Martek®

Annual Report 2004

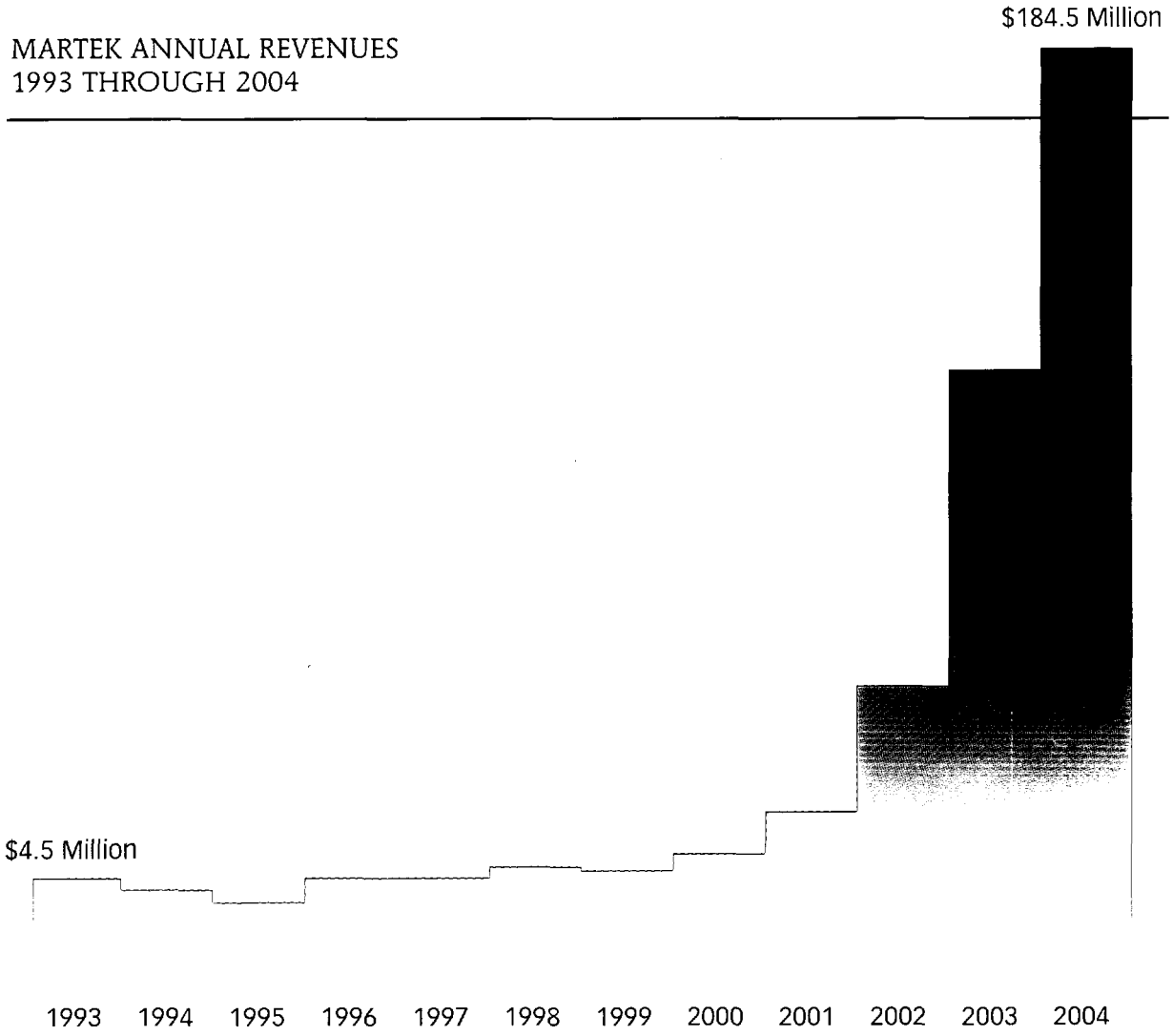
MARTEK BIOSCIENCES CORPORATION

Martek DHA™...
expanding our product line and our markets

FRONT COVER

The packaged items on the cover represent infant formula, adult capsule supplements and enriched egg products whose sales worldwide have contributed to the Company's soaring revenue in recent years (depicted by the green arrow showing Martek's revenue trend from 1993-2004). In the coming years, we hope that food products such as those at the top of the page will be appearing on grocery shelves fortified with Martek DHA™. These items will expand our product line, markets and revenues.

MARTEK ANNUAL REVENUES
1993 THROUGH 2004



LETTER TO STOCKHOLDERS

Dear Martek Stockholder,

As you can see from the inside front cover of this report, fiscal year 2004 ("'04") was another excellent year for Martek with significant growth in both revenues and profits, continuing the "up and to the right" trend started back in 2000. The numerous products pictured on the cover also bode well for a continuation of this trend. Over and above Martek's financial growth, I believe that significant progress was made in what I call "company building" in people, equipment, and expertise. As a result, I believe Martek now can cope well with the next step – effectively managing the responsibilities associated with being a much larger company.

This year the annual report's format represents a change from past reports. Annual reports have become somewhat obsolete for publicly held companies because of timely and abundant information available through the Internet and other sources provided throughout the year. This year's report includes Martek's Form 10-K filing for '04 with the Securities and Exchange Commission detailing financial and operational information, along with this letter describing my reflections on '04 events and their potential impact on the Company's future. Many companies are changing to this new format.

When I look back on '04, it gives me a great deal of pride to think of what the Company has accomplished. Revenues grew by almost $70 million from $114.7 to $184.5 million or 61% and profits before income taxes rose from $16 million to $21.9 million, up by 37%. These results were achieved while simultaneously significantly strengthening operations and executing what I have referred to as the "organized chaos" of $180 million worth of Martek onsite construction projects. In addition, the Company dealt with arachidonic acid ("ARA") supply shortfalls, a rising euro against the dollar and qualification of a supplier's new U.S. ARA production facility.

Martek completed construction of over one million liters of fermentation capacity in '04, and began construction of another million liters of capacity which should come on-stream early in '05. It also built extensive edible oil extraction and refining facilities and brought them into production to support the additional fermentation capacity. It installed the latest sophisticated computerized process control system to manage all of this new production equipment. As a result, Martek now has two of the more sophisticated and advanced large-

scale fermentation and edible oil processing facilities in the world. It recruited and hired 157 new employees at all levels of responsibility. It installed and implemented new computerized financial, personnel, and operations systems providing for much more management efficiency as well as improved ability to comply with requirements of the Sarbanes-Oxley corporate governance legislation. It reviewed operations extensively for accident and failure risk and took remedial actions where it found weaknesses. As a result of this activity, Martek should have a much more robust production capability, and, hopefully, be much less prone to future disruptions. The same can be said for improvement in quality assurance and quality control processes that insure consistency and quality. I mention all of this detail because Martek has grown up to become a $200 million manufacturing company. It now requires more extensive management control and risk management to cope with the present, and be ready for much larger production in the future. I believe that Martek is on its way to becoming one of the most efficiently operated companies of its size and is thus ready to meet the large production challenges that future rapid growth will bring.

A consortium of five leading national and regional banks recognized the Company's financial strength in '04 by providing $100 million of debt financing. This money helped fund plant and equipment expansion, primarily in the Company's Kingstree facility. It allowed the Company to realize its ambitious '04 expansion plans largely through debt financing – a first for Martek.

Research and development's '04 activities improved the year's financial results and should prove to have similar benefits in '05 and beyond. Development activities in '04 achieved a major improvement in docosahexaenoic acid ("DHA") productivity. This led to lower DHA production costs and the build-up of a small DHA inventory by year end. Financially, it also helped offset the effect of increased ARA cost due to the euro appreciation. DHA productivity should further improve in '05, providing increased gross profit margins throughout the year and a more comfortable DHA inventory by year end. Research activities made progress identifying and transferring the algal genes responsible for DHA production into plants for a future inexpensive DHA oil seed. Enrollment has been completed on two cardiovascular studies focused on determining DHA's effect on triglycerides and high density lipoprotein cholesterol. Results should be available late this spring. If results of these trials are consistent with earlier small trials, they should accomplish two important points: first, focus attention on DHA as the primary beneficial omega-3 fatty acid for cardiovascular health and, second, provide important evidence that DHA can lower two major cardiovascular risk factors without side effects. These trials also could set the stage for future combination therapies with many of the statin drugs.

I am most encouraged from medical research on DHA that has been conducted over the past few years. The evidence from many studies and the resulting recognition that DHA may provide benefits far beyond infant brain and eye development has been growing. My belief has become stronger each year that DHA may be the most important of the omega-3 fatty acids to human health. DHA may provide benefits throughout life starting with brain and eye development in infancy and childhood to cardiovascular protection in middle age to better mental and cardiovascular health in the elderly. If this belief becomes reality, Martek faces a potentially enormous worldwide market for its DHA in medical products, medical foods and foods in general.

In the sales and marketing area, almost all of Martek's revenues came from infant formula. Currently, infant formula supplemented with Martek's DHA/ARA now amounts to approximately 75% of U.S. formula. Late in the year, overseas sales growth also began to look promising with the international giant Nestlé introducing DHA/ARA supplemented formula in major Asian countries. The lack of availability of DHA/ARA in '04 has been the major barrier to more DHA/ARA infant formula sales overseas. In '04, U.S. infant formula companies introduced DHA/ARA supplemented formula designed for toddlers, a product extension that could significantly increase the formula market. Beyond formula, new products were launched in '04 that bode well for the future. In the fall, Mead Johnson introduced a pregnant and nursing capsule containing Martek DHA called "Expecta". In the U.S., PBM Products introduced a drink containing Martek DHA for diabetics, and GlaxoSmithKline introduced a children's and a mother's Horlicks drink product containing Martek DHA in India. The Horlicks product line in India is widely known and is a significant product, approximating $200 million in sales. Early sales results were encouraging for these products. Martek sales and food formulation staff spent a great deal of time working with food companies to incorporate Martek DHA into their products. Progress was made on shelf-life stability, odor and taste, and DHA levels per serving. I expect these '04 efforts should start to bear fruit in '05 and have a major impact on future DHA sales to food manufacturers.

I hope from this letter and from the accompanying Form 10-K report that you appreciate that Martek is growing up. It is set to become a much bigger and more profitable company. I look forward to making it so.

Sincerely,

Henry Linsert, Jr.
Chairman and CEO

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

FORM 10-K

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

FOR THE FISCAL YEAR ENDED OCTOBER 31, 2004

OR

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

COMMISSION FILE NUMBER: 0-22354

MARTEK BIOSCIENCES CORPORATION
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	**52-1399362**
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

6480 DOBBIN ROAD, COLUMBIA, MARYLAND 21045
(ADDRESS OF PRINCIPAL EXECUTIVE OFFICES)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (410) 740-0081

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

TITLE OF EACH CLASS:	NAME OF EACH EXCHANGE ON WHICH REGISTERED:
NONE	NONE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

COMMON STOCK, $.10 PAR VALUE
(TITLE OF CLASS)

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

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

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). [X] Yes [ ] No

The aggregate market value of Common Stock held by non-affiliates of the registrant as of April 30, 2004 was $1,693,466,394.

The number of shares of Common Stock outstanding as of January 7, 2005 was 29,507,058.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the Registrant's Definitive Proxy Statement for its 2005 Annual Meeting of Stockholders (which will be filed with the Commission within 120 days after the end of the Registrant's 2004 fiscal year) are incorporated by reference into Part III of this Report.

MARTEK BIOSCIENCES CORPORATION
FORM 10-K

For The Fiscal Year Ended October 31, 2004

INDEX

PART I

The information in this Form 10-K contains certain forward-looking statements, including statements related to markets for the Company's products and trends in its business that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause such a difference include those discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" as well as those discussed elsewhere in this Form 10-K, including in Exhibit 99.01 incorporated by reference into this Form 10-K..

ITEM 1. BUSINESS.

OVERVIEW

Martek Biosciences Corporation ("Martek", "we", or the "Company") was incorporated as a business corporation under the laws of the State of Delaware in 1985. Martek develops and sells products derived from microalgae and other microbes. We have pioneered the commercial development of microalgae into high value products and product candidates consisting of nutritional products and fluorescent detection products.

NUTRITIONAL PRODUCTS

Over the past ten years, we have developed production methods and intellectual property for two important fatty acids. These fatty acids are docosahexaenoic acid, commonly known as DHA, and arachidonic acid, commonly known as ARA. We sell oils containing these fatty acids as DHASCO® and ARASCO®. We derive DHA from microalgae and ARA from fungi, using proprietary processes. Cell membranes throughout the body, especially in the brain, central nervous system, retina and heart, contain these fatty acids. DHA and ARA may help develop the eyes and central nervous systems of newborns and DHA may promote adult mental and cardiovascular health. An adult may obtain DHA via foods such as fish or organ meats and ARA via foods such as red meats, fish and eggs. A pregnant mother passes DHA and ARA through the placenta to a fetus and a lactating mother passes DHA and ARA to an infant through breast milk. While there are currently no universally recognized guidelines for daily consumption of DHA, a workshop sponsored by various groups, including the National Institutes of Health, recommended that adults consume at least 220 mg of DHA daily. The World Health Organization has issued similar guidelines for infant nutrition. The U.S. Department of Agriculture and other organizations in Europe and Asia have compiled data showing dietary intake in Western-developed societies is less than one-half of this level. We believe that this possible dietary deficiency will result in an increase in demand for DHA-supplemented products. The importance of ARA in the adult diet is not yet known.

Investigators at the National Institutes of Health and other research centers have observed a relationship between low levels of DHA and a variety of health risks, including increased cardiovascular problems, Alzheimer's disease and dementia as well as neurological and visual disorders. We have and continue to sponsor ongoing studies to further investigate the potential benefit of DHA supplementation on cardiovascular health, Alzheimer's disease and dementia, and pregnancy and nursing. Additionally, we, as well as others, are conducting research regarding the impact of DHA supplementation on certain visual and neurological disorders. Additional research is needed to assess the impact, if any, that DHA supplementation will have on these health risks. We are targeting the infant formula market, the adult nutritional market, and the food and beverage market for our nutritional oils.

In May 2001, the Food and Drug Administration ("FDA") completed a favorable review of our generally recognized as safe ("GRAS") notification for the use of our DHASCO® and ARASCO® oil blend in specified ratios in infant formulas. Since the first product introduction in February 2002, supplemented term infant formulas manufactured by four of our licensees have been sold in the United States: Mead Johnson Nutritionals, under the Enfamil®LIPIL® brand of products including term, pre-term, lactose-free and soy-based products; the Ross Products Division of Abbott Laboratories under its Similac®, Isomil®, and NeoSure® brands of products including term, pre-term, lactose-free and soy-based products; Nestle under its Good Start® Supreme DHA & ARA brand and PBM Products Inc., using infant formula product manufactured by Wyeth, under the brand Bright Beginnings™ and under the private label brand for Wal-Mart, Parent's Choice™.

Sixteen infant formula manufacturers, including Mead Johnson Nutritionals, Wyeth, Abbott Laboratories, Nestle, Royal Numico N.V. (formerly Nutricia), Novartis, Maabarot, Heinz-Wattie's, Laboratorios Ordesa, American St. George Biological Corporation, International Nutrition Company, PT Sanghiang Perkasa, Takaso Rubber and three companies whose identities we have agreed not to disclose at this time, have licensed from us the right to include our nutritional oils in their products. Collectively, these companies represent approximately 70% of the estimated $8.5 to $9.5 billion worldwide wholesale market for infant formula and almost the entire estimated $3.0 to $3.5 billion U.S. wholesale market for infant formula, including the wholesale value of Women, Infant & Children program ("W.I.C.") rebates. W.I.C. is a federal grant program that is state-administered for the benefit of low-income, nutritionally at-risk women, infants and children. Our licensees are now selling term infant formula products containing our oils collectively in over 30 countries and pre-term infant formula products containing our oils collectively in over 60 countries around the world. Adult supplements containing our nutritional oils are being sold in the United States and to a lesser degree in certain European markets. In addition, our licensees have recently launched new products in the United States and abroad that contain our nutritional oils and target the markets for children ages nine months to two years as well as pregnant and nursing women.

In April 2002, we purchased OmegaTech, Inc. ("OmegaTech" or "Martek Boulder"), a low-cost algal DHA producer located in Boulder, Colorado. OmegaTech had been in the fermentable DHA business since 1987, and had accumulated over 100 issued and pending patents protecting its DHA

technology, which we refer to as DHA-S, as the DHA is derived from a different alga than our DHA authorized for addition to infant formula. In June 2003, the Commission of the European Communities authorized the use of our DHA-S oil and declared that our DHA-S oil may be sold in the European Community as a Novel Food ingredient. This Novel Food designation authorizes the use of our DHA-S as an ingredient in certain foods such as certain dairy products, including cheese and yogurt (but not milk-based drinks), spreads and dressings, breakfast cereals, food supplements and dietary foods for special medical purposes in the European Community. In February 2004, the FDA completed a favorable review of our GRAS notification for the use of DHA-S in food and beverage applications. We are currently selling DHA-S products into the nutritional supplements, food and beverage and animal feed markets domestically and internationally.

FLUORESCENT DETECTION PRODUCTS

We have also developed new fluorescent detection products from microalgae that connect fluorescent algal proteins to antibodies. Since the compound itself cannot be seen, the connected antibodies (with their algal fluors) then attach to a compound of interest to tag or mark that compound. Compound detection is then made or not made based on whether the fluor is seen. These products have potential applications in automated biological screening to find new compounds or reduce drug discovery time. Our products bring greater speed, sensitivity and simplicity to existing tests and applications.

CONTRACT MANUFACTURING

We provide certain contract manufacturing services at our Kingstree, South Carolina facility. These services are provided to customers that were assumed by us in connection with our acquisition of FermPro Manufacturing, LP ("FermPro") in September 2003. FermPro formerly operated as a contract manufacturer. We anticipate phasing out most of the contract manufacturing business over the next few years as the contracts associated with the existing customers expire.

PRODUCTS AND PRODUCT CANDIDATES

NUTRITIONAL OILS

Infant Formula Applications

Certain microalgae and fungi produce large quantities of oils and fats containing long-chain polyunsaturated fatty acids, known as PUFAs that are important to human nutrition and health. We have identified two strains of microalgae that produce oils rich in DHA and have developed the means to grow them by fermentation. In addition, we have isolated and cultured a strain of fungus that produces large amounts of ARA.

DHA is the predominant omega-3 fatty acid in the brain and retina of the eye and is a key component of heart tissue in humans and other mammals. Children and adults obtain DHA primarily through their diets, particularly from fish and organ meats. The human body can make DHA from its precursor, alpha-linolenic acid (ALA), which is more prevalent in the diet, but the process is inefficient. ARA is the principal omega-6 fatty acid found in the brain and is a precursor to a group of hormone-like substances important in several vital functions of the body. Dietary sources of ARA include meat, eggs and milk.

Both DHA and ARA are important for infant brain development which occurs primarily in the last trimester in-utero and in the first 12 months of postnatal life. For a fetus, DHA and ARA are provided through the mother's bloodstream via the placenta. For a nursing infant, these nutrients are provided via breast milk. DHA and ARA supplementation may be particularly important for premature and low birth weight infants who may not get their full in-utero allotment. Our DHA and ARA oils provide the closest available match, with regard to the molecular form of these fatty acids, to the DHA and ARA in breast milk and are blended in ratios similar to that found in breast milk. Although DHA and ARA are naturally present in breast milk, they were only added to U.S. infant formulas beginning in 2002.

We believe that our DHA oil is more desirable for infant formula applications than fish oil or other sources, because it is derived from a vegetarian source, contains no undesirable fatty acids in significant quantities such as eicosapentaenoic acid ("EPA"), and does not contain contaminants such as methylmercury, polychlorinated biphenyls ("PCBs") and dioxins that may be found in fish oil. Additionally, our DHA and ARA oils are in an easily digestible triglyceride form similar to that found in breast milk and have higher oxidative stability and longer shelf life than fish oil.

Independent studies have indicated that the mental development and visual acuity of infants are positively affected by breast feeding and that breast-fed infants have higher levels of DHA in their brain tissue and enhanced mental acuity later in life when compared to those fed infant formula not containing DHA. Further, studies have shown that infants fed DHA and ARA fortified formulas exhibited improved mental and visual development. This evidence is from retrospective studies comparing intelligence in breast-fed versus formula-fed infants and from intervention studies in infants using DHA and ARA supplemented infant formula. Other studies have failed to report beneficial effects with DHA and ARA supplemented infant formulas; however, in general, these studies tested levels of DHA and ARA lower than levels recommended by authoritative bodies.

Although not all experts agree on the importance of DHA and ARA oils in the infant diet, the following are examples of some of the studies that have found benefits from DHA and ARA supplementation in the infant diet:

- Researchers at Baylor College of Medicine in Houston, Texas, reported at the Pediatric Academic Societies' Annual Meeting in San Francisco, California in April 2004 that children whose mothers received 200 mg of Martek's DHA while nursing their infants during the first four months of life had improved attention skills at five years of age compared to children whose mothers received placebo during that early nursing period. The maternal DHA supplement resulted in 76% higher DHA levels in the breast milk. These investigators had previously reported at the Pediatric Academic Societies' meeting in 2001 that these same children whose mothers received the DHA supplement during early nursing had improved psychomotor skills at 30 months of age compared to children whose mothers had received placebo. This study was partially funded by Martek.

- A study published in the June 2003 issue of *The Journal of Pediatrics* reported that infants who were breast-fed from birth to between four and six months of age and then weaned onto formula supplemented with DHA and ARA experienced significantly improved visual development at one year of age compared to infants who were breast-fed and then weaned onto formula without DHA and ARA.

- In November 2001, results were presented from a multi-center European study which showed sustained advantages for infants fed formula supplemented with DHA and ARA. At six years of age, children who had received a DHA and ARA supplemented formula for the first four months of life had significantly lower diastolic blood pressure, were significantly faster at making correct choices, and showed more efficient information processing than unsupplemented children. Some of the results of this study were published in *BMJ (British Medical Journal)* in May 2003.

- A study published in 2002 in the *American Journal of Clinical Nutrition* found that infants who were breast-fed for six weeks and then weaned to DHA and ARA supplemented infant formula had significantly better visual acuity at 17, 26 and 52 weeks of age and significantly better stereoacuity at 17 weeks of age than infants who were weaned to non-supplemented formula.

- Research published from a National Institutes of Health ("NIH")-sponsored study in the March 2000 issue of *Developmental Medicine and Child Neurology* showed a significant improvement in mental development in term infants given a commercially available infant formula supplemented with our DHA and ARA compared to infants fed the same formula, but without DHA and ARA. In the double-blind study, infants fed the diet supplemented with our oils showed, at 18 months of age, a mean increase of 7 points on the Mental Development Index ("MDI") of the Bayley Scales of Infant Development II. Researchers reported that "these data support a long-term cognitive advantage of infant dietary DHA supply during the first 4 months of life. The significant correlations...support the hypothesis that early dietary supply of DHA was a significant determinant of improved performance on the MDI." Although there are different sources of DHA and ARA, these findings reaffirmed the beneficial effects of adding Martek's pure source of preformed DHA and ARA to infant formulas at the levels evaluated by the researchers.

- A NIH-sponsored study published in the August 1998 edition of *Pediatric Research* concluded that early dietary intake of preformed DHA and ARA appears necessary for optimal development of the brain and eye. The study reported that healthy, full-term infants fed formula supplemented with our oils had visual development results consistent with breast-fed infants, but those fed formula without DHA and ARA had a deficiency of about "one line on an eye chart." The study also indicated that infant formula without preformed DHA and ARA may put infants at risk for DHA deficiency, and suggested that the availability of dietary DHA during the critical developmental period may lead to persistent changes in the underlying neural structure and/or function of infants.

- The January 1998 issue of *Pediatrics*, in an article entitled "Breastfeeding and Later Cognitive and Academic Outcomes" by Horwood and Fergusson (New Zealand), reported that, in an 18-year longitudinal study of over 1,000 children, those who were breast-fed as infants had both better intelligence and greater academic achievement than those who were fed infant formula without DHA and ARA. The authors cited the importance of DHA in the neurological development of children and recommended the need to "develop improved infant formulas with properties more similar to those of human breast milk that may lead to improved developmental outcomes in children." The study indicated that breast-fed babies have a 38% greater likelihood of completing their high school matriculation than formula-fed babies even after allowances were made for confounding social, familial and perinatal factors. Although the study did not conclude that DHA provided to the breast-fed infants from their mother's milk was the sole cause of the improved achievement scores, the authors pointed out recent controlled intervention studies demonstrating similar outcomes in infants with DHA-supplemented formulas and concluded that:

  > ". . . the weight of evidence clearly favors the view that exposure to breast-feeding is associated with small but detectable increases in childhood cognitive ability and educational achievement, with it being likely that these increases reflect the effects of long-chain polyunsaturated fatty acid levels and, particularly, DHA levels on early neurodevelopment."

- In the November 12, 1994 edition of *The Lancet*, a scientific journal published in the United Kingdom, scientists concluded that "some components of breast-milk may have a beneficial effect on brain development. . . . arachidonic acid [ARA] and docosahexaenoic acid [DHA] should be considered as essential nutrients for infants because they are present in structural lipids in brain and nervous tissue."

In addition, DHA and ARA have been recognized as important in the infant diet and recommended for inclusion in infant formula by an expert panel of the United Nations Food and Agricultural Organization and The World Health Organization ("FAO/WHO"), a NIH and International Society for the Study of Fats and Lipids sponsored workshop, an expert panel sponsored by the Child Health Foundation, and the British Nutrition Foundation ("BNF").

Our infant formula licensees are now selling term infant formula products containing our oils collectively in over 30 countries and pre-term infant formula products containing our oils collectively in over 60 countries around the world. Supplemented term infant formulas manufactured by four of

our licensees are currently being sold in the United States. Our sales of nutritional oils for infant formula were approximately $161.3 million, $107.1 million and $40.8 million in fiscal 2004, 2003 and 2002, respectively. Mead Johnson Nutritionals accounted for approximately 55%, 57% and 54% of our total product sales in fiscal 2004, 2003 and 2002, respectively. Abbott Laboratories accounted for approximately 16%, 16% and 5% of our total product sales in fiscal 2004, 2003 and 2002, respectively. Wyeth accounted for approximately 11%, 14% and 25% of our total product sales in fiscal 2004, 2003 and 2002, respectively. In addition, due to the success of fortified infant formula, several of our licensees have launched products known as follow-on formula, which contain our oils and are targeted for children ages nine months to two years of age.

Applications for Pregnant and Lactating Women

In addition to the May 2004 study results reported by Baylor College of Medicine described above supporting the benefits of DHA supplementation during breastfeeding, the BNF and FAO/WHO Committees, which also recommended the inclusion of DHA and ARA in infant formula, have recognized the importance of DHA and ARA in pregnancy and lactation.

- A study published in the March 2003 issue of *Obstetrics and Gynecology* found that expectant mothers at risk for pre-term birth, who increased their dietary intake of DHA during the last trimester of pregnancy through DHA enriched eggs, increased their length of gestation by six days compared to mothers who received regular eggs during late pregnancy. These researchers also published in the July/August 2004 issue of *Child Development* their study results showing that infants whose mothers had high DHA levels at birth had improved attention skills at 18 months of age.

- A study published in the January 2003 edition of *Pediatrics* found that mothers who supplemented their diet with fatty acids rich in DHA during pregnancy and lactation gave birth to children who scored higher on standardized intelligence and achievement tests at four years of age than those whose mothers supplemented with fatty acids that do not contain DHA. According to the study, data demonstrated that children born to mothers who had taken cod liver oil, which is rich in DHA and other omega-3 fatty acids, during pregnancy and lactation scored significantly higher (approximately 4.1 points) on the Mental Processing Composite of the K-ABC test as compared to children whose mothers had received corn oil.

Additional research is needed to further evaluate DHA supplementation during pregnancy and lactation. We are currently providing DHA supplements to several researchers who are evaluating potential benefits of maternal DHA supplementation during pregnancy and lactation on pregnancy outcomes and infant development.

Mead Johnson Nutritionals has recently launched a product in the United States and GlaxoSmithKline has launched a product in India, both of which contain our DHA oil and target the market for pregnant and nursing women.

Cardiovascular Health and Other Human Applications

Investigators at universities around the world and at other research centers, such as NIH, have observed a relationship between low levels of DHA and a variety of health risks, including increased cardiovascular problems, Alzheimer's disease and dementia and various other neurological and visual disorders. We are currently trying to establish what contribution, if any, supplementation with our oils will make in addressing these problems. We are supporting studies to further investigate the potential benefit of DHA supplementation on cardiovascular health, and we, as well as others, are conducting research regarding the impact of DHA supplementation on certain visual and neurological disorders.

DHA and improved cardiovascular health- Discussed below are the findings of several recently published studies that highlight the benefits of DHA on cardiovascular health while cautioning people of the potential risks associated with the intake of certain fish.

- In the November 19, 2002 edition of *Circulation: Journal of the American Heart Association*, the American Heart Association ("AHA") issued a Scientific Statement entitled "Fish Consumption, Fish Oil, Omega-3 Fatty Acids, and Cardiovascular Disease." The Scientific Statement outlines the findings of a comprehensive report that examined the cardiovascular health benefit of omega-3 fatty acids, specifically DHA and EPA, from fish sources. The report concluded that consumption of such omega-3 fatty acids, either through diet or supplements, reduces the incidence of cardiovascular disease. The statement refers to studies that have indicated the following to be associated with the intake of omega-3 fatty acids:

    - decreased risk of sudden death and arrhythmia;
    - decreased thrombosis (blood clot);
    - decreased triglyceride levels;
    - decreased growth of atherosclerotic plaque;
    - improved arterial health; and
    - lower blood pressure.

The Scientific Statement concluded that omega-3 fatty acids have been shown in epidemiological and clinical trials to reduce the incidence of heart disease and recommends that healthy individuals eat a variety of fish (preferably oily) at least twice a week. The statement cautioned, however, that fish intake "must be balanced with concerns about environmental pollutants" because some species of fish may contain significant levels of methylmercury, polychlorinated biphenyls ("PCBs"), dioxins, and other contaminants. Both the FDA and the Environmental Protection Agency have advised children, pregnant women, women who may become pregnant and nursing mothers to limit their intake of certain fish. In consideration of the health risks posed by such contaminants, the authors of the statement conclude by stating, "The availability of high-quality omega-3 fatty acid supplements, free of contaminants, is an important prerequisite to their extensive use." Martek's DHA oil is derived from a vegetarian source and is free of contaminants that may be found in fish oil.

- The November 28, 2002 edition of the *New England Journal of Medicine* published the results of a study directed by a team of researchers at The Johns Hopkins University. This study weighed the cardiovascular benefit of DHA derived from fish consumption, as compared to the cardiovascular health risk posed by the mercury content in certain fish. Researchers found that while high DHA levels were directly correlated with a lower risk for cardiovascular disease, high mercury levels were directly correlated with the risk of heart attack. Based on these findings, researchers concluded that, "High mercury content may diminish the cardioprotective effect of fish intake."

- In December 2004, the findings of a study were published in *The International Journal of Clinical Pharmacology and Therapeutics* relating to the effects of Martek's DHA oil on endothelial function in children with high cholesterol ("hyperlipidemia"). Hyperlipidemia in children is a risk factor for early coronary heart disease. Clinical data demonstrated that when patients received a specialized diet supplemented with DHA, they showed improved endothelial function as compared to the specialized diet alone. Researchers found that when patients received DHA, they experienced significant improvements in their arterial flow, indicating that their arteries had become more flexible. These investigators also reported at the American Heart Association Scientific Sessions 2003 that DHA supplementation in these same children resulted in a favorable shift from small, dense LDL particles, known to be highly correlated with coronary heart disease, to large LDL particles. DHA supplementation also resulted in a significant favorable increase in HDL particle size. We provided supplements for this study at no cost and performed the fatty acid analysis.

- Further supporting the beneficial role of DHA on lipids, investigators from Carolinas Medical Center reported their clinical study results at the American Heart Association Scientific Sessions 2003. Thirty eight mildly overweight men and woman were randomized to receive 1,500 mg of DHA daily for 12 weeks. Those receiving supplementation experienced a 9 percent increase in beneficial HDL cholesterol, an 11 percent decrease in triglyceride levels, and a marked decrease in the small LDL particles that are highly correlated with coronary heart disease. In addition, large LDL particles were favorably increased. We provided supplements for this study at no cost.

- Researchers at the University of Guelph, Ontario, Canada reported in the May 2004 issue of *The American Journal of Clinical Nutrition* that DHA supplementation of 32 postmenopausal women with 2.8 g DHA from Martek's DHA oil per day for 1 month resulted in a significant 20% reduction in triglycerides, a 6-10% increase in HDL cholesterol ("good" cholesterol) and a 7% reduction in heart rate relative to placebo, suggesting that DHA may favorably influence selected cardiovascular risk factors in postmenopausal women.

In September 2004, the FDA announced that it would allow conventional foods and dietary supplements containing DHA and EPA to make a qualified health claim for reduced risk of coronary heart disease on their product packaging. A qualified health claim must be supported by credible scientific evidence. Upon review of this scientific evidence, the FDA concluded that supportive but not conclusive research shows that consumption of DHA and EPA may reduce the risk of coronary heart disease. This qualified health claim supports the benefit of Martek's DHA-S oil, as it contains both DHA and small amounts of EPA.

A number of clinical studies, including several listed above, as well as others conducted by Australian and European researchers and published in *Hypertension* in 1999, *The American Journal of Clinical Nutrition* in 1997 and 2000, *Diabetes Care* in 2003, and *The European Journal of Clinical Nutrition* in 1996, have shown that pure DHA sources, including Martek's DHA oil, exhibit the main cardioprotective benefits traditionally ascribed to fish consumption or to the combination of DHA plus EPA. Researchers have shown that DHA, in the absence of EPA, has the following effects on cardiovascular risk factors:

- reduces triglycerides and raises the HDL or "good" cholesterol;
- reduces blood pressure;
- reduces heart rate; and
- increases LDL and HDL cholesterol particle size.

Other cell culture and animal studies have demonstrated that pure DHA possesses anti-arrhythmic properties, which many researchers believe confer protection against sudden cardiac death.

DHA and reduction of the risk of Alzheimer's disease and age related dementia-

- The September 2004 edition of the journal *Neuron* published the results of an animal study conducted by the UCLA School of Medicine of the effects of Martek's DHA on the advancement of Alzheimer's disease in laboratory mice. The study found that a diet rich in DHA significantly lessened the memory loss and cell damage associated with Alzheimer's disease in laboratory mice.

- In November 2003, results from a study on a subset of subjects from the Framingham Study suggested that increasing DHA levels in the blood by eating more than two servings of fish per week was associated with up to a 48 percent reduction in the risk of dementia in elderly men and women. The reduction in the risk of dementia was not correlated with EPA consumption. The study conducted over a ten year period included 899 men and women with a mean age of 75.

- A study published in the July 2003 edition of *Archives of Neurology* indicated that weekly consumption of fish and dietary intake of DHA, but not other omega-3 fatty acids, are associated with a reduced risk of Alzheimer's disease by up to 60 percent. The study examined whether fish consumption and the associated intakes of omega-3 fatty acids would afford a protective effect against Alzheimer's disease. A total of 815 subjects, aged 65 to 94, who were initially unaffected by Alzheimer's disease, participated in the study and were followed for an average of 3.9 years for the development of Alzheimer's disease. The study showed that in those individuals consuming the highest amounts of dietary DHA, the risk of developing Alzheimer's disease was reduced by up to 60 percent. The risk of developing Alzheimer's disease was not correlated with EPA consumption. Additional research is needed to evaluate the role, if any, of DHA in reducing the risk of developing these diseases.

We have agreements with two companies to distribute our Neuromins® DHA supplements to mass market retail outlets. We also work with leading supplement manufacturers who privately label and sell the Neuromins® DHA supplements to natural food markets nationwide. In addition, we have entered into an agreement with a company to encapsulate our DHA-S oil and sell under a private label. In Europe, we have entered into agreements with two distributors of the DHA-S oil for use in foods, beverages and/or supplements. In the United States, PBM Products has recently announced the launch of a beverage product containing Martek DHA formulated for diabetics.

We are continuing to explore additional markets for our DHA and DHA-S oils including use in pharmaceuticals and functional foods. We are in discussions with several companies in the nutritional and food and beverage markets to sell products containing our DHA and DHA-S oils for cardiovascular and other applications. We, along with our customers, are developing other DHA delivery methods, including powders and emulsions, to address these potential new markets.

Our sales of nutritional oils for adult supplements, food additives and other products were $4.0 million, $3.1 million and $2.2 million in fiscal 2004, 2003 and 2002, respectively.

ADVANCED DETECTION SYSTEMS

We have identified, isolated and now sell powerful fluorescent dyes from various microalgae for use in drug discovery and diagnostic life science applications. Our fluorescence technology is a sensitive and direct method for detection of a specific binding event. That event could be a receptor mediated binding, cell based binding, antibody driven binding or essentially any event where one entity recognizes another. Because of environmental concerns with the use of radioactivity as a sensitive method of detection, higher sensitivity detection technologies are in demand. The main advantages of fluorescence as a method of detection is that it is direct, fast, and relatively simple in that it does not require enzymatic steps for signal amplification or prolonged development times for signal measurement.

Our fluorescent detection products include the following:

Phycobiliproteins - Classical direct fluorescent detection dyes, which we have produced for several years, fill an existing market in protein detection and flow cytometry. In 1999, we introduced our own brand of improved fluorescent dyes (SureLight-APC®) to be used for time resolved fluorescence applications in the high throughput screening market. We have entered into a non-exclusive supply agreement with PerkinElmer Life Sciences who has an extensive line of reagents that are used in this market.

SensiLight™ dyes - Our SensiLight™ dye technology was developed to match the sensitivity of chemiluminescent methods. SensiLight™ dyes are large, intensely fluorescent combinations of phycobiliproteins that provide extreme sensitivity with ease of use that is unmatched by other common dyes or detection systems. A 100-fold improvement in sensitivity has been demonstrated with the SensiLight™ dyes over existing direct fluorescent dyes, and multiple new applications are now accessible by simple, direct fluorescence. Such increased sensitivity allows:

- detection of receptors or small molecules at 100-fold lower concentrations;

- detection with the same level of sensitivity but in 100-fold smaller volumes; and

- detection with the same level of sensitivity but using much lower cost equipment.

Our SensiLight™ dyes have demonstrated an increased sensitivity compared to other direct detection dyes in all applications evaluated thus far. They provide sensitivity similar to enzymatically amplified or radioactive detection systems but with fewer steps, generating more rapid results at lower costs. Our dyes have been used in immunodiagnostic detection, microarrays, flow cytometry, western blotting and other applications.

Due to these advantages, we have entered into a royalty agreement with minimum royalty payment requirements with EMD Biosciences ("Merck KgaA") for the use of our SensiLight™ dye in their "Easy Assay" protein microarray platform. We also provide one of our SensiLight™ dyes to Beckman Coulter, Inc. for use in their A^2 protein microarray platform, which they expect to launch in first quarter 2005.

Our sales of advanced detection system products were less than $1 million in each of the last three years.

TECHNOLOGY

We apply our microalgal expertise and culturing technology to our library of live and preserved microalgal species and related database to achieve technical and commercial advantages. Certain fundamental and unique attributes of microalgae allow for the development and production of our products:

- microalgae are a genetically diverse kingdom of organisms that have a range of physiological and biochemical characteristics; thus, they naturally produce many different and unusual fats, sugars, proteins and bioactive compounds that may have commercial applications, such as the fatty acids that are the principal ingredients in our oils, and highly sensitive fluorescent diagnostic products;

- microalgae comprise a large, substantially unexplored group of organisms, and thus provide a virtually untapped genetic resource that can be screened for a variety of new products, including pharmaceuticals; and

- many microalgae can be successfully cultivated using conventional large-scale fermentation techniques and equipment, enabling economical production of commercial quantities of these valuable products.

Our scientists have discovered microalgal strains which selectively produce DHA in large amounts and are amenable to large-scale, heterotrophic culture using common commercial fermentation equipment used in the pharmaceutical, food and biotechnology industries under Good Manufacturing Practices ("GMP") conditions. These microalgal strains and the conditions applied to achieve economical production of DHA form an important basis of our intellectual property. Our scientists also have developed and patented novel microalgal culturing systems which allow for the commercial production of other high-value compounds, such as fluorescent pigments, and for the rapid evaluation and scale-up of other microalgae of potential interest. Proprietary closed-system, illuminated photobioreactors and numerous techniques for maintaining microalgal monocultures form the basis of this technology.

Our product development process involves the following primary steps:

Identification of Appropriate Microalgae. We select specific microalgae to produce potentially marketable compounds through a comprehensive process, which involves developing a search and screening strategy based upon our extensive knowledge of microalgal physiology and the unique role played by the target compound in the survival of selected microalgal species, searching scientific literature and our proprietary microalgal database, and performing biochemical analyses and product-yield experiments on candidate strains. We currently maintain an increasing in-house collection of over 3,500 strains of microalgae, which includes representatives of virtually all of the significant taxonomic microalgal groups. Equally important is our proprietary microalgal database, which contains biochemical and physiological data on the strains in the collection. We believe that our microalgal collection and associated database are among the largest such resources available in the world. We also have access to potentially useful microalgal strains outside of our collection through agreements with several research organizations. Coupled with our extensive microalgal expertise, these resources are used to identify organisms for initial testing. Further testing ultimately results in the selection of production strains.

Optimization of Microalgae and Growth Conditions. We apply standard industrial microbiological techniques to microalgae and manipulate culturing conditions (growth medium composition, temperature, pH and light intensity) to optimize product yield and productivity. After selecting strains with the best yields and growth characteristics, we enhance their production through conventional and commonly employed strain improvement methodologies. We have not used genetic engineering techniques to develop any of our existing products, but we may use these methods for certain products currently in development.

Scale-up and Commercial Production. Successful exploitation of the unique characteristics of microalgae is in large measure dependent upon the availability of large-scale culturing technology. We have successfully scaled-up several microalgae capable of producing large amounts of DHA heterotrophically using common organic nutrients and salts. Heterotrophic culturing of these DHA-producing microalgae at commercially viable levels enables significantly lower production costs to be achieved, which were not possible prior to our achievements. Aspects of our technology for the heterotrophic growth of DHA-producing microalgae are the subject of several U.S. patents. Similar patents have been issued in certain countries and are pending in certain other countries around the world.

For other product applications, we use our proprietary light-driven, closed-culture system photobioreactors for microalgal production. Photobioreactors are closed to the atmosphere and designed to make the most efficient use of light while keeping contaminating microbes out of the culture. Using our photobioreactors, we are able to culture isolated microalgal strains without contamination and to manipulate such strains to influence growth and biochemical makeup, thus efficiently generating products of interest, including the culturing of various algae for the production of powerful fluorescent dyes used in our advanced detection systems. We use a series of photobioreactors of varying sizes, controls and methods of operation to achieve culturing consistency. Certain aspects of these photobioreactors are the subject of U.S. patents.

U.S. Government Research and Development Contracts. Certain of our early stage technologies were funded in part by Small Business Innovation Research grants. The U.S. Government has certain rights in the technology that we developed with the funding. The U. S. Government may exercise such rights under certain limited circumstances.

COLLABORATIVE AND LICENSING AGREEMENTS

We have entered into licensing agreements with sixteen infant formula manufacturers, including Mead Johnson Nutritionals, Wyeth, Abbott Laboratories, Nestle, Royal Numico N.V. (formerly Nutricia), Novartis, Maabarot, Heinz-Wattie's, Laboratorios Ordesa, American St. George Biological Corporation, International Nutrition Company, PT Sanghiang Perkasa, Takaso Rubber and three companies whose identities we have agreed not to disclose at this time. Collectively, these companies represent approximately 70% of the worldwide wholesale market for infant formula. Under all of these agreements, we received up-front license fees and will receive either a) a flat rate price per kilogram upon the sale of our oils to our licensees, or b) a transfer price on sales of our oils to our licensees plus ongoing royalties based on our licensees' sales of infant formula products containing our oils. The most significant license agreements have remaining terms ranging from approximately 16 to 25 years, contain no future funding commitments on our part or that of our licensees, and may be terminated by our licensees upon proper notification pursuant to the terms of each contract. Licensees have the right to buy other sources of DHA and ARA oils provided they still make royalty payments to us upon the sale of the final infant formula product containing the oils that are covered by our patents.

Under the terms of these licensing agreements, our licensees are responsible for obtaining FDA and all other necessary regulatory approvals with respect to these nutritional oils. Under each of our current license agreements, our licensees generally are obligated to indemnify us against product liability claims relating to our nutritional oils unless our nutritional oils do not meet agreed-upon specifications.

Under the terms of several of our current license agreements, we are prohibited from granting a license to any party for the inclusion of our nutritional oils in infant formula with payment terms or royalty rates that are more favorable to such licensee than those provided in our agreements with our current licensees without either the prior written consent of the current licensees or prospectively offering such new favorable terms to these licensees. This restriction does not apply to any lump sum payments to us pursuant to a territorially restricted license under which the reduced payment is reasonably related to the reduced marketing opportunities available under such a restricted license.

In April 2004, we provided an exclusive license to Advance Bionutrition ("ABN"), a start-up company founded by a former officer of Martek, to sell certain ARA byproducts as aquaculture feed. This license and supply agreement has a term of three years and requires ABN to purchase all such ARA byproducts produced by us, up to a certain maximum. In addition, in August 2004, we granted ABN an exclusive license in the aquaculture field and non-exclusive license in the animal nutrition field for the sale of DHA. This agreement also has a term of three years and provides for certain minimum inventory purchases from Martek. We recognized revenues of approximately $600,000 and $800,000 in fiscal 2004 and 2003, respectively, from sales of products to ABN.

In November 2001, we sold the assets consisting primarily of inventory and technology surrounding our former stable isotope product line to Spectra Gases, Inc., a privately held New Jersey company. As part of the agreement, we received approximately $800,000 for the assets of the group. We also retained an ongoing royalty from future reagent sales for five years up to a maximum of $500,000 and also received a 9% equity position and royalty interest in a new company that was formed to pursue the nuclear magnetic resonance protein structures in cell membranes. As of October 31, 2004, the value of the investment in the new company was fully reserved. We recognized approximately $100,000 in royalty revenue during both fiscal 2004 and 2003 in connection with this arrangement.

In April 2004, we entered into a new 15-year agreement with DSM Food Specialties ("DSM") under which they continue to be our contract supplier for nutritional oils containing ARA. Under the agreement, DSM will provide us with 100% of our crude ARA oil needs on a cost plus margin basis. The agreement also provides for the sale to us by DSM of a license related to certain technologies associated with the manufacture of ARA and provides us with the ability to produce and sell ARA, to the extent allowed by the overall supply agreement. This sale involved a license fee totaling $10 million. Through this license and the overall supply arrangement, we have the ability to produce, either directly or through another third party, an unlimited amount of ARA. The sale of such self-produced ARA is limited annually, however, to the greater of (i) 100 tons of ARA oil or (ii) any amounts ordered by us that DSM is unable to fulfill. We anticipate being capable of producing ARA and having it available for sale by the end of the second quarter of fiscal 2005. In addition, the agreement with DSM provides for the granting to DSM by us of an exclusive license under certain of our patents and intellectual property rights for the production by DSM of products containing ARA that are not for human consumption, including animal feed products. We and DSM have also agreed to contribute our complementary resources to cooperative marketing and joint research and development efforts to expand the applications and fields of use for ARA, with both parties sharing in the economic benefits of such efforts.

In December 2003, we executed a collaboration agreement with SemBioSys Genetics, Inc. ("SemBioSys"), a Canadian biotechnology company, to co-develop DHA products from plants. We anticipate spending approximately $700,000 to $800,000 in fiscal 2005 related to this agreement, excluding payments we may be required to make for milestones which may be realized.

We have also entered into various additional collaborative research and license agreements. Under these agreements, we are required to fund research or to collaborate on the development of potential products. As of October 31, 2004, we were not committed to fund any future development activities under these arrangements. Certain of these agreements also commit us to make payments upon the occurrence of certain milestones and pay royalties upon the sale of certain products resulting from such collaborations.

MANUFACTURING

We manufacture oils rich in DHA at our fermentation and oil processing facilities located in Winchester, Kentucky, and Kingstree, South Carolina by conventional fermentation processes. We acquired the Winchester facility in 1995 and the Kingstree facility in 2003 through the acquisition of FermPro Manufacturing, LP. The oils that we produce in these facilities are certified kosher by the Orthodox Union and are certified Halal by the Islamic Food and Nutrition Council of America. We completed an expansion of our Winchester facility in 2003. During fiscal 2004, we commenced and are now nearing completion of an extensive expansion at our Kingstree, South Carolina location for the fermentation and processing of our nutritional oils. The overall expansion is expected to cost approximately $180 million when complete. Certain components of the initial phase of the expansion, including the first addition to the fermentation area, commenced commercial operation during the last six months of fiscal 2004. The second expansion phase is expected to commence commercial operation in the second quarter of fiscal 2005.

Our ARA oils have historically been purchased from DSM as manufactured at its Capua, Italy plant. During fiscal 2004, DSM added production capacity in the U.S. by converting existing facilities in Belvidere, New Jersey to the production of ARA. In June 2004, DSM restarted the production line at the Belvidere facility after a shutdown relating to a fire incident in May 2004. Since that time, Belvidere has continued to increase its monthly output of ARA. DSM is currently expanding its ARA production capabilities at both facilities. We are now receiving approximately 40% of our ARA from DSM's Belvidere facility with that percentage expected to grow to approximately 70% as DSM completes its current expansion at Belvidere, in phases, over the next 12 to 16 months. As part of the April 2004 agreement with DSM, we are required to guarantee the recovery to DSM of certain expansion costs incurred by them. This guarantee, which currently relates to DSM's recent Belvidere expansion, will decline in value as we purchase ARA from DSM in the future. As of October 31, 2004, the value of our current guarantee to DSM is approximately $3.1 million. In addition, we are in the process of negotiating an amendment to the April 2004 agreement with DSM. This amendment is expected to establish the overall economics associated with DSM's current expansions at both facilities, including our guarantee of such expansion costs. Because DSM is a third-party manufacturer, we do not have full control over the timing and extent of its Capua and Belvidere production volumes.

We have attempted to reduce the risk inherent in having a single supplier, such as DSM, through certain elements of a new supply agreement entered into with DSM in April 2004. In connection with the new agreement, we have licensed the DSM technology associated with ARA production. Through this license and the overall supply arrangement, we have the ability to produce, either directly or through another third party, an unlimited amount of ARA. The sale of such self-produced ARA is limited annually, however, to the greater of (i) 100 tons of ARA oil or (ii) any amounts ordered by us that DSM is unable to fulfill. We anticipate being capable of producing ARA and having it available for sale by the end of the second quarter of fiscal 2005. To further reduce our ARA production risk, we have directly engaged and recently added a new U.S.-based provider of certain post-fermentation ARA manufacturing services. Historically, these services had been provided by two European vendors through DSM. Along with existing ARA extraction capabilities at Winchester and our pending ARA extraction capabilities at Kingstree, which we anticipate being available by the second quarter of fiscal 2005, the addition of a new third-party facility will give us multiple U.S. sites for the downstream processing of ARA.

When combining our current and projected DHA production capabilities in Winchester and Kingstree with DSM's current and projected ARA production capabilities in Italy and the U.S., we had total production capacity equivalent to between $270 and $280 million in annualized sales of our nutritional oils at the end of fiscal 2004. Capacity is expected to increase each month throughout fiscal 2005 and we expect to have production capacity equivalent to approximately $500 million in annualized sales of our nutritional oils during the second half of fiscal 2005 based on current prices. Due to customer acceptance and qualification requirements, there is a gap of approximately three months between production capacity increases and potential sales increases. A portion of this capacity is reserved for future production of DHA-S. We also believe that production optimization efforts will continue at our plants for the next several years as new technologies and additional algal strains are tested to further increase output and reduce costs.

If, however, the production expansion in Kingstree does not proceed as planned or if DSM is not able to further expand its ARA production capacity in the U.S., our ability to produce at these forecasted levels may be negatively impacted. To meet demand in excess of these levels, we will need to do one or more of the following:

- further expand our production facilities in Winchester and Kingstree;
- build another production facility to manufacture our oils; or
- enter into additional agreements with third-party manufacturers to produce our oils.

We also have several other contractual agreements with third-party manufacturers to assist in the production of our nutritional oils. Most significantly, we have a production agreement with C.P. Kelco U.S. Inc. ("C.P. Kelco") that we assumed with the purchase of OmegaTech for the production of DHA-S biomass that we sell to animal feed companies or process further for use in the adult supplement and food and beverage markets. We currently have a minimum purchase commitment with C.P. Kelco that expires on June 30, 2006 with possible annual renewals. As of October 31, 2004, our remaining obligation was approximately $4.1 million.

The commercial success of our nutritional oils will depend, in part, on our ability to manufacture these oils or have them manufactured at large scale and at a commercially acceptable cost. If the production expansion in Kingstree does not proceed as planned, if DSM is not able to complete the production expansion in Belvidere, or if market demand subsides due to our inability to meet demand for our products, our results could be negatively impacted. There can also be no assurance that we will be able to successfully optimize production of our nutritional oils, or continue to comply with applicable regulatory requirements, including GMP requirements. Under the terms of several of our infant formula licenses, our licensees may elect to manufacture these oils themselves. We are currently unaware of any of our licensees producing our oils or preparing to produce our oils, and estimate that it would take a licensee at least one year or more to implement our process of making our oils.

SOURCES OF SUPPLY

Our raw material suppliers for production of DHA oil include major chemical companies and food ingredient suppliers. We have identified and validated several sources for each of our major ingredients and have not had problems obtaining adequate quantities of any of these materials.

Since fiscal 2003, the demand for our nutritional oils for use in infant formula products significantly exceeded our ability to supply them. These shortfalls have resulted from an acceleration of such demand over what our customers had projected coupled with a shortage of ARA production capacity from DSM that began in the first quarter of fiscal 2004. To date, crude ARA oil has been provided to us by third-party processors. DSM, through a fermentation process, produces a fungal biomass rich in ARA oil, which is then sent to a separate vendor for extraction of the oil. After extraction, the crude ARA oil is sent to our production facilities for final processing. We do not currently have an alternate outside source for the purchase of ARA crude oil. As noted above under "Manufacturing," we recently obtained a license from DSM to begin producing ARA at our facilities and we anticipate being able to commence production of a limited amount of ARA and having it available for sale by the end of the second quarter of fiscal 2005. Our production capabilities with respect to ARA, however, are untested. As such, we believe that after completing its expansion, DSM will be able to fill our ARA needs for at least the next several years. If DSM fails to supply us with the required amounts or we are not able to produce sufficient quantities of ARA to make up the shortfall, we may not be able to fulfill customer orders and the result would be some disruption to our customers.

RESEARCH AND DEVELOPMENT

The primary focus of our research and development activities has been the development and optimization of manufacturing processes for our nutritional oils. We perform research and development at three facilities: Columbia, Maryland, Winchester, Kentucky and Boulder, Colorado. Approximately 60% of our research and development expenditures in fiscal 2004 were associated with development activity at the Columbia, Maryland lab directed toward improving the quality, sensory properties and stability of our nutritional oils, optimizing production characteristics of microalgal strains, investigating the clinical health benefits of DHA and ARA fatty acids, and exploring the biochemical pathways utilized by microalgae to produce DHA. Additional research and development expenses incurred at our Winchester, Kentucky laboratory and manufacturing facility were directed towards increasing our production yields, reducing waste and continuing to improve the quality of our oils. Research conducted at our lab in Boulder, Colorado is focused on developing feasible approaches to the expression of nutritional fatty acids, especially DHA, in plant oilseeds, investigating the feasibility of utilizing our proprietary genes to produce other bioactive compounds with application in the healthcare fields and developing new ingredient forms and applications technology for DHA-enriched food products. In addition, during fiscal 2004, SemBioSys commenced research pursuant to the collaborative agreement with us, which focuses on the development of plant-based DHA. We incurred total research and development expense of approximately $18.6 million, $13.2 million and $12.2 million in fiscal 2004, 2003 and 2002, respectively.

SALES AND MARKETING

Our nutritional oils are marketed and sold primarily to the infant formula, nutritional supplement and functional foods industries. Infant formula manufacturers are required to purchase a license from us in order to use our DHA and ARA oils in infant formula. To date, we have entered into license agreements with sixteen infant formula manufacturers who represent approximately 70% of the world's wholesale infant formula market. Due to the success of the fortified infant formula products, several of our licensees have also launched products known as follow-on formula, which contain our oils and are targeted to children ages nine months to two years of age. In addition, Mead Johnson Nutritionals has recently launched a product in the United States and GlaxoSmithKline has launched a product in India, both of which contain our DHA oil and target pregnant and nursing women.

Neuromins® DHA, our line of dietary supplements, is sold through many leading supplement manufacturers and is available in nutritional and health products stores nationwide. We also sell our supplement line directly to consumers and healthcare professionals through a toll-free customer service center. We are currently marketing food and beverage and animal feed applications to both U.S. and international companies. Several egg producers, including Gold Circle Farm®, are producing eggs and liquid eggs using our DHA. These eggs are sold in several grocery store chains in the U.S. and Europe.

Consumer marketing efforts are performed primarily by our customers although we play a supportive role. Our infant formula licensees market their DHA and ARA supplemented formulas directly to the consumer and healthcare professionals. Our nutritional supplement and functional foods customers also create and implement their own advertising campaigns. We support these efforts through trade show participation and targeted direct mail campaigns as well as limited national advertising.

Our line of advanced detection products is designed for use in a wide range of drug discovery and research applications. These products are marketed to large pharmaceutical research institutions through distributors, such as PerkinElmer Life Sciences Products, Beckman Coulter and Kirkegaard & Perry Laboratories, who have entered into distribution agreements with us. Our distributors perform most of the marketing surrounding this product line. We support their efforts by attending industry trade shows.

COMPETITION

The health care and biological sciences industries are characterized by rapidly evolving technology and intense competition. Our competitors include major pharmaceutical, chemical, specialized biotechnology and food companies, many of whom have financial, technical and marketing resources significantly greater than ours. In addition, many specialized biotechnology companies have formed collaborations with large, established companies to support research, development and commercialization of products and technologies that may be competitive with our products and technologies. Academic institutions, governmental agencies and other public and private research organizations are also conducting research and development activities that may be competitive with our products. These organizations are seeking patent protection, and may commercialize products and technologies on their own or through joint ventures that are competitive with our products and technologies. The existence of products and technologies of which we are not aware, or those that may be developed in the future, may adversely affect the marketability of the products and technologies that we have developed.

The development of a DHA-containing fish oil for infant formula applications provides an alternative to our DHA nutritional oil. Fish oil is significantly less costly than our DHA oil, and therefore presents a substantial competitive threat to our DHA product line. Although fish oil is a lower cost product relative to our DHA, it has odor, stability and taste characteristics that may limit its usefulness in food products. Several large companies, including BASF and F. Hoffman-LaRoche Ltd., have developed microencapsulated fish oil products that claim to have resolved much of the odor, stability and taste issues associated with fish oil, but that have considerably increased the cost of the product.

Published reports, however, have cited a number of fish oils as containing chemical toxins not present in our oils. In addition, we believe the combination of either fish oil or microencapsulated fish oil with a microbial source of ARA for use in infant formula would likely infringe upon our patent position in several countries. Several large companies are promoting ARA oil, but can only produce limited quantities and we are unable to determine if these companies will present a competitive threat to our ARA sales in the future.

The Ross Products Division of Abbott Laboratories submitted a GRAS notification on January 2, 2002 seeking FDA concurrence that its fish oil source of DHA and its fungal source of ARA are GRAS when used as ingredients in infant formula. At this time, the notification continues to be under consideration by the FDA.

In November 2004, the Ross Products Division of Abbott Laboratories received FDA approval for the restricted use of *Omacor* only for the treatment of hypertriglyceridemia in adults. *Omacor* is a lipid-regulating agent which includes both EPA and DHA from fish oil.

Small amounts of DHA and ARA can be derived from egg yolk lipids, but DHA and ARA of this type are not in the same molecular form as that predominantly found in breast milk (i.e., phospholipid vs. triglyceride). DHA and ARA derived from egg yolks are currently being added to some brands of infant formula marketed by Royal Numico and DHA from egg yolks is also being added to baby food by Beechnut. We believe that the processes to produce DHA and ARA from egg lipids are more costly than the processes that we use for producing DHA and ARA from microbial sources. Furthermore, the addition of DHA and ARA from egg yolks at levels equivalent to those found in human breast milk will result in dietary levels of lecithin and cholesterol far in excess of those found in human breast milk.

We believe that our nutritional oils have the following advantages over fish oil and other currently available sources of DHA and ARA for use in infant formula, as food ingredients, or as nutritional supplements:

- our oils do not have the odor, stability, taste characteristics, or impurities that may limit the usefulness of DHA derived from fish oil;
- our oils can be blended in a variety of mixtures in precise ratios for specific applications, whereas the composition of fish oils may vary;
- each of our oils used in infant formula is comprised of a fatty acid blend that contains no undesirable fatty acids in significant quantities such as EPA, which is found in fish oil;
- our oils do not contain substances found in certain fish oils such as methylmercury, polychlorinated biphenyls ("PCBs"), dioxins and other toxic contaminants;
- our oils have a higher oxidative stability and longer shelf life than fish oil and are, therefore, amenable to the spray drying process required for powdered formula;
- our DHA and ARA-enriched oils are in an easily digestible triglyceride form similar to that found in breast milk, but different from the phospholipid form found in egg yolk lipids; and
- our oils can be produced in large quantities under controlled conditions satisfying strict regulatory scrutiny.

At this time, our oils are the only DHA and ARA oils cleared by the FDA for inclusion in infant formula in the U.S.

Nutrinova, one of the operating units of Celanese Ventures, is actively marketing a DHA-rich microalgal oil to the food and beverage and dietary supplement markets in the U.S. and overseas. We have filed patent infringement lawsuits against Nutrinova and Celanese related to this matter. These lawsuits are further described in Item 3 of Part I of this Form 10-K, "Legal Proceedings."

There may be other competitive sources of DHA and ARA of which we are not aware. The fact that many of the companies mentioned above are larger, more experienced and better capitalized than us raises the significant risk that these companies may be able to use their resources to develop less costly sources of DHA and ARA than our current technology permits.

In the area of advanced detection, our major competitors consist of life science reagent suppliers such as Amersham Pharmacia, Molecular Probes, Prozyme and Cyanotech. Our diagnostic products compete primarily on the basis of product efficacy, safety, patient convenience, reliability, price and proprietary position.

Our competitive position will also depend on our ability to attract and retain qualified scientific and other personnel, develop effective proprietary products, implement production and marketing plans, obtain patent protection and secure adequate capital resources.

PATENTS, LICENSES AND PROPRIETARY TECHNOLOGY

We have received numerous patents protecting our nutritional products technology, including the fermentation methods of producing our DHA and ARA oils, as well as the blending of DHA and ARA oils for use in infant formula. In 1994, we received a U.S. patent covering certain blends of a microbial oil enriched with DHA and a microbial oil enriched with ARA, as well as the use of such blends in infant formulas. In 1995, we received a U.S. patent covering a process for making an edible oil containing DHA and the edible oil made by such process as well as a U.S. patent covering an infant formula comprising a specified edible oil containing DHA. In 1996, we received two additional U.S. patents covering our nutritional oils technology. The first patent protects pharmaceutical compositions and dietary supplements comprising a single cell oil in concentrations of at least 20% DHA in a triglyceride form made using our method of producing DHA oil. The second patent clarifies that our patent coverage includes the blending, in infant formula and nutritional supplements, of microbially derived ARA oil with low EPA fish oils. Fish oil is a potential competitive source of DHA to Martek's algal-derived DHA oil. This patent will make it more difficult for low EPA fish oils to be combined with microbial sources of ARA oils without violating our patents. A U.S. patent was granted in 1997, which protects the production, use and sale of oils rich in ARA (30% or greater concentration). In 1998, a U.S. patent was issued protecting our DHA-rich algal biomass. DHA-rich algal biomass is the raw product of the DHA fermentation process and represents an inexpensive source of DHA that may potentially be a low cost product itself. We also have been awarded a number of foreign patents covering various aspects of our nutritional oils, including European patents covering our DHA and ARA-rich oils, as well as the blending of these oils for use in infant formula.

We also own patents and applications that cover algae fermentation processes, lipid extraction/purification, genomic-based approaches to lipid production, arachidonic acid production and use, animal feeding protocols, and food applications for PUFAs, as a result of the OmegaTech purchase in 2002. From 1992 to 2001, six U.S. patents were issued covering the use of algae in the production of omega-3 PUFAs (e.g. DHA), and the use of such PUFAs in such products as human food, animal feed, aquaculture and the resulting fortified meat, seafood, milk and eggs. Additional patent applications directed to this technology are still pending. From 1994 to 2003, eight U.S. patents were issued covering the fermentation of microorganisms in low chloride fermentation medium. Small microorganisms, the use of such microorganisms in aquaculture, and the resulting products are also claimed. Additional patent applications covering this technology are still pending. From 1996 to 2003, five U.S. patents were issued covering the use and production of ARA using a variety of fungi. Additional patent applications covering this technology are still pending. Other U.S. patents have been issued and a number of patents are pending worldwide.

We are the exclusive licensee of two U.S. patents and numerous foreign patent applications covering production, sale and use of our SensiLight™ dyes. We have U.S. and European patents and are the licensee of two Patent Cooperation Treaty applications covering the fractionation of lipids.

Our success is dependent in part on our ability to obtain and maintain patent protection for our products, maintain trade secret protection and operate without infringing the proprietary rights of others. Our policy is to aggressively protect our proprietary technology through patents, where appropriate, and in other cases, through trade secrets. Additionally, in certain cases, we rely on the licenses of patents and technology of third parties. We hold approximately 66 U.S. patents, covering various aspects of our technology, which will expire on various dates between 2007 and 2021. We have filed, and intend to file, applications for additional patents covering both our products and processes as appropriate. Currently, we have approximately 581 issued patents and pending applications worldwide. There can be no assurance that:

- any patent applications filed by, assigned to, or licensed to us will be granted;
- we will develop additional products that are patentable;
- any patents issued to or licensed by us will provide us with any competitive advantages or adequate protection for inventions;
- any patents issued to or licensed by us will not be challenged, invalidated or circumvented by others; or
- issued patents, or patents that may be issued, will provide protection against competitive products or otherwise be commercially valuable.

Furthermore, patent law relating to the scope of claims in the fields of health care and biosciences is still evolving, and our patent rights are subject to this uncertainty. Our patent rights on our products therefore might conflict with the patent rights of others, whether existing now or in the future. Alternatively, the products of others could infringe our patent rights. The defense and prosecution of patent claims are both costly and time consuming, even if the outcome is ultimately in our favor. An adverse outcome could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease selling the affected products.

It is our corporate policy to vigorously protect our substantial investment in the research and development of our products and to continue to enforce our patent and other intellectual property rights against third parties who engage in the unauthorized manufacture, sale or use of our technology.

We currently have several challenges to our European patents covering our DHA oils, ARA oils and DHA and ARA blended oils and these challenges are described in Item 3 of Part I of this Form 10-K, "Legal Proceedings." Patent defense costs were approximately $1.4 million in fiscal 2004.

We expect that, in the future, as our nutritional oils continue to be commercialized, opposition to our intellectual property by our competitors will continue and most likely increase. We believe that additional challenges to our suite of U.S. patents may arise in the future. We will likely incur substantial costs in the future protecting and defending our patent and other intellectual rights.

If we fail to maintain patent protection for our nutritional oils, it would have a material adverse effect on our ability to gain a competitive advantage for these oils and may have a material adverse effect on our results of operations, particularly future sales of our nutritional oils and future license fees related to sales of infant formula containing these oils. In particular, if we fail to maintain patent protection, it would permit our competitors to produce products that would be directly competitive with our nutritional oils using similar or identical processes, and it is possible that our current infant formula manufacturers under license or those which may be under license in the future may choose formula ingredients from these competitors if they choose to include the ingredients in their formulas at all.

We also rely on trade secrets and proprietary know-how, which we seek to protect in part by confidentiality agreements with our collaborators, employees and consultants. There can be no assurance that these agreements will not be breached, that we will have adequate remedies for any such breach or that our trade secrets will not otherwise become known or be independently developed by competitors.

GOVERNMENT REGULATION AND PRODUCT TESTING

Our products and our manufacturing and research activities are subject to varying degrees of regulation by a number of state and federal regulatory authorities in the United States, including the FDA pursuant to the Federal Food, Drug and Cosmetic Act (the "FDC Act"). The products developed by us are subject to potential regulation by FDA as food ingredients, dietary supplements, drugs and/or medical devices. The regulatory status of any product is largely determined by its intended use.

Drugs and medical devices generally may not be marketed without first obtaining FDA authorization to do so. New infant formulas also are subject to premarket notification requirements. Although there are no premarket authorization requirements for whole foods per se, there are premarket approval requirements for food additives. Specifically exempt from the food additive definition and, therefore, the premarket approval requirements, are generally recognized as safe ("GRAS") food ingredients. Dietary supplements for the most part are not subject to premarket authorization requirements, although there is a premarket notification requirement for certain new dietary ingredients that were not marketed as dietary supplements prior to October 1994. The FDA has established detailed GMP, labeling and other requirements for drugs, medical devices, infant formulas, foods and dietary supplements. The requirements for drugs, medical devices and infant formulas generally are much more stringent than the requirements for foods and dietary supplements.

Our infant formula licensees are responsible for obtaining the requisite regulatory clearances to market their products containing our oils. Sales of our products outside the United States are subject to foreign regulatory requirements that may vary widely from country to country.

In May 2001, the Food and Drug Administration completed a favorable review of our generally recognized as safe notification for the use of our DHASCO® and ARASCO® oil blend in specified ratios in infant formulas. The first DHA and ARA supplemented infant formula introduced was Mead Johnson's Enfamil® LIPIL® in February 2002. It is now supported by other DHA and ARA supplemented Mead Johnson products within their pre-term, lactose-free and soy-based product lines. The Ross Products Division of Abbott Laboratories has launched its DHA and ARA supplemented line, Similac® Advance®, which includes term, pre-term, lactose-free and soy-based products. Nestle has launched a supplemented formula under the Good Start® Supreme DHA & ARA brand. Finally, Bright Beginnings™ and private label brands, such as Wal-Mart's Parent's Choice™, are produced by Wyeth Nutritionals and distributed by PBM Products, Inc.

The federal Dietary Supplement Health and Education Act of 1994 ("DSHEA") regulates the use and marketing of dietary supplements. We are currently selling several lines of DHA dietary supplements. In addition, we are researching and developing new applications for our DHA and ARA oils. We believe that our DHA and ARA are not subject to premarket notification requirements when marketed for use as dietary supplements. There can be no assurance that the FDA would agree that a premarket notification is not required or that we will be able to comply with the requirements of DSHEA or any regulations that the FDA may promulgate thereunder.

In June 2002, the Australia New Zealand Food Standards Council authorized the use of DHA-S oil for use as a Novel Food ingredient in Australia and New Zealand. In June 2003, the Commission of the European Communities authorized the use of our DHA-S oil and declared that our DHA-S oil may be sold in the European Community as a Novel Food ingredient. This Novel Food designation authorizes the use of our DHA-S as an ingredient in certain foods such as certain dairy products, including cheese and yogurt (but not milk-based drinks), spreads and dressings, breakfast cereals, food supplements and dietary foods for special medical purposes in the European Community. In February 2004, the FDA completed a favorable review of our GRAS notification for the use of DHA-S in food and beverage applications.

Our fluorescent detection and other products derived from microalgae are subject to potential regulation by FDA as either medical devices or as a combination medical device/drug product to the extent that they are used in the diagnosis, mitigation, treatment, cure or prevention of diseases. Such classification would subject the products to premarket clearances and/or regulatory approvals. There can be no assurances that we or our licensees or

collaborators would be able to develop the extensive safety and efficacy data needed to support such FDA premarket authorizations or that FDA ultimately would authorize the marketing of such products on a timely basis, if at all.

For potential pharmaceutical uses of products derived from microalgae, there can be no assurance that required clinical testing will be completed successfully within any specified time period, if at all, with respect to our products. Additionally, there is no assurance that we or our licensees or collaborators will be able to develop the extensive data needed to establish the safety and efficacy of these products for approval for drug uses, or that such drug products will not be subject to regulation as biological products or as controlled substances, which would affect marketing and other requirements.

Many of our products are in research or development phases. We cannot predict all of the regulatory requirements or issues that may apply to or arise in connection with our products. Changes in existing laws, regulations or policies and the adoption of new laws, regulations or policies could prevent us or our licensees or collaborators from complying with such requirements.

Due to the cost and time commitment associated with the FDA regulatory process, we will decide on a product-by-product basis whether to handle relevant clearance and other requirements independently or to assign such responsibilities to our licensees or future collaborative partners. There can be no assurance that we or our licensees or collaborators will be able to obtain such regulatory clearances, if required, on a timely basis or at all. Delays in receipt of, or failure to receive, such clearances, the loss of previously received approvals or clearances, or failure to comply with existing or future regulatory requirements would have a material adverse effect on our business, financial condition and results of operations.

In connection with the manufacture of certain of our products, we are required to adhere to applicable current GMP requirements as required by the FDA. GMP regulations specify component and product testing standards, control quality assurance requirements, and records and other documentation controls. The GMP requirements for foods, infant formulas, drugs and medical devices vary widely. As the manufacturer of DHA and ARA that are marketed as dietary supplements and used as ingredients in infant formulas sold in the United States, we are subject to GMP and various other requirements applicable to infant formulas and dietary supplements. There can be no assurance that we will be able to continue to manufacture our nutritional oils in accordance with relevant infant formula and dietary supplement requirements for commercial use. Ongoing compliance with GMP and other applicable regulatory requirements is monitored through periodic inspections by state and federal agencies, including the FDA and comparable agencies in other countries. A determination that we are in violation of such GMP and other regulations could lead to the imposition of civil penalties, including fines, product recalls or product seizures, and, in the most egregious cases, criminal sanctions.

As large scale manufacturing facilities, our plants in Winchester, Kentucky and Kingstree, South Carolina are required to abide by applicable federal and state environmental and safety laws, including regulations established by the Environmental Protection Agency ("U.S. EPA") and the Occupational Safety and Health Administration ("OSHA"). In addition to the normal standards for heavy industrial manufacturing facilities, our solvent extraction process includes the use of hexane, which is extremely flammable and subject to emission requirements. Ongoing compliance with environmental and safety laws is monitored by periodic inspections by the U.S. EPA and OSHA. If we fail to abide by these laws we could receive fines, or if the violations were serious enough, our operations could be shut down until the problems are fixed. Such penalties could have a material adverse effect on our ability to manufacture our nutritional oils, and our financial results could be negatively impacted. While the costs of our compliance with environmental laws and regulations cannot be predicted with certainty, such costs are not expected to have a material adverse effect on our earnings or competitive position. Current estimates indicate that total company-wide capital expenditures for environmental compliance are not expected to be material in fiscal 2005. See Item 3 of Part I of this Form 10-K, "Legal Proceedings," for further discussion.

The Federal Trade Commission ("FTC") regulates certain aspects of the advertising and marketing of our products. Under the Federal Trade Commission Act, a company must be able to substantiate both the express and implied claims that are conveyed by an advertisement. It is not uncommon for the FTC to conduct an investigation of the claims that are made about products in new and emerging areas of science that involve a potentially vulnerable population such as infants.

EMPLOYEES

As of October 31, 2004, we had 541 full-time employees, one of whom is an M.D. and 29 of whom have Ph.D.s. Approximately 100 employees are engaged in research and development and contract related research and development activities, 343 are engaged in production or production development related activities and 98 are in administrative, business development, and sales and marketing positions. We consider relations with our employees to be good. None of our employees is covered by a collective bargaining agreement.

DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Our directors and executive officers are as follows:

Name	Age	Position
James R. Beery(2)	63	Director
Jules Blake, Ph.D.(1)	80	Director
Robert J. Flanagan(3)	48	Director
Ann L. Johnson, M.D.(1)	68	Director
Henry Linsert, Jr.	63	Chairman, Chief Executive Officer and Director
Gordon S. Macklin	76	Director
Douglas J. MacMaster, Jr.(1)(3)	74	Director
John H. Mahar(1)	70	Director
Sandra Panem, Ph.D.(2)	58	Director
Richard J. Radmer, Ph.D.	62	Director
Eugene H. Rotberg(2)(3)	74	Director
David M. Abramson	51	Senior Vice President, Business Development
George P. Barker	65	Senior Vice President, General Counsel and Secretary
Peter L. Buzy	45	Chief Financial Officer and Treasurer
Steve Dubin	51	President
Barney B. Easterling	59	Senior Vice President, Manufacturing
James H. Flatt, Ph.D.	45	Senior Vice President, Research and Development
Jerome C. Keller	62	Senior Vice President, Sales and Marketing

(1) Member of Compensation Committee
(2) Member of Audit Committee
(3) Member of Nominating and Corporate Governance Committee

Directors:

Mr. Beery served as Senior Vice President and General Counsel for SmithKline Beecham and subsequently GlaxoSmithKline from 1993 until his retirement in 2001. Prior to that, Mr. Beery practiced law with international law firms in New York, Tokyo and London, including serving as Managing Partner of the London office of Morrison & Foerster, specializing in strategic transactions and general corporate matters for a variety of industries. Following his retirement from GlaxoSmithKline, Mr. Beery is Senior Of Counsel to the London office of Covington & Burling. Mr. Beery also serves as a director for deCODE genetics, Inc. and Orchid BioSciences, Inc. (biotechnology). Mr. Beery has been a director of the Company since March 2004. His term expires in 2006.

Dr. Blake served as Vice President of Research and Development, and later Vice President, Corporate Scientific Affairs, for Colgate-Palmolive from 1973 until 1989. Following his retirement in 1989, Dr. Blake accepted an appointment as Industrial Research Institute Fellow at the Office of Science and Technology Policy, Executive Office of the President, where he served until 1991. Dr. Blake also serves as a director for Gene Logic, Inc. (biotechnology). Dr. Blake has been a director of the Company since 1990. His term expires in 2005.

Mr. Flanagan is Executive Vice President of Clark Enterprises, Inc. ("Clark"), one of the largest privately-held construction companies in the United States. Prior to joining Clark, Mr. Flanagan was the Treasurer, Secretary and member of the Board of Directors of the Baltimore Orioles, Inc. and was also employed as a member of Arthur Andersen's audit division in the Washington, D. C. office. Certified as a public accountant in Washington, D.C., Mr. Flanagan has been a director of the Company since April 2002. His term expires in 2006.

Dr. Johnson served as a physician on the psychiatry staff of Mills Peninsula Hospital and the neonatology staff of Children's Hospital Stanford from 1992 to 2001. Dr. Johnson has a private practice in psychiatry and psychopharmacology. Dr. Johnson has been a director of the Company since March 1995. Her term expires in 2005.

Mr. Linsert joined Martek as Chairman of the Board in 1988 and became Chief Executive Officer in 1989. From 1987 to 1988 he was primarily engaged as President of American Technology Investments Corp., a consulting company specializing in the development and financing of early stage companies in the Mid-Atlantic area. He was President and Chief Executive Officer of Suburban Capital Corporation, a venture capital subsidiary of Sovran Financial Corporation (now Bank of America), from 1983 to 1987. Prior to 1983, Mr. Linsert was Vice President of Inverness Capital Corporation, a small business investment company, and Vice President of First Virginia Bank. He also served as a Captain in the U.S. Marine Corps and as an artillery officer in Vietnam. His term expires in 2005.

Mr. Macklin serves as a director of MedImmune, Inc. (biotechnology) and Overstock.com (internet sales), and is a director, trustee, or managing general partner, as the case may be, of 48 of the investment companies in the Franklin Templeton Group of Funds. Mr. Macklin was formerly the Deputy Chairman of White Mountains Insurance Group, Inc. from 2001 to 2004, Chairman of White River Corporation (financial services) from 1993 to 1998, President of the National Association of Securities Dealers, Inc. (1970-1987) and Chairman of Hambrecht and Quist Group (1987-1992). From 1998-2002, Mr. Macklin was also a member of the Board of Directors of WorldCom, Inc. (now called MCI, Inc). Mr. Macklin has been a director of Martek since 1998. His term expires in 2006.

Mr. MacMaster served in various management positions at Merck & Co., Inc. ("Merck") from 1961 to 1988, at which time he was appointed Senior Vice President responsible for ten divisions, including Manufacturing and Technology, and Pharmaceutical Manufacturing. Mr. MacMaster retired from Merck in 1991 and currently serves as a director for Neose Technologies, Inc. (biotechnology) and Stratton Mutual Funds. Mr. MacMaster has been a director of the Company since 1993. His term expires in 2007.

Mr. Mahar has served as President of Hillside Management, a consulting firm, since 1992. From 1991 to 1992, Mr. Mahar was a Vice President at Salomon Brothers Inc., serving as a principal for the Venture Capital Fund. From 1985 to 1991, Mr. Mahar was Executive Vice President and Chief Operating Officer of Elf Technologies, Inc., a venture capital firm. Mr. Mahar was reelected as a director of the Company in February 1993. Prior to that time, he served as a director of the Company from 1988 until 1991. His term expires in 2007.

Dr. Panem is a partner in Cross Atlantic Partners, an investment company specializing in biotechnology and healthcare. Prior to 1999, Dr. Panem was President of Vector Fund Management, L.P. ("VFM"), which focused on later-stage companies. Prior to joining VFM, she served as Vice President and Portfolio Manager for the Oppenheimer Global BioTech Fund, a mutual fund that invested in public and private biotechnology companies. Prior to joining Oppenheimer, Dr. Panem was a Vice President at Salomon Brothers Venture Capital, a fund focused on early and later-stage life sciences and technology investments. Dr. Panem has been a director of the Company since May 1995. Prior to that time, she served as a director from June 1990 until February 1993. Dr. Panem also serves as a director for Bioject, Inc. (healthcare equipment manufacturer). Her term expires in 2005.

Dr. Radmer, a founder of Martek, has served since 1985 as a director. He served as our President and Chief Scientific Officer through March 2003. Prior to 1985, he worked for 17 years at Martin Marietta Corp. where he headed the Biosciences Department which performed research to develop new products from microalgae, among other activities. He has served as an Adjunct Associate Professor and Associate Member of the Graduate Faculty at the University of Maryland. His term expires in 2006.

Mr. Rotberg has been an independent advisor to international development and financial institutions since 1990. From 1987 to 1990, Mr. Rotberg was Executive Vice President and a member of the Executive Committee at Merrill Lynch & Co., Inc. From 1969 to 1987, Mr. Rotberg was Vice President and Treasurer of the World Bank. Mr. Rotberg has been a director of the Company since 1992. His term expires in 2007.

Executive Officers (in addition to Mr. Linsert):

Mr. Abramson joined Martek in 2003 as head of Business Development. Prior to joining Martek, he was the Executive Vice President and General Counsel for U.S. Foodservice from 1996 to 2003. In this position, Mr. Abramson oversaw the legal and regulatory affairs of U.S. Foodservice, a large foodservice distributor in the United States, and advised on business development opportunities for this company. U.S. Foodservice became a subsidiary of Royal Ahold in 2002. In addition, Mr. Abramson was also the Executive Vice President for Legal Affairs at Ahold, U.S.A. from 2000 to 2003. Mr. Abramson also served on the Board of Directors of U.S. Foodservice from 1994 to 2003. Prior to joining U.S. Foodservice, from 1983 until 1996, Mr. Abramson was a partner at Levan, Schimel, Belman & Abramson, P.A., now a part of Miles & Stockbridge. Mr. Abramson graduated from George Washington University in 1975, where he obtained a Bachelors of Business Administration in accounting. He received his Juris Doctor degree, with honors, from the University of Maryland School of Law in 1978. Mr. Abramson is a member of the Maryland Bar.

Mr. Barker joined Martek in 2000 as Senior Vice President, General Counsel and Secretary. Prior to joining Martek, Mr. Barker was Senior Vice President of Howard County General Hospital, Inc: A Member of Johns Hopkins Medicine and its affiliate Howard County Health Services, Inc. From 1982 to 1991, Mr. Barker was Senior Vice President for Development, General Counsel and Secretary of The Enterprise Development Company, a real estate development company located in Columbia, Maryland. Prior to 1982, Mr. Barker held positions as a partner of a Baltimore, Maryland, law firm and Associate General Counsel and Assistant Secretary of The Rouse Company, a real estate development company also located in Columbia, Maryland. Mr. Barker has an A.B. degree from Princeton University and a LL.B. degree from Columbia University.

Mr. Buzy joined Martek in 1998 as Chief Financial Officer. Prior to joining Martek, Mr. Buzy spent 13 years with the accounting firm of Ernst & Young LLP, most recently as an audit partner in the Northern Virginia High Technology/Life Sciences Practice. Mr. Buzy is a Certified Public Accountant and a member of the American Institute of Certified Public Accountants. He received his B.S. in accounting from Salisbury University.

Mr. Dubin joined Martek in 1992, where he served in various management positions, including CFO, Treasurer, Secretary, General Counsel and Senior Vice President of Business Development. In 2000, he moved to a part-time position of Senior Advisor - Business Development, a role he filled until his election to President of the Company in September 2003. He also spent time during 2000 through 2003 co-founding and co-managing a Maryland-based, angel-investing club that funds early-stage, high-potential businesses. He was also "Of Counsel" to the law firm Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. during part of 2001 and 2002. Prior to 1992, Mr. Dubin worked in the financing and management of early-stage businesses and, over a period of 12 years, served in various positions at Suburban Bank, now part of Bank of America, including Vice President and Treasurer of their venture capital subsidiary, Suburban Capital Corporation. Mr. Dubin received a B.S in accounting from the University of Maryland and a Juris Doctor degree from the George Washington University. Mr. Dubin is a Certified Public Accountant and a member of the Maryland Bar.

Mr. Easterling joined Martek in 2003 in connection with Martek's acquisition of FermPro Manufacturing, LP ("FermPro"). With the acquisition, he was named Vice President of Manufacturing of Martek, and in March 2004, he was elected to the position of Senior Vice President of Manufacturing. From 1994 to 2003, Mr. Easterling served as President and CEO of FermPro, a provider of contract fermentation services with a workforce of over 100 personnel. From 1980 to 1994, Mr. Easterling served in various management capacities for Gist-Brocades. He received a B.S. in premedicine from Clemson University.

Dr. Flatt joined Martek in 2002 as Senior Vice President, Research and Development. Prior to joining Martek, Dr. Flatt was the Vice President of Research and Development for OmegaTech, Inc., a DHA producer in Boulder, Colorado that was acquired by Martek in April 2002. In his position with OmegaTech, Dr. Flatt managed all corporate research and development, including discovery, ingredient technology, food and analytical sciences and process development. Prior to joining OmegaTech, Dr. Flatt held a position at Procter & Gamble and was Vice President of Fermentation and Process Research for the Kelco division of Merck, where he led the development and commercialization of several major new products and processing technologies. Dr. Flatt is the author of six patents and numerous professional papers. He received his B.S. in chemical engineering from the Massachusetts Institute of Technology, his M.S. in chemical engineering from the University of California - Berkeley, and his Ph.D. in chemical and biochemical engineering from the University of Wisconsin - Madison.

Mr. Keller joined Martek in 1997 as Senior Vice President of Sales and Marketing. Prior to joining Martek, Mr. Keller had been consulting after spending a 25-year career at Merck, most recently as Vice President of Sales from 1986 to 1993. In this position, he was responsible for all U.S. sales operations, including the direction of a support staff of 4,500 personnel and a sales volume of $4.2 billion. Mr. Keller has a M.S. degree from the University of Pittsburgh and a B.S. degree from Duquesne University.

COMPANY

Martek was incorporated in Delaware in 1985. Martek's principal executive offices are located at 6480 Dobbin Road, Columbia, Maryland 21045. Our telephone number is (410) 740-0081 and our website address is http://www.martekbio.com. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports available on our website free of charge as soon as practicable after we file with the SEC.

ITEM 2. PROPERTIES.

We lease an aggregate of approximately 53,000 square feet of laboratory, technical and administrative space in Columbia, Maryland. Our lease expires in January 2011.

We also lease an aggregate of approximately 14,000 square feet of laboratory, technical and administrative space in Boulder, Colorado. The lease expires in May 2008.

We own a fermentation and oil processing facility in Winchester, Kentucky where we produce oils rich in DHA and ARA using our proprietary technology. The facility is located on eight acres and occupies approximately 91,000 square feet holding multiple fermentation vessels totaling 1.2 million liters of capacity. These fermentation vessels are used primarily for DHA production.

We also own a fermentation and oil processing facility in Kingstree, South Carolina where we produce oils rich in DHA using our proprietary technology. The facility is located on more than five hundred acres and occupies approximately 414,000 square feet currently holding multiple fermentation vessels totaling 1.7 million liters of capacity. These fermentation vessels are used primarily for DHA production and also for contract manufacturing, which utilizes less than 20% of this capacity. As part of our expansion at this facility, which is described in Item 1- "Business," we are nearing completion of multiple fermentation vessels with additional capacity of 1.1 million liters.

ITEM 3. LEGAL PROCEEDINGS.

Aventis S.A. and Nagase & Co. Ltd. are challenging our European patent covering our DHA-containing oils. At a hearing in October 2000, the Opposition Division of the European Patent Office ("EPO") revoked our patent on the grounds that it was not novel. We immediately appealed this ruling, and in July 2002 we received a positive ruling from an Appeal Board of the EPO, setting aside the prior decision to revoke this patent. Consistent with our request, the patent has been returned to the Opposition Division for a determination as to whether it has met the legal requirement of "inventive step". A hearing is scheduled for November 2005 and the process is expected to take an additional 24 to 30 months to complete. Our opponents are seeking to accelerate the date for the scheduled hearing.

With respect to our ARA patent issued by the EPO, BASF AG, Friesland Brands B.V., and Suntory Limited have filed their grounds for opposing this patent with the Opposition Division of the EPO. The validity of the patent is unaffected by these filings. An initial hearing at the Opposition Division is scheduled for April 2005. The opposition process is not expected to be completed until some time in late 2006 or 2007.

With respect to our blended-oil (blend of DHA and ARA oils for use in various applications, including infant formula) patent issued by the EPO, BASF AG and Suntory Limited have filed their grounds for opposing this patent with the Opposition Division of the EPO. In November 2004, the Opposition Division of the EPO revoked Martek's European DHA/ARA oil blends patent as a result of these challenges. The Company immediately filed an appeal of this decision; as a consequence, the blends patent has been reinstated and will remain in force during the appeal. The appeal process is anticipated to take 18 to 24 months to complete. Martek believes it has substantive grounds for the appeal and intends to vigorously pursue the matter.

Prior to our purchase of OmegaTech, Aventis Research and Technologies GmbH & Co. KG, and Nagase Limited challenged OmegaTech's European patent covering its DHA–containing oils. At a hearing in December 2000, the Opposition Division of the EPO upheld some of the claims and revoked other claims. OmegaTech immediately appealed this ruling, as did Aventis. During the appeal process, the patent will remain in full force and effect. The appeal process is not expected to be completed until some time in 2006.

On March 12, 2003, an explosion occurred at a public wastewater treatment works in Winchester, Kentucky, resulting in property damage. On April 8, 2003, we received a report from the state fire marshal that concluded that the incident resulted from the introduction of n-hexane into the local sewer system. We use n-hexane in the production process for our DHA oil. The state fire marshal report did not rule out other possible contributors to the incident. Although n-hexane was found at the site of the incident, there are other factors which we believe may be relevant, including the presence of other flammable substances that were not discharged from our plant and existing conditions at the water treatment facility. We have entered into active discussions relating to the cause of and determination of responsibility for the property damage with the Winchester Municipal Utilities Commission ("WMU") and its insurer. We have received and are analyzing information from the utility and its insurer concerning the details of the incident. We have entered into an agreement with the city of Winchester, WMU, and WMU's insurer to extend any applicable statute of limitations and allow the parties to continue discussing this matter. We learned in March 2004 that the federal Environmental Protection Agency ("EPA"), utilizing personnel from its Criminal Investigation Division, had asked questions of current and former employees relating to the explosion at the wastewater treatment plant and n-hexane. Current and former employees have testified before a federal grand jury that is investigating the matter. While we cannot be certain of the ultimate outcome of our discussions with WMU and its insurer or the EPA and grand jury activity, we believe that they will not have a material adverse impact on our production, financial condition or results of operations.

On September 23, 2003, we filed a patent infringement lawsuit in the U.S. District Court in Delaware against Nutrinova Inc., Nutrinova Nutrition Specialties & Food Ingredients GmbH, Celanese Ventures GmbH, and Celanese AG alleging infringement of two of our U.S. patents. The lawsuit alleges that Nutrinova and Celanese have been making, using, offering to sell, selling and/or importing into the United States DHA marketed under the brand name DHActive™ that is made by a process and employs compositions that infringe the patents. On October 24, 2003, Nutrinova and Celanese filed counterclaims alleging inequitable conduct and invalidity, unenforceability and/or noninfringement of all our U.S. patents and rights. We also filed a patent infringement suit involving Nutrinova in Germany on January 16, 2004. Named as defendants were Nutrinova Nutrition Specialties & Food Ingredients GmbH and Celanese Ventures GmbH. The complaint alleges infringement of our European patent relating to DHA-containing oils. A hearing in the German case is now scheduled to be held in April 2005 and a scheduling hearing in the U.S. case is scheduled for January 2005.

On October 18, 2004, we filed a Declaratory Judgment Complaint in the United States District Court for the District of Maryland against Robert Zuccaro, as stockholders' representative of the former security holders of OmegaTech, Inc. The complaint was brought to seek to resolve Mr. Zuccaro's claim that the former OmegaTech security holders are owed 666,119 additional Martek shares under the Agreement and Plan of Merger by which we acquired OmegaTech because a milestone under that agreement was allegedly met. That milestone was to be triggered if a report issued by the Institute of Medicine of the National Academy of Science regarding the nutritional properties of DHA met criteria specified in the merger agreement. We have asked the Court to declare that the report does not fulfill the requirements of the milestone and that we are not required to distribute the shares to the former security holders of OmegaTech. While we believe that our position is meritorious and that the milestone was not met, no assurance can be given as to the outcome of the litigation. On October 25, 2004, Mr. Zuccaro submitted a demand to the Judicial Arbitration and Mediation Service, seeking to arbitrate this dispute. We filed a motion to stay the arbitration, which the District Court granted in December 2004. We expect Mr. Zuccaro to file an answer and a counterclaim in this matter shortly.

In addition, from time to time, Martek is a party to litigation or administrative proceedings relating to claims arising from its operations in the normal course of business. Management believes that the ultimate resolution of any such litigation or administrative proceedings currently pending against Martek is unlikely, either individually or in the aggregate, to have a material adverse effect on Martek's results of operations or financial condition.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matters were voted upon during the fourth quarter of fiscal 2004.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

The Company's common stock is traded on the NASDAQ National Market System under the symbol MATK. As of January 7, 2005, there were approximately 387 holders of record of the Company's common stock. The price of the Company's common stock was $49.33 on January 7, 2005. No cash dividends have been paid on the common stock and the Company does not anticipate paying any cash dividend in the foreseeable future. Dividend payments are restricted under the Company's Loan and Security Agreement dated January 26, 2004. The following table sets forth, for the calendar periods indicated, the range of high and low sales prices for the Company's common stock as reported by NASDAQ:

Sales Price Range of Common Stock

Fiscal 2003	High	Low
November 1, 2002 - January 31, 2003	$27.38	$15.40
February 1, 2003 - April 30, 2003	$34.38	$21.11
May 1, 2003 - July 31, 2003	$53.25	$31.30
August 1, 2003 - October 31, 2003	$58.55	$43.19

Fiscal 2004	High	Low
November 1, 2003- January 31, 2004	$69.10	$46.46
February 1, 2004 – April 30, 2004	$73.36	$55.80
May 1, 2004 - July 31, 2004	$72.69	$44.51
August 1, 2004 - October 31, 2004	$58.95	$43.89

No repurchases of common stock took place during the fourth quarter of fiscal 2004.

ITEM 6. SELECTED FINANCIAL DATA.

The selected financial data set forth below with respect to the Company's consolidated statements of operations for each of the years in the three-year period ended October 31, 2004 and with respect to the consolidated balance sheets as of October 31, 2004 and 2003 are derived from, and are qualified by reference to, the consolidated financial statements that have been audited by Ernst & Young LLP, independent registered public accounting firm, and are included elsewhere in this Form 10-K. The statement of operations data for each of the years in the two-year period ended October 31, 2001 and the balance sheet data at October 31, 2002, 2001 and 2000 are derived from audited financial statements not included in this Form 10-K.

The following selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes contained in this Form 10-K.

	Year ended October 31,				
In thousands, except per share data	**2004**	**2003**	**2002**	**2001**	**2000**
Consolidated Statements of Operations Data					
Revenues					
Product sales	$ 170,565	$ 112,298	$ 46,055	$ 18,824	$ 9,677
Contract manufacturing sales	13,928	2,439	—	—	—
Total revenues	184,493	114,737	46,055	18,824	9,677
Costs and expenses					
Cost of product sales	103,423	66,347	29,794	12,554	7,092
Cost of contract manufacturing sales	11,570	2,192	—	—	—
Research and development	18,596	13,154	12,188	12,705	12,517
Selling, general and administrative	25,774	16,275	11,804	7,969	6,942
Other operating expenses	4,000	1,943	406	565	—
Restructuring charge	—	(250)	1,266	—	—
Acquired in-process research and development	—	—	15,788	—	—
Total costs and expenses	163,363	99,661	71,246	33,793	26,551
Income (loss) from operations	21,130	15,076	(25,191)	(14,969)	(16,874)
Other income, net	772	916	958	1,267	1,147
Income (loss) before income tax benefit	21,902	15,992	(24,233)	(13,702)	(15,727)
Income tax benefit	25,146	—	—	—	—
Net income (loss)	$ 47,048	$ 15,992	$ (24,233)	$ (13,702)	$ (15,727)
Net income (loss) per share, basic	$ 1.62	$ 0.63	$ (1.10)	$ (0.73)	$ (0.91)
Net income (loss) per share, diluted	$ 1.55	$ 0.58	$ (1.10)	$ (0.73)	$ (0.91)
Shares used in computing basic earnings per share	29,033	25,510	21,982	18,864	17,335
Shares used in computing diluted earnings per share	30,386	27,417	21,982	18,864	17,335

	October 31,				
	2004	**2003**	**2002**	**2001**	**2000**
Consolidated Balance Sheets and Other Data					
Cash, cash equivalents, short-term investments and marketable securities	$ 42,650	$ 96,971	$ 22,419	$ 26,682	$ 19,264
Working capital	68,195	106,218	30,457	31,501	21,266
Total assets	501,398	295,523	124,312	56,603	45,442
Long-term debt, notes payable and other long-term obligations	97,175	10,441	—	—	—
Long-term portion of unearned revenue	9,140	8,992	2,246	2,353	2,460
Accumulated deficit	(64,520)	(111,568)	(127,560)	(103,327)	(89,625)
Total stockholders' equity	346,164	243,964	105,977	46,701	35,455
Cash dividends declared — common stock	—	—	—	—	—

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

This Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements concerning our business and operations, including, among other things, statements concerning the following:

- *expectations regarding future revenue growth, product introductions, growth in nutritional product sales, margin and productivity improvements and potential collaborations and acquisitions;*
- *expectations regarding sales to and by our infant formula licensees;*
- *expectations regarding marketing of our oils by our infant formula licensees;*
- *expectations regarding future efficiencies in manufacturing processes and the cost of production of our nutritional oils;*
- *expectations regarding future purchases of third-party manufactured oils and expansion of third-party manufacturing facilities;*
- *expectations regarding the timing and amount of production capacity and our ability to meet future demands for our nutritional oils;*
- *expectations regarding future research and development costs;*
- *expectations regarding our expansion at our Kingstree, South Carolina facility;*
- *expectations regarding the impact of the incident at the Winchester Wastewater Treatment Plant;*
- *expectations regarding additional capital expenditures needed in relation to our fermentation and oil processing activities; and*
- *expectations regarding our ability to protect our intellectual property.*

Forward-looking statements include those statements containing words such as the following:

- *"will,"*
- *"should,"*
- *"could,"*
- *"anticipate,"*
- *"believe,"*
- *"plan,"*
- *"estimate,"*
- *"expect,"*
- *"intend," and other similar expressions.*

All of these forward-looking statements involve risks and uncertainties. They are all made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We wish to caution you that our actual results may differ significantly from the results we discuss in our forward-looking statements. We discuss the risks that could cause such differences in Exhibit 99.01 to this report incorporated by reference into this Form 10-K, and in our various other filings with the Securities and Exchange Commission. Our forward-looking statements speak only as of the date of this document, and we do not intend to update these statements to reflect events or circumstances that occur after that date.

GENERAL

Martek was founded in 1985. We are a leader in the development and commercialization of products derived from microalgae and other microbes. Our leading products are nutritional oils used as ingredients in infant formula and foods and as ingredients in, and encapsulated for use as, dietary supplements. Our nutritional oils are comprised of fatty acid components, primarily docosahexaenoic acid, commonly known as DHA, and arachidonic acid, commonly known as ARA. Many researchers believe that these fatty acids may enhance mental and visual development in infants, may play a pivotal role in brain function throughout life and may reduce risks associated with coronary heart disease. Low levels of DHA in adults have also been linked with a variety of health risks. Research is underway to assess what impact, if any, supplementation with our DHA will have on these health risks. Additional applications of our patented technology based upon microalgae include our currently marketed fluorescent detection products that can be used by researchers as an aid in drug discovery and diagnostics.

In 1992, we realized our first revenues from license fees related to our nutritional oils containing DHA and ARA and sales of sample quantities of these oils. In 1995, we recognized our first product and royalty revenues from sales of infant formula containing these oils, and in 1996 we began to realize revenues from the sale of Neuromins®, a DHA dietary supplement. In 1998, we first realized revenues from the sale of our fluorescent detection products. We currently have license agreements with sixteen infant formula manufacturers, including Mead Johnson Nutritionals, Wyeth, Abbott Laboratories, Nestle, Royal Numico N.V. (formerly Nutricia), Novartis, Maabarot, Heinz-Wattie's, Laboratorios Ordesa, American St. George Biological Corporation, International Nutrition Company, PT Sanghiang Perkasa, Takaso Rubber and three companies whose identities we have agreed not to disclose at this time. Collectively, these companies represent approximately 70% of the estimated $8.5 to $9.5 billion worldwide wholesale market for infant formula and nearly 100% of the estimated $3.0 to $3.5 billion U.S. wholesale market for infant formula, including the wholesale value of Women, Infant & Children program ("W.I.C.") rebates. W.I.C. is a federal grant program administered by the states for the benefit of low-income, nutritionally at-risk women, infants and children. Our licensees are now selling term infant formula products containing our oils collectively in over 30 countries and pre-term infant formula products containing our oils collectively in over 60 countries around the world. Supplemented term infant formulas manufactured by Mead Johnson Nutritionals, Abbott Laboratories, Wyeth and Nestle are currently being sold in the United States.

In April 2002, we acquired OmegaTech, Inc. ("OmegaTech" or "Martek Boulder"), a low-cost algal DHA producer located in Boulder, Colorado. OmegaTech had been in the fermentable DHA business since 1987, and had accumulated over 100 issued and pending patents protecting its DHA technology. Its revenues mainly consisted of sales of DHA into the dietary supplement, food, beverage, and animal feed markets. We acquired OmegaTech to obtain its low-cost DHA oil and related intellectual property for use in the adult supplements market and future use in the food and beverage markets.

In June 2002, the Australia New Zealand Food Standards Council authorized the use of DHA-S oil for use as a Novel Food ingredient in Australia and New Zealand. In June 2003, the Commission of the European Communities authorized the use of our DHA-S oil and declared that our DHA-S oil may be sold in the European Community as a Novel Food ingredient. This Novel Food designation authorizes the use of our DHA-S as an ingredient in certain foods such as certain dairy products, including cheese and yogurt (but not milk-based drinks), spreads and dressings, breakfast cereals, food supplements and dietary foods for special medical purposes in the European Community. In February 2004, the FDA completed a favorable review of our GRAS notification for the use of DHA-S in food and beverage applications. We are currently selling DHA-S products into the nutritional supplements, food and beverage and animal feed markets domestically and internationally.

In September 2003, we purchased certain assets and assumed certain liabilities of FermPro Manufacturing, LP, which operated a fermentation facility located in Kingstree, South Carolina. FermPro provided contract fermentation services and had an experienced workforce of over 100 personnel on a site of over 500 acres with extensive fermentation, recovery, laboratory and warehousing capabilities. The addition of the FermPro facility and workforce has enabled us to expand our production capabilities using the existing facility, coupled with the extensive construction build-out and employee build-up that are currently nearing completion.

During the fourth quarter of fiscal 2004, several new products were launched which contained Martek DHA. Specifically, Mead Johnson launched a DHA supplement for pregnant and nursing women containing Martek DHA. This product, Expecta™ LIPIL®, extends Mead Johnson's use of Martek DHA beyond infant formula and responds to the growing body of evidence suggesting both mothers and their babies benefit from an adequate maternal intake of DHA. In addition, PBM Products announced the launch of the first beverage containing Martek DHA that is formulated for diabetics and people with abnormal glucose tolerance. Finally, GlaxoSmithKline launched a second powdered drink mix containing Martek DHA in India. The product, Junior Horlicks, is specially formulated for a child's developing brain and nervous system and is available in selected outlets in south and east India. All of these products are expected to generate additional revenue for us during fiscal 2005.

Prior to fiscal 2003, we incurred losses in each year since our inception. For the year ended October 31, 2004, we recognized approximately $47.0 million in net income and as of October 31, 2004, our accumulated deficit was approximately $64.5 million. Although we anticipate significant continued growth in sales of our nutritional oils, and we achieved an operating profit in fiscal 2003 and 2004, we may continue to experience quarter-to-quarter and year-to-year fluctuations in our future operating results, some of which may be significant. The timing and extent of such fluctuations will depend, in part, on the timing and receipt of oils-related revenues. The extent and timing of future oils-related revenues are largely dependent upon the following factors:

- the ability by us and our third-party manufacturers to produce adequate levels of our nutritional oils;
- the timing of the completion of construction at our Kingstree facility and related expanded production capabilities;
- the timing and extent of production and production expansion by DSM at its facilities;
- the timing of infant formula market introductions by our licensees;
- the timing and extent of introductions of DHA into various child and/or adult applications;
- the timing and extent of acceptance of products containing our oils under state-administered reimbursement programs in the U.S.;
- the acceptance of these products by consumers;
- our ability to protect against competitive products through our patents;
- competition from alternative sources of DHA and ARA; and
- agreements with other future third-party collaborators to market our products or develop new products.

As such, the likelihood, timing and extent of future profitability are largely dependent on factors such as those mentioned above, as well as others, over which we have limited or no control.

CRITICAL ACCOUNTING POLICIES AND THE USE OF ESTIMATES

The preparation of our consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. On an ongoing basis, we evaluate our estimates and judgments, which are based on historical and anticipated results and trends and on various other assumptions that we believe are reasonable under the circumstances, including assumptions as to future events. By their nature, estimates are subject to an inherent degree of uncertainty and, as such, actual results may differ from our estimates. We believe that the following significant accounting policies and assumptions involve a higher degree of judgment and complexity than others.

Assets and Liabilities Acquired in Business Combinations Our business acquisitions of FermPro and OmegaTech were accounted for using the purchase method. The purchase method requires us to allocate the cost of an acquired business to the assets acquired and liabilities assumed based on their estimated fair values at the date of acquisition. The excess of the cost of an acquired business over the fair value of the assets acquired and liabilities assumed is recognized as goodwill. In performing the purchase price allocations, we utilized both internal discounted cash flow analyses and third-party appraisals to determine the value of acquired assets and liabilities. Such valuations require significant estimates and assumptions,

including, but not limited to, estimating future cash flows from contracts and products and developing appropriate discount rates. The valuation of the acquired assets and liabilities will impact the future operating results of the Company.

Valuation of Long-lived Assets and Goodwill Long-lived assets, including fixed assets, goodwill and other intangibles, are reviewed for impairment as events or changes in circumstances occur indicating that the carrying amount of the asset may not be recoverable. For goodwill, an assessment is made at least annually. Discounted cash flow or fair value analyses are used to assess goodwill impairment, while undiscounted cash flow analyses are used to assess other long-lived asset impairment. The estimates of future cash flows involve considerable management judgment and are based upon assumptions about expected future operating performance. While management believes that its projections are reasonable and that no impairment of these assets exists, different assumptions could affect these evaluations and result in impairment charges against the carrying value of these assets.

Revenue Recognition We derive revenue principally from two sources: product sales and contract manufacturing. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable and collectibility is probable. Typical infant formula license contracts include an upfront license fee, a prepayment of product sales and established pricing on future product sales. In accordance with Emerging Issues Task Force No. 00-21 ("EITF No. 00-21"), "Revenue Arrangements with Multiple Deliverables," the consideration from these contracts is allocated based on the relative fair values of the separate elements. Revenue is recognized on product sales when goods are shipped. Cash received as a prepayment on future product purchases is deferred and recognized as revenue when product is shipped. Revenue from product licenses is deferred and recognized on a straight-line basis over the term of the agreement. Royalty income is recorded when earned, based on information provided by our licensees.

Contract manufacturing revenue is recognized when goods are shipped to customers and all other conditions for revenue recognition are met. Cash received that is related to future performance under such contracts is deferred and recognized as revenue when earned.

Deferred Income Taxes We recognize deferred tax assets and liabilities based on temporary differences between the financial reporting bases and the tax bases of assets and liabilities. We also recognize deferred tax assets for certain tax net operating loss carryforwards. These deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when such amounts are expected to reverse or be utilized. The realization of deferred tax assets is contingent upon the generation of future taxable income. When appropriate, we recognize a valuation allowance to reduce such deferred tax assets to amounts that are more likely than not to be ultimately realized. The calculation of deferred tax assets (including valuation allowances) and liabilities requires management to apply significant judgment related to such factors as the application of complex tax laws, changes in tax laws and the future operations of the Company. We review our deferred tax assets on a quarterly basis to determine if a valuation allowance is required based upon these factors. Changes in our assessment of the need for a valuation allowance could give rise to a change in such allowance, potentially resulting in additional expense or benefit in the period of change.

Stock-Based Compensation We account for employee stock-based compensation in accordance with the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and related interpretations, which require us to recognize compensation cost for the excess of the fair value of the stock at the grant date over the exercise price, if any. An alternative method of accounting would apply the principles of SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"), which require the fair value of the stock option to be recognized at the date of grant and amortized to compensation expense over the stock option's vesting period. No stock-based employee compensation cost for stock options is reflected in net income, as all options granted under the plans had an exercise price equal to the market value of the underlying common stock on the date of grant. Stock-based compensation for non-employees is accounted for using the fair value-based method in accordance with SFAS 123. See "Recently Issued Accounting Pronouncements."

MANAGEMENT OUTLOOK

We believe that the outlook for future revenue growth remains positive, although quarterly results may show fluctuations, particularly if we experience unforeseen variances in production. Specifically, we believe that for fiscal 2005, current term infant formula products containing our oils will continue to gain market share in existing markets, new products will be added in those markets, and term infant formulas containing our oils will also be introduced in additional countries. As we have discussed, to date, twelve of our infant formula licensees are selling term infant formula products containing our oils collectively in over 30 countries and pre-term infant formula products containing our oils collectively in over 60 countries around the world. Supplemented term infant formulas manufactured by four of our licensees are currently being sold in the United States and we expect these sales to increase in fiscal 2005.

In fiscal 2004, over 90% of our product sales revenues related to the sales of our oils for use in infant formula and recently introduced toddler products. We anticipate increased future sales of our oils for other products such as products developed for pregnant and nursing mothers, cardiovascular health, and the food and beverage market. We expect that the majority of these sales will come through partnering relationships with larger companies in the nutritional and food and beverage markets. We anticipate that over the next few years these sales will expand and represent a much larger potential market than infant formula.

We have an aggressive growth plan that includes substantial additional investments in our manufacturing facilities. To accommodate our growth plan, we will need to continue to improve our operational and financial information systems and controls, expand our management team, continue to attract and retain new employees, accurately anticipate demand for our products and effectively bring on line and integrate new production capacity. In addition, we will rely on third-party manufacturers to effectively bring on line and integrate new production capacity. All of these factors present numerous challenges and could result in unanticipated costs and delays in product manufacture.

PRODUCTION

Since fiscal 2003, the demand for our nutritional oils for use in infant formula products has significantly exceeded production capacity. These shortfalls have resulted from an acceleration of such demand over what our customers had projected coupled with a shortage of ARA production capacity from DSM that began in the first quarter of fiscal 2004. As customer demand has increased, we have requested that our customers provide us with longer lead-times in order to fill their orders. Even with the longer lead-times and increased production each quarter, we continue to limit the orders we accept for our nutritional oils.

We manufacture oils rich in DHA at our fermentation and oil processing facilities located in Winchester, Kentucky and Kingstree, South Carolina. We are nearing completion of an extensive expansion at our Kingstree facility. Certain components of the initial phase of the expansion, including the first fermentation area, commenced commercial operation during the last six months of fiscal 2004. The second expansion phase is expected to commence commercial operation in the second quarter of fiscal 2005.

Our ARA oils have historically been purchased from DSM as manufactured at its Capua, Italy plant. During fiscal 2004, DSM added production capacity in the U.S. by converting existing facilities in Belvidere, New Jersey to the production of ARA. In June 2004, DSM restarted the production line at the Belvidere facility after a shutdown relating to a fire incident in May 2004. Since that time, Belvidere has continued to increase its monthly output of ARA. DSM is currently expanding its ARA production capabilities at both facilities. We are now receiving approximately 40% of our ARA from DSM's Belvidere facility with that percentage expected to grow to approximately 70% as DSM completes its current expansion at Belvidere, in phases, over the next 12 to 16 months. As part of the April 2004 agreement with DSM, we are required to guarantee the recovery to DSM of certain expansion costs incurred by them. This guarantee, which currently relates to DSM's recent Belvidere expansion, will decline in value as we purchase ARA from DSM in the future. As of October 31, 2004, the value of our current guarantee to DSM is approximately $3.1 million. In addition, we are in the process of negotiating an amendment to the April 2004 agreement with DSM. This amendment is expected to establish the overall economics associated with DSM's current expansions at both facilities, including our guarantee of such expansion costs. Because DSM is a third-party manufacturer, we do not have full control over the timing and extent of its Capua and Belvidere production volumes.

We have attempted to reduce the risk inherent in having a single supplier, such as DSM, through certain elements of a new supply agreement entered into with DSM in April 2004. In connection with the new agreement, we have licensed the DSM technology associated with ARA production. Through this license and the overall supply arrangement, we have the ability to produce, either directly or through another third party, an unlimited amount of ARA. The sale of such self-produced ARA is limited annually, however, to the greater of (i) 100 tons of ARA oil or (ii) any amounts ordered by us that DSM is unable to fulfill. We anticipate being capable of producing ARA and having it available for future sale by the end of the second quarter of fiscal 2005. To further reduce our ARA production risk, we have directly engaged and recently added a new U.S.-based provider of certain post-fermentation ARA manufacturing services. Historically, these services had been provided by two European vendors through DSM. Along with existing ARA extraction capabilities at Winchester and our pending ARA extraction capabilities at Kingstree, which we anticipate being available by the second quarter of fiscal 2005, the addition of a new third-party facility will give us multiple U.S. sites for the downstream processing of ARA.

When combining our current and projected DHA production capabilities in Winchester and Kingstree with DSM's current and projected ARA production capabilities in Italy and the U.S., we had total production capacity equivalent to between $270 and $280 million in annualized sales of our nutritional oils at the end of fiscal 2004. Capacity is expected to increase each month throughout fiscal 2005 and we expect to have production capacity equivalent to approximately $500 million in annualized sales of our nutritional oils during the second half of fiscal 2005 based on current prices. Due to customer acceptance and qualification requirements, there is a gap of approximately three months between production capacity increases and potential sales increases. A portion of this capacity is reserved for future production of DHA-S. We also believe that production optimization efforts will continue at our plants for the next several years as new technologies and additional algal strains are tested to further increase output and reduce costs.

If, however, the production expansion in Kingstree does not proceed as planned or if DSM is not able to further expand its ARA production capacity in the U.S., our ability to produce at these levels may be negatively impacted. To meet demand in excess of these levels, we will need to do one or more of the following:

- further expand our production facilities in Winchester and Kingstree;
- build another production facility to manufacture our oils; or
- enter into additional agreements with third-party manufacturers to produce our oils.

We also have several other contractual agreements with third-party manufacturers to assist in the production of our nutritional oils. Most significantly, we have a production agreement with C.P. Kelco U.S. Inc. ("C.P. Kelco") that we assumed with the purchase of OmegaTech for the production of DHA-S biomass that we sell to animal feed companies or process further for use in the adult supplement and food and beverage markets. We currently have a minimum purchase commitment with C.P. Kelco that expires on June 30, 2006 with possible annual renewals. As of October 31, 2004, our remaining obligation was approximately $4.1 million.

The commercial success of our nutritional oils will depend, in part, on our ability to manufacture these oils or have them manufactured at large scale and at a commercially acceptable cost. If the production expansion plans of Martek or DSM do not proceed as anticipated or if market demand subsides due to our inability to meet demand for our products, our results could be negatively impacted. There can also be no assurance that we will be able to successfully optimize production of our nutritional oils, or continue to comply with applicable regulatory requirements, including GMP requirements. Under the terms of several of our infant formula licenses, our licensees may elect to manufacture these oils themselves. We are currently unaware of any of our licensees producing our oils or preparing to produce our oils, and estimate that it would take a licensee at least one year or more to implement our process of making our oils.

ACQUISITIONS AND DISPOSITIONS

In September 2003, we purchased, through a wholly-owned subsidiary, certain assets and assumed certain liabilities of FermPro, which operated a fermentation facility located in Kingstree, South Carolina. The addition of the FermPro facility added to our production capabilities and has allowed us to establish a second manufacturing facility with redundant capabilities. The purchase price of the assets acquired and liabilities assumed included a payment of approximately $12.2 million, comprised of $5.4 million in cash, 124,788 shares of our common stock valued at approximately $5.6 million, and approximately $1.2 million in acquisition-related fees and expenses. In addition, a $10 million note was assumed as part of the transaction.

The results of operations of FermPro have been included in the accompanying consolidated statements of operations from the date of the acquisition. The purchase price has been allocated to the assumed assets and liabilities of FermPro based on their relative fair values.

In April 2002, we completed our acquisition of OmegaTech for approximately $54.1 million. Approximately $49.3 million of the purchase price was related to the value of 1,765,728 shares of our common stock ($1.5 million of which related to OmegaTech transaction costs paid by us), approximately $2.1 million was for our acquisition-related fees and expenses, and approximately $2.7 million was related to the fair value of 154,589 vested OmegaTech stock options that were assumed as part of the transaction. The merger agreement also provides for additional stock consideration of up to $40 million, subject to certain pricing adjustments, if certain milestones are met. Two of these milestones relate to operating results (sales and gross profit margin objectives by October 2003 and October 2004) and two relate to regulatory approvals in the U.S. and Europe. One of the regulatory approval milestones related to the granting of Novel Foods approval in Europe for the OmegaTech DHA-S oil. In June 2003, the Commission of the European Community granted approval of the use of this oil in certain foods in Europe, meeting the conditions of this regulatory milestone. Accordingly, approximately 358,566 shares of Martek common stock, with a fair market value of approximately $14.2 million, were issued during the third quarter of fiscal 2003. The payment of this additional consideration was recorded as goodwill.

As of October 31, 2004, we do not believe the second regulatory milestone has been achieved. In addition, we do not believe that either financial milestone related to sales and gross profit margin for the periods ended October 31, 2004 and 2003 has been achieved. The representative of the former OmegaTech stockholders has advised us that he believes that the common stock issuable with respect to the second regulatory milestone as well as the financial milestone related to the period ended October 31, 2003 should be issued. Martek disagrees with that conclusion. As discussed in Item 3 of Part I of this Form 10-K, "Legal Proceedings," we are currently involved in litigation to resolve this dispute with respect to the second regulatory milestone. The total Martek common stock that may be issued relating to the three remaining milestones is subject to a formula that is based on the average market price of our stock on the dates that the individual milestones are determined to have been achieved, up to a maximum of 1.9 million shares. Any contingent consideration paid related to these milestones would be recorded as goodwill.

The results of operations of OmegaTech have been included in the accompanying consolidated statements of operations from the date of the acquisition. The purchase price has been allocated to the assets and liabilities of OmegaTech based on their relative fair values.

As part of the OmegaTech purchase price allocation, we allocated approximately $15.8 million of the purchase price to in-process research and development projects. This allocation represented the estimated fair value based on risk-adjusted cash flows pertaining to the incomplete research and development related primarily to two projects. At the date of acquisition, the development of these projects had not yet reached technological feasibility and the research and development in progress had no alternative future uses. Accordingly, the acquired in-process research and development was charged to expense as of the date of the merger.

RESULTS OF OPERATIONS

Revenues

The following table presents revenues by category (in thousands):

	Year ended October 31,		
	2004	2003	2002
Product sales	$ 170,565	$ 112,298	$ 46,055
Contract manufacturing sales	13,928	2,439	—
Total revenues	$ 184,493	$ 114,737	$ 46,055

Product sales increased by $58.3 million or 52% in fiscal 2004 as compared to fiscal 2003, primarily due to a continued increased in sales of our oils to both existing and new infant formula licensees. Substantially all of our product sales in fiscal 2004 relate to the sale of our oils for use in infant formulas. Approximately 55% of our fiscal 2004 product sales revenue was generated by sales to Mead Johnson Nutritionals, 16% was generated by sales to Abbott Laboratories and 11% was generated by sales to Wyeth. Collectively, these three companies and Nestle are currently manufacturing term infant formulas supplemented with our oils for sale in the U.S., and in over 30 countries around the world. Although we are not given precise information by our customers as to the countries in which infant formula containing our oils is ultimately sold, we estimate that approximately two-thirds of our sales to infant formula licensees for the year ended October 31, 2004 relates to sales in the U.S. The first infant formulas containing our oils were introduced in the U.S. in February 2002 and, as of October 31, 2004, formula supplemented with our oils had gained more than a 70% penetration in the U.S. infant formula market.

Product sales increased by $66.2 million or 144% in fiscal 2003 as compared to fiscal 2002, primarily due to increased sales of our oils to infant formula licensees. Approximately 57% of our fiscal 2003 revenue was generated by sales to Mead Johnson and 34% was generated by sales of DHA and ARA to Wyeth, Abbott and Nestle combined.

We anticipate product sales will continue to grow as infant formulas containing our oils are introduced by new licensees and by current licensees in additional countries. We also anticipate that sales of our products will continue to grow in countries where our products are currently sold. Our future sales growth, however, is dependent upon our ability to expand our production capabilities at our Kingstree facility and the ability of DSM to continue to expand production of ARA at their Belvidere, New Jersey and Capua, Italy facilities.

Contract manufacturing sales revenues, totaling approximately $13.9 million and $2.4 million in fiscal 2004 and 2003, respectively, relate to fermentation work performed for various third parties at the Kingstree, South Carolina facility, which we acquired in the fourth quarter of fiscal 2003. Contract manufacturing sales are expected to decrease in the future as this business is mostly phased out over the next few years to allow for increased fermentation capacity for our DHA and ARA production.

As a result of the above, total revenues increased by $69.8 million or 61% in fiscal 2004 as compared to fiscal 2003 and increased $68.7 million or 149% in fiscal 2003 as compared to fiscal 2002.

Costs and Expenses

The following table presents our operating costs and expenses (in thousands):

	Year ended October 31,		
	2004	2003	2002
Cost of revenue:			
Cost of product sales	$ 103,423	$ 66,347	$ 29,794
Cost of contract manufacturing sales	11,570	2,192	—
Operating expenses:			
Research and development	18,596	13,154	12,188
Selling, general and administrative	25,774	16,275	11,804
Other operating expenses	4,000	1,943	406
Restructuring charge	—	(250)	1,266
Acquired in-process research and development	—	—	15,788
Total costs and expenses	$ 163,363	$ 99,661	$ 71,246

Cost of Product Sales During fiscal 2004, we continued to satisfy as much customer demand as possible, while, at times, sacrificing cost efficiencies. As such, our cost of product sales increased as a percentage of product sales to 61% in the year ended October 31, 2004 from 59% in the year ended October 31, 2003. The increases resulted from our continued use of air freight in connection with ARA shipments from Europe (an increase of approximately 2% in cost of product sales as a percentage of product sales) and internal production inefficiencies in connection with the commencement of DHA manufacturing at the Kingstree plant (an increase of approximately 1% in cost of product sales as a percentage of product sales). The gross profit margins were also impacted by an increase in our overall cost of ARA due to the decline of the U.S. dollar against the euro, the currency in which we are required to pay DSM for their supply of ARA from Italy (an increase of approximately 3% in cost of product sales as a percentage of product sales). Such increases, however, were partially offset by the benefits of certain DHA production improvements recently developed (a decrease of approximately 2% in cost of product sales as a percentage of product sales), savings from the introduction of lower cost ARA from DSM's Belvidere facility (a decrease of approximately 1% in cost of product sales as a percentage of product sales) and insurance receipts by us associated with incidents at DSM production plants which served to offset some increased cost related to those incidents and decrease cost of product sales as a percentage of product sales by approximately 1% for the fiscal year. We expect our gross profit margins to continue to reflect the benefits of the newly implemented DHA production improvements and expect the impact of certain negative factors noted above to be mitigated in fiscal 2005 as we continue to source more DHA domestically and complete the Kingstree expansion.

Our cost of product sales as a percentage of product sales improved during fiscal 2003 compared to fiscal 2002, decreasing to 59% from 65%. This was due primarily to lower ARA costs from DSM, our third-party supplier of ARA, due to efficiencies realized from increased sales volume, partially offset by unfavorable exchange rate fluctuations between the euro and the U.S. dollar.

Cost of Contract Manufacturing Sales Costs of contract manufacturing sales, totaling $11.6 million and $2.2 million for the years ended October 31, 2004 and 2003, respectively, are the costs related to the fermentation work performed for various third parties at our Kingstree, South Carolina facility, which we acquired in the fourth quarter of fiscal 2003. Our contract manufacturing sales achieve significantly lower gross margins than our product sales. Contract manufacturing sales are to be mostly phased out over the next few years as the associated contracts expire. This will allow for increased fermentation capacity for our DHA and ARA production.

Research and Development Our research and development costs increased by $5.4 million or 41% in fiscal 2004 as compared to fiscal 2003. The increases are primarily the result of additional resources directed toward improving the quality and stability of our products, lowering our DHA production cost by increasing our fermentation production yields and developing new downstream processing techniques. The increases are also due to the commencement of new development projects, including development of ARA fermentation methods, development of DHA products for the food and beverage industry, exploration of new DHA applications and long-term development of plant-based DHA under the collaboration agreement with SemBioSys.

Approximately 60% of the $18.6 million in research and development expenditures incurred in fiscal 2004 related to research conducted in our Columbia, Maryland laboratory directed toward improving the quality, sensory properties and stability of our nutritional oils, optimizing production characteristics of microalgal strains, investigating the clinical health benefits of DHA and ARA fatty acids, and exploring the biochemical pathways utilized by microalgae to produce DHA. Additional research and development expenses incurred at our Winchester, Kentucky facility were directed toward increasing our DHA production yields, reducing waste, continuing to improve the quality of our oils and developing ARA fermentation methods. Research conducted at our laboratory in Boulder, Colorado is focused on developing feasible approaches to the expression of nutritional fatty acids, especially DHA, in plant oilseeds, investigating the feasibility of utilizing our proprietary genes to produce other bioactive compounds with application in the healthcare fields and developing new ingredient forms and applications technology for DHA-enriched food products.

Our research and development costs increased by $1.0 million or 8% in fiscal 2003 as compared to fiscal 2002. The increase was primarily the result of new development projects, including research directed toward improving the quality and stability of our products and research related to increasing our production yields and reducing waste at our manufacturing facilities.

Selling, General and Administrative Our selling, general and administrative costs increased by $9.5 million or 58% in fiscal 2004 as compared to fiscal 2003. Of the increase, approximately $2.9 million relates to the addition of the Kingstree, South Carolina plant acquired in September 2003, for which the administrative infrastructure was assumed and supports the new facility and its expansion. The remaining increase is primarily due to additional personnel ($4.2 million) and increased insurance costs ($1.7 million) required to manage our overall growth. Specifically, we have increased staffing in our business development, food and beverage sales and marketing and finance departments.

Our selling, general and administrative costs increased by $4.5 million or 38% in fiscal 2003 as compared to fiscal 2002. The increase is primarily due to additional personnel ($3.0 million) and increased legal fees and insurance costs ($1.7 million) required to manage our overall growth.

Other Operating Expenses We incurred other operating expenses of $4.0 million, $1.9 million and $400,000 in fiscal 2004, 2003 and 2002, respectively. These expenditures related primarily to production start-up costs associated with the expansion at our Kingstree facility in fiscal 2004 and our Winchester facility in fiscal 2003, which include training expenses and costs related to unsuccessful fermentation runs in connection with the scale-up and validation of new equipment into the production process. These also include qualification of certain third-party manufacturers as well as expenses related to the Winchester wastewater treatment matter. In addition, in fiscal 2003 we incurred expenditures related to start-up costs of additional ARA capacity at DSM's Capua, Italy facility under the terms of our prior contract with DSM. Other operating expenses in fiscal 2002 were associated with evaluating and obtaining additional capacity for the production of our DHA and ARA oils, including costs associated with testing and validating the fermentation technology at FermPro.

Restructuring In July 2002, we announced a restructuring of our food and beverage sales and marketing efforts. As part of this restructuring, eight employees and five consultants associated with food and beverage sales were terminated. A one-time operating charge of approximately $1.3 million was recorded in the third quarter of fiscal 2002 to account for severance and other costs associated with this restructuring. Employee separation benefits of approximately $766,000 under the restructuring plan include severance, medical and other benefits. Other costs of the restructuring, totaling approximately $500,000, include consultant termination costs, idle office space and professional fees. During the first quarter of fiscal 2003, we reduced the liability for employee separation benefits related to severance costs due to changes in previous estimates. Additionally, we increased the restructuring liability related to other charges such as consultant termination fees and costs related to idle space. The net result of the related adjustments to the restructuring liability was a reversal of $250,000 in the fiscal quarter ended January 31, 2003. As of October 31, 2004, approximately $500,000 has been paid in employee separation benefits and approximately $400,000 has been paid in other costs. The remaining liability of approximately $100,000 at October 31, 2004 relates primarily to certain contractual liabilities as of the restructuring date.

Other Income, Net

Our other income, net, decreased by $144,000 in fiscal 2004 as compared to fiscal 2003 and decreased by $42,000 in fiscal 2003 as compared to fiscal 2002, due primarily to changes in interest income resulting from varying levels of cash on-hand and changes in interest rates. See "Liquidity and Capital Resources" for further discussion of cash on-hand.

Income Tax Benefit

As of October 31, 2004, we, for the first time in our history, generated three years of cumulative operating profits. As a result of this positive earnings trend and projected operating results over the next five years, we reversed approximately $51 million of our deferred tax asset valuation allowance, having now determined that it is more likely than not that this portion of the deferred tax asset will be realized. This reversal resulted in the recognition of an income tax benefit totaling $25.2 million, a direct increase to stockholders' equity of approximately $22.8 million and a decrease to goodwill of approximately $2.6 million. Although we will continue to have significant net operating loss carryforwards which are expected to mitigate some of our cash tax expenditures over the next several years, we will begin recording, in fiscal 2005, a provision for income taxes based on the appropriate effective tax rate.

Deferred tax assets and liabilities are recognized based on temporary differences between the financial reporting bases and the tax bases of assets and liabilities. Deferred tax assets are also recognized for certain tax net operating loss carryforwards. These deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when such amounts are expected to reverse or be utilized. The realization of deferred tax assets is contingent upon the generation of future taxable income. Valuation allowances are provided to reduce such deferred tax assets to amounts more likely than not to be ultimately realized.

As of October 31, 2004, we had net operating loss carryforwards for Federal income tax purposes of approximately $200 million. Approximately $3 million of this amount will expire, if unused, by the end of fiscal 2007 with the remainder expiring through fiscal 2023. Of the total net operating loss carryforwards, approximately $56 million continues to be fully reserved through a valuation allowance as realizability of these assets is uncertain at this time. Should realization of these and other deferred tax assets become more likely than not, approximately $9.4 million of the resulting benefit

will be reflected as an income tax benefit upon reversal of the allowance, approximately $8.8 million will be reflected as a reduction to goodwill and approximately $3.9 million will be reflected as an increase to stockholders' equity.

Net Income (Loss)

As a result of the foregoing, net income was $47.0 million in fiscal 2004 as compared to net income of $16.0 million in fiscal 2003 and a net loss of $24.2 million in fiscal 2002. In fiscal 2002, $20.3 million of the net loss was related to Martek Boulder, including the $15.8 million charge for in-process research and development and restructuring charges.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In May 2003, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity" ("SFAS 150"). This statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity in its balance sheets. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances) because that financial instrument embodies an obligation of the issuer. This statement is effective for financial instruments entered into or modified after May 31, 2003, and is otherwise effective at the beginning of the first interim period beginning after June 15, 2003, except for mandatory redeemable financial instruments of nonpublic entities. The FASB has deferred implementation of SFAS 150 indefinitely for certain noncontrolling interests, the provisions of which are currently not applicable to us. The adoption of SFAS 150 had no material impact on our consolidated financial statements.

In March 2004, the Emerging Issues Task Force ("EITF") reached a consensus on Issue No. 03-01, "The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments" ("EITF 03-1"). EITF 03-1 provides guidance on other-than-temporary impairment models for marketable debt and equity securities accounted for under SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities" ("SFAS 115"), and non-marketable equity securities accounted for under the cost method. The EITF developed a basic three-step model to evaluate whether an investment is other-than-temporarily impaired. On September 30, 2004, the FASB issued FSP 03-1-1, "Effective Date of Paragraphs 10-20 of EITF Issue 03-1, 'The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments'," delaying the effective date for the recognition and measurement guidance of EITF 03-1, as contained in paragraphs 10-20, until certain implementation issues are addressed and a final FSP providing implementation guidance is issued. The disclosure requirements of the consensus remain in effect. We do not expect the adoption of EITF 03-1's three-step model to have a material effect on our results of operations and financial condition. Quantitative and qualitative disclosures for investments accounted for under SFAS 115 are effective for our fiscal year ended October 31, 2004.

In October 2004, the FASB concluded that SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R"), which would require all companies to measure compensation cost for all share-based payments (including employee stock options) at fair value, would be effective for interim or annual periods beginning after June 15, 2005. SFAS 123R provides two tentative adoption methods. The first method is a modified prospective transition method whereby a company would recognize share-based employee costs from the beginning of the fiscal period in which the recognition provisions are first applied as if the fair-value-based accounting method had been used to account for all employee awards granted, modified, or settled after the effective date and to any awards that were not fully vested as of the effective date. Measurement and attribution of compensation cost for awards that are unvested as of the effective date of SFAS 123R would be based on the same estimate of the grant-date fair value and the same attribution method used previously under SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"). The second adoption method is a modified retrospective transition method whereby a company would recognize employee compensation cost for periods presented prior to the adoption of SFAS 123R in accordance with the original provisions of SFAS 123; that is, an entity would recognize employee compensation costs in the amounts reported in the pro forma disclosures provided in accordance with SFAS 123. A company would not be permitted to make any changes to those amounts upon adoption of SFAS 123R unless those changes represent a correction of an error. For periods after the date of adoption of SFAS 123R, the modified prospective transition method described above would be applied. We currently expect to adopt SFAS 123R in the quarter ended October 31, 2005, using the modified prospective method, although we continue to review our options for adoption under this new pronouncement. After giving effect to the accelerated vesting of certain stock options in December 2004 and January 2005, described in Note 16 to the audited consolidated financial statements, and based upon our projection of unvested stock options at the implementation date from stock options granted and outstanding as of November 30, 2004, we expect the adoption to result in the recognition of additional compensation expense of approximately $1.3 million in the fourth quarter of fiscal 2005 and approximately $3.3 million during fiscal 2006.

In December 2004, the FASB issued SFAS No. 151, "Inventory Costs" ("SFAS 151"). SFAS 151 requires abnormal amounts of inventory costs related to idle facility, freight handling and wasted material expenses to be recognized as current period charges. Additionally, SFAS 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The standard is effective for fiscal years beginning after June 15, 2005. We believe the adoption of SFAS 151 will not have a material impact on our consolidated financial statements.

LIQUIDITY AND CAPITAL RESOURCES

We have financed our operations primarily from the following sources:

- cash generated from operations;
- proceeds from the sale of equity securities;
- cash received from the exercise of stock options and warrants; and
- debt financing.

At October 31, 2004, our primary source of liquidity was our cash, cash equivalents and short-term investments totaling $42.7 million as well as the unused portion of our revolving credit facility of $15.0 million. Cash, cash equivalents and short-term investments decreased $54.3 million from October 31, 2003. This decrease was primarily attributable to $180.4 million in capital expenditures, the majority of which were related to the expansion of the Kingstree facility to increase output of our nutritional oils. These expenditures were offset by cash flow from operations of $10.1 million, which was primarily the result of our profitability, partially offset by an increase of DHA inventory which could not be blended with ARA for sales to infant formula manufacturers because of a shortage of ARA. In addition, we generated cash flows from financing activities of $114.5 million, primarily proceeds from the exercise of stock options and warrants and the issuance of common stock ($32.2 million) and borrowings under our revolving credit facility ($85.0 million).

The expansion of our production facility in Kingstree, South Carolina and, to a lesser degree, production improvements at our facility in Winchester, Kentucky, have and will continue to have a material effect upon our liquidity and capital resources in fiscal 2005. We expect to invest approximately $55 to $60 million in fiscal 2005 in plant and equipment expenditures to complete the expansion and production improvements as well as for other company-wide capital needs. Throughout the construction period, all interest incurred on borrowings will be capitalized to the extent that the borrowings are used to cover the balance of projects under construction. In fiscal 2004, we incurred interest on borrowings of approximately $2.1 million and recorded amortization of related debt fees of approximately $200,000. All of the interest incurred and debt fee amortization recorded in fiscal 2004 was capitalized as part of the cost of our construction.

Since our inception, we have raised approximately $315 million from public and private sales of our equity securities, as well as from option and warrant exercises. In fiscal 2003, we achieved our first fiscal year of positive net income of approximately $16.0 million. Including net income of $47.0 million in fiscal 2004, our accumulated deficit at October 31, 2004 is $64.5 million.

The following table sets forth our future minimum payments under contractual obligations at October 31, 2004:

In thousands	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Notes payable	$ 10,077	$ 609	$ 1,025	$ 8,111	$ 332
Borrowings under revolving credit facility	85,000	—	85,000	—	—
Operating and capital lease obligations (1)	14,345	2,746	5,428	5,287	884
DSM license fee and other obligations	7,000	4,333	2,667	—	—
Unconditional inventory purchase obligations	4,133	2,296	1,837	—	—
Total contractual cash obligations	$ 120,555	$ 9,984	$ 95,957	$ 13,398	$ 1,216

(1) Does not include the minimum payments due under an operating lease for equipment at our Kingstree facility entered in December 2004 as part of a sale/leaseback transaction. Minimum payments under the lease are approximately $60,000 per month and the lease expires in October 2009.

As part of the acquisition of FermPro, we assumed a $10 million note with a stated interest rate of 5%. The note was amended in January 2004 and is now an unsecured obligation of the Company with a maturity date of December 31, 2008. Principal is amortized over a 20-year period, with the balance due at maturity. Also as part of the FermPro acquisition, we assumed a long-term note of approximately $400,000, due in 2023 with a 7% stated interest rate.

In April 2004, we entered into a new agreement with DSM extending the existing relationship between the two companies involving the production and supply of ARA, one of our nutritional oils that we sell to our infant formula licensees. Among other things, this agreement provides for the sale to us by DSM of a license related to certain technologies associated with the manufacture of ARA. This sale involved a license fee totaling $10 million, $4 million of which was paid upon execution of the agreement, $4 million of which was paid on November 2, 2004, and the remaining $2 million of which will be paid on November 2, 2005. This agreement also provides for the guarantee by us of DSM's recovery of certain expansion costs incurred by them. This guarantee, which currently relates to DSM's recent Belvidere expansion, will decline in value as we purchase ARA from DSM in the future. As of October 31, 2004, the value of our current guarantee to DSM is approximately $3.1 million.

In May 2004, we entered into a $100 million secured revolving credit facility which amended and expanded the $85 million credit facility established in January 2004. The revolving credit facility is collateralized by accounts receivable and inventory and expires in February 2007. The weighted average interest rate on the credit facility was approximately 3.7% for the year ended October 31, 2004 and is based on LIBOR and our current leverage ratio. Among other things, the credit facility agreement contains restrictions on future debt, the payment of dividends and the further encumbrance of assets. In addition, the credit facility requires that we comply with specified financial ratios and tests, including minimum liquidity, minimum coverage ratios and maximum leverage ratios. We do not believe that these covenants restrict our ability to carry out our current business

plan. As of October 31, 2004, we are in compliance with all of these debt covenants and have borrowed $85 million under the revolving credit facility.

In February 2004, we completed an underwritten public offering of 176,885 shares of our common stock at a price of $65.59 per share pursuant to a shelf registration. Net proceeds to us, after deducting underwriters' fees and expenses, amounted to approximately $11.3 million. The proceeds from this offering, together with funds on-hand and borrowings under our bank credit facility, have been used to finance the expansion of our manufacturing capacity to meet increased demand for our DHA and ARA oils and for various general corporate purposes.

In August 2004, our shelf registration statement was declared effective by the Securities and Exchange Commission. The shelf registration statement enables us to raise funds through the offering of debt securities, preferred stock, common stock and warrants, as well as any combination thereof, from time to time and through one or more methods of distribution, in an aggregate amount of up to $200 million.

In October 2004, we entered an operating lease for equipment at our Kingstree facility as part of a sale/leaseback transaction. The equipment subject to lease was sold at its cost basis and fair value of $10.8 million and simultaneously leased back to us. The lease expires in October 2009 and contains the same restrictions as our revolving credit facility. In December 2004, we entered an operating lease for equipment at our Kingstree facility subject to the same terms and expiration as part of a second sale/leaseback transaction. This equipment was sold at its cost basis and fair value of $4.1 million.

We believe that the revolving credit facility, when combined with our cash and short-term investments of $42.7 million on-hand at October 31, 2004, and anticipated operating cash flows, will provide us with adequate capital to meet our obligations for at least the next 12 to 18 months. However, in order to address the possibility that additional production capacity may be needed to meet anticipated demand, or if we believe that our financial requirements otherwise warrant it, we expect to seek to raise more equity capital in the first quarter of 2005.

The ultimate amount of additional funding that we may require will depend, among other things, on one or more of the following factors:

- the cost of capital expenditures at our manufacturing facilities;
- growth in our infant formula, food and beverage and other nutritional product sales;
- the extent and progress of our research and development programs;
- the progress of pre-clinical and clinical studies;
- the time and costs of obtaining and maintaining regulatory clearances for our products that are subject to such clearances;
- the costs involved in filing, protecting and enforcing patent claims;
- competing technological and market developments;
- the cost of acquiring additional and/or operating and expanding existing manufacturing facilities for our various products and potential products (depending on which products we decide to manufacture and continue to manufacture ourselves); and
- the costs of marketing and commercializing our products.

We can offer no assurance that, if needed, any of our financing alternatives will be available to us on terms that would be acceptable, if at all.

OFF-BALANCE SHEET ARRANGEMENTS

We have entered into lease agreements for certain laboratory and administrative space as well as manufacturing equipment with rental payments aggregating to $14.3 million over the lease terms, which expire through 2011. Included in these aggregate rentals are amounts related to certain equipment leases, for which we are contingently liable for a residual value guarantee of approximately $1.7 million. Subsequent to October 31, 2004, we entered into an additional equipment lease which included aggregate rentals of $3.7 million over the lease term and increased our residual value guarantee to a total of $2.3 million.

As part of our agreement with DSM, we agreed to guarantee DSM's recovery of certain expansion costs incurred by them. This guarantee, which currently relates to DSM's recent Belvidere expansion, will decline in value as we purchase ARA from DSM in the future. As of October 31, 2004, the value of our current guarantee to DSM is approximately $3.1 million

We do not engage in any other off-balance sheet financing arrangements. In particular, we do not have any interest in entities referred to as variable interest entities, which include special purpose entities and structured finance entities.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Beginning in January 2004, purchases of ARA from DSM's plant in Capua, Italy were denominated in euros, which exposes us to risks related to changes in exchange rates between the U.S. dollar and the euro. Fluctuations between the U.S. dollar and the euro will impact our cost of ARA oil and gross margins. We estimate that a 5% change in the exchange rate would impact gross margins of our infant formula products by approximately 1.5%. Our exposure to these currency fluctuations has begun to slightly decrease as DSM has now commenced ARA production in the U.S. at its Belvidere, New Jersey facility. In April 2004, we began entering into foreign currency cash flow hedges to reduce the related market risk.

We are subject to risk from adverse changes in interest rates, primarily relating to variable-rate borrowings used to maintain liquidity and finance our manufacturing facility expansion. Based on our variable-rate debt outstanding at October 31, 2004, a 1% change in LIBOR would change annual interest by $850,000. At October 31, 2004, the carrying amounts of debt approximate fair value.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS PAGE

REPORT OF ERNST & YOUNG LLP, INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Martek Biosciences Corporation

We have audited the accompanying consolidated balance sheets of Martek Biosciences Corporation as of October 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended October 31, 2004. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule 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 examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Martek Biosciences Corporation at October 31, 2004 and 2003, and the consolidated results of its operations and its cash flows for each of the three years in the period ended October 31, 2004, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP

McLean, Virginia
December 9, 2004, except for the last paragraph of Note 16,
as to which the date is January 4, 2005

MARTEK BIOSCIENCES CORPORATION

CONSOLIDATED BALANCE SHEETS

In thousands, except share and per share data	October 31, 2004	2003
Assets		
Current assets		
Cash and cash equivalents	$ 29,445	$ 29,924
Short-term investments and marketable securities	13,205	67,047
Accounts receivable, net	37,292	20,164
Inventories, net	30,379	14,543
Other current assets	6,793	6,666
Total current assets	117,114	138,344
Property, plant and equipment, net	255,430	88,314
Deferred tax asset	49,378	—
Goodwill	48,175	50,274
Other intangible assets, net	29,994	18,378
Other long-term assets	1,307	213
Total assets	$ 501,398	$ 295,523
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	$ 28,902	$ 14,988
Accrued liabilities	13,040	12,020
Current portion of notes payable and other long-term obligations	4,946	2,277
Current portion of unearned revenue	2,031	2,841
Total current liabilities	48,919	32,126
Long-term debt under revolving credit facility	85,000	—
Notes payable and other long-term obligations	12,175	10,441
Long-term portion of unearned revenue	9,140	8,992
Total liabilities	155,234	51,559
Commitments		
Stockholders' equity		
Preferred stock, $.01 par value, 4,700,000 shares authorized; none issued or outstanding	—	—
Series A junior participating preferred stock, $.01 par value; 300,000 shares authorized; none issued or outstanding	—	—
Common stock, $.10 par value; 100,000,000 shares authorized; 29,491,127 and 28,041,323 shares issued and outstanding at October 31, 2004 and 2003, respectively	2,949	2,804
Additional paid-in capital	407,667	352,728
Accumulated other comprehensive income	68	—
Accumulated deficit	(64,520)	(111,568)
Total stockholders' equity	346,164	243,964
Total liabilities and stockholders' equity	$ 501,398	$ 295,523

See accompanying notes.

MARTEK BIOSCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

In thousands, except share and per share data	Year ended October 31, 2004	2003	2002
Revenues			
Product sales	$ 170,565	$ 112,298	$ 46,055
Contract manufacturing sales	13,928	2,439	—
Total revenues	184,493	114,737	46,055
Costs and expenses			
Cost of product sales	103,423	66,347	29,794
Cost of contract manufacturing sales	11,570	2,192	—
Research and development	18,596	13,154	12,188
Selling, general and administrative	25,774	16,275	11,804
Other operating expenses	4,000	1,943	406
Restructuring charge	—	(250)	1,266
Acquired in-process research and development	—	—	15,788
Total costs and expenses	163,363	99,661	71,246
Income (loss) from operations	21,130	15,076	(25,191)
Other income, net			
Interest income, net	579	633	598
Other income	193	283	360
Total other income, net	772	916	958
Income (loss) before income tax benefit	21,902	15,992	(24,233)
Income tax benefit	25,146	—	—
Net income (loss)	$ 47,048	$ 15,992	$ (24,233)
Net income (loss) per share			
Basic	$ 1.62	$ 0.63	$ (1.10)
Diluted	$ 1.55	$ 0.58	$ (1.10)
Weighted average common shares outstanding			
Basic	29,033,241	25,510,376	21,982,117
Diluted	30,385,707	27,416,757	21,982,117

See accompanying notes.

MARTEK BIOSCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

In thousands, except share data	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
Balance at October 31, 2001	19,552,316	$ 1,955	$ 148,072	$ 1	$ (103,327)	$ 46,701
Issuance of common stock and warrants in private placement, net of issuance costs	1,177,000	118	21,171	—	—	21,289
Exercise of stock options and warrants	836,047	84	9,977	—	—	10,061
Amortization of deferred compensation	—	—	218	—	—	218
Common stock issued in connection with acquisition of OmegaTech	1,765,728	176	51,766	—	—	51,942
Net loss	—	—	—	—	(24,233)	(24,233)
Other comprehensive loss:						
Unrealized loss on investments	—	—	—	(1)	—	(1)
Comprehensive loss						(24,234)
Balance at October 31, 2002	23,331,091	2,333	231,204	—	(127,560)	105,977
Issuance of common stock, net of issuance costs	2,922,250	292	82,903	—	—	83,195
Common stock issued in connection with acquisition of OmegaTech	358,566	36	14,116	—	—	14,152
Common stock issued in connection with acquisition of FermPro	124,788	12	5,578	—	—	5,590
Exercise of stock options and warrants	1,304,628	131	18,907	—	—	19,038
Amortization of deferred compensation	—	—	20	—	—	20
Net income	—	—	—	—	15,992	15,992
Other comprehensive income (loss)	—	—	—	—	—	—
Comprehensive income						15,992
Balance at October 31, 2003	28,041,323	2,804	352,728	—	(111,568)	243,964
Issuance of common stock, net of issuance costs	176,885	18	11,272	—	—	11,290
Exercise of stock options and warrants	1,272,919	127	20,817	—	—	20,944
Amortization of deferred compensation	—	—	28	—	—	28
Tax benefit of exercise of non-qualified stock options	—	—	22,822	—	—	22,822
Net income	—	—	—	—	47,048	47,048
Other comprehensive income:						
Unrealized gain on exchange rate forward contract	—	—	—	68	—	68
Comprehensive income						47,116
Balance at October 31, 2004	29,491,127	$ 2,949	$ 407,667	$ 68	$ (64,520)	$ 346,164

See accompanying notes.

MARTEK BIOSCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

In thousands	Year ended October 31, 2004	2003	2002
Operating activities			
Net income (loss)	$ 47,048	$ 15,992	$ (24,233)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	8,687	4,480	2,633
Provision for inventory obsolescence	500	339	107
Deferred tax benefit	(25,176)	—	—
Loss on sale of assets and other	169	217	218
Acquired in-process research and development	—	—	15,788
Changes in operating assets and liabilities:			
Accounts receivable	(17,128)	(8,214)	(3,934)
Inventories	(15,525)	(3,047)	(2,074)
Other assets	1,324	(3,332)	(746)
Accounts payable	9,614	8,996	(385)
Accrued liabilities	1,088	4,092	(588)
Unearned revenue and other liabilities	(511)	5,065	(160)
Net cash provided by (used in) operating activities	10,090	24,588	(13,374)
Investing activities			
Sale (purchase) of short-term investments and marketable securities, net	53,842	(65,047)	4,033
Expenditures for property, plant and equipment	(180,409)	(45,219)	(21,108)
Proceeds from sale/leaseback transaction and other	10,895	—	—
Capitalization of intangible and other assets	(9,028)	(1,002)	(1,230)
Cash impact of FermPro and OmegaTech acquisitions, net	(355)	(5,038)	191
Net cash used in investing activities	(125,055)	(116,306)	(18,114)
Financing activities			
Repayments of notes payable and other long-term obligations	(2,748)	(1,010)	(88)
Borrowings under revolving credit facility	85,000	—	—
Proceeds from the exercise of warrants and stock options	20,944	19,038	10,061
Proceeds from the issuance of common stock and warrants, net of issuance costs	11,290	83,195	21,289
Net cash provided by financing activities	114,486	101,223	31,262
Net (decrease) increase in cash and cash equivalents	(479)	9,505	(226)
Cash and cash equivalents, beginning of year	29,924	20,419	20,645
Cash and cash equivalents, end of year	$ 29,445	$ 29,924	$ 20,419
Supplemental cash flow disclosures:			
Common stock issued related to the acquisition of OmegaTech	$ —	$ 14,152	$ 51,942
Common stock issued related to the acquisition of FermPro	$ —	$ 5,590	$ —
Purchase of DSM license through long-term obligation	$ 6,000	$ —	$ —
Interest paid	$ 2,084	$ 80	$ 4
Income taxes paid	$ 30	$ 150	$ —

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

Martek Biosciences Corporation (the "Company" or "Martek"), a Delaware corporation, was founded in 1985. The Company develops, manufactures and sells products primarily derived from microalgae and other microbes. The Company's products include: (1) nutritional oils used in infant formula, nutritional supplements and food fortification ingredients and (2) powerful fluorescent markers for diagnostics and rapid miniaturized screening.

Martek's nutritional oils are comprised of fatty acid components, primarily docosahexaenoic acid, commonly known as DHA, and arachidonic acid, commonly known as ARA. Many researchers believe that these fatty acids may enhance mental and visual development in infants and play a pivotal role in brain function throughout life. Low levels of DHA in adults have also been linked to a variety of health risks, including cardiovascular problems and various neurological and visual disorders. Additional research is underway to assess what impact, if any, supplementation with the Company's DHA will have on these health risks. Martek's fluorescent detection products and technologies can aid researchers in drug discovery and diagnostics.

In April 2002, the Company acquired OmegaTech, Inc. ("OmegaTech"), a low-cost algal DHA producer located in Boulder, Colorado. Subsequent to the acquisition, OmegaTech's name was changed to Martek Biosciences Boulder Corporation ("Martek Boulder"). OmegaTech had been in the fermentable DHA business since 1987 and had accumulated over 100 issued and pending patents protecting its DHA technology.

In September 2003, Martek Biosciences Kingstree Corporation ("Martek Kingstree") was created as a wholly-owned subsidiary of Martek to purchase certain assets and assume certain liabilities of FermPro Manufacturing, LP ("FermPro"), which operated a fermentation facility located in Kingstree, South Carolina. FermPro provided contract fermentation services and had an experienced workforce of over 100 personnel on a site of over 500 acres with extensive fermentation, recovery, laboratory and warehousing capabilities.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation The consolidated financial statements include the accounts of Martek and its wholly-owned subsidiaries, Martek Boulder and Martek Kingstree, (collectively, "the Company") after elimination of all significant intercompany balances and transactions. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included.

Use of Estimates The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the Company's consolidated financial statements and accompanying notes. On an ongoing basis, the Company evaluates its estimates and judgments, which are based on historical and anticipated results and trends and on various other assumptions that the Company believes to be reasonable under the circumstances. By their nature, estimates are subject to an inherent degree of uncertainty and, as such, actual results may differ from the Company's estimates.

Segment Information The Company currently operates in one business segment, the development and commercialization of novel products from microalgae and other microbes. The Company is managed and operated as one business. The entire business is comprehensively managed by a single management team that reports to the Chief Executive Officer. The Company does not operate any material separate lines of business or separate business entities with respect to its products or product candidates. Accordingly, the Company does not accumulate discrete financial information with respect to separate product areas and does not have separately reportable segments as defined by Statement of Financial Accounting Standards ("SFAS") No. 131, "Disclosures about Segments of an Enterprise and Related Information."

Revenue Recognition The Company derives revenue principally from two sources: product sales and contract manufacturing. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable and collectibility is probable. Typical infant formula license contracts include an upfront license fee, a prepayment of product sales and established pricing on future product sales. In accordance with Emerging Issues Task Force No. 00-21 ("EITF No. 00-21"), "Revenue Arrangements with Multiple Deliverables," the consideration from these contracts is allocated based on the relative fair values of the separate elements. Revenue is recognized on product sales when goods are shipped. Cash received as a prepayment on future product purchases is deferred and recognized as revenue when product is shipped. Revenue from product licenses is deferred and recognized on a straight-line basis over the term of the agreement. Royalty income is recorded when earned, based on information provided by the Company's licensees. Royalty income was approximately $2.2 million, $700,000 and $400,000 in fiscal 2004, 2003 and 2002, respectively, and is included with product sales revenue in the consolidated statements of operations.

Contract manufacturing revenue is recognized when goods are shipped to customers and all other conditions for revenue recognition are met. Cash received that is related to future performance under such contracts is deferred and recognized as revenue when earned.

Foreign Currency Transactions Foreign currency transactions are translated into U.S. dollars at prevailing rates. Gains or losses resulting from foreign currency transactions are included in current period income or loss as incurred. All material transactions of the Company are denominated in U.S. dollars with the exception of purchases of ARA from DSM Food Specialties' ("DSM") Capua, Italy plant, which are denominated in euros.

Research and Development Research and development costs are charged to operations as incurred and include internal labor, materials and overhead costs associated with the Company's ongoing research and development activity, in addition to third-party costs for contracted work as well as ongoing clinical trials costs.

Other Operating Expenses Other operating expenses relate primarily to production start-up costs, including materials, training and other such costs, incurred in connection with the expansion of the Company's internal manufacturing operations, costs incurred in connection with qualification of certain third-party manufacturers, and amounts related to the Winchester wastewater treatment matter (see Note 13). All such costs are expensed as incurred.

Deferred Income Taxes Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting bases and the tax bases of assets and liabilities. Deferred tax assets are also recognized for certain tax net operating loss carryforwards. These deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when such amounts are expected to reverse or be utilized. The realization of total deferred tax assets is contingent upon the generation of future taxable income. Valuation allowances are provided to reduce such deferred tax assets to amounts more likely than not to be ultimately realized.

Net Income (Loss) Per Share Basic net income (loss) per share is computed using the weighted average number of shares of common stock outstanding during the period. Diluted net income (loss) per share is computed using the weighted average number of shares of common stock outstanding, giving effect to stock options and warrants using the treasury stock method (see Note 15).

Comprehensive Income (Loss) Comprehensive income (loss) is comprised of net earnings (loss) and other comprehensive income (loss), which includes certain changes in equity that are excluded from net income (loss). The Company includes unrealized holding gains and losses on available-for-sale securities, if any, as well as changes in the market value of exchange rate forward contracts in other comprehensive income (loss) in the Consolidated Statements of Stockholders' Equity.

Cash and Cash Equivalents Cash equivalents consist of highly liquid investments with an original maturity of three months or less.

Short-Term Investments and Marketable Securities The Company has classified all short-term investments and marketable securities as available-for-sale. Unrealized gains and losses on these securities, if any, are reported as accumulated other comprehensive income (loss), which is a separate component of stockholders' equity. Realized gains and losses are included in other income based on the specific identification method.

The Company periodically evaluates whether any declines in the fair value of investments are other than temporary. This evaluation consists of a review of several factors, including, but not limited to: length of time and extent that a security has been in an unrealized loss position; the existence of an event that would impair the issuer's future earnings potential; the near term prospects for recovery of the market value of a security; and the intent and ability of the Company to hold the security until the market value recovers. Declines in value below cost for debt securities where it is considered probable that all contractual terms of the security will be satisfied, the decline is due primarily to changes in interest rates (and not because of increased credit risk), and where the Company intends and has the ability to hold the investment for a period of time sufficient to allow a market recovery, are not assumed to be other than temporary. If management determines that such an impairment exists, the carrying value of the investment will be reduced to the current fair value of the investment and the Company will recognize a charge in the consolidated statements of income equal to the amount of the carrying value reduction.

Fair Value of Financial Instruments The Company considers the recorded cost of its financial assets and liabilities, which consist primarily of cash and cash equivalents, short-term investments and marketable securities, accounts receivable, accounts payable, notes payable and long-term debt, to approximate the fair value of the respective assets and liabilities at October 31, 2004 and 2003.

Trade Receivables Trade receivables are reported in the consolidated balance sheets at outstanding principal less any allowance for doubtful accounts. The Company writes off uncollectible receivables against the allowance for doubtful accounts when the likelihood of collection is remote. The Company may extend credit terms up to 50 days and considers receivables past due if not paid by the due date. The Company performs ongoing credit evaluations of its customers and extends credit without requiring collateral. The Company maintains an allowance for doubtful accounts, which is determined based on historical experience, existing economic conditions and management's expectations of losses. The Company analyzes historical bad debts, customer concentrations, customer credit-worthiness, and current economic trends when evaluating the adequacy of the allowance for doubtful accounts. Losses have historically been within management's expectations. The allowance for doubtful accounts was approximately $100,000 as of October 31, 2004 and 2003.

Concentration of Credit Risk and Significant Customers Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of accounts receivable. Concentrations of credit risk with respect to accounts receivable are present due to the small number of customers comprising the Company's customer base. However, the credit risk is reduced through the Company's efforts to monitor its exposure for credit losses and by maintaining allowances, if necessary. Four customers accounted for approximately 90% of the Company's product sales in fiscal 2004, three customers accounted for approximately 87% of the Company's product sales in fiscal 2003, and two customers accounted for approximately 79% of the Company's product sales in fiscal 2002. At October 31, 2004, four customers accounted for approximately 80% of the Company's outstanding accounts receivable balance and at October 31, 2003, three customers accounted for approximately 75% of the Company's outstanding accounts receivable balance. Included in these amounts, one of the Company's customers, Mead Johnson Nutritionals, accounted for approximately 55%, 57% and 54% of total product sales in fiscal 2004, 2003 and 2002, respectively, and represented 54% and 51% of the Company's outstanding accounts receivable balance at October 31, 2004 and 2003, respectively. The Company's policy is to perform an analysis of the recoverability of its trade accounts receivable at the end of each reporting period and to establish allowances for those accounts considered uncollectible.

Inventories Inventories are stated at the lower of cost or market and include appropriate elements of material, labor and indirect costs. Inventories are valued using a weighted average approach that approximates the first-in, first-out method. The Company analyzes both historical and projected sales volumes and, when needed, reserves for inventory that is either obsolete, slow moving or impaired.

Property, Plant and Equipment Property, plant and equipment, including leasehold improvements, are stated at cost and depreciated or amortized when placed into service using the straight-line method, based on useful lives as follows:

Asset Description	Useful Life (years)
Building	15 - 30
Fermentation equipment	10 – 20
Oil processing equipment	10 – 20
Other machinery and equipment	5 – 10
Furniture and fixtures	5 – 7
Computer hardware and software	3 – 7

Leasehold improvements are amortized over the shorter of the useful life of the asset or the lease term. Costs for capital assets not yet placed into service, including those related to expansion of the Company's Kingstree, South Carolina fermentation facility, have been capitalized as construction in progress and will be depreciated in accordance with the above guidelines once placed into service. Costs for repairs and maintenance are expensed as incurred.

Goodwill and Other Intangible Assets The Company recorded goodwill and purchased intangible assets in its acquisition of OmegaTech in April, 2002 and goodwill in its acquisition of FermPro in September 2003 (see Notes 3 and 4). The goodwill acquired in the OmegaTech and FermPro acquisitions is subject to the provisions of SFAS No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142"), and, accordingly, is not being amortized. In accordance with SFAS 142, goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired. Furthermore, SFAS 142 requires purchased intangible assets other than goodwill to be amortized over their useful lives unless these lives are determined to be indefinite. Purchased intangible assets and patents are carried at cost less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets, generally ten to seventeen years (see Note 9).

Impairment of Long-Lived Assets In accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" ("SFAS 144"), the Company reviews long-lived assets and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. Recoverability measurement and estimating of undiscounted cash flows is done at the lowest possible level for which there are identifiable assets. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. To date, the Company has not recognized any impairment losses.

Stock-Based Compensation In October 1995, the Financial Accounting Standards Board ("FASB") issued SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"). SFAS 123 allows companies to account for employee stock-based compensation under the fair value-based method or using the intrinsic value method provided by Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and related interpretations, but requires pro forma disclosure in the footnotes to the financial statements as if the measurement provisions of SFAS 123 had been adopted. In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure" ("SFAS 148"). SFAS 148 amends SFAS 123 to provide alternative methods of transition for a voluntary change to the fair value-based method of accounting for stock-based compensation. In addition, SFAS 148 amends the disclosure requirements of SFAS 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for employee stock-based compensation and the effect of the method used on reporting results.

The Company has elected to continue accounting for its employee stock-based compensation in accordance with the provisions of APB 25, and to present the pro forma disclosures required by SFAS 123, as amended by SFAS 148. No stock-based employee compensation cost for stock options is reflected in net income, as all options granted under the plans had an exercise price equal to the market value of the underlying common stock on the date of grant. Stock-based compensation for non-employees is accounted for using the fair value-based method in accordance with SFAS 123. The Company has adopted the disclosures outlined in SFAS 123, as amended by SFAS 148.

The following table illustrates the effect on net income (loss) and earnings (loss) per share as if the Company had applied the fair value recognition provisions of SFAS 123, as amended by SFAS 148, to stock-based employee compensation (in thousands):

	Year ended October 31,		
	2004	2003	2002
Net income (loss), as reported	$ 47,048	$ 15,992	$(24,233)
Deduct: Total stock-based employee compensation expense determined under fair value-based methods for all awards	(17,920)	(15,815)	(15,967)
Pro forma net income (loss)	$ 29,128	$ 177	$ (40,200)
Net income (loss) per share:			
Basic – as reported	$ 1.62	$ 0.63	$ (1.10)
Basic – pro forma	$ 1.00	$ 0.01	$ (1.83)
Diluted – as reported	$ 1.55	$ 0.58	$ (1.10)
Diluted – pro forma	$ 0.96	$ 0.01	$ (1.83)

Reclassification Certain amounts in the prior years' financial statements have been reclassified to conform to the current year presentation.

Recently Issued Accounting Pronouncements In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity" ("SFAS 150"). This statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity in its balance sheets. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances) because that financial instrument embodies an obligation of the issuer. This statement is effective for financial instruments entered into or modified after May 31, 2003, and is otherwise effective at the beginning of the first interim period beginning after June 15, 2003, except for mandatory redeemable financial instruments of nonpublic entities. The FASB has deferred implementation of SFAS 150 indefinitely for certain noncontrolling interests, the provisions of which are currently not applicable to the Company. The adoption of SFAS 150 had no material impact on the Company's consolidated financial statements.

In March 2004, the Emerging Issues Task Force ("EITF") reached a consensus on Issue No. 03-01, "The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments" ("EITF 03-1"). EITF 03-1 provides guidance on other-than-temporary impairment models for marketable debt and equity securities accounted for under SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities" ("SFAS 115"), and non-marketable equity securities accounted for under the cost method. The EITF developed a basic three-step model to evaluate whether an investment is other-than-temporarily impaired. On September 30, 2004, the FASB issued FSP 03-1-1, "Effective Date of Paragraphs 10-20 of EITF Issue 03-1, 'The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments'," delaying the effective date for the recognition and measurement guidance of EITF 03-1, as contained in paragraphs 10-20, until certain implementation issues are addressed and a final FSP providing implementation guidance is issued. The disclosure requirements of the consensus remain in effect. The Company does not expect the adoption of EITF 03-1's three-step model to have a material effect on its results of operations and financial condition. Quantitative and qualitative disclosures for investments accounted for under SFAS 115 are effective for the Company's fiscal year ended October 31, 2004.

In October 2004, the FASB concluded that SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R"), which would require all companies to measure compensation cost for all share-based payments (including employee stock options) at fair value, would be effective for interim or annual periods beginning after June 15, 2005. SFAS 123R provides two tentative adoption methods. The first method is a modified prospective transition method whereby a company would recognize share-based employee costs from the beginning of the fiscal period in which the recognition provisions are first applied as if the fair-value-based accounting method had been used to account for all employee awards granted, modified, or settled after the effective date and to any awards that were not fully vested as of the effective date. Measurement and attribution of compensation cost for awards that are unvested as of the effective date of SFAS 123R would be based on the same estimate of the grant-date fair value and the same attribution method used previously under SFAS 123. The second adoption method is a modified retrospective transition method whereby a company would recognize employee compensation cost for periods presented prior to the adoption of SFAS 123R in accordance with the original provisions of SFAS 123; that is, an entity would recognize employee compensation costs in the amounts reported in the pro forma disclosures provided in accordance with SFAS 123. A company would not be permitted to make any changes to those amounts upon adoption of SFAS 123R unless those changes represent a correction of an error. For periods after the date of adoption of SFAS 123R, the modified prospective transition method described above would be applied. The Company currently expects to adopt SFAS 123R in the quarter ended October 31, 2005, using the modified prospective method, although the Company continues to review its options for adoption under this new pronouncement. After giving effect to the accelerated vesting of certain stock options in December 2004 and January 2005, described in Note 16, and based upon the Company's projection of unvested stock options at the implementation date from stock options granted and outstanding as of November 30, 2004, the Company expects the adoption to result in the recognition of additional compensation expense of approximately $1.3 million in the fourth quarter of fiscal 2005 and approximately $3.3 million during fiscal 2006.

In December 2004, the FASB issued SFAS No. 151, "Inventory Costs" ("SFAS 151"). SFAS 151 requires abnormal amounts of inventory costs related to idle facility, freight handling and wasted material expenses to be recognized as current period charges. Additionally, SFAS 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The standard is

effective for fiscal years beginning after June 15, 2005. The Company believes the adoption of SFAS 151 will not have a material impact on its consolidated financial statements.

3. ACQUISITION OF OMEGATECH, INC.

In April 2002, the Company completed its acquisition of OmegaTech, Inc. ("OmegaTech"), a DHA producer located in Boulder, Colorado. Upon the completion of the acquisition, OmegaTech became a wholly-owned subsidiary of the Company and its name was changed to Martek Biosciences Boulder Corporation.

In connection with the purchase, the Company issued 1,765,728 shares of the Company's common stock in exchange for all of the outstanding capital stock of OmegaTech. The aggregate purchase price for OmegaTech was approximately $54.1 million, of which approximately $49.3 million was related to the value of 1,765,728 shares of the Company's common stock ($1.5 million of which related to OmegaTech transaction costs paid by the Company), approximately $2.1 million was for the Company's acquisition-related fees and expenses, and approximately $2.7 million was related to the fair value of 154,589 vested OmegaTech stock options that were assumed as part of the transaction. The purchase agreement also provided for additional stock consideration of up to $40 million, subject to certain pricing adjustments, if four milestones are met. Two of these milestones relate to operating results (sales and gross profit margin objectives by October 2003 and October 2004) and two relate to regulatory and labeling approvals in the U.S. and Europe. In June 2003, the Commission of the European Community granted approval of the use of the OmegaTech DHA oil in certain foods in Europe, meeting the conditions of one of the regulatory milestones. Accordingly, approximately 358,566 shares of Martek common stock, valued at approximately $14.2 million, were issued during fiscal 2003 upon the achievement of this milestone. The payment of this additional consideration was recorded as goodwill.

As of October 31, 2004, the Company does not believe the second regulatory milestone has been achieved. In addition, the Company does not believe that either financial milestone related to sales and gross profit margin for the periods ended October 31, 2004 and 2003 have been achieved. The representative of the former OmegaTech stockholders has advised us that he believes that the common stock issuable with respect to the second regulatory milestone as well as the financial milestone related to the period ended October 31, 2003 should be issued. Martek disagrees with that conclusion. The parties are currently involved in litigation to resolve this dispute with respect to the second regulatory milestone. The total Martek common stock that may be issued relating to the three remaining milestones is subject to a formula that is based on the average market price of the Company's stock on the dates that the individual milestones are determined to have been achieved, up to a maximum of 1.9 million shares. Any contingent consideration paid related to these milestones would be recorded as goodwill.

The results of operations of OmegaTech have been included in the accompanying consolidated statements of operations from the date of the acquisition. The purchase price has been allocated to the assets and liabilities of OmegaTech based on their relative fair values.

As part of the purchase price allocation, we allocated approximately $15.8 million of the purchase price to in-process research and development projects. This allocation represented the estimated fair value based on risk-adjusted cash flows pertaining to the incomplete research and development related primarily to two projects. At the date of acquisition, the development of these projects had not yet reached technological feasibility and the research and development in progress had no alternative future uses. Accordingly, the acquired in-process research and development was charged to expense as of the date of the merger.

4. ACQUISITION OF FERMPRO MANUFACTURING, LP

In September 2003, Martek Biosciences Kingstree Corporation ("Martek Kingstree") was created as a wholly-owned subsidiary of Martek to purchase certain assets and assume certain liabilities of FermPro Manufacturing, LP ("FermPro"), which operated a fermentation facility located in Kingstree, South Carolina. The addition of the FermPro facility enabled the Company to add to its production capabilities using the existing facility, coupled with the extensive construction build-out that is nearing completion.

The purchase price of the assets acquired and liabilities assumed included a payment of approximately $12.2 million, comprised of $5.4 million in cash, 124,788 shares of the Company's common stock valued at approximately $5.6 million, and approximately $1.2 million in acquisition-related fees and expenses. In addition, a $10 million note was assumed as part of the transaction. The common stock issued was valued based on the average closing price of Martek's common stock for the period beginning two trading days prior to, and ending two trading days after, the announcement of the acquisition.

The results of operations of FermPro have been included in the accompanying consolidated statements of operations from the date of the acquisition. The purchase price has been allocated to the assets and liabilities of FermPro based on their relative fair values.

As part of the purchase price allocation, no material intangible assets were identified. The excess of the purchase price over the fair value of tangible and identifiable intangible net assets of approximately $11.6 million has been allocated to goodwill.

The aggregate purchase price of approximately $12.2 million, including acquisition costs, was allocated as follows (in thousands):

Accounts receivable and inventory	$ 5,625
Property, plant and equipment	9,477
Goodwill	11,578
Other assets	2,183
Accounts payable and accrued liabilities	(3,123)
Deferred revenue	(2,585)
Notes payable	(10,939)
Total purchase price	$ 12, 216

The following unaudited pro forma operating results combine the results of the Company for the years ended October 31, 2003 and 2002 with the results of the former FermPro entity for the years ended October 31, 2003 and 2002, assuming the acquisition had been consummated at the beginning of each period (in thousands, except per share data).

	For the year ended October 31,	
	2003	2002
Revenues	$ 124,000	$ 58,000
Net income (loss)	$ 16,000	$ (24,000)
Net income (loss) per share, basic	$ 0.64	$ (1.07)
Net income (loss) per share, diluted	$ 0.59	$ (1.07)
Weighted average shares outstanding, basic	25,616	22,107
Weighted average shares outstanding, diluted	27,658	22,107

5. DSM SUPPLY AND LICENSE AGREEMENT

In April 2004, the Company entered into a new agreement with DSM Food Specialties B.V. ("DSM") extending the existing relationship between the two companies involving the production and supply of arachidonic acid ("ARA"), one of the Company's nutritional oils that it sells to its infant formula licensees. Among other things, this agreement provides for the sale to the Company by DSM of a license related to certain technologies associated with the manufacture of ARA. This sale involved a license fee totaling $10 million, $4 million of which was paid upon execution of the agreement, $4 million of which was paid on November 2, 2004, and the remaining $2 million of which will be paid by the Company on November 2, 2005. The license fee is being amortized over the 15-year term of the agreement using the straight-line method and the remaining obligation as of October 31, 2004 is recorded as other long-term obligations in the consolidated balance sheets. This agreement also provides for the granting to DSM by the Company an exclusive license under certain of the Company's patents and intellectual property rights for the production by DSM of products containing ARA that are not for human consumption, including animal feed products. This agreement also provides for the guarantee by Martek of DSM's recovery of certain expansion costs incurred by them. This guarantee, which currently relates to DSM's recent Belvidere expansion, will decline in value as Martek purchases ARA from DSM in the future. As of October 31, 2004, the value of the Company's current guarantee to DSM is approximately $3.1 million.

6. SHORT-TERM INVESTMENTS AND MARKETABLE SECURITIES

The Company has classified all short-term investments and marketable securities as available-for-sale. Available-for-sale securities are carried at fair value, based on specific identification, and have average maturities of less than one year. Unrealized gains and losses on these securities, if any, are reported as accumulated other comprehensive income (loss), which is a separate component of stockholders' equity. The Company's available-for-sale securities consist of U.S. government obligations, U.S. agency obligations and taxable municipal auction rate securities, and totaled $13.2 million and $67.0 million as of October 31, 2004 and October 31, 2003, respectively. There were no unrealized holding gains or losses on these available-for-sale securities as of October 31, 2004 and October 31, 2003. There were no realized gains or losses during the years ended October 31, 2004, 2003 and 2002. At October 31, 2004 and 2003, the estimated fair value of these securities approximated cost.

7. INVENTORIES

Inventories consist of the following (in thousands):

	October 31,	
	2004	**2003**
Finished goods	$ 10,827	$ 5,168
Work in process	18,171	7,801
Raw materials	2,381	2,074
Total inventory	31,379	15,043
Less: inventory reserve	(1,000)	(500)
Inventories, net	$ 30,379	$14,543

8. PROPERTY, PLANT AND EQUIPMENT

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

	October 31,	
	2004	**2003**
Land	$ 712	$ 683
Building and improvements	29,421	9,817
Machinery and equipment	133,886	56,523
Furniture and fixtures	2,772	2,442
Computer hardware and software	5,173	285
Construction in progress	104,053	33,533
Property, plant and equipment	276,017	103,283
Less: accumulated depreciation and amortization	(20,587)	(14,969)
Property, plant and equipment, net	$ 255,430	$ 88,314

Depreciation and amortization expense on property, plant and equipment totaled approximately $6.8 million, $3.4 million and $1.9 million for the years ended October 31, 2004, 2003 and 2002, respectively.

9. GOODWILL AND OTHER INTANGIBLE ASSETS

Intangible assets and related accumulated amortization consist of the following (in thousands):

Intangible Asset	October 31, 2004 Gross	October 31, 2004 Accumulated Amortization	October 31, 2004 Net	October 31, 2003 Gross	October 31, 2003 Accumulated Amortization	October 31, 2003 Net
Trademarks	$ 2,023	$ (284)	$ 1,739	$ 2,030	$ (170)	$ 1,860
Patents	8,409	(1,226)	7,183	6,013	(672)	5,341
Core technology	1,708	(228)	1,480	1,708	(114)	1,594
Current products	10,676	(1,805)	8,871	10,676	(1,093)	9,583
Licenses	11,091	(370)	10,721	—	—	—
Goodwill	48,175	—	48,175	50,274	—	50,274
	$ 82,082	$ (3,913)	$ 78,169	$ 70,701	$ (2,049)	$ 68,652

Core technology and current products relate to the value assigned to the products purchased as part of the OmegaTech acquisition. The Company recorded amortization expense on intangible assets of approximately $1.9 million, $1.1 million and $800,000 during the years ended October 31, 2004, 2003 and 2002, respectively. Based on the current amount of intangible assets subject to amortization, the estimated amortization expense for each of the succeeding five years will be approximately $2.4 million.

During the year ended October 31, 2004, there was a net reduction to goodwill of approximately $2.1 million, primarily as a result of the Company's recognition of a deferred tax asset, a portion of which related to certain basis differences and the net operating loss carryforwards resulting from the Company's acquisition of OmegaTech (see Note 17).

10. ACCRUED LIABILITIES

Accrued liabilities consist of the following (in thousands):

	October 31, 2004	October 31, 2003
Salaries and employee benefits	$ 6,105	$ 4,668
Inventory receipt obligations	2,362	1,583
Other	4,573	5,769
	$ 13,040	$ 12,020

11. NOTES PAYABLE AND LONG-TERM DEBT

In January 2004, the Company entered into an $85 million secured revolving line of credit. In May 2004, the Company entered into a $100 million secured revolving credit facility which amended and expanded the $85 million credit facility established in January 2004. The revolving credit facility is collateralized by accounts receivable and inventory and expires in February 2007. The weighted average interest rate on the credit facility was approximately 3.7% for the year ended October 31, 2004 and is based on LIBOR and the Company's current leverage ratio. Among other things, the credit facility agreement contains restrictions on future debt, the payment of dividends and the further encumbrance of assets. In addition, the credit facility requires that the Company comply with specified financial ratios and tests, including minimum liquidity, minimum coverage ratios and maximum leverage ratios. As of October 31, 2004, the Company is in compliance with all of these debt covenants and has borrowed $85 million under the revolving credit facility. All borrowings are due at maturity. This credit facility replaced the $10 million secured working capital line of credit established in February 2003. The Company did not have any borrowings under the previous working capital line of credit.

In connection with the purchase of certain assets and the assumption of certain liabilities of FermPro (see Note 4), the Company assumed a $10 million secured note. The note was amended in January 2004 and is now an unsecured obligation of the Company with a maturity date of December 31, 2008. The note has a stated interest rate of 5% and principal is amortized over a 20-year period with the balance due at maturity. Also as part of the FermPro acquisition, the Company assumed a long-term note of approximately $400,000, due in 2023 with a 7% stated interest rate.

The annual maturities of the Company's notes payable at October 31, 2004 are summarized as follows (in thousands):

Fiscal Year	
2005	$ 609
2006	512
2007	513
2008	513
2009	7,598
Subsequent to 2009	332
	$ 10,077

During the years ended October 31, 2004 and 2003, the Company incurred interest on borrowings of approximately $2.1 million and $100,000, respectively, and recorded amortization of related debt fees of approximately $200,000 in fiscal 2004. Substantially all of the interest incurred and debt fee amortization recorded was capitalized as part of the cost of the Company's construction at the Kingstree, South Carolina manufacturing facility. There was no interest expense on long-term debt in fiscal 2002.

The carrying amounts of notes payable at October 31, 2004 and 2003 and the carrying amount of the line of credit at October 31, 2004 approximate their fair values.

12. RESTRUCTURING CHARGE

In July 2002, the Company announced a restructuring of the food and beverage sales and marketing efforts at Martek Boulder. As part of this restructuring, eight employees and five consultants associated with food and beverage sales were terminated. A one-time operating charge of approximately $1.3 million was recorded in fiscal 2002 to account for severance and other costs associated with this restructuring. Employee separation benefits of approximately $766,000 under the restructuring plan include severance, medical, and other benefits. Other costs of the restructuring, totaling approximately $500,000, included consultant termination costs, idle office space and professional fees. During the first quarter of fiscal 2003, the Company reduced the liability for employee separation benefits related to severance costs due to changes in previous estimates. Additionally, the Company increased the restructuring liability related to other charges such as consultant termination fees and costs related to idle space. The net result of the related adjustments to the restructuring liability was a reversal of $250,000 in the fiscal quarter ended January 31, 2003. As of October 31, 2004 and 2003, the Company's liability for restructuring costs had a balance of $77,000 and $153,000, respectively. The following table summarizes the activity related to the liability for restructuring costs (in thousands):

	Employee Separation Benefits	Other Charges	Total
Initial charge in the third quarter of fiscal 2002	$ 766	$ 500	$ 1,266
Cash payments	(242)	(187)	(429)
Balance at October 31, 2002	524	313	837
Cash payments	(260)	(174)	(434)
Adjustments	(264)	14	(250)
Balance at October 31, 2003	—	153	153
Cash payments	—	(76)	(76)
Balance at October 31, 2004	$ —	$ 77	$ 77

13. COMMITMENTS AND CONTINGENCIES

Leases The Company leases its Columbia, Maryland premises under an operating lease. In May 2004, the Company amended its existing lease for laboratory and administrative space at the Columbia, Maryland office to extend the term of the lease as well as expand the Company's leased space by approximately 15%. The term of the lease has been extended through January 2011. The terms of the lease include annual rent escalations of 2.5%.

The Company also leases its premises in Boulder, Colorado under an operating lease that expires in May 2008. The terms of the lease include annual rent escalations of 3.5%. Additionally, the Company leases certain property classified as operating leases at its Winchester, Kentucky manufacturing facility and its Boulder offices. Rent expense was approximately $1 million, $900,000 and $700,000 for the years ended October 31, 2004, 2003 and 2002, respectively. The Company received sublease income of approximately $100,000, $300,000 and $400,000 for the years ended October 31, 2004, 2003 and 2002, respectively, for office and lab space that it had previously subleased in Columbia, Maryland.

In October 2004, the Company entered an operating lease for equipment at its Kingstree facility as part of a sale/leaseback transaction. The equipment subject to lease was sold at its cost basis and fair value of $10.8 million and simultaneously leased back to the Company. The lease expires

in October 2009 and contains the same restrictions as the Company's revolving credit facility. We are contingently liable for a residual value guarantee of approximately $1.7 million under this agreement.

Future minimum lease payments under operating leases at October 31, 2004 are as follows (in thousands):

Fiscal Year	
2005	$ 2,726
2006	2,693
2007	2,725
2008	2,680
2009	2,607
After 2009	884
	$ 14,315

Scientific Research Collaborations The Company has entered into various collaborative research and license agreements for its non-nutritional algal technology. Under these agreements, the Company is required to fund research or to collaborate on the development of potential products. The Company currently has no commitments to fund future development activities. Certain of these agreements also commit the Company to pay royalties upon the sale of certain products resulting from such collaborations. For the year ended October 31, 2003, Martek incurred approximately $121,000, in royalties under such agreements pertaining to the Company's fluorescent detection products. No such expenses were incurred in fiscal 2004.

Royalties In connection with the purchase of OmegaTech, the Company assumed an obligation to pay a minimum of $7 million over the next eight years associated with an agreement with a third party relating to human and animal applications for OmegaTech's DHA. In December 2002, the Company signed an amendment to this agreement under which the Company paid $500,000 and signed a promissory note for approximately $3.3 million in exchange for the discharge of all future obligations under the agreement. The first payment under the note of $1 million was paid in August 2003, and the remainder of $2.3 million was recorded as a note payable at October 31, 2003 and subsequently paid in December 2003.

Purchase Commitments The Company has entered into an agreement to purchase a minimum quantity of certain material used in DHA production from a third-party manufacturer. The commitment expires on June 30, 2006. As of October 31, 2004, the Company's remaining obligation was approximately $4.1 million. The Company has the option to extend the contract for annual periods with minimum purchase requirements.

Kentucky Wastewater Matter On March 12, 2003, an explosion occurred at a public wastewater treatment works in Winchester, Kentucky, resulting in property damage. The Company has entered into active discussions relating to the cause of and determination of responsibility for the property damage with the Winchester Municipal Utilities Commission and its insurer. The Company learned in March 2004 that the federal Environmental Protection Agency, utilizing personnel from its Criminal Investigation Division, had asked questions of current and former employees relating to the explosion at the wastewater treatment plant. Current and former employees have testified before a federal grand jury that is investigating the matter. As of October 31, 2004, the Company has recorded a liability totaling approximately $1.0 million as an estimate of certain future costs that might be incurred as a result of this incident. While the Company cannot be certain of the outcome, the Company believes that the outcome will not have a material adverse impact on its financial condition or results of operations.

Other The Company is involved in various other legal actions primarily concerning its intellectual property. Management believes that these actions, either individually or in the aggregate, will not have a material adverse effect on the Company's results of operations or financial condition. From time to time, Martek may also be a party to litigation or administrative proceedings relating to claims arising from its operations in the normal course of business. Management believes that the ultimate resolution of any such litigation or administrative proceedings against the Company is unlikely, either individually or in the aggregate, to have a material adverse effect on the Company's financial condition or results of operations.

14. LICENSE AGREEMENTS

The Company has licensed certain technologies and recognized license fee revenue under various agreements. License fees are recorded as unearned revenue and amortized on a straight-line basis over the term of the agreement. During fiscal 2004, the Company signed three new license agreements relating to the use of its oils in infant formula and recorded license fees and product prepayments of approximately $400,000. There were approximately $5.5 million in license fees and prepayments recorded in fiscal 2003. The Company recognized approximately $400,000, $200,000 and $200,000 as license revenue for the years ended October 31, 2004, 2003 and 2002, respectively. The balance of these license fees and prepaid product purchases remaining in unearned revenue was approximately $11.2 million and $11.8 million at October 31, 2004 and 2003, respectively.

15. NET INCOME (LOSS) PER SHARE

Basic Earnings Per Share is computed using the weighted average number of common shares outstanding. Diluted Earnings Per Share is computed using the weighted average number of common shares outstanding, giving effect to stock options and warrants using the treasury stock method.

The following table presents the calculation of basic and diluted net income (loss) per share (in thousands, except per share amounts):

	Year ended October 31,		
	2004	2003	2002
Net income (loss)	$ 47,048	$ 15,992	$ (24,233)
Weighted average shares outstanding, basic	29,033	25,510	21,982
Effect of dilutive potential common shares:			
Employee stock options	1,315	1,821	—
Warrants	38	86	—
Total dilutive potential common shares	1,353	1,907	—
Weighted average shares outstanding, diluted	30,386	27,417	21,982
Net income (loss) per share, basic	$ 1.62	$ 0.63	$ (1.10)
Net income (loss) per share, diluted	$ 1.55	$ 0.58	$ (1.10)

Employee stock options to purchase approximately 400,000, 47,000 and 4.2 million shares were outstanding but were not included in the computation of diluted net income per share for the years ended October 31, 2004, 2003 and 2002, respectively because the effects would have been antidilutive.

16. STOCKHOLDERS' EQUITY

Private Placement of Common Stock In December 2001, the Company sold 1,177,000 shares of its common stock in a private placement resulting in net proceeds to the Company of approximately $21.3 million. The stock was issued at a price of $19.25 per share.

Issuance of Common Stock In April 2003, the Company completed a follow-on issuance of its common stock in which 2,922,250 shares were issued at a price of $30.25 per share. Net proceeds to the Company, after deducting underwriters' fees and expenses, amounted to approximately $83.2 million.

In February 2004, the Company completed an underwritten issuance of 176,885 shares of common stock at a price of $65.59 per share pursuant to a shelf registration. Net proceeds to the Company, after deducting underwriters' fees and expenses, amounted to approximately $11.3 million.

At October 31, 2004, the Company had warrants outstanding to purchase up to 31,496 shares of common stock. These warrants had an exercise price of $19.05 per share and a remaining contractual life of 1.3 years at October 31, 2004.

Stock Option Plan Options to purchase common stock under the Company's 1997 Stock Option Plan, 2002 Stock Incentive Plan, 2003 New Employee Stock Option Plan and 2004 Stock Incentive Plan, collectively referred to as the "Option Plans," are granted at prices as determined by the Compensation Committee, but shall not be less than the fair market value of the Company's common stock on the date of grant. Stock options granted include both qualified and non-qualified options and vest over a period of up to five years. The Company's Compensation Committee determines the exercise dates and term of options (up to a maximum of ten years from the date of grant).

As result of the Company's purchase of OmegaTech, the Company assumed 154,589 options from the OmegaTech, Inc. 1996 Stock Option Plan ("OmegaTech Plan"). No new options may be issued under this plan as of the date of the purchase. Under the OmegaTech Plan, exercise prices were determined by the Compensation Committee, but at an exercise price not less than the fair market value of OmegaTech's common stock on the date of grant. Stock options granted include both qualified and non-qualified options and were all 100% vested as of the purchase date. The 2003 New Employee Stock Option Plan ("2003 Plan") was adopted in conjunction with the acquisition of FermPro.

Details of shares under option were as follows (shares in thousands):

	Number of Shares	Weighted Average Price/Share
Options outstanding at October 31, 2001	3,436	$ 14.17
Options exercisable at October 31, 2001	*1,907*	*$ 14.63*
Granted	1,554	$ 25.99
Exercised	(500)	$ 12.86
Canceled	(332)	$ 25.14
Options outstanding at October 31, 2002	4,158	$ 17.82
Options exercisable at October 31, 2002	*2,603*	*$ 15.74*
Granted	1,112	$ 33.85
Exercised	(977)	$ 13.68
Canceled	(101)	$ 28.34
Options outstanding at October 31, 2003	4,192	$ 22.68
Options exercisable at October 31, 2003	*2,412*	*$ 18.50*
Granted	1,067	$ 59.60
Exercised	(1,188)	$ 16.39
Canceled	(71)	$ 36.39
Options outstanding at October 31, 2004	4,000	$ 34.11
Options exercisable at October 31, 2004	*2,088*	*$ 26.53*

The Company did not issue any options to non-employees during the years ended October 31, 2004 and 2003. The Company issued 9,000 options to non-employees during the year ended October 31, 2002. All of these options were vested as of January 2003. These options had vesting periods of between 0 to 24 months. The fair value of these options was recorded as deferred compensation and amortized over the performance period, which was primarily 12 months.

At October 31, 2004, approximately 400,000 shares of common stock were available for future grants under the Option Plans. The weighted average contractual life for all options outstanding under the Option Plans at October 31, 2004 was 7.6 years.

Detailed information on the options outstanding on October 31, 2004 by price range is set forth as follows:

	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
Range of Exercise Prices	**Options Outstanding**	**Weighted Average Remaining Contractual Life (years)**	**Weighted Average Exercise Price**	**Options Exercisable**	**Weighted Average Exercise Price**
$ 6.25 – $ 9.37	91,030	4.4	$ 7.16	84,120	$ 7.09
$ 9.38 – $14.07	326,370	4.7	$ 12.16	301,550	$ 12.17
$14.08 – $21.12	772,504	6.5	$ 16.40	522,444	$ 15.98
$21.13 – $31.69	1,310,559	7.6	$ 27.44	778,811	$ 27.86
$31.70 – $47.55	121,140	4.3	$ 34.44	80,840	$ 33.33
$47.56 – $68.08	1,377,920	9.3	$ 57.35	320,654	$ 57.39
	3,999,523	7.6	$ 34.11	2,088,419	$ 26.53

Directors' Stock Option Plan In 1994, the Company established a Directors' Stock Option Plan ("Directors' Plan"). The Directors' Plan provided for the award of stock options to non-employee directors. At October 31, 2004, 49,500 options were outstanding and no additional options were available for future grant under the Directors' Plan. The weighted average remaining contractual life for all options outstanding under the Directors' Plan at October 31, 2004 was 2.4 years. No awards have been made under the Director's Plan since 1998. During 2004, 2003 and 2002, Directors of the Company received option grants under the Company's Option Plans.

Pro Forma Disclosure The weighted average fair market values of the options at the date of grant for options granted during the years ended October 31, 2004, 2003 and 2002 were $39.21, $37.59 and $18.74, respectively. The fair market value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions for the respective periods:

	Year ended October 31,		
	2004	**2003**	**2002**
Expected volatility	78.9%	71.2%	68.2%
Risk-free interest rate	3.9%	3.5%	4.5%
Expected average life of options	5 years	7 years	7 years
Expected dividend yield	0%	0%	0%

Stockholder Rights Plan In January 1996, the Board of Directors adopted a Stockholder Rights Plan ("Rights Plan") in which preferred stock purchase rights ("Rights") have been granted as a dividend at the rate of one Right for each share of the Company's common stock held of record at the close of business on February 7, 1996. Each share issued after February 7, 1996 also is accompanied by a Right. Each Right provides the holder the opportunity to purchase 1/1000th of a share of Series A Junior Participating Preferred Stock under certain circumstances at a price of $150 per share of such preferred stock. All rights expire on February 7, 2006.

At the time of adoption of the Rights Plan, the Rights were neither exercisable nor traded separately from the common stock. The Rights will be exercisable only if a person or group in the future becomes the beneficial owner of 20% or more of the common stock or announces a tender or exchange offer which would result in its ownership of 20% or more of the common stock. Ten days after a public announcement that a person or group has become the beneficial owner of 20% or more of the common stock, each holder of a Right, other than the acquiring person, would be entitled to purchase $300 worth of the common stock of the Company for each Right at the exercise price of $150 per Right, which would effectively enable such Right-holders to purchase the common stock at one-half of the then-current price.

If the Company is acquired in a merger, or 50% or more of the Company's assets are sold in one or more related transactions, each Right would entitle the holder thereof to purchase $300 worth of common stock of the acquiring company at the exercise price of $150 per Right, which would effectively enable such Right-holders to purchase the acquiring company's common stock at one-half of the then-current market price.

At any time after a person or group of persons becomes the beneficial owner of 20% or more of the common stock, the Board of Directors, on behalf of all stockholders, may exchange one share of common stock for each Right, other than Rights held by the acquiring person.

The Board of Directors may authorize the redemption of the Rights, at a redemption price of $.001 per Right, at any time until ten days (as such period may be extended or shortened by the Board) following the public announcement that a person or group of persons has acquired beneficial ownership of 20% or more of the outstanding common stock.

Accelerated Vesting of Stock Options In December 2004 and January 2005, the Company modified the terms of all outstanding and unvested stock options whose exercises prices were greater than Martek's closing stock price on the modification dates. The modifications served to immediately vest approximately 1.1 million unvested stock options. Under the accounting guidance of APB 25, the accelerated vesting did not result in any compensation to be recognized as these unvested stock options had no intrinsic value. The acceleration, however, will enable the Company to avoid recording approximately $28 million of future compensation expense that would have been required to be recognized under the recently issued SFAS 123R, which the Company will implement beginning in the fourth quarter of fiscal 2005.

17. INCOME TAXES

The difference between the tax provision and the amount that would be computed by applying the statutory Federal income tax rate to income before taxes is attributable to the following (in thousands):

	Year ended October 31,		
	2004	2003	2002
Federal income tax expense (benefit) at 35% in 2004 and 34% in 2003 and 2002	$ 7,656	$ 5,438	$ (8,239)
Acquired in-process research and development	—	—	5,088
State taxes	791	400	(428)
Change in valuation allowance	(33,593)	(5,838)	3,579
Total benefit	$ (25,146)	$ —	$ —

As of October 31, 2004, Martek, for the first time in its history, generated three years of cumulative operating profits. As a result of this positive earnings trend and projected operating results over the next five years, the Company reversed approximately $51 million of its deferred tax asset valuation allowance, having now determined that it is more likely than not that this portion of the deferred tax asset will be realized. This reversal resulted in the recognition of an income tax benefit totaling $25.2 million, a direct increase to stockholders' equity of approximately $22.8 million due to historical non-qualified stock option exercises and a decrease to goodwill of approximately $2.6 million due to certain basis differences and net operating loss carryforwards resulting from the Company's acquisition of OmegaTech. Of the total income tax benefit recognized, approximately $23.3 million relates to a Federal deferred tax benefit with the remainder representing the state deferred tax benefit.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's net deferred income taxes are as follows (in thousands):

	October 31,	
	2004	2003
Deferred tax assets:		
Accruals and reserves	$ 1,342	$ 964
Patent expenses	1,791	546
Net operating loss carryforwards	75,061	67,392
Deferred revenue	3,643	3,699
Other	257	357
Total assets	82,094	72,958
Deferred tax liabilities:		
Property, plant and equipment	(3,522)	(1,217)
Identified intangibles	(5,389)	(5,960)
Other	(316)	—
Total liabilities	(9,227)	(7,177)
Total deferred tax asset	72,867	65,781
Valuation allowance	(22,077)	(65,781)
Deferred tax asset, net of valuation allowance	50,790	—
Less: current deferred tax asset	(1,412)	—
Long-term deferred tax asset	$ 49,378	$ —

As of October 31, 2003, the Company recognized a valuation allowance to the full extent of its deferred tax asset of $65.8 million since the likelihood of realization of the benefit could not be determined.

As of October 31, 2004, the Company had net operating loss carryforwards for Federal income tax purposes of approximately $200 million. Approximately $3 million of this amount will expire, if unused, by the end of fiscal 2007 with the remainder expiring through fiscal 2023.

Section 382 of the Internal Revenue Code limits the utilization of net operating losses when ownership changes, as defined by that section, occur. The Company has performed an analysis of its Section 382 ownership changes and has determined that the utilization of certain of its net operating loss carryforwards may be limited. Such limitation may defer the utilization of as much as $56 million of its net operating loss carryforwards until periods after fiscal 2009. Due to the length of time prior to the potential utilization and the uncertainty of having sufficient taxable income in those periods,

the Company believes it is not more likely than not that these assets will be realized. As such, these net operating loss carryforwards continue to be fully reserved through a valuation allowance as of October 31, 2004. Should realization of these and other deferred tax assets become more likely than not, approximately $9.4 million of the resulting benefit will be reflected as an income tax benefit upon reversal of the allowance, approximately $8.8 million will be reflected as a reduction to goodwill and approximately $3.9 million will be reflected as an increase to stockholders' equity.

18. EMPLOYEE 401(K) PLAN

The Company maintains an employee 401(k) Plan (the "Plan"). The Plan, which covers all employees 21 years of age or older, stipulates that participating employees may elect an amount up to 100% of their total compensation to contribute to the Plan, not to exceed the maximum allowable by Internal Revenue Service regulations. The Company may make "matching contributions" equal to a discretionary percentage up to 3% of a participant's salary, based on deductions of up to 6% of a participant's salary. All amounts deferred by a participant under the 401(k) Plan's salary reduction feature vest immediately in the participant's account while contributions the Company may make would vest over a five-year period in the participant's account. The Company contribution was approximately $600,000 and $300,000 for the years ended October 31, 2004 and 2003, respectively. The Company did not make a contribution for the year ended October 31, 2002.

19. QUARTERLY FINANCIAL INFORMATION (unaudited)

Quarterly financial information for fiscal 2004 and 2003 is presented in the following table (in thousands, except per share data):

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2004				
Total revenues	$ 35,575	$ 41,920	$ 47,337	$ 59,661
Cost of sales	22,234	27,181	29,176	36,402
Income from operations	3,097	3,274	4,769	9,990
Net income	3,351	3,399	5,011	35,287 (1)
Net income per share, basic	0.12	0.12	0.17	1.20 (1)
Net income per share, diluted	0.11	0.11	0.16	1.16 (1)
2003				
Total revenues	$ 20,545	$ 26,447	$ 29,115	$ 38,630 (2)
Cost of sales	12,342	15,642	17,017	23,538 (2)
Income from operations	1,924	2,921	4,254	5,977
Net income	2,061	3,091	4,603	6,237
Net income per share, basic	0.09	0.13	0.17	0.23
Net income per share, diluted	0.08	0.12	0.16	0.21

(1) In the fourth quarter, Martek recognized a deferred tax benefit of $25.2 million (see Note 17).
(2) Approximately $2.4 million of the sales and $2.2 million of the cost of sales relate to the FermPro acquisition.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

a) *Evaluation of Disclosure Controls and Procedures.* The Chief Executive Officer and the Chief Financial Officer of Martek Biosciences Corporation have evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined under Rules 13a-15(e) and 15d-15(e)) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as required by paragraph (b) of Rules 13a-15 and 15d-15 under the Exchange Act, and have concluded as of the end of the period covered by this report that the disclosure controls and procedures were effective.

b) *Changes in Internal Controls.* There were no changes in our internal controls over financial reporting in connection with the evaluation required by paragraph (d) of Rules 13a-15 or 15d-15 under the Exchange Act that occurred during Martek's last fiscal quarter that materially affected or are reasonably likely to materially affect the internal controls over financial reporting.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

Information relating to our Directors and Executive Officers is set forth in Part I of this report under the caption Item 1 - Business "Directors and Executive Officers of the Registrant." The additional information required by this item is contained in the following sections of our 2005 Definitive Proxy Statement, which sections are hereby incorporated by reference:

Board Committees
Section 16(a) Beneficial Ownership Reporting Compliance

As part of our system of corporate governance, our Board of Directors has adopted a code of ethics that is specifically applicable to our chief executive officer, president, chief financial officer and controller. This code of ethics is available on our website at http://media.corporate-ir.net/media_files/nsd/matk/codeofconduct.pdf.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item is contained in the following sections of our 2005 Definitive Proxy Statement, which sections are hereby incorporated by reference:

Directors Fees
Compensation

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this item is contained in the following sections of our 2005 Definitive Proxy Statement, which sections are hereby incorporated by reference:

Beneficial Ownership of Common Stock
Equity Compensation Plan Information

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

The information required by this item is contained in the following sections of our 2005 Definitive Proxy Statement, which section is hereby incorporated by reference:

Certain Relationships and Related Transactions

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required by this item is contained in the following sections of our 2005 Definitive Proxy Statement, which section is hereby incorporated by reference:

Independent Auditors

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a)(1) Index to Financial Statements

The Financial Statements listed in the Index to Financial Statements are filed as part of this Annual Report on Form 10-K. See Part II, Item 8- Financial Statements and Supplementary Data.

(a)(2) Financial Statement Schedules

Other financial statement schedules for the year ended October 31, 2004 and financial statement schedules for the years ended October 31, 2003 and 2002 have been omitted since they are either not required, not applicable, or the information is otherwise included in the consolidated financial statements or the notes to consolidated financial statements.

(a)(3) Exhibits

The Exhibits listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this report.

MARTEK BIOSCIENCES CORPORATION
VALUATION AND QUALIFYING ACCOUNTS
YEAR ENDED OCTOBER 31, 2004 (1)

In thousands

Description	Balance at Beginning of Year	Additions	Deductions		Balance at End of Year
Deferred tax valuation allowance	$ 65,781	$ 6,936	$ (50,640)	(2)	$ 22,077
Reserve for inventory obsolescence	$ 500	$ 500	$ —		$ 1,000

(1) This schedule is omitted for the years ended October 31, 2003 and 2002 since it was either not required or the information is otherwise included in the consolidated financial statements or the notes to consolidated financial statements.

(2) A portion of the valuation allowance was reversed due to our determination that it is more likely than not that we will realize these deferred tax assets.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized on January 13, 2005.

MARTEK BIOSCIENCES CORPORATION

By /s/ Henry Linsert, Jr.

Henry Linsert, Jr.
Chief Executive Officer and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Henry Linsert, Jr. and Peter L. Buzy, and each of them individually, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and his name, place and stead in any and all capacities, to sign the report and any and all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, full power and authority to perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirement of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Signatures	Title	Date
/s/ Henry Linsert, Jr. Henry Linsert, Jr.	Chief Executive Officer and Director (Principal Executive Officer)	January 13, 2005
/s/ Peter L. Buzy Peter L. Buzy	Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	January 13, 2005
/s/ James R. Beery James R. Beery	Director	January 13, 2005
/s/ Jules Blake Jules Blake	Director	January 13, 2005
/s/ Robert J. Flanagan Robert J. Flanagan	Director	January 13, 2005
/s/ Ann L. Johnson Ann L. Johnson	Director	January 13, 2005
/s/ Gordon S. Macklin Gordon S. Macklin	Director	January 13, 2005
/s/ Douglas J. MacMaster, Jr. Douglas J. MacMaster, Jr.	Director	January 13, 2005

Signatures	Title	Date
/s/ John H. Mahar John H. Mahar	Director	January 13, 2005
/s/ Sandra Panem Sandra Panem	Director	January 13, 2005
_____ Richard J. Radmer	Director	January 13, 2005
/s/ Eugene H. Rotberg Eugene H. Rotberg	Director	January 13, 2005

BOARD OF DIRECTORS

Henry Linsert, Jr.
Chairman and Chief Executive Officer

James R. Beery
Senior Of Counsel, Covington & Burling
Former Senior Vice President and General Counsel
of GlaxoSmithKline

Jules Blake, Ph.D.
Former Vice President, Corporate
Scientific Affairs of Colgate-Palmolive Co.

Robert J. Flanagan
Executive Vice President
Clark Enterprises, Inc.

Ann L. Johnson, M.D.
Mills Peninsula Hospital
Psychiatrist/Psychopharmacologist

Gordon S. Macklin
Former Chairman of Hambrecht & Quist Group
Former President of the
National Association of Securities Dealers, Inc.

Douglas J. MacMaster, Jr.
Former Senior Vice President of Merck & Co., Inc.

John H. Mahar
President of Hillside Management

Sandra Panem, Ph.D.
Partner in Cross Atlantic Partners

Richard J. Radmer, Ph.D.
Former President and Chief Scientific Officer of Martek

Eugene H. Rotberg
Former Executive Vice President of
Merrill Lynch & Co. and Treasurer of World Bank

EXECUTIVE OFFICERS

Henry Linsert, Jr.
Chairman and Chief Executive Officer

Steve Dubin
President

Peter L. Buzy
Chief Financial Officer and Treasurer

David M. Abramson
Senior Vice President, Business Development

George P. Barker
Senior Vice President, General Counsel and Secretary

Barney B. Easterling
Senior Vice President, Manufacturing

James H. Flatt, Ph.D.
Senior Vice President, Research & Development

Jerome C. Keller
Senior Vice President, Sales and Marketing

HEADQUARTERS

Martek Biosciences Corporation
6480 Dobbin Road
Columbia, Maryland 21045
410.740.0081

LEGAL COUNSEL

Hogan & Hartson L.L.P.
111 South Calvert Street
Baltimore, Maryland 21202

INDEPENDENT AUDITORS

Ernst & Young LLP
8484 Westpark Drive
McLean, Virginia 22102

INVESTOR RELATIONS

The Company's Annual Report is most easily accessed on our website at www.martekbio.com. However, a hard copy may be obtained by any shareholder, without charge, upon request to:
Investor Relations
6480 Dobbin Road
Columbia, Maryland 21045

STOCK TRANSFER AGENT

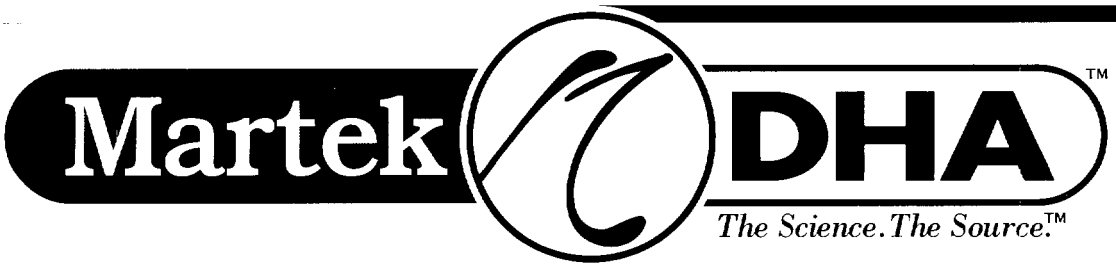
Registrar & Transfer Company
10 Commerce Drive
Cranford, New Jersey 07016
800.368.5948

STOCK INFORMATION

Martek's common stock is traded on the NASDAQ National Market System under the symbol MATK.

ANNUAL MEETING

The 2005 Annual Meeting of Stockholders will be held at the Company's headquarters, 6480 Dobbin Road, Columbia, Maryland 21045 on Thursday, March 17, 2005 at 11:00 a.m.



The Martek DHA™ logo will appear on products that are fortified with Martek's vegetarian DHA omega-3.

6480 Dobbin Road
Columbia, MD 21045
410.740.0081

Call toll-free for product ordering information:
1.800.662.6339

www.martekbio.com