (as defined under "Election of Directors -- Executive Compensation" above), and (iv) all officers and Directors as a group.

Name and Address of Beneficial Owners (1)	Number of Shares Beneficially Owned	Percentage of Ownership
Directors and Officers		
Jeffrey D. Hillman (2)	5,327,358	35.4%
Mento A. Soponis (3)	1,120,133	7.5%
Robert Zahradnik	756,000	5.0%
Brian Anderson (4)	45,333	*
David J. Gury (5)	20,500	*
Paul A. Hassie (6)	38,333	*
Eric Chojnicki (7)	22,000	*
All Officers and Directors as a Group (7 Persons)	7,329,657	48.8%

* Less than one percent.

(1) Except as indicated in the footnotes set forth below, the persons named in the table have sole voting and investment power with respect to all shares shown as beneficially owned by them. The numbers of shares shown include shares that are not currently outstanding but which certain stockholders are entitled to acquire or will be entitled to acquire within 60 days, upon the exercise of stock options. Such shares are deemed to be outstanding for the purpose of computing the percentage of Common Stock owned by the particular stockholder and by the group but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. Except as indicated in the table, the business address of all persons named in the table is 13700 Progress Boulevard, Alachua, Florida 32615.

(2) Represents shares held directly by Jeffrey D. Hillman 2002 Trust and Jeffrey D. Hillman Grantor Retained Annuity Trust.

(3) Represents shares held directly by Mento A. Soponis and The Soponis Family Trust.

(4) Represents 2,000 shares owned and 43,333 stock options currently exercisable or exercisable within 60 days.

(5) Represents 500 shares owned and 20,000 stock options currently exercisable or exercisable within 60 days.

(6) Represents stock options currently exercisable or exercisable within 60 days.

(7) Represents 2,000 shares owned and 20,000 stock options currently exercisable or exercisable within 60 days.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Audit Committee of the Board of Directors is responsible for reviewing all transactions between the Company and any officer or Director of the Company or any entity in which an officer of Director has a material interest. Any such transactions must be on terms no less favorable than those that could be obtained on an arms-length basis from independent third parties.

License Agreement

In March 2004, the Company entered into a license agreement with IviGene Corporation, a company whose stockholders include Messrs. Hillman, Soponis and Zahradnik who own 15.13%, 7.57% and 4.01% of IviGene's outstanding shares, respectively. Messrs. Hillman and Soponis also serve on the board of IviGene. The license covers the applications of two novel technologies referred to as IVIAT and CMAT. Our license provides us with exclusive worldwide rights to this broad platform technology in the areas of cancer and tuberculosis, as well as agricultural and other non-human uses. In return, we will pay royalties on revenues we are able to generate from any products developed using the technology, including royalties on sublicense fees, milestone payments and future product sales. Under the terms of our license with IviGene we are not obligated to make any payments to IviGene until we have achieved certain milestone or royalty payments, however, we are required to spend up to $200,000 annually on these technologies to maintain our license. To support the research for this technology in 2004, we received a Phase I Small Business Innovation Research Grant from the National Institute of Allergy and Infections Diseases (NIAID) of the National Institutes of Health (NIH) that paid to us $96,210. No payments were made by the Company to IviGene in 2004.

Indebtedness

On February 22, 2001, Robert T. Zahradnik, a member of the board of directors, loaned us $57,418 as evidenced by a promissory note of even date therewith which accrued interest at the rate of 7% per annum until paid. The note was payable on demand, or 2 years from its date if demand was not made earlier. In December 2003, the principal portion of this note was repaid to Mr. Zahradnik. In January 2004, the outstanding balance of accrued interest totaling $11,331 was paid.

On February 22, 2001, Jeffrey Hillman, our Chief Scientific Officer and member of the board of directors, loaned us $12,186 as evidenced by a promissory note of even date therewith which accrued interest at the rate of 7% per annum until paid. The note was payable on demand, or 2 years from its date if demand was not made earlier. In December 2003, the principal portion of this note was repaid to Dr. Hillman. In January 2004, the outstanding balance of accrued interest totaling $2,393 was paid.

On February 28, 1999, Robert T. Zahradnik, a member of the board of directors, loaned us $15,000 as evidenced by a promissory note of even date therewith which accrued interest at the rate of 7% per annum until paid. The note was payable on demand, or 2 years from its date if demand was not made earlier. In December 2003, the principal portion of this note was repaid to Mr. Zahradnik. In January 2004, the outstanding balance of accrued interest totaling $4,728 was paid.

In 2001 and 2002 we incurred consulting fees of $60,000 and $15,000, respectively, payable to Dr. Jeffrey Hillman. The entire amount remains outstanding at December 31, 2004, however, $20,000 was paid in January 2005 leaving a balance currently owed of $55,000.

DESCRIPTION OF SECURITIES

General

We are authorized to issue up to 100,000,000 shares of common stock, $0.001 par value per share, and 20,000,000 shares of preferred stock, with no par value per share. As of May 31, 2005, 14,912,645 shares of common stock and no shares of preferred stock were issued and outstanding. All of the outstanding capital stock is, and will be, fully paid and non-assessable.

Common Stock

Holders of common stock are entitled to one vote per share. All actions submitted to a vote of stockholders are voted on by holders of common stock voting together as a single class. Holders of common stock are not entitled to cumulative voting in the election of directors.

Holders of common stock are entitled to receive dividends in cash or in property on an equal basis, if and when dividends are declared on the common stock by our board of directors, subject to any preference in favor of outstanding shares of preferred stock, if there are any.

In the event of liquidation of our company, all holders of common stock will participate on an equal basis with each other in our net assets available for distribution after payment of our liabilities and payment of any liquidation preferences in favor of outstanding shares of preferred stock.

Holders of common stock are not entitled to preemptive rights and the common stock is not subject to redemption.

The rights of holders of common stock are subject to the rights of holders of any preferred stock that we designate or have designated. The rights of preferred stockholders may adversely affect the rights of the common stockholders.

Preferred Stock

Our board of directors has the ability to issue up to 20,000,000 shares of preferred stock in one or more series, without stockholder approval. The board of directors may designate for the series:

- the number of shares and name of the series,
- the voting powers of the series, including the right to elect directors, if any,
- the dividend rights and preferences, if any,
- redemption terms, if any,
- liquidation preferences and the amounts payable on liquidation or dissolution, and
- the terms upon which such series may be converted into any other series or class of our stock, including the common stock and any other terms that are not prohibited by law.

It is impossible for us to state the actual effect it will have on common stock holders if the board of directors designates a new series of preferred stock. The effects of such a designation will not be determinable until the rights accompanying the series have been designated. The issuance of preferred stock could adversely affect the voting power, liquidation rights or other rights held by owners of common stock or other series of preferred stock. The board of directors' authority to issue preferred stock without stockholder approval could make it more difficult for a third party to acquire control of our company, and could discourage any such attempt. We have no present plans to issue any additional shares of preferred stock.

Options and Warrants

As of May 31, 2005, 970,000 options for shares were outstanding under our approved stock option plans and 530,000 shares were available for future grants under our stock option plans. We have also issued warrants totaling 436,380 common stock shares. Holders of options and warrants do not have any of the rights or privileges of our stockholders, including voting rights, prior to exercise of the options and warrants. The number of shares of common stock for which these options and warrants are exercisable and the exercise price of these options and warrants are subject to proportional adjustment for stock splits and similar changes affecting our common stock. We have reserved sufficient shares of authorized common stock to cover the issuance of common stock subject to the options and warrants.

Escrowed Securities

We made our initial public offering of common stock in the Canadian provinces of British Columbia and Alberta. In connections with our initial public offering, our common stock was listed on the TSX Venture Exchange. As such, we were subject to the requirements of TSX Venture Exchange. Shortly after we became listed on the American Stock Exchange we voluntarily delisted from the TSX Venture Exchange. As part of our initial public offering, certain of our stockholders were subject to escrow requirements. Under Canadian National Policy 46-201 "Escrow for Initial Public Offerings," shares of common stock which were held by our principals (as defined under the National Escrow Policy) at the time of our initial public offering were required to be held in escrow.

Under the National Escrow Policy, we entered into an escrow agreement with Computershare Trust Company of Canada as escrow agent, and the principals named below, dated March 28, 2003 (prior to our initial public offering). Under the escrow agreement, our principals initially deposited their common shares aggregating 8,200,764 or 68.8% of our then outstanding shares in escrow with the escrow agent. The number and holders of our common shares that were initially subject to escrow under the escrow agreement were as follows:

Name of Principal	Number of Escrow Shares Held
Jeffrey Hillman	5,400,108
Mento A. Soponis	1,244,592
Robert Zahradnik	756,000
Cornet Capital Corp. (1)	800,064
	8,200,764

(1) Brian McAlister, one of our directors at the time of our initial public offering, is the sole stockholder and director of Cornet Capital Corp.

Under the terms of the escrow agreement, the escrow agent released 10%, 15%, 15% and 15% of our Principals' common shares from escrow on June 24, 2003, December 24, 2003, June 24, 2004 and December 24, 2004 respectively. As of March 31, 2005, an aggregate of 3,690,344 shares of our principals' common stock, (25.3% of the currently outstanding shares) remain in escrow. The remaining common shares held in escrow will be released from escrow every 6 months as set forth in the following table.

Release Date	% of Escrowed Shares to be Released
June 24, 2005	15%
December 24, 2005	15%
June 24, 2006	15%

At the time of our initial public offering we were an "emerging issuer" as defined in the National Escrow Policy. A faster, 18 month (from the initial public offering date) release schedule applies to "established issuers" under the policy. If we become an "established issuer" while our principals' common shares are in escrow, we will "graduate." If we graduate, there will be a catch-up release and an accelerated release of our principals' common shares that remain in escrow under the 18 month schedule as if we were originally an established issuer. We will "graduate" from being an "emerging" issuer to an "established" issuer if:

1. Our shares of common stock are listed on the Toronto Stock Exchange;

2. We are classified as a Tier 1 issuer on the TSX Venture Exchange.

We currently do not have any plans to list our common stock on Tier 1 of the TSX Venture Exchange or the Toronto Stock Exchange.

Under the escrow agreement, our principals' common shares may not be transferred or otherwise dealt with while they are in escrow unless the transfers or dealings are:

(i) transfers to our directors and senior officers, with approval of our board of directors;

(ii) transfers to a person or company that before the transfer holds more than 20% of the voting rights attached to our outstanding securities;

(iii) transfers to a person or company that after the transfer will hold more than 10% of the voting rights attached to our outstanding securities and has the right to elect or appoint one or more of our directors or senior officers;

(iv) transfers to an RRSP or similar trusteed plan provided that the only beneficiaries are the transferor or the transferor's spouse or children;

(v) transfers upon bankruptcy to the trustee in bankruptcy; pledges to a financial institution as collateral for a good faith loan, and upon a realization; or

(vi) tenders of escrowed securities to a take-over bid, provided that if the person tendering to the bid is a Principal of the company resulting from completion of the take-over bid, the securities the Principal receives in exchange for tendered escrowed securities will be placed in escrow on the basis of the resulting company's escrow classification.

Shares must remain in escrow after a permitted transfer. The Principals are able to vote all shares held in escrow.

In addition to the above, in connection with our initial public offering, the TSX Venture Exchange required certain shares held by the University of Florida Research Foundation to be held in escrow with a similar release schedule. As of May 31, 2005, approximately 269,973 of this stockholder’s shares remain subject to escrow and the release schedule described.

Registrar and Transfer Agent

Computershare Trust Company of Canada is the Company’s registrar and transfer agent for our securities.

Registration Rights

University of Florida Research Foundation. Pursuant to the license of our replacement therapy technology from the University of Florida Research Foundation, Inc., we have entered into an Equity Agreement with the University of Florida Research Foundation, Inc. The Equity Agreement provides that if, at any time, we determine to register any shares of our common stock under the United States *Securities Act* of 1933, we will include in such registration the shares which we issued to the University of Florida Research Foundation, Inc. as partial consideration for the license, if the University of Florida Research Foundation, Inc. requests us to do so. Under a further agreement with the University of Florida Research Foundation, Inc., dated May 25, 2005, the University of Florida Research Foundation, Inc. waived its registration rights under the Equity Agreement with respect to this registration statement.

Fusion Capital. In connection with the May 2005 Fusion Capital transaction (See Fusion Capital Transaction), we entered into a registration rights agreement with Fusion Capital. Pursuant to the terms of the registration rights agreement, the Company is obligated to file a registration statement with the Securities and Exchange Commission covering shares which may be purchased by or which have been issued to Fusion Capital under the purchase agreement.

SHARES ELIGIBLE FOR FUTURE SALE

Future sales of a substantial number of shares of our common stock in the public market could adversely affect market prices prevailing from time to time. Under the terms of this offering, the shares of common stock offered may be resold without restriction or further registration under the Securities Act of 1933, except that any shares purchased by our "affiliates," as that term is defined under the Securities Act, may generally only be sold in compliance with Rule 144 under the Securities Act.

Sale of Restricted Shares

Certain shares of our outstanding common stock were issued and sold by us in private transactions in reliance upon exemptions from registration under the Securities Act and have not been registered for resale. Additional shares may be issued pursuant to outstanding warrants and options. Such shares may be sold only pursuant to an effective registration statement filed by us or an applicable exemption, including the exemption contained in Rule 144 promulgated under the Securities Act.

In general, under Rule 144 as currently in effect, a stockholder, including one of our affiliates, may sell shares of common stock after at least one year has elapsed since such shares were acquired from us or our affiliate. The number of shares of common stock which may be sold within any three-month period is limited to the greater of: (i) one percent of our then outstanding common stock, or (ii) the average weekly trading volume in our common stock during the four calendar weeks preceding the date on which notice of such sale was filed under Rule 144. Certain other requirements of Rule 144 concerning availability of public information, manner of sale and notice of sale must also be satisfied. In addition, a stockholder who is not our affiliate, who has not been our affiliate for 90 days prior to the sale, and who has beneficially owned shares acquired from us or our affiliate for over two years may resell the shares of common stock without compliance with many of the foregoing requirements under Rule 144.

Options

We have filed a registration statement on Form S-8 under the Securities Act to register shares of common stock issuable under the 2002 Stock Option and Incentive Plan. Shares issued upon the exercise of stock options are eligible for resale in the public market without restriction, subject to Rule 144 limitations applicable to affiliates.

SELLING STOCKHOLDERS

The following table presents information regarding the selling stockholders. Neither the selling stockholders nor any of its affiliates has held a position or office, or had any other material relationship, with us. Unless otherwise indicated, the percentage of outstanding shares beneficially owned is based on 14,912,645 shares issued and outstanding at May 31, 2005.

Selling Stockholder	Shares Beneficially Owned Before Offering	Percentage of Outstanding Shares Beneficially Owned Before Offering	Shares to be Sold in the Offering	Percentage of Outstanding Shares Beneficially Owned After Offering
Fusion Capital Fund II, LLC (1) (2)	315,421	1.7%	4,315,421	—
Grisham Living Trust(3)(4)	112,700	*	75,000	—
The Arbitrage Fund (3)(5)	255,000	1.7%	255,000	—
Mark Campbell(3)(6)	45,000	*	45,000	—
Westminster Securities Corp.(7)	37,500	*	37,500	—
	765,621		4,727,921	

* less than one percent

(1) As of the date hereof, 315,421 shares of our common stock have been acquired by Fusion Capital under the common stock purchase agreement. Fusion Capital may acquire up to an additional 4,000,000 shares under the common stock purchase agreement. Percentage of outstanding shares is based on 14,912,645 shares of common stock outstanding as of May 31, 2005, together with such additional 4,000,000 shares of common stock that may be acquired by Fusion Capital from us under the common stock purchase agreement after the date hereof. Fusion Capital may not purchase shares of our common stock under the common stock purchase agreement if Fusion Capital, together with its affiliates, would beneficially own more than 9.9% of our common stock outstanding at the time of the purchase by Fusion Capital. Fusion Capital has the right at any time to sell any shares purchased under the common stock purchase agreement which would allow it to avoid the 9.9% limitation. Therefore, we do not believe that Fusion Capital will ever reach the 9.9% limitation.

(2) Steven G. Martin and Joshua B. Scheinfeld, the principals of Fusion Capital, are deemed to be beneficial owners of all of the shares of common stock owned by Fusion Capital. Messrs. Martin and Scheinfeld have shared voting and disposition power over the shares being offered under this prospectus.

(3) Represents shares acquired in the private placement or able to be acquired upon exercise of the outstanding warrants issued as part of a private placement.

(4) Includes 25,000 shares issuable upon exercise of warrants. Harold R. Grisham is the trustee and beneficiary and has sole voting and investment power over the shares. Also, includes 37,700 shares beneficially owned by Harold R. Grisham that were purchased in the open market.

(5) Includes 85,000 shares issuable upon exercise of warrants. John Orrico is Managing Partner of the Arbitrage Fund and has sole voting and investment power over the shares.

(6) Includes 15,000 shares issuable upon exercise of warrants.

(7) Westminster Securities Corp. was the placement agent for a private placement offering and the shares listed represent the shares able to be acquired by Westminster Securities Corp. on the outstanding placement agent warrants held by Westminster Securities Corp. which it received in connection with our private placement offering (warrants to acquire 25,000 shares of our common stock at $2.25 and warrants to acquire 12,500 shares of our common stock at $2.75). Each of the placement agent warrants is exercisable until November 30, 2008.

The Private Placement Transaction

On November 30, 2004, we issued a total of 250,000 shares of our common stock and warrants to purchase 162,500 shares of our common stock in a private placement to three accredited investors (The Arbitrage Fund, Mark Campbell and The Living Trust of Harold Richard Grisham) and a placement agent pursuant to a placement agent agreement and subscription agreements which were amended pursuant to a warrant amendment agreement effective May 31, 2005. The issuance of the shares of common stock and warrants was made pursuant to the exemptions from registration provided by Section 4(2) of the Securities Act and Regulation D promulgated thereunder. We received gross proceeds of $687,500 in the private placement and incurred costs of approximately $142,500 resulting in net proceeds of approximately $545,000. Warrants representing 125,000 shares of common stock are exercisable by the three accredited investors over a four-year period at a price of $3.50 per share. As the placement agent, Westminster Securities Corp., a member of the NASD and a registered broker-dealer, received (i) $35,000 (ii) commission of 8% on the gross proceeds to us, and (iii) placement agent warrants exercisable over a four-year period to purchase 25,000 shares of common stock at a purchase price of $2.75 per share and 12,500 shares of common stock at 3.50. In addition to Westminster's commission, we incurred further expenses in connection with the offering of $52,573. This prospectus covers the resale of the shares acquired by the investors and shares underlying the warrants issued in the private placement. We are registering the resale of the shares issued in the private placement and resale of shares that may be issued upon exercise of the warrants, pursuant to our agreement to do so.

In connection with our November 2004 private placement we entered into subscription agreements with the investors which

granted certain resale registration rights to the investors. In the event a registration statement for resale of the shares issued to the investors was not filed within 30 days of closing, or not declared effective within 120 days of the closing, or in certain other events of default, the terms of the subscription agreements provided that each investor (pro rated on a daily basis) was entitled to compensatory payment from us of an amount equal to one percent of the amount invested by that investor, and thereafter one percent for each successive month or any portion of that month until the registration statement is effective or we have cured the other events of default. The subscription agreement further provides that if a compensatory payment is not timely made, we will also be obligated to pay the investor interest at the rate of 12% per annum, or the highest rate permitted by law, if less, until such amounts have been paid in full**.**

Effective May 31, 2005, we entered into a warrant amendment agreement with the private placement investors and Westminster. The warrant amendment agreement provided for (i) the elimination and termination of the registration rights contained in the subscription agreement, subject to the effectiveness of this registration statement, (ii) the waiver of any compensation amount that may have been owed pursuant to the registration rights and the elimination and termination of such compensatory amounts, and (iii) the amendment of warrants to Westminster and the investors to eliminate the warrant anti-dilution adjustment provision. In exchange for the foregoing, we made a one time adjustment to the exercise prices of the investor and Westminster warrants and issued replacement warrants to the investors and Westminster. The replacement warrants were for the same number of shares as in the private placement except that the exercise prices of the warrants were revised from $3.50 to $2.75 per share and from $2.75 to $2.25 per share.

PLAN OF DISTRIBUTION

The common stock offered by this prospectus is being offered by the selling stockholders. The common stock may be sold or distributed from time to time by the selling stockholders only for cash directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this Prospectus may be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents
- "at the market" into an existing market for the common stock;
- in other ways not involving market makers or established trading markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

Brokers, dealers, underwriters, or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholders and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions.

Fusion Capital and Westminster Securities are "underwriters" within the meaning of the Securities Act.

Neither we nor Fusion Capital can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between Fusion Capital, any other stockholder, broker, dealer, underwriter, or agent relating to the sale or distribution of the shares offered by this Prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters, or dealers and any compensation from the selling stockholder, and any other required information.

We will pay all of the expenses incident to the registration, offering, and sale of the shares to the public other than commissions or discounts of underwriters, broker-dealers, or agents. We have also agreed to indemnify Fusion Capital and related persons against specified liabilities, including liabilities under the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

Fusion Capital and its affiliates have agreed not to engage in any direct or indirect short selling or hedging of our common stock during the term of the common stock purchase agreement.

We have advised Fusion Capital that while it is engaged in a distribution of the shares included in this Prospectus it is required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling stockholders,, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered hereby this Prospectus.

This offering will terminate on the date that all shares offered by this Prospectus have been sold by the selling stockholders.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our Articles of Incorporation limit the personal liability of our officers and directors for monetary damages for breach of their fiduciary duty as directors, except for liability that cannot be eliminated under the Florida Business Corporation Act (the "FBCA"). Our Articles of Incorporation and Bylaws also provide for the Company to indemnify directors and officers to the fullest extent permitted by the FBCA. In addition, we have indemnification agreements with its directors and executive officers.

The indemnification provisions described above would provide coverage for claims arising under the Securities Act and the Exchange Act. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to our Articles of Incorporation, Bylaws, Indemnification agreements, the FBCA, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

LEGAL MATTERS

The validity of the issuance of the common stock offered hereby will be passed upon for us by Shumaker, Loop & Kendrick, LLP.

EXPERTS

The financial statements of Oragenics, Inc. at December 31, 2004, and for each of the two years in the period ending December 31, 2004 appearing in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about Oragenics, Inc.'s ability to continue as a going concern as described in Note 1 to the financial statements) appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file current, quarterly and annual reports with the SEC on forms 8-K, 10-QSB and 10-KSB. We have filed with the SEC under the Securities Act of 1933 a registration statement on Form SB-2 with respect to the shares being offered in this offering. This prospectus does not contain all of the information set forth in the registration statement, certain items of which are omitted in accordance with the rules and regulations of the SEC. The omitted information may be inspected and copied at the Public Reference Room maintained by the SEC at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. You can obtain information about operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at http://www.sec.gov. Copies of such material can be obtained from the public reference section of the SEC at prescribed rates. Statements contained in this prospectus as to the contents of any contract or other document filed as an exhibit to the registration statement are not necessarily complete and in each instance reference is made to the copy of the document filed as an exhibit to the registration statement, each statement made in this prospectus relating to such documents being qualified in all respects by such reference.

For further information with respect to us and the securities being offered hereby, reference is hereby made to the registration statement, including the exhibits thereto and the financial statements, notes, and schedules filed as a part thereof.

FINANCIAL STATEMENTS

Oragenics, Inc.

Financial Statements

Years ended December 31, 2004 and 2003
and for the three months ended March 31, 2005 and 2004

Contents

Index to Financial Statements	F-1
Report of Independent Registered Public Accounting Firm on Financial Statements	F-2
Financial Statements	
Balance Sheets	F-3
Statements of Operations	F-4
Statements of Changes in Stockholders' Equity (Deficit)	F-5
Statements of Cash Flows	F-6
Notes to Financial Statements	F-7

Report of Independent Registered Public Accounting Firm on Financial Statements

The Board of Directors and Stockholders of
Oragenics, Inc.

We have audited the accompanying balance sheet of Oragenics, Inc. as of December 31, 2004, and the related statements of operations, changes in stockholders' equity (deficit) and cash flows for each of the two years in the period ended December 31, 2004. 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 includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and 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 Oragenics, Inc. at December 31, 2004, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2004, in conformity with accounting principles generally accepted in the United States.

The accompanying financial statements have been prepared assuming that Oragenics, Inc. will continue as a going concern. As more fully described in Note 1, the Company has incurred recurring operating losses, negative operating cash flows and has an accumulated deficit. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

January 28, 2005 except for Note 11, as to which the date is
February 24, 2005
Tampa, Florida /s/ Ernst & Young LLP

Oragenics, Inc.

Balance Sheets

	December 31, 2004	March 31, 2005 *(unaudited)*
Assets		
Current assets:		
Cash and cash equivalents	$ 3,666,244	$ 2,381,383
Prepaid expenses and other current assets	108,895	209,018
Total current assets	3,775,139	2,590,401
Property and equipment, net	690,932	1,203,591
Total assets	$ 4,466,071	$ 3,793,992
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued expenses	$ 429,627	$ 277,544
Current portion of notes payable	--	192,858
Total current liabilities	429,627	470,402
Long term liabilities:		
Notes payable	--	363,503
Total liabilities	429,627	833,905
Stockholders' equity:		
Preferred stock, no par value; 20,000,000 shares authorized; none issued and outstanding	--	--
Common stock, $0.001 par value; 100,000,000 shares authorized; 14,594,924 and 14,597,224 shares issued and outstanding at December 31, 2004 and March 31, 2005, respectively	14,595	14,597
Additional paid in capital	9,493,833	9,283,604
Accumulated deficit	(5,471,984)	(6,338,114)
Total stockholders' equity	4,036,444	2,960,087
Total liabilities and stockholders' equity	$ 4,466,071	$ 3,793,992

See accompanying notes.

Oragenics, Inc.

Statements of Operations

	Year ended December 31		Three months ended	
	2004	**2003**	**2005**	**2004**
			(unaudited)	
Revenue	**$ 196,210**	**$ --**	**$ --**	**$ --**
Operating expenses:				
Research and development	**1,990,979**	929,355	647,186	262,295
General and administration	**1,329,983**	738,596	231,919	282,166
Total operating expenses	**3,320,962**	1,667,951	879,105	544,461
Loss from operations	**(3,124,752)**	(1,667,951)	(879,105)	(544,461)
Other income (expense):				
Interest income	**47,306**	7,874	14,620	7,021
Interest expense	**(442)**	(12,877)	(1,645)	**--**
Total other income (expense), net	**46,864**	(5,003)	12,975	7,021
Net loss	**$ (3,077,888)**	$ (1,672,954)	$ (866,130)	$ (537,440)
Basic and diluted net loss per share	**$ (0.22)**	$ (0.15)	$ (0.06)	$ (0.04)
Shares used to compute basic and diluted net loss per share	**14,118,129**	10,814,198	14,596,866	13,413,558

See accompanying notes.

Oragenics, Inc.

Statements of Changes in Stockholders' Equity (Deficit)

	Common Stock		Additional Paid In	Accumulated	Total Stockholders' Equity
	Shares	Amount	Capital	Deficit	(Deficit)
Balance at December 31, 2002	9,425,704	$ 9,426	$ 628,234	$ (721,142)	$ (83,482)
Issuance of common stock and warrants	2,500,000	2,500	2,280,112	--	2,282,612
Exercise of common stock warrants	1,370,500	1,370	2,628,817	--	2,630,187
Compensation expense relating to option issuances	--	--	283,534	--	283,534
Net loss	--	--	--	(1,672,954)	(1,672,954)
Balance at December 31, 2003	13,296,204	13,296	5,820,697	(2,394,096)	3,439,897
Exercise of common stock warrants	1,048,720	1,049	3,034,724	--	3,035,773
Costs associated with filing initial public offering post effective amendment	--	--	(62,421)	--	(62,421)
Issuance of common stock and warrants	250,000	250	544,676	--	544,926
Compensation expense relating to option issuances	--	--	156,157	--	156,157
Net loss	--	--	--	(3,077,888)	(3,077,888)
Balance at December 31, 2004	14,594,924	14,595	9,493,833	(5,471,984)	4,036,444
Exercise of common stock warrants (unaudited)	2,300	2	2,873	--	2,875
Compensation expense credit relating to option issuances (unaudited)	--	--	(213,102)	--	(213,102)
Net loss (unaudited)	--	--	--	(866,130)	(866,130)
Balance at March 31, 2005 (unaudited)	14,597,224	$ 14,597	$ 9,283,604	$ 6,338,114	$ 2,960,087

See accompanying notes.

Oragenics, Inc.

Statements of Cash Flows

	Year ended December 31		Three months ended March 31	
	2004	2003	2005	2004
			(unaudited)	
Operating activities				
Net loss	**$ (3,077,888)**	$ (1,672,954)	$ (866,130)	$ (537,440)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	**41,987**	12,545	48,803	5,163
Non-cash issuance of common stock and common stock options	**--**	54,000	--	--
Stock-based compensation expense	**156,157**	229,534	(213,102)	(9,445)
Changes in operating assets and liabilities:				
Costs associated with initial public offering	**--**	271,937	--	--
Prepaid expenses and other current assets	**(84,258)**	(15,896)	(100,123)	(2,322)
Accounts payable and accrued expenses	**289,013**	(92,197)	(152,083)	69,166
Accrued interest	**(25,582)**	8,120	--	(25,582)
Deferred compensation	**(44,672)**	(13,999)	--	(44,672)
Net cash used in operating activities	**(2,745,243)**	(1,218,910)	(1,282,635)	(545,132)
Investing activity				
Purchases of property and equipment	**(690,548)**	(50,258)	(561,462)	(24,212)
Net cash used in investing activity	**(690,548)**	(50,258)	(561,462)	(24,212)
Financing activities				
Proceeds from notes payable to stockholders	**--**	175,000	--	--
Payment of notes payable to stockholders	**--**	(260,454)	--	--
Net proceeds from issuance of common stock	**3,518,278**	4,912,799	2,875	2,997,906
Proceeds from note payable	**--**	--	556,361	--
Net cash provided by financing activities	**3,518,278**	4,827,345	559,236	2,997,906
Net increase (decrease) in cash and cash equivalents	**82,487**	3,558,177	(1,284,861)	2,428,562
Cash and cash equivalents at beginning of period	**3,583,757**	25,580	3,666,244	3,583,757
Cash and cash equivalents at end of period	**$ 3,666,244**	$ 3,583,757	$ 2,381,383	$ 6,012,319
Supplemental disclosure of non-cash financing activities				
Common stock and common stock options issued in connection with investment bank and related financing services	**$ --**	$ 54,000	**$ --**	**$ --**
Supplemental disclosure of cash flow information				
Interest paid	**$ 26,024**	$ 4,757	$ 1,160	**$ --**

See accompanying notes.

1. Organization and Significant Accounting Policies

Oragenics, Inc. is dedicated to developing technologies associated with oral health, broad spectrum antibiotics and other general health benefits. The Company has licensed two unique technologies from the University of Florida: replacement therapy for the prevention of tooth decay and Mutacin 1140, a novel antibiotic. The Company has also developed a probiotics technology to provide protection against the causative organisms of periodontal disease and has licensed two related platform technologies that enable the simple, fast identification of gene targets associated with the natural onset and progression of infections, cancers and other diseases.

Basis of Presentation

The financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States including the assumption of a going concern basis which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The Company incurred a net loss of $3,077,888 for the year ended December 31, 2004 and as of that date had an accumulated deficit of $5,471,984. Cash used in operations for the years ended December 31, 2004 and December 31, 2003 was $2,745,243 and $1,218,910, respectively, and cash flow from operations was negative throughout 2004. The Company expects to incur substantial expenditures to further develop each of its technologies. The Company believes the working capital at December 31, 2004 will be insufficient to meet the business objectives as presently structured. Management recognizes that the Company must generate additional capital resources or consider modifications to its technology development plans to enable it to continue as a going concern. Management's plans include seeking financing, alliances or other partnership agreements with entities interested in the Company's technologies, or other business transactions that would generate sufficient resources to assure continuation of the Company's operations and research and development programs.

The Company intends to seek additional funding through sublicensing arrangements, joint venturing or partnering, sales of rights to technology, government grants and public or private financings. During 2004 the Company conducted a private placement to raise capital. During 2005 the Company expects to raise additional capital through selling additional debt or equity securities on terms acceptable to the Company. There can be no assurance that additional financing will be available to the Company on acceptable terms, or at all. The Company's future success depends on its ability to raise capital and ultimately generate revenue and attain profitability. The Company cannot be certain that additional capital, whether through selling additional debt or equity securities or obtaining a line of credit or other loan, will be available to it or, if available, will be on terms acceptable to the Company. If the Company issues additional securities to raise funds, these securities may have rights, preferences, or privileges senior to those of its common stock, and the Company's current stockholders may experience dilution. If the Company is unable to obtain funds when needed or on acceptable terms, the Company may be required to curtail their current development programs, cut operating costs and forego future development and other opportunities. Without sufficient capital to fund their operations, the Company will be unable to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Unaudited Interim Information

The accompanying unaudited financial statements as of and for the three-month periods ended March 31, 2005 and 2004 have been prepared in accordance with generally accepted accounting principles for interim financial information. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. Operating results for the three months ended March 31, 2005 are not necessarily indicative of the results that may be expected for the year ending December 31, 2005.

1. Organization and Significant Accounting Policies (continued)

Concentrations of Credit Risk

The Company's cash and cash equivalents are deposited in two financial institutions and consist of demand deposits and overnight repurchase agreement investments.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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.

Fair Value of Financial Instruments

The fair value of the Company's cash and cash equivalents, accounts payable and accrued expenses approximate their carrying values due to their short-term nature.

Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation and amortization. Depreciation is provided on the straight-line method over the estimated useful lives of the assets (three to seven years). Leasehold improvements are amortized over the shorter of the estimated useful life or the lease term of the related asset (five years).

Business Segments

Pursuant to Statement of Financial Accounting Standards (SFAS) No. 131, *Disclosure About Segments of a Business Enterprise and Related Information*, the Company is required to report segment information. As the Company only operates principally in one business segment, no additional reporting is required.

Stock-Based Compensation

The Company has a stock-based employee compensation plan, which is described more fully in Note 5. The Company accounts for the plan under the recognition and measurement principles of APB Opinion No. 25, *Accounting for Stock Issued to Employees,* and related Interpretations. The following table illustrates the effect on net loss per share if the Company had applied the fair value recognition provisions of SFAS No. 123, *Accounting for Stock-Based Compensation,* to stock-based employee compensation.

1. Organization and Significant Accounting Policies (continued)

	Years ended December 31		Three months ended March 31	
	2004	2003	2005	2004
			(unaudited)	
Net loss, as reported	$ (3,077,888)	$ (1,672,954)	$ (866,130)	$ (537,440)
Add: Total stock-based employee compensation expense reported in net loss	156,157	229,534	(213,102)	(9,445)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(152,545)	(44,371)	(58,455)	(30,747)
Pro forma net loss	$ (3,074,276)	$ (1,487,791)	$ (1,137,687)	$ (577,632)
Loss per share:				
Basic and diluted - as reported	$ (0.22)	$ (0.15)	$ (0.06)	$ (0.04)
Basic and diluted - pro forma	$ (0.22)	$ (0.14)	$ (0.08)	$ (0.04)
Shares used to compute basic and diluted net loss per share	14,118,129	10,814,198	14,596,866	13,413,558

Net Loss Per Share

During all periods presented, the Company had securities outstanding that could potentially dilute basic earnings per share in the future, but were excluded from the computation of diluted net loss per share, as their effect would have been antidilutive. Because the Company reported a net loss for all periods presented, shares associated with the stock options and warrants are not included because they are antidilutive. Basic and diluted net loss per share amounts are the same for the periods presented.

Revenue Recognition

Grant revenues are recognized as the reimbursable expenses are incurred over the life of the related grant.

Impairment of Long-Lived Assets

The Company reviews their long-lived assets for impairment and reduces the carrying value to fair value whenever events or changes in circumstances indicate that the carrying value may not be recoverable. There were no impairment losses recorded during the years ended December 31, 2004 and 2003.

Research and Development Expenses

Expenditures for research and development are expensed as incurred. The majority of the Company’s activities are research and development related.

1. Organization and Significant Accounting Policies (continued)

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in operations in the period that includes the enactment date. Deferred tax assets are reduced to estimated amounts expected to be realized by the use of a valuation allowance.

Recently Issued Accounting Pronouncements

In December 2004, the FASB issued Statement of Financial Accounting Standards No. 123 (revised 2004) "Share Based Payment" ("FAS 123(R)"), which is a revision of FASB Statement No. 123 "Accounting for Stock Based Compensation" ("Statement 123"). This statement supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees" ("Opinion 25") which allowed companies to use the intrinsic value method of valuing share-based payment transactions and amends FAS Statement No. 95, "Statement of Cash Flows". FAS 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative. The Company expects to adopt Statement 123 (R) on January 1, 2006.

FAS 123(R) permits public companies to adopt its requirements using one of two methods. A "modified prospective" method in which compensation cost is recognized beginning with the effective date (a) based on the requirements of FAS 123(R) for all share-based payments granted after the effective date and (b) based on the requirements of Statement 123 for all awards granted to employees prior to the effective date of FAS 123(R) that remain unvested on the effective date. A "modified retrospective" method which includes the requirements of the modified prospective method described above, but also permits entities to restate based on the amounts previously recognized under Statement 123 for purposes of pro forma disclosures either (a) all prior periods presented or (b) prior interim periods of the year of adoption. The Company will determine which method to adopt prior to the effective date of FAS 123(R).

The impact of adoption of FAS 123(R) cannot be accurately predicted at this time since it will depend on levels of share-based payments granted in the future. However, had the Company adopted FAS 123(R) in prior periods, the impact of the standard would have approximated the impact of FAS 123 as described in the disclosure of pro forma net loss and loss per share in Note 1 to the financial statements. Statement 123(R) also requires the benefits of tax deductions in excess of recognized compensation cost to be reported as a financing cash flow, rather than as an operating cash flow as required under current literature. This requirement will reduce net operating cash flows and increase net financing cash flows in periods after adoption. While the Company cannot estimate what those amounts will be in the future (because they depend on, among other things, when employees exercise stock options), there were no amounts of operating cash flows recognized in prior periods for such excess tax deductions in 2003 and 2004.

As permitted by Statement 123, the Company currently accounts for share-based payments using Opinion 25's intrinsic value method and, as such, generally recognizes no compensation cost for employee stock options.

2. Property and Equipment

Property and equipment consists of the following as of December 31, 2004:

Leasehold improvements	$	469,327
Laboratory equipment		226,070
Office and computer equipment		54,127
		749,524
Accumulated depreciation		(58,592)
	$	690,932

Depreciation expense for 2004 and 2003 was $41,987 and $12,545, respectively.

3. Obligations to Stockholders

The Company issued promissory notes for cash to two stockholders in the amounts of $69,604 and $15,000 in 2001 and 1999, respectively. These notes were payable upon demand and accrued interest at 7% per year. The principal portion of the notes was repaid in December 2003 and related accrued interest totaling $18,452 was paid in January 2004.

In 2003, the Company issued two demand promissory notes to a stockholder in the amounts of $100,000 and $75,000 bearing interest at 10% per annum. Both notes and interest totaling $4,757 were repaid in June 2003.

At December 31, 2004 and 2003, $75,000 was owed and included in accounts payable and accrued expenses for consulting services provided by a stockholder of the Company in prior years. In January 2005, $20,000 was paid on this obligation. No interest is being accrued on this outstanding debt.

4. Deferred Compensation

During 2000, the Company entered into a two-year employment agreement with an officer and stockholder. The agreement provided for the deferral of compensation until a certain level of investment funding was received and required the Company to accrue interest on the deferred balance at 7% per year. Beginning July 1, 2001, the agreement was amended whereby the deferral of compensation ceased. No compensation expense was recognized in 2004 or 2003 and interest expense relating to the employment agreement for the years ended December 31, 2004 and 2003 was $0 and $2,409, respectively. In January 2004, payments totaling $41,539 were made in settlement of this obligation.

Between December 2002 and June 2003, compensation payments totaling $149,263 to three officers of the Company were deferred due to limited cash flow of the Company. As of December 31, 2003, payments of $139,000 were made and the balance of $10,263 was paid in January 2004. There was no provision to pay interest on these deferred compensation payments.

5. Stockholders' Equity

Common Stock

On June 24, 2003, the Company completed the filing of 2,400,000 units at $1.25 per unit as an initial public offering (IPO) for gross proceeds of $3,000,000. Each unit consisted of one share of the Company's common stock, one-half Series A Common Share Purchase Warrant and one-half Series B Common Share Purchase Warrant. One whole Series A warrant allowed the holder to purchase a share of the Company's stock at $2.00 per share until December 24, 2003. All Series A warrants were exercised before the expiration date providing proceeds to the Company of $2,400,000. One whole Series B warrant allowed the holder to purchase a share of the Company's stock at $3.00 per share until March 24, 2004. A total of 995,400 Series B warrants were exercised on or before March 24, 2004 providing proceeds of $2,986,200 and the remaining 204,600 Series B warrants expired unexercised on March 24, 2004. In addition to receiving a cash commission for each share sold, the underwriting agent for the IPO received 100,000 shares of common stock of the Company and warrants to purchase 500,000 shares of common stock of the Company at $1.25 per share until June 24, 2005. As of December 31, 2004, 223,820 underwriter warrants were exercised providing proceeds to the Company of $279,775. The cost of the IPO, including the filing of a post effective amended registration statement in October 2004, was $779,809 including the agent's commission.

On November 30, 2004, the Company completed a private placement of its stock through an underwriter selling 25 units at $27,500 per unit totaling $687,500. Each unit consisted of 10,000 shares of common stock and 5,000 warrants to purchase common stock at a price of $3.50 per share until November 30, 2008. The total cost associated with this financing was approximately $142,500 including the underwriter's commission.

Stock Compensation Plan

The Company's 2002 Stock Option and Incentive Plan (the Plan) was adopted by the Board of Directors (the Board). The purpose is to advance the interests of the Company by affording certain employees and directors of the Company and key consultants and advisors an opportunity to acquire or increase their proprietary interests in the Company. The Plan authorizes the grant of stock options (incentive and non-statutory), stock appreciation rights and restricted stock. As of December 31, 2004, the Company had not awarded stock appreciation rights or restricted stock under the Plan. The Company has reserved an aggregate of 1,500,000 shares of common stock for grants under the Plan, of which 430,000 shares are available for future grants as of December 31, 2004. The exercise price of each option shall be determined by the Board and an option's maximum term is five years.

In September 2002, the Company issued 195,000 options that were re-priced upon the change in the initial public offering price. As a result, these options were subjected to variable accounting treatment. In accordance with Financial Accounting Standards Board Interpretation No. 44, *Accounting for Certain Transactions Involving Stock Compensation* (FIN 44), stock options must be accounted for as variable under such circumstances. Variable accounting requires companies to re-measure compensation costs for the variable options until the options are exercised, cancelled, or forfeited without replacement. Compensation is dependent on fluctuations in the quoted stock prices for the Company's common stock. Such compensation costs will be recognized over a three-year vesting schedule until the options are fully vested, exercised, cancelled, or forfeited, after which time the compensation will be recognized immediately at each reporting period. During 2004 and 2003, the Company recognized compensation expense of $156,157 and $229,534, respectively.

5. Stockholders' Equity (continued)

A summary of the status of the Company's outstanding stock options, including employee stock options discussed above, as of December 31, 2004 and 2003 and changes during the periods ending on those dates is presented below:

	Options	Option Price Per Share	Weighted Average Exercise Price
Outstanding at January 1, 2003	315,000	$ 1.25	$ 1.25
Granted	285,000	$ 2.65 - 4.00	$ 3.29
Outstanding at December 31, 2003	600,000	1.25 - 4.00	2.22
Forfeited	(20,000)	2.65	2.65
Granted	175,000	3.30 - 4.25	3.83
Granted	315,000	2.25 - 2.65	2.38
Outstanding at December 31, 2004	1,070,000	1.25 - 4.25	$ 2.52
Exercisable at end of year	246,667	$ 1.25 - 4.00	$ 1.89

The range of exercise price is $1.25 to $4.25 per share. The weighted-average per option fair value of options granted during 2004 and 2003 was $1.48 and $1.26, respectively, and the weighted average remaining contractual life of those options is 4.3 years. Options vest over a period of three to four years from respective grant dates and the options expire 5 years after the date of grant. The fair value of these options was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions: weighted average risk-free interest rate of 1.00-2.87%; dividend yields of 0%; weighted-average volatility factors of the expected market price of the Company's common stock of 55%; and an expected life of the option of four years.

6. Licenses

The Company has two license agreements with the University of Florida Research Foundation, Inc. ("UFRF") for their technologies. The Company issued 599,940 shares of common stock as partial consideration. The license agreements provide for, among other things, the Company to make minimum annual research expenditures of $600,000 in 2003 and $1,000,000 thereafter, to adhere to specific milestones and pay royalties on product sales, which beginning December 31, 2005 will be a minimum of $50,000 annually per agreement. The agreement also required the Company to pay $100,000 to UFRF as reimbursement for patent filing costs upon the closing of any financing in excess of $1,000,000. If the Company fails to perform certain of its obligations, UFRF may terminate the license agreements. Upon completion of the initial public offering in June 2003, the Company paid UFRF $100,000.

6. Licenses (continued)

In March 2004, the Company licensed from iviGene Corporation, a company whose major stockholders also own a significant number of shares of the Company's common stock, applications of two novel technologies referred to as IVIAT and CMAT. Our license provides us with exclusive worldwide rights to this broad platform technology in the areas of cancer and tuberculosis, as well as agricultural and other non-human uses. In return, we will pay royalties on revenues we are able to generate from any products developed using the technology, including royalties on sublicense fees, milestone payments and future product sales. Under the terms of our license with iviGene we are not obligated to make any payments to iviGene until we have achieved certain milestone or royalty payments, however, we are required to spend up to $200,000 annually on these technologies to maintain our license. To support the research for this technology in 2004, we received a Phase I Small Business Innovation Research Grant from the National Institute of Allergy and Infections Diseases (NIAID) of the National Institutes of Health (NIH) that paid to us $96,210.

7. Retirement Plan

In January 2004, the Company established a defined contribution retirement plan, replacing the previous plan that had been established in 2001. The new plan covers all employees and provides for a Company match of up to 3% of all employee contributions to the plan. During 2004, employee contributions are limited to $9,000 except for individuals 50 years or older for which the contribution limitation is $10,500. Total matching contributions made by the Company in 2004 were $28,315. There were no contributions made under the prior plan in 2003.

8. Income Taxes

At December 31, 2004, the Company had temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective income tax bases, as measured by enacted state and federal tax rates, as follows:

Deferred tax assets:		
Net operating loss carryforward	**$**	1,833,321
Consulting services		28,223
Non qualified stock options		64,977
Tax credits		129,275
Total deferred tax assets		2,055,796
Less valuation allowance		(2,055,796)
Total net deferred taxes	**$**	--

8. Income Taxes (continued)

The following is a reconciliation of tax computed at the statutory federal rate to the income tax benefit in the statements of operations for the years ended December 31, 2004 and 2003:

	Year ended December 31	
	2004	**2003**
Income tax benefit computed at statutory federal rate of 34%	**$** (1,046,482)	$ (568,804)
State income tax benefits, net of federal expense/benefit	(111,727)	(60,728)
Change in valuation allowance	1,178,040	596,049
Non-deductible expenses	60,721	60,303
Research and development credit	(80,552)	(32,512)
Other	--	5,692
Total	**$** --	$ --

SFAS No. 109, *Accounting for Income Taxes*, requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all of the evidence, both positive and negative, management has determined that a valuation allowance of $2,055,796 at December 31, 2004 is necessary to reduce the deferred tax assets to the amount that will more likely than not be realized. The change in the valuation allowance for the year ended December 31, 2004 was $1,178,040. At December 31, 2004, the Company has available net operating loss carryforwards of $4,871,968 that begin to expire in 2022.

In connection with the initial public offering, it is possible that the Company experienced a change in control within the meaning of Section 382 of the Internal Revenue Code. If so, the ability of the Company to use its net operating losses may be limited and subject to annual limitation that could result in the expiration of some net operating losses prior to utilization.

9. Commitments and Contingencies

The Company leased its laboratory and office space, as well certain equipment, under a 12-month cancelable operating lease with annual renewal options. Total rent expense under this lease was $47,376 and $33,583 for the years ended December 31, 2004 and 2003, respectively. The lease agreement ended in November 2004 when the Company moved into its new facility that is being leased from a real estate developer for a term of five years subject to renewal provisions. This operating lease agreement required the Company to pay a deposit of $6,400 and provides for monthly lease payments of $6,400, exclusive of utilities, insurance, sales taxes and real estate taxes. Total rent expense under this lease was $10,184 for the year ended December 31, 2004.

In addition, the Company has entered into certain operating leases for office equipment. Future annual minimum payments under all noncancelable operating leases are approximately as follows:

Year ended:	
2005	$ 84,200
2006	86,600
2007	88,600
2008	87,800
2009	82,600
Thereafter	--
	$ 429,800

10. Unaudited Quarterly Financial Information

The quarterly interim financial information shown below has been prepared by the Company's management and is unaudited. It should be read in conjunction with the audited financial statements appearing herein.

	2004			
	First	**Second**	**Third**	**Fourth**
Revenue	$ --	$ 44,235	$ 118,642	$ 33,333
Total operating expenses	544,461	723,202	745,561	1,307,738
Net loss	(537,440)	(667,662)	(613,770)	(1,259,016)
Loss per share:				
Basic and Diluted	$ 0.04	$ 0.05	$ 0.04	$ 0.09

	2003			
	First	**Second**	**Third**	**Fourth**
Total operating expenses	$ 207,899	$ 432,440	$ 398,426	$ 629,186
Net loss	(211,442)	(437,319)	(396,722)	(627,471)
Loss per share:				
Basic and Diluted	$ 0.02	$ 0.05	$ 0.03	$ 0.05

11. Subsequent Event

On February 24, 2005, the Company entered into a Business Loan Agreement with a bank that will fund approximately $615,000 of laboratory equipment purchases. The loan has a term of 37 months with the first month payment of interest only and the remaining monthly payments of principal and interest of approximately $18,900 per month. Interest will be calculated at the prime rate as published in the Wall Street Journal (currently 5.5%) plus 1.00%. Interest can never be below 5.75% or above 17.5%. The loan is collateralized by the equipment being purchased, as well as all equipment currently owned by the Company.

Oragenics, Inc.

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. This prospectus may only be used where it is legal to sell these securities. The information contained in this prospectus may only be accurate on the date of this prospectus.

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 24. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

As provided in our bylaws and under Florida law, our directors shall not be personally liable to our company or any other person for monetary damages for breach of duty of care or any other duty owed to our company as a director, unless the breach of or failure to perform those duties constitutes:

* a violation of criminal law, unless the director had reasonable cause to believe his conduct was lawful, or had no reasonable cause to believe his conduct was unlawful;
* a transaction from which the director received an improper personal benefit, directly or indirectly;
* in a proceeding by or in the right of our company or a stockholder, an act or omission which involves a conscious disregard for the best interests of our company or which involves willful misconduct;
* in a proceeding by or in the right of someone other than our company or a stockholder, an act of recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property; or
* a distribution made in violation of Florida law.

Our bylaws provide that we are required to indemnify any director, officer, employee or agent made a party to a proceeding because he is or was our director, officer, employee or agent against liability incurred in the proceeding if he acted in good faith and in a manner the director reasonably believed to be in or not opposed to our best interests and, in the case of any criminal proceeding, he had no reasonable cause to believe his conduct was unlawful.

Our bylaws and Florida law also provide that we shall indemnify a director, officer, employee or agent who has been successful on the merits or otherwise in the defense of any proceeding to which he was a party, or in defense of any claim, issue or matter therein, because he is or was a director, officer, employee or agent of our company against expenses actually and reasonably incurred by him in connection with such defense.

ITEM 25. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The estimated expenses of this offering, all of which are to be paid by the registrant, are as follows:

SEC Registration Fee	$	1,364
American Stock Exchange Additional Listing Fees		45,000
Accounting Fees and Expenses		25,000
Legal Fees and Expenses		40,000
Transfer Agent Fees		---
Miscellaneous Expenses		8,636
TOTAL	$	120,000

ITEM 26. RECENT SALES OF UNREGISTERED SECURITIES

During the past three years, we have sold the following shares of common stock which were not registered under the Securities Act of 1933, as amended.

On November 30, 2004 we issued a total of 250,000 shares of our common stock at $2.75 per share and warrants to purchase 162,500 shares of our common stock (137,500 shares at $3.50 and 25,000 shares at $2.75) in a private placement to three accredited investors (The Arbitrage Fund, Mark Campbell and The Living Trust of Harold Richard Grisham) and a placement agent. We received gross proceeds of $687,500 in the private placement and incurred costs of approximately $142,500 resulting in net proceeds of approximately $545,000. Effective May 31, 2005, a warrant amendment agreement was entered into which resulted in the exercise prices of the warrants to purchase 162,500 shares of our common stock being reduced from $3.50 to $2.75 and from $2.75 to $2.25.

On May 23, 2005 we issued 315,421 shares to Fusion Capital Fund II, LLC pursuant to the terms of a common stock purchase agreement.

We issued the above restricted securities to the named individuals and entities pursuant to exemptions under the Securities Act of 1933.

ITEM 27. EXHIBITS.

The following exhibits are filed as part of this registration statement, pursuant to Item 601 of Regulation S-B.

Exhibit Index

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No	Exhibit	Filing Date	
3.1	Amended and Restated Articles of Incorporation	SB-2	333-100568	3.3	10/16/02	
3.2	Bylaws	SB-2	333-100568	3.2	10/16/02	
4.1	Specimen Stock Certificate	SB-2	333-100568	4.1	10/16/02	
4.2	Specimen initial public offering underwriter's warrant certificate	SB-2	333-100568	4.4	10/16/02	
4.3	Form of private placement warrant	10-KSB	000-50614	4.3	03/14/05	
4.4	Form of private placement Subscription Agreement (including registration rights)	10-KSB	000-50614	4.4	03/14/05	
4.5	Warrant Amendment Agreement (including form of replacement warrant) between the Company and The Arbitrage Fund, Mark Campbell, The Harold T. Grisham Living Trust and Westminster Securities dated May 31, 2005					X
4.6	Common Stock Purchase Agreement with Fusion Capital Fund II, LLC, dated as of May 23, 2005	8-K	000-50614	4.5	05/23/05	
4.7	Registration Rights Agreement with Fusion Capital Fund II, LLC, dated as of May 23, 2005	8-K	000-50614	4.6	05/23/05	
4.8	Business Loan Agreement, Collateral Security Agreement and Promissory Note between the Company and Merchants & Southern Bank dated February 24, 2005	10-QSB	000-50614	10.47	05/13/05	
5.1	Opinion of Shumaker, Loop & Kendrick, LLP					X
10.1	License Agreement between the Company and the University of Florida Research Foundation, Inc. effective August 4, 1998 for Replacement Therapy for Dental Caries (the "Replacement Therapy License Agreement")	SB-2	333-100568	10.1	10/16/02	
10.2	First Amendment to Replacement Therapy License Agreement dated September 15, 2000	SB-2	333-100568	10.2	10/16/02	
10.3	Second Amendment to Replacement Therapy License Agreement dated June 2002	SB-2	333-100568	10.3	10/16/02	
10.4	Third Amendment to Replacement Therapy License Agreement dated September 25, 2002	SB-2	333-100568	10.4	10/16/02	
10.5	Fourth Amendment to Replacement Therapy License Agreement and Mutacin 1140 License Agreement dated March 2003	SB-2/A-3	333-100568	10.36	4/9/03	
10.6	License Agreement between the Company and the University of Florida Research Foundation, Inc. effective June 22, 2000 (the "Mutacin 1140 License Agreement")	SB-2	333-100568	10.5	10/16/02	
10.7	First Amendment to the Mutacin 1140 License Agreement dated September 15, 2000	SB-2	333-100568	10.6	10/16/02	
10.8	Second Amendment to the Mutacin 1140 License Agreement dated June 10, 2002	SB-2	333-100568	10.7	10/16/02	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No	Exhibit	Filing Date	
10.9	Third Amendment to the Mutacin 1140 License Agreement dated September 25, 2002					
10.10	Equity Agreement between the Company and the University of Florida Research Foundation dated August 4, 1998 (including registration rights)	SB-2/A-2	333-100568	10.8	2/10/03	
10.11	Escrow Agreement between our principals, ourselves and Computershare Trust Company	SB-2	333-100568	99.10	10/16/02	
10.12	Value Escrow Agreement between ourselves, the University of Florida Research Foundation, Inc. and Computershare Trust Company	SB-2	333-100568	99.11	10/16/02	
10.20+	2002 Stock Option and Incentive Plan	SB-2	333-100568	99.16	10/16/02	
10.21+	Amendment No. 1 to the 2002 Stock Option and Incentive Plan	DEF 14A	333-100568	App. E	4/22/04	
10.22	Warrant Agent and Registrar Agreement between the Company and Computershare Trust Company	SB-2/A-1	333-100568	10.28	12/23/02	
10.31	Proprietary Information Agreements between ourselves and Brian Anderson, Brian McAlister, Robert Zahradnik, Howard Kuramitsu, and Steven Projan	SB-2	333-100568	99.23	10/16/02	
10.32*	Proprietary Information and Invention Agreement between the Company and Jeffrey D. Hillman	SB-2	333-100568	99.4	10/16/02	
10.42*	Employment agreement of Mento Soponis	10-KSB	000-50614	10.42	3/17/04	
10.43*	Employment agreement of Jeffrey Hillman	10-KSB	000-50614	10.43	3/17/04	
10.44*	Employment agreement of Paul Hassie	10-KSB	000-50614	10.44	3/17/04	
10.45	Memorandum of Agreement - License Agreement between iviGene Corporation and the Company	10-QSB	000-50614	10.1	8/11/04	
10.46	Lease Agreement between the Company and Hawley-Wiggins LLC dated January 28, 2004; Subordination Agreement dated April 14, 2004; and First Amendment dated November 15, 2004					
23.1	Consent of Shumaker, Loop & Kendrick, LLP (incorporated by reference to Exhibit 5.1)					
23.2	Consent of Ernst & Young LLP					X
24.1	Power of Attorney (Signature Page)					

_____

* management contract

+ compensatory plan or arrangement

ITEM 28. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

   a. To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

   b. To reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement; and

   c. To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any change to such information in the registration statement.

2. That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time

shall be deemed to be the initial bona fide offering thereof.

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing of this Form SB-2 Registration Statement and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Alachua, Florida, on this 9th day of June, 2005.

ORAGENICS, INC.

By: /s/ Mento A. Soponis

Mento A. Soponis, President and Chief Executive Officer

By: /s/ Paul A. Hassie

Paul A. Hassie, Secretary, Treasurer, Principal Accounting Officer and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Mento A. Soponis and Paul A. Hassie, and each of them singly, as his true and lawful attorneys-in-fact and agents for the undersigned, with full power of substitution, for and in the name, place and stead of the undersigned, to sign and file with the Securities and Exchange Commission under the Securities Act any registration statement relating to this offering that is to become effective upon filing pursuant to Rule 462 under the Securities Act (a "462 Registration Statement"), any and all amendments and exhibits to this Registration Statement or any 462 Registration Statement, and any and all applications and other documents to be filed with the Securities and Exchange Commission pertaining to the registration of the securities covered hereby or thereby, with full power and authority to do and perform any and all acts and things whatsoever requests and necessary or desirable.

Pursuant to the requirements of the Securities Act of 1933, this Form SB-2 Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Mento A. Soponis Mento A. Soponis	President, Principal Executive Officer and a Member of the Board of Directors	June 9, 2005
/s/ Paul A. Hassie Paul A. Hassie	Principal Accounting Officer and Chief Financial Officer	June 9, 2005
/s/ David J. Gury David J. Gury	Chairman of the Board of Directors	June 9, 2005
/s/ Brian Anderson Brian Anderson	Member of the Board of Directors	June 9, 2005
/s/ Jeffrey D. Hillman Jeffrey D. Hillman	Member of the Board of Directors	June 9, 2005
/s/ Robert Zahradnik Robert Zahradnik	Member of the Board of Directors	June 9, 2005

Exhibit 4.5

WARRANT AMENDMENT AGREEMENT

This Warrant Amendment Agreement (the "Agreement") is entered into effective May 31, 2005 by and between Oragenics, Inc., a Florida corporation (the "Company") and the Living Trust of Harold Richard Grisham (the "Trust"), The Arbitrage Fund (the "Fund"), Mark A. Campbell ("Campbell"), and Westminster Securities Corp. ("Westminster"). The Company, Trust, Fund, Campbell, and Westminster are together referred to herein as the Parties.

Recitals:

WHEREAS, the Company entered into a private placement agent agreement with Westminster whereby, Westminster, as the placement agent, was entitled to receive placement agent warrants in connection with the Company's private placement offering to acquire 25,000 shares of common stock at $2.75 and warrants to acquire 12,500 shares of common stock at $3.50 (together the "Westminster Warrants");

WHEREAS, pursuant to the private placement the Company entered into subscription agreements (the "Subscription Agreements") with the Trust, the Fund and Campbell (the "Investors") to purchase units consisting of Company common stock and warrants to acquire common stock at an exercise price of $3.50 (the "Investor Warrants") which also provided the Investors and Westminster with registration rights (the "Registration Rights"), which included penalties that the Company had to pay to the Investors and Westminster if a registration statement was not filed within a designated time period (the "Penalty Provisions");

WHEREAS, the Investor Warrants and the Westminster Warrants, (other than the exercise price of $2.75 on 12,500 shares of Westminster Warrants), were to be issued under the same terms and conditions and the form of warrant to be issued by the Company provided the Investors and Westminster with adjustment rights in the event of the issuance by the Company of shares of common stock below a certain amount per share, (the "Warrant Anti-dilution Adjustment Provision");

WHEREAS, the Company has entered into a stock purchase agreement with Fusion Capital Fund II, LLC ("Fusion Capital") and is contemplating filing a registration statement on Form SB-2 with the U.S. Securities and Exchange Commission (the "SEC") to register certain shares of its common stock for resale by Fusion Capital and the Investors and Westminster (the "SB-2 Registration Statement").

WHEREAS, prior to filing the Registration Statement the Parties desire to resolve any and all issues with respect to its registration obligations, the registration rights penalty provision and the Warrant Anti-dilution Adjustment Provision;

WHEREAS, the Parties desire, subject to the terms and conditions of this Agreement, to (i) amend the Investor Warrants and Westminster Warrants to eliminate the Warrant Anti-dilution Adjustment Provision, (ii) to eliminate and terminate the Registration Rights obligations of the Company, (iii) to eliminate and terminate the Penalty Provisions under the Registration Rights, all in exchange for a one time adjustment to the exercise prices of the Investor Warrants and Westminster Warrants, to be issued in the form of a replacement warrant.

NOW THEREFORE, in consideration of the mutual agreements set forth herein and other good and valuable consideration, the Parties agree as follows:

1. **Termination of Registration Rights**. The Parties agree that any registration obligations the Company had under the Subscription Agreement are terminated and of no force or effect, provided however, that such termination shall not take effect until the Form SB-2 Registration Statement is declared effective by the SEC. To the extent the SEC declares the Form SB-2 Registration Statement effective there shall be no further action required by any of the Parties for the Company's registration obligations under the Subscription Agreements to be terminated.

2. **Termination of Warrant Anti-dilution Adjustment Provision**. Upon the issuance of the Replacement Warrants (as defined below), the Warrant Anti-dilution Provision originally to be contained in the warrants to be issued to the Investors and Westminster is hereby terminated and of no force or effect and it is agreed that no amounts shall be owed to any Party hereto by reason of the Warrant Anti-dilution Provision.

3. **Registration Rights Penalty Amounts**. Upon the issuance of the Replacement Warrants (as defined below), the Investors and Westminster hereby waive any right to receive any payments under Penalty Provisions contained in the Subscription Agreements and such Penalty Provisions are hereby terminated and of no force of effect.

4. **Issuance of Replacement Warrants**. In consideration for the mutual covenants, releases and agreements contained herein, the Company agrees to issue warrants to the Investors and Westminster, in the form attached hereto as **Exhibit A,** (the "Replacement Warrants"), which shall replace the original Investor Warrants and Westminster Warrants. The Replacement Warrants to the Investors will be for the same number of shares as in the private placement except that the exercise price will be revised from $3.50 to $2.75 per share. The Replacement Warrants to Westminster will be for the same number of shares as provided in the placement agent agreement, except that the exercise prices will be revised from $3.50 to $2.75 per share and from $2.75 to $2.25 per share for the respective warrants Westminster was entitled to receive.

5. **Release of Claimants**. Effective upon the execution of this Agreement, each of the Parties to this Agreement, on behalf of themselves and their respective subsidiaries, affiliates, officers, directors, shareholders, agents, employees, servants, attorneys, accountants, heirs, successors, assigns, and representatives, as well as the respective heirs, personal representatives, successors and assigns of any or all of them, (hereinafter collectively referred in this Paragraph as the "Releasing Party") fully, finally and forever release, acquit and forever discharge the Company and its respective past and present subsidiaries, affiliates, franchisees, officers, directors, shareholders, agents, employees, servants, attorneys, accountants, heirs, successors, assigns and representatives, as well as their respective personal representatives, successors and assigns, of any and all of them (hereinafter collectively referred in this Paragraph as the "Released Party") from any and all claims, demands, debts, actions, causes of action, suits, contracts, agreements, obligations, accounts, defenses and liabilities of any kind or character whatsoever, known or unknown, suspected or unsuspected, in contract or in tort, at law or in equity, including without implied limitation, such claims and defenses as incapacity, fraud, mistake, and duress, which the Releasing Party ever had, now has, or might hereafter have against the Released Party arising out of facts or circumstances in existence as of the date of this Agreement, for or by reason of any matter, cause or thing whatsoever, including, without limitation, any claim in contract, tort, violation or statute, or otherwise, which relates in whole or in part, directly or indirectly, to the transaction(s) described in this Agreement; EXCEPTING ONLY the obligations of the Released Parties to perform the terms and conditions of this Agreement. Each party to this Agreement expressly represents and warrants to the other Parties to this Agreement: (i) that they are relying solely on their own judgment and belief as to the adequacy of the consideration paid; (ii) that the Release contemplated by this Paragraph is being executed without reliance upon any statement or representation made by any other party to this Agreement or anyone acting on behalf of a party to this Agreement; and (iii) that they understand and acknowledge that there may exist facts and circumstances which are material to this transaction that have not been disclosed to it by the other Parties to this Agreement and warrant to the other Parties to this Agreement that they are executing this Release and shall be bound thereby notwithstanding said nondisclosures.

6. **The Company Covenants**. The Company hereby covenants to promptly issue the Replacement Warrants to the Investors and Westminster.

7. **No Admissions**. Each of the Parties understands and acknowledges that this Agreement constitutes a compromise and settlement. This Agreement shall not in any way be construed as an admission by any party of the truth or falsity of any claims, an admission by any party of the breach of any agreement with any other party or an acknowledgment or admission by any party of any fault or liability whatsoever to any other party.

8. **Binding Nature**. This Agreement is binding on and for the benefit of the Parties hereto and their respective heirs, executors, administrators, successors and assigns and their parents, subsidiary and affiliated corporations, companies, divisions, partnerships and associations and their respective officers, directors, agents, employees, partners, members, and representatives and their respective predecessors and assigns.

9. **Voluntary Agreement**. Each of the Parties to this Agreement represents and warrants to the other Parties to this Agreement that he/she/it is represented by legal counsel of his/her/its choice, is fully aware of the terms contained in this Agreement, and have voluntarily executed the same without coercion or duress of any kind and without reliance upon any statement or representation made by any other party to this Agreement, except as set forth herein. The Parties further expressly acknowledge and agree that they are not relying on any statement, representation, omission, rumor, publicly-filed document, news media account, or any other information (or omission) of any type or description in connection with their execution of this Agreement. The Parties further expressly represent and warrant to the other Parties that they understand and acknowledge that there may exist facts and circumstances which are material to the transactions contemplated by this Agreement that have not been disclosed to him/her/it and warrant to the other Parties to this Agreement that they are executing this Agreement and shall be bound thereby notwithstanding said material nondisclosures.

10. **Investigation of Facts**. Each of the Parties hereto has made such investigation of the facts pertaining to this Agreement as each deems necessary and in entering into this Agreement each party hereto assumes the risk of mistake with respect to such facts. This Agreement is intended to be final and binding upon each of the Parties hereto regardless of any claims of mistake.

11. **Confidentiality**. This Agreement and its terms shall be maintained in strict confidence and shall not be disclosed directly or indirectly by the Parties to any other person or entity except as otherwise required by law. Each of the Parties hereto acknowledges and agrees that this provision is essential and material term of the Agreement without which the consideration relating hereto would not have been delivered. Each of the Parties agree to refrain from any negative, critical or disparaging comments or statements about any of the Parties hereto, or their respective officers, directors, employees or agents. This provision shall be interpreted broadly to include all verbal, written or other communication whether personal, published, recorded, magnetic, electronic, etc., however produced or reproduced. The Parties hereby agree they will refrain form discussing the provisions of this Agreement or any of the details of their prior business (financial or otherwise).

12. **Costs and Attorneys' Fees**. Each party agrees to bear its own attorneys' fees and costs and other fees incurred in connection with the negotiation, drafting, execution and delivery of this Agreement. If any legal or equitable action is necessary to enforce the terms of this Agreement, the prevailing party shall be entitled to a reasonable sum for its attorneys' fees and costs incurred and paid in connection with prosecuting or defending such action, in addition to any other relief to which it is entitled.

13. **Termination/Rescission**. The signatories to this Agreement understand and acknowledge that the facts in respect of which this Agreement is made may hereafter prove to be other than, or different from, the facts in that connection now known by one or more of them or believed by one or more of them to be true, and they agree that all of terms of this Agreement shall be in all respects effective and not subject to termination or rescission by any such difference in facts.

14. **Entire Agreement; Modification by Writing Only.** This Agreement including the recitals described above in the "WHEREAS" clauses which are true and correct and are incorporated into this Agreement by reference (together with any ancillary documents attached to the Agreement as exhibits) incorporates, embodies, expresses, and supersedes all prior and contemporaneous agreements and representations or understandings between or among its signatories, or any subset group of signatories hereto, and neither this Agreement (nor any ancillary documents attached to this Agreement as exhibits) may be altered or modified except in writing duly executed by its signatories. This Agreement and the exhibits attached hereto constitute an integration of the entire understanding and Agreement among the Parties with respect to the subject matter hereof. Any representation, promise or condition, whether written or oral, not specifically incorporated herein, shall not be binding. The Parties acknowledge that they have not relied, in entering into this Agreement, upon any representation, promises and covenants between the Parties with respect to the subject matter hereof other than the terms and provisions set forth herein

15. **Authority/Approval**. Each Party represents and warrants that they each have full power and corporate or other authority and the necessary corporate or other approvals to enter into and to perform this Agreement in accordance with its terms, and agrees that the terms and provisions of this Agreement, including the terms and provisions of any ancillary documents attached to this Agreement as exhibits, shall apply to all affiliates, parents, subsidiaries, and divisions of each.

16. **Warranty of Title and Right to Settle**. Each of the Parties hereto represent and warrant to the other Parties to this Agreement that they have the full right to take the actions contemplated by this Agreement and have good and absolute title to the causes of action, and the potential causes of action which could be asserted by them, that are the subject of the release set forth in this Agreement. The Parties hereto further represent and warrant to the other Parties to this Agreement that the before-mentioned causes of actions potential causes of action are free and clear of any claims of creditors or other third Parties arising from any applicable fraudulent transfer laws or the provisions of 11 U.S.C. § 101 et seq.

17. **Liability for Breach of Warranty of Title and Right to Settle**. Each of the Parties hereto represent and warrant to the other Parties to this Agreement agree that if they breach the warranty of title and right to settle granted pursuant to Paragraph 21 of this Agreement, the party shall indemnify the other Parties to this Agreement against any liability or damage arising from such breach, including all costs, expenses, and attorneys' fees incurred by the damaged party in defense of any actions brought against the party by reason of any alleged lien, claim, or encumbrance.

18. **Headings**. The headings in this Agreement are intended solely for convenience of reference and shall be given no effect in the construction or interpretation of this Agreement.

19. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and which together shall constitute a single agreement. A facsimile signature shall be considered the same as an original.

20. **Severability**. If any provision or any portion of this Agreement shall be held unlawful or unenforceable, the balance of this Agreement shall nonetheless in all respects remain binding and effective, and shall be construed in full force and effect to the extent lawfully permissible.

21. **Further Assurances**. The parties hereto shall execute and deliver all documents, provide all information and take or forbear from all such action as may be necessary or appropriate to achieve the purposes of the Agreement.

22. **Parties In Interest**. Nothing herein shall be construed to be to the benefit of any third party, nor is it intended that any provision shall be for the benefit of any third party.

23. **Execution In Counterparts**. This Agreement may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

24. **Florida Contract; Florida Law.** This Agreement (together with any applicable ancillary documents attached to the Agreement as exhibits) shall be deemed to constitute a contract made and entered into under the laws of the State of Florida, and for all purposes this Agreement and its ancillary documents shall be construed and governed in accordance with the laws of the State of Florida without regard to such state's rules concerning conflicts of laws.

25. **Waiver of Jury**. The Parties to this Agreement, and each of them, agree that any legal action in connection with, arising out of, or in any way related to this Agreement including, without limitation, any cause of action sounding in contract, tort, or violation of statute, shall be tried to the court, sitting without a jury, notwithstanding any state or federal constitutional rights, and the Parties waive any right to have any such actions tried by a jury.

26. **Forum Selection and Consent to Jurisdiction**. The Parties to this Agreement, and each of them, agree that the exclusive venue for any legal action in connection with, arising out of, or in any way related to this Agreement including, without limitation, any cause of action sounding in contract, tort, or violation of statute, shall be the United States District Court for the Middle District of Florida, Tampa Division, or the Sixth Judicial Circuit Court in and for Pinellas County, Florida. The Parties to this Agreement, and each of them, further consent to the personal jurisdiction of the courts located in the State of Florida regarding any legal action in connection with, arising out of, or in any way related to this Agreement including, without limitation, any cause of action sounding in contract, tort, or violation of statute.

27. **Agreement Drafted.** All parties to this Agreement have negotiated it at length, and have had the opportunity to consult with and be represented by their own competent counsel. This Agreement is therefore deemed to have been jointly prepared by the parties, and any uncertainty or ambiguity existing in it shall not be interpreted against any party, but rather shall be interpreted according to the rules generally governing the interpretation of contracts.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date set forth above.

ORAGENICS, INC.

By: _____

Mento A. Soponis, President

WESTMINSTER SECURITIES CORP.

By: _____

its President

Living Trust of Harold Richard Grisham

_____

By: _____As Trustee

The Arbitrage Fund

_____

By: _____

Mark A. Campbell, Individually

Exhibit A

THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT, AS AMENDED, OR ANY OTHER APPLICABLE SECURITIES LAWS AND HAVE BEEN ISSUED IN RELIANCE UPON AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND SUCH OTHER SECURITIES LAWS. NEITHER THIS SECURITY NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED, OR OTHERWISE DISPOSED OF, EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED PURSUANT TO A VALID EXEMPTION THEREFROM UNDER THE SECURITIES ACT.

Warrant No._____

REPLACEMENT
WARRANT TO PURCHASE SHARES OF COMMON STOCK OF

ORAGENICS, INC.

THIS CERTIFIES that, for value received, [ ] is entitled to purchase from Oragenics, Inc., a Florida corporation (the "Corporation"), subject to the terms and conditions hereof, [ ] shares (the "Warrant Shares") of common stock, $0.001 par value (the "Common Stock"). This warrant, together with all warrants hereafter issued in exchange or substitution for this warrant, is referred to as the "Warrant" and the holder of this Warrant is referred to as the "Holder." The number of Warrant Shares is subject to adjustment as hereinafter provided. Notwithstanding anything to the contrary contained herein, this Warrant shall expire and no longer be exercisable at 5:00 p.m. Eastern Standard Time (EST) on [Four years from the closing at which issued] (the "Termination Date") provided however, that in the event the Corporation's Common Stock trades on the American Stock Exchange at or above $4.75 per share for a period of fifteen (15) consecutive days during the term of this Warrant the corporation may accelerate the expiration date of this Warrant upon written notice to the Holder, giving the Holder thirty (30) days to exercise this warrant after which thirty-day period this Warrant shall expire and no longer be exercisable.

1. Exercise of Warrants.

(a) The Holder may, at any time prior to the Termination Date, exercise this Warrant in whole or in part at an exercise price per share equal to [$2.75] per share, subject to adjustment as provided herein (the "Warrant Price"), by the surrender of this Warrant (properly endorsed) at the principal office of the Corporation, or at such other agency or office of the Corporation in the United States of America as the Corporation may designate by notice in writing to the Holder at the address of such Holder appearing on the books of the Corporation, and by payment to the Corporation of the Warrant Price in lawful money of the United States by check or wire transfer for each share of Common Stock being purchased. Upon any partial exercise of this Warrant, there shall be executed and issued to the Holder a new Warrant in respect of the shares of Common Stock as to which this Warrant shall not have been exercised. In the event of the exercise of the rights represented by this Warrant, a certificate or certificates for the Warrant Shares so purchased, as applicable, registered in the name of the Holder, shall be delivered to the Holder hereof as soon as practicable after the rights represented by this Warrant shall have been so exercised.

(b) If, but only if, at any time after one year from the date of issuance of this Warrant there is no effective registration statement registering the resale of the Common Stock underlying this Warrant by the Holder, this Warrant may also be exercised at such time by means of a "cashless exercise" in which, at any time prior to the Termination Date, the Holder of this Warrant may, at its option, exchange this Warrant, in whole or in part (a "Warrant Exchange"), into Warrant Shares by surrendering this Warrant at the principal office of the Corporation, accompanied by a notice stating such Holder's intent to effect such exchange, the number of Warrant Shares to be exchanged and the date on which the Holder requests that such Warrant Exchange occur (the "Notice of Exchange"). The Warrant Exchange

shall take place on the date specified in the Notice of Exchange or, if later, within five (5) days of the date the Notice of Exchange is received by the Corporation (the "Exchange Date"). Certificates for the Warrant Shares issuable upon such Warrant Exchange and, if applicable, a new Warrant of like tenor evidencing the balance of the Warrant Shares remaining subject to this Warrant, shall be issued as of the Exchange Date and delivered to the Holder within three (3) business days following the Exchange Date. In connection with any Warrant Exchange, this Warrant shall represent the right to subscribe for and acquire the number of Warrant Shares (rounded to the next highest integer) equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the Closing Bid Price (as hereinafter defined) on the trading day preceding the date on which the Company receives the Exercise Documentation;
(B) = the exercise price of this Warrant, as adjusted; and
(X) = the number of shares of Common Stock issuable upon exercise of this Warrant in accordance with the terms of this Warrant.

2. Reservation of Warrant Shares. The Corporation agrees that, prior to the expiration of this Warrant, it will at all times have authorized and in reserve, and will keep available, solely for issuance or delivery upon the exercise of this Warrant, the number of Warrant Shares as from time to time shall be issuable by the Corporation upon the exercise of this Warrant.

3. No Shareholder Rights. This Warrant shall not entitle the holder hereof to any voting rights or other rights as a shareholder of the Corporation.

4. Transferability of Warrant. Prior to the Termination Date and subject to compliance with applicable laws, this Warrant and all rights hereunder are transferable, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed for transfer.

5. Certain Adjustments. With respect to any rights that Holder has to exercise this Warrant and convert into shares of Common Stock, Holder shall be entitled to the following adjustments:

(a) Merger or Consolidation. If at any time there shall be a merger or a consolidation of the Corporation with or into another corporation when the Corporation is not the surviving corporation, then, as part of such merger or consolidation, lawful provision shall be made so that the holder hereof shall thereafter be entitled to receive upon exercise of this Warrant, during the period specified herein and upon payment of the aggregate Warrant Price then in effect, the number of shares of stock or other securities or property (including cash) of the successor corporation resulting from such merger or consolidation, to which the holder hereof as the holder of the stock deliverable upon exercise of this Warrant would have been entitled in such merger or consolidation if this Warrant had been exercised immediately before such merger or consolidation. In any such case, appropriate adjustment shall be made in the application of the provisions of this Warrant with respect to the rights and interests of the holder hereof as the holder of this Warrant after the merger or consolidation.

(b) Reclassification. Recapitalization, etc. If the Corporation at any time shall, by subdivision, combination or reclassification of securities, recapitalization, automatic conversion, or other similar event affecting the number or character of outstanding shares of Common Stock, or otherwise, change any of the securities as to which purchase rights under this Warrant exist into the same or a different number of securities of any other class or classes, this Warrant shall thereafter represent the right to acquire such number and kind of securities as would have been issuable as the result of such change with respect to the securities that were subject to the purchase rights under this Warrant immediately prior to such subdivision, combination, reclassification or other change.

(c) Split or Combination of Common Stock and Stock Dividend. In case the Corporation shall at any time subdivide, redivide, recapitalize, split (forward or reverse) or change its outstanding shares of Common Stock into a greater number of shares or declare a dividend upon its Common Stock payable solely in shares of Common Stock, the Warrant Price shall be proportionately reduced and the number of Warrant Shares proportionately increased. Conversely, in case the outstanding shares of Common Stock of the Corporation shall be combined into a smaller number of shares, the Warrant Price shall be proportionately increased and the number of Warrant Shares proportionately reduced. Notwithstanding the foregoing, in no event will the Warrant Price be reduced below the par value of the Common Stock.

6. Legend and Stop Transfer Orders. Unless the Warrant Shares have been registered under the Securities Act, upon exercise of any part of the Warrant, the Corporation shall instruct its transfer agent to enter stop transfer orders with respect to such Warrant Shares, and all certificates or instruments representing the Warrant Shares shall bear on the face thereof substantially the following legend:

THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT, AS AMENDED, OR ANY OTHER APPLICABLE SECURITIES LAWS AND HAVE BEEN ISSUED IN RELIANCE UPON AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND SUCH OTHER SECURITIES LAWS. NEITHER THIS SECURITY NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED, OR OTHERWISE DISPOSED OF, EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE CORPORATION THAT SUCH REGISTRATION IS NOT REQUIRED PURSUANT TO A VALID EXEMPTION THEREFROM UNDER THE SECURITIES ACT.

7. Redemption. The Corporation shall have the right, upon 30 days' written notice to the Holder ("Redemption Notice"), to redeem all or any portion of this Warrant at a price equal to $.01 per Warrant Share, provided that (i) the Warrant Shares have been registered for resale pursuant to the Securities Act, and have been freely tradable without restriction or legend for at least the 30-day period preceding such notice and will continue to be freely tradeable for at least 30 days following such redemption date and (ii) the Closing Bid Price (as hereinafter defined) for the Common Stock has been at least $4.75 (subject to adjustment to reflect forward or reverse stock splits, stock dividends, recapitalizations and the like) for the 15-trading day period immediately preceding the date of the Redemption Notice from the Corporation to the Holder. As used herein, "Closing Bid Price", shall mean the closing bid price of the Common Stock as reported by the American Stock Exchange on the date in question (based on a trading day from 9:30 a.m. EST to 4:02 p.m. EST (and, if no closing bid price is reported, the closing price as so reported, and if neither the closing bid price nor the closing price is so reported, the last reported price of the Common Stock as determined by an independent evaluator mutually agreed to by the Holder and the Corporation).

8. Miscellaneous. This Warrant shall be governed by and construed in accordance with the laws of the State of Florida. All the covenants and provisions of this Warrant by or for the benefit of the Corporation shall bind and inure to the benefit of its successors and assigns hereunder. Nothing in this Warrant shall be construed to give to any person or corporation other than the Corporation and the holder of this Warrant any legal or equitable right, remedy or claim under this Warrant. This Warrant shall be for the sole and exclusive benefit of the Corporation and the holder of this Warrant. The section headings herein are for convenience only and are not part of this Warrant and shall not affect the interpretation hereof. Upon receipt of evidence satisfactory to the Corporation of the loss, theft, destruction or mutilation of this Warrant, and of indemnity reasonably satisfactory to the Corporation, if lost, stolen or destroyed, and upon surrender and cancellation of this Warrant, if mutilated, the Corporation shall execute and deliver to the Holder a new Warrant of like date, tenor and denomination.

IN WITNESS WHEREOF, the Corporation has caused this Warrant to be executed by its duly authorized officers under its seal, this_____ day of_____, 2005.

ORAGENICS, INC.

By:

Name:
Title:

WARRANT EXERCISE FORM

To Be Executed by the Holder in Order to Exercise Warrant

To: Oragenics, Inc.
13700 Progress Blvd
Dated:_____
Alachua, Florida 32615
Attn: Paul Hassie, Principal Financial Officer

The undersigned, pursuant to the provisions set forth in the attached Warrant No. , hereby irrevocably elects to purchase *(check applicable box):*

o shares of the Common Stock of Oragenics, Inc. covered by such Warrant; or

o the maximum number of shares of Common Stock covered by such Warrant pursuant to the cashless exercise procedure set forth in subsection l(b) (if applicable).

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of *(check applicable box or boxes):*

o $_____ in lawful money of the United States; and/or

o if the provisions of subsection l(b) of this Warrant are in effect, the cancellation of such portion of the attached Warrant as is exercisable for a total ofWarrant Shares (using a Fair Market Value of $per share for purposes of this calculation); and/or

o if the provisions of subsection l(b) of this Warrant are in effect, the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection l(b), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection l(b).

The undersigned hereby requests that certificates for the Warrant Shares purchased hereby be issued in the name of:

_____

(please print or type name and address)

_____

(please insert social security or other identifying number) and be delivered as follows:

_____

(please print or type name and address)

_____

(please insert social security or other identifying number)

and if such number of shares of Common Stock shall not be all the shares evidenced by this Warrant Certificate, that a new Warrant for the balance of such shares be registered in the name of, and delivered to, Holder.

Signature of Holder SIGNATURE
GUARANTEE:

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ Whose address is

_____

_____

Dated: _____

Holder's Signature: _____

Holder's Address: _____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust Corporation. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Exhibit 5.1

SHUMAKER, LOOP & KENDRICK, LLP
ATTORNEYS AT LAW

BANK OF AMERICA PLAZA, SUITE 2800
101 EAST KENNEDY BOULEVARD
TAMPA, FLORIDA 33602
(813) 229-7600
FAX (813) 229-1660

MAILING ADDRESS:
POST OFFICE BOX 172609
TAMPA, FLORIDA 33672-0609

June 9, 2005

Oragenics, Inc.
13700 Progress Blvd.
Alachua, Florida 32615

Re: Form SB-2 Registration Statement

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Oragenics, Inc., a Florida corporation (the "Company") of a Registration Statement on Form SB-2 (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Act"), covering the offering for resale of up to 4,727,921 shares of common stock, par value $.001 per share (the "Securities"), comprised of 565,421 shares (the "Issued Shares") of common stock which are issued and outstanding and 4,000,000 shares (the "Purchase Shares") of common stock issuable pursuant to the Common Stock Purchase Agreement, dated as of May 23, 2005 by and between you and Fusion Capital Fund II, LLC (the "Purchase Agreement"), and 162,500 shares (the "Warrant Shares") which will be issued upon the exercise of certain warrants held by the selling stockholders (the "Warrants").

In connection with this opinion, we have examined and relied upon the Company's Articles of Incorporation, as amended, the Company's Bylaws, the Purchase Agreement, the Warrants and Registration Statement and related prospectus originals or copies certified or otherwise identified to our satisfaction of all such corporate records of the Company and such other instruments and other certificates of public officials, officers and representatives of the Company and such other persons, and we have made such investigations of law, as we have deemed appropriate as a basis for the opinions expressed below.

In arriving at the opinions expressed below, we have assumed the authenticity of all documents submitted to us as originals and the conformity to the originals of all documents submitted to us as copies. In addition, we have assumed and have not verified the accuracy as to factual matters of each document we have reviewed.

Based on the foregoing, and in reliance thereon subject to the further assumptions and qualifications set forth below, we are of the opinion that (i) Issued Shares are validly issued, fully paid and nonassessable, (ii) the Warrant Shares when issued, paid for and upon exercise of the Warrants by the selling stockholders in accordance with terms of the Warrants will be validly issued, fully paid, and non-assessable, and (iii) the Purchase Shares, when issued and paid for in accordance with the terms of the Purchase Agreement, will be validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the Business Corporation Act of the State of Florida

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm under the heading "Legal Matters" in the Registration Statement and the related prospectus included in the Registration Statement. In giving such consent, we do not thereby admit that we are "experts" within the meaning of the Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this exhibit.

Very truly yours,

/s/ Shumaker, Loop & Kendrick, LLP

SHUMAKER, LOOP & KENDRICK, LLP

Exhibit 23.2

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated January 28, 2005 (except Note 11, as to which the date is February 24, 2005) in the Registration Statement (Form SB-2 No. 333-_____) and the related Prospectus of Oragenics, Inc. for the registration of up to 4,727,921 shares of its common stock.

/s/ Ernst & Young LLP

Certified Public Accountants
Tampa, Florida
June 2, 2005