ASPECT™
MEDICAL SYSTEMS

2003 Annual Report

DEAR STOCKHOLDERS:

Aspect Medical Systems is a company powered by people, but driven by data. Our mission is to use our growing understanding of the brain to develop products that improve the quality and safety of patient care. Our creative, dedicated employees move us toward this mission, but the data – the demonstrated benefits of our technology – drive and focus the company. In 2003, significant new data emerged in the fields of anesthesia and neurological research that we believe will keep Aspect on a steady course to fulfill this mission.

LEADERSHIP & ADVANCES IN ANESTHESIA RESEARCH

BIS™ brain monitoring technology has proven to be a valuable adjunct to clinical judgment in guiding the administration of anesthetic drugs to ensure that patients receive just the right amount of medication. In 2003, new clinical research exploring intraoperative awareness with recall (a complication that occurs when patients do not receive enough anesthesia to remain unconscious) further supported the efficacy of BIS and became a central patient safety topic within the healthcare community. Three major clinical trials involving more than 30 thousand patients established the incidence of awareness and the role of BIS technology in reducing the risk of this adverse event.

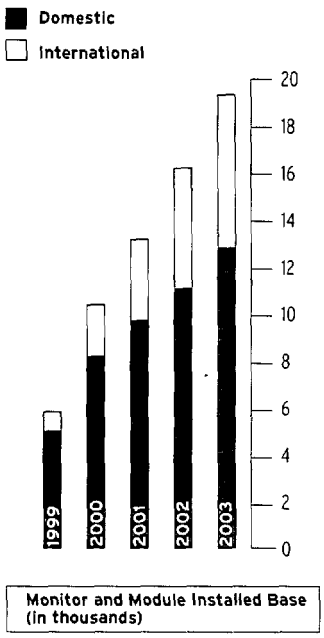
Nassib G. Chamoun
President, CEO, and Founder
Aspect Medical Systems, Inc.

Though statistically rare, with more than 20 million general anesthesia cases performed annually in the United States alone, approximately 20 to 40 thousand of these patients will experience awareness with recall every year. The psychological consequences of awareness can be devastating and debilitating. Today, patients and providers can take comfort in knowing that clinical evidence has demonstrated that use of BIS technology can reduce a patient's risk of awareness by 80% – making patients five times less likely to experience awareness when BIS monitoring is used. Based on the new awareness research, the U.S. Food and Drug Administration cleared a new indication for BIS technology, making Aspect the only company that can claim that its technology has been proven in clinical practice to reduce the incidence of awareness with recall.

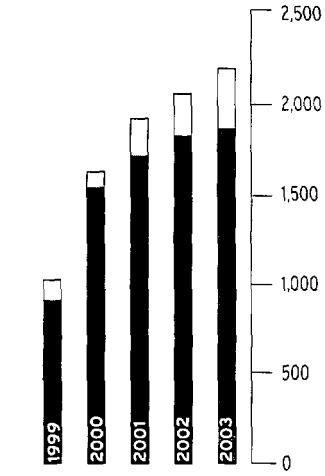
Recognition of the awareness problem in the minds of practitioners and patients continues to grow, as evidenced by extensive media exposure in the lay and medical press. Since last October, this topic has reached more than 70 million people, including consumers, anesthesiologists, surgeons, administrators and other medical professionals. Further, the three awareness trials have been published or accepted for publication in peer-reviewed journals. This is a critical step in providing the anesthesia community with the requisite scientific evidence to demonstrate the impact of BIS monitoring on improving patient safety.

A second significant anesthesia safety topic in 2003 was research into the correlation between deep anesthesia and postoperative mortality. Two large, independent studies have now shown an association between deep anesthesia levels, as measured by BIS, and increased risk of postoperative mortality. Though the mechanisms involved are still unclear, the anesthesia profession is responding with great interest in developing a better understanding of this association. The Anesthesia Patient Safety Foundation has formed an expert panel to guide research and better understand the ways that anesthetic management may improve patient safety and long-term outcomes. If further research validates the possible link between deep anesthesia and higher mortality, we believe that the new clinical implications and role of BIS in facilitating precision in anesthesia care would be compelling.

FINANCIAL INFORMATION



Monitor and Module Installed Base (in thousands)



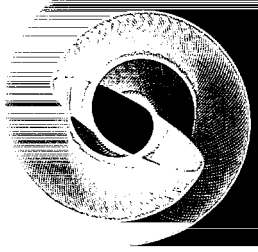
Sensor Shipments (in thousands)

SELECTED CONSOLIDATED FINANCIAL DATA
CONSOLIDATED STATEMENTS OF OPERATIONS DATA *(in thousands, except per share data):*

YEAR ENDED DECEMBER 31,	2003	2002	2001	2000	1999
Revenue	$ 44,091	$ 39,776	$ 35,829	$ 36,024	$27,187
Gross profit margin	33,193	27,961	23,383	24,745	17,863
Gross profit margin percentage	75.3%	70.3%	65.3%	68.7%	65.7%
Operating expenses:					
Research & development	7,287	7,827	7,467	5,713	4,847
Sales & marketing	25,321	28,449	28,396	21,979	16,543
General & administrative	7,833	7,942	7,803	6,390	4,829
Total operating expenses	40,441	44,218	43,666	34,082	26,219
Loss from operations	(7,248)	(16,257)	(20,283)	(9,337)	(8,356)
Interest income, net	725	956	2,564	3,993	1,317
Net loss	$ (6,523)	$(15,301)	$(17,719)	$ (5,344)	$ (7,039)
Net loss per share: Basic and diluted	$ (0.34)	$ (0.83)	$ (1.01)	$ (0.34)	$ (4.57)
Weighted average shares used in computing net loss per share: Basic and diluted	19,413	18,450	17,614	15,755	1,539

CONSOLIDATED BALANCE SHEET DATA *(in thousands):*

AS OF DECEMBER 31,	2003	2002	2001	2000	1999
Cash, cash equivalents, restricted cash and marketable securities	$31,163	$36,865	$ 41,458	$ 58,489	$14,535
Working capital	30,680	36,734	41,266	58,455	12,279
Total assets	47,740	54,480	63,369	79,411	29,402
Long-term debt	525	1,015	964	2,617	3,872
Total stockholders' equity	30,968	36,797	48,056	63,974	13,079



ASPECT MEDICAL SYSTEMS OEM PARTNERS

Datascope

Datex-Ohmeda

Datal

Dräger Medical

GE Medical Systems
Information Technologies

Nihon Kohden

Philips Medical

Spacelabs Medical

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 31, 2003

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

For the transition period from to

Commission file number: 0-24663

Aspect Medical Systems, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**04-2985553**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
141 Needham Street Newton, Massachusetts	**02464-1505**
(Address of Principal Executive Offices)	*(Zip Code)*

(617) 559-7000
Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:
None

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

Common Stock, $0.01 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 past 90 days. 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 Exchange Act Rule 12b-2). Yes ☑ No ☐

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 27, 2003 (based on the closing price as quoted by the Nasdaq National Market as of such date) was $91,972,694. The registrant had 19,655,863 shares of Common Stock, $0.01 par value per share, outstanding as of March 1, 2004.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a definitive proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2003. Portions of such proxy statement are incorporated by reference into Part III of this Form 10-K.

PART I

Item 1. Business.

Overview

Aspect Medical Systems, Inc. was incorporated as a Delaware corporation in 1987. We develop, manufacture and market an anesthesia monitoring system that we call the BIS® system. The BIS system is based on our patented core technology, the Bispectral Index, which we refer to as the BIS index. The BIS system provides information that allows clinicians to better assess and manage a patient's level of consciousness in the operating room and intensive care settings and administer the precise amount of anesthesia needed by each patient. We developed the BIS system over 10 years, and it is the subject of 20 issued United States patents and six pending United States patent applications. Our proprietary BIS system includes our BIS monitor, or our BIS Module Kit, which allows original equipment manufacturers to incorporate the BIS index into their monitoring products, and our single-use disposable BIS Sensors. We collectively refer to our group of disposable sensor products as BIS Sensors.

Our latest generation of stand-alone monitor, the A-2000® BIS Monitor, was cleared for marketing by the United States Food and Drug Administration, or the FDA, in February 1998. Our latest version of the BIS system, the BIS XP system, was cleared for marketing by the FDA in June 2001. The BIS XP system offers enhanced performance capabilities and expanded benefits as compared to the previous version of our BIS system, enabling more precise measurement of brain activity to assess the level of consciousness. The BIS XP system is designed to detect and filter interference from muscle artifact and is resistant to interference from electrocautery devices. Additionally, it is able to provide enhanced detection of near suppression, a brain wave pattern occasionally observed during deep anesthesia and cardiac cases. In February 2004, our BISx system was cleared for marketing by the FDA. The BISx system is our latest original equipment manufacturer BIS monitoring solution that provides the BIS XP functionality in a single device the size of a hockey puck, simplifying the incorporation of BIS XP into third-party patient monitoring systems.

As of December 31, 2003, the worldwide installed base of BIS monitors and modules was approximately 19,500 units. We estimate that BIS technology is installed in approximately 31% of all domestic operating rooms, and is available in more than 160 countries. We estimate that more than eight million patients have been monitored using the BIS index during surgery.

Clinical trials and routine clinical use of the BIS system have shown that patient monitoring with the BIS system can result in:

- a reduction in the amount of anesthetics used,
- faster wake-up from anesthesia,
- less patient time in the operating room and the post-anesthesia care unit following surgery,
- higher rates of outpatients bypassing the post-anesthesia care unit and proceeding to a less costly step-down recovery area directly from the operating room,
- improvements in the quality of recovery, and
- a reduction in the risk of awareness with recall, which is the unintentional regaining of consciousness during surgery.

We derive our revenue primarily from sales of monitors, BIS Module Kits, and related accessories, which we collectively refer to as Equipment, and sales of BIS Sensors. In 2003, 2002 and 2001, revenue from the sale of Equipment represented approximately 31%, 33% and 32%, respectively, of our revenue, and revenue from the sale of BIS Sensors represented approximately 69%, 67% and 68%, respectively, of our revenue.

We maintain a website with the address *www.aspectmedical.com*. We are not including the information contained on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and

Exchange Commission. We have posted on our website a copy of our Code of Business Conduct and Ethics. In addition, we intend to disclose on our website any amendments to, or waivers from, our code of business conduct and ethics that are required to be publicly disclosed pursuant to the rules of the Securities and Exchange Commission.

The Aspect Solution: Patient Monitoring with the BIS System

We have developed the BIS monitoring system that is based on our proprietary BIS index. Our BIS system is comprised of our BIS monitor or BIS Module Kit and our single-use, disposable BIS Sensors. The BIS Sensors are applied to a patient's forehead to acquire the EEG, a measure of the electrical activity of the brain. The EEG is then analyzed by the BIS monitor or BIS Module Kit to produce the BIS index. The BIS index is a numerical index that correlates with levels of consciousness and is displayed as a number ranging between 100, indicating that the patient is awake, and zero, indicating an absence of brain activity. In October 1996, the FDA cleared the BIS index for marketing for use as a direct measure of the effects of anesthetics and sedatives on the brain. In October 2003, the FDA cleared a new indication for use specifying that use of BIS monitoring to help guide anesthetic administration may be associated with the reduction of the incidence of awareness with recall in adults during general anesthesia and sedation.

Products

The following chart summarizes our principal product offerings:

Product	Initial Commercial Shipment	Description
BISx System	Pending	BIS monitoring solution that provides the processing technology required to obtain BIS information from a single device the size of a hockey puck. The BISx is designed to integrate with a wide range of patient monitoring platforms sold by leading monitoring manufacturers.
BIS XP System	2001	Latest version of BIS system offering enhanced performance capabilities and expanded benefits as compared to the previous version of the BIS system, enabling more precise measurement of brain activity to assess the level of consciousness.
BIS Module Kit — 4 Channel Support	2001	Same as standard BIS Module Kit plus 4 channel EEG monitoring capability.
A-2000 BIS Monitor	1998	Small, lightweight, portable third-generation BIS monitor.
BIS Module Kit	1998	Components of BIS monitoring technology that are integrated into equipment sold by original equipment manufacturers.
BIS Extend Sensor	2002	Disposable sensor with electronic memory device for use with A-2000 BIS Monitor and BIS Module Kit that was specially designed for patients who are typically monitored for extended periods.

Product	Initial Commercial Shipment	Description
BIS Pediatric Sensor	2001	Disposable sensor with electronic memory device for use with A-2000 BIS Monitor and BIS Module Kit that is smaller and easier to apply to children.
BIS Quatro Sensor	2001	Disposable sensor with electronic memory device for use with A-2000 BIS Monitor and BIS Module Kit that offers enhanced performance in deep anesthetic states and improved robustness to interference from noise sources.
BIS Sensor Plus	2001	Second-generation disposable sensor for use with the A-2000 BIS Monitor and BIS Module Kit.
BIS Standard Sensor	1997	Disposable sensor for use with A-2000 BIS Monitor, A-1050 EEG Monitor with BIS and BIS Module Kit

BISx System

The BISx system is our latest original equipment manufacturer BIS monitoring solution that provides the processing technology required to obtain BIS information from a single device the size of a hockey puck. The BISx system is designed to integrate with a wide range of patient monitoring platforms sold by leading monitoring manufacturers. BISx simplifies the incorporation of BIS technology into our partners' monitoring systems and opens the door to a class of monitoring systems that has historically been out of reach due to the cost of integration. We have also maintained backwards compatibility with our existing BIS engine technology to simplify the adoption of BISx by our existing partners.

BIS XP System

We began commercial distribution of the BIS XP system in September 2001. The BIS XP system runs on the A-2000 BIS Monitor and BIS Module Kit platforms and offers enhanced performance capabilities and expanded benefits as compared to the previous version of our BIS system, enabling more precise measurement of brain activity to assess the level of consciousness. The BIS XP system is designed to detect and filter interference from muscle artifact and is resistant to interference from electrocautery devices. Additionally, it is able to provide enhanced detection of near suppression, a brain wave pattern occasionally observed during deep anesthesia and cardiac cases.

A-2000 BIS Monitor

We began commercial distribution of the A-2000 BIS Monitor, our third-generation monitor, in February 1998. The A-2000 BIS Monitor is a compact, lightweight, portable monitor designed to accommodate the space limitations and positioning requirements of surgical settings. The A-2000 BIS Monitor displays the BIS index and supporting information and includes our proprietary digital signal converter. This converter is a palm-sized module that serves as the interface between the BIS monitor and the BIS Sensors. The digital signal converter acquires the EEG signal from the BIS Sensors and converts the EEG signal to digital format. The EEG signal is then processed and the BIS index is displayed on the A-2000 BIS Monitor.

BIS Module Kit

In 1996, we introduced our BIS Module Kit, which is designed to facilitate the integration of the BIS index into equipment marketed by our original equipment manufacturers. The BIS Module Kit consists of two pieces, our proprietary digital signal converter and a small circuit board that resides in the original equipment manufacturer's system. The digital signal converter acquires the EEG signal from the BIS Sensors and

converts the EEG signal to digital format. The circuit board then processes the EEG signal and outputs the BIS index to the original equipment manufacturer's system.

The common architecture of the BIS Module Kit facilitates integration of the BIS index into the original equipment manufacturer's system. Each original equipment manufacturer is required to obtain FDA and other appropriate regulatory clearance of its BIS module product.

BIS Module Kit — 4 Channel Support

In 2001, we introduced commercially the BIS Module Kit with 4 channel EEG monitoring capability to support a product introduction of one of our original equipment manufacturers.

BIS Sensors

BIS Extend Sensor. We created the BIS Extend Sensor, which was introduced commercially in 2002, for patients who are typically monitored for an extended period of time, such as in intensive care unit settings. We designed the BIS Extend Sensor with a surface that allows clinicians to record in writing the date and time of application, making it easier to track when a new sensor should be applied. The BIS Extend Sensor provides resistance to electrical artifact and is designed to detect and filter interference from muscle artifact caused by sources such as eye movement. The BIS Extend Sensor contains an electronic memory device that allows information about the sensor, such as lot code, expiration date and type of sensor, to be stored on the sensor and to be retrieved by the BIS monitor or BIS Module Kit.

BIS Pediatric Sensor. The BIS Pediatric Sensor, which was introduced commercially in 2001, is smaller and easier to apply than our other BIS Sensors, and is visually appealing to children. The BIS Pediatric Sensor features an improved design for easy connection and enables the BIS system to automatically configure its settings for specific patient populations and applications. The BIS Pediatric Sensor contains an electronic memory device that allows information about the sensor, such as lot code, expiration date and type of sensor, to be stored on the sensor and to be retrieved by the BIS monitor or BIS Module Kit.

BIS Quatro Sensor. The BIS Quatro Sensor, which was introduced commercially in 2001, offers enhanced performance in deep anesthetic states and improved resistance to interference from noise sources, such as high frequency/electromyography conditions, in the operating room and intensive care unit. The BIS Quatro Sensor features an improved design as compared to the BIS Standard Sensor for easy connection and enables the BIS system to automatically configure its settings for specific patient populations and applications. The BIS Quatro Sensor contains an electronic memory device that allows information about the sensor, such as lot code, expiration date and type of sensor, to be stored on the sensor and to be retrieved by the BIS monitor or BIS Module Kit.

BIS Sensor Plus. The BIS Sensor Plus, which was introduced commercially in 2001, is a second-generation disposable product for use with the A-2000 BIS Monitor and BIS Module Kit. The BIS Sensor Plus features an improved design as compared to the BIS Standard Sensor for easy connection and enables the BIS system to automatically configure its settings for specific patient populations and applications. The BIS Sensor Plus contains an electronic memory device that allows information about the sensor, such as lot code, expiration date and type of sensor, to be stored on the sensor and to be retrieved by the BIS monitor or BIS Module Kit.

BIS Standard Sensor. We commenced commercial distribution of the BIS Standard Sensor in January 1997. The BIS Standard Sensor is a single-use, disposable product for use with the A-2000 BIS Monitor, the A-1050 EEG Monitor with BIS and the BIS Module Kit. The BIS Standard Sensor is not compatible with the BIS XP system because it does not contain the easy connection feature and electronic memory device of our other BIS Sensors. The BIS Standard Sensor provides a reliable and simple means of acquiring the EEG signal needed to generate the BIS index. The one-piece design allows quick and accurate placement on the patient's forehead. The BIS Standard Sensor connects to the monitor by a single-point proprietary connector.

Our Zipprep self-prepping technology is a key feature of each of our BIS Sensors. The technology is designed to minimize patient set-up time and establish effective electrical contact with the patient which enables consistent, accurate readings of the EEG signal. Prior to our development of the Zipprep technology,

to obtain an EEG signal the user prepared a patient's skin by rubbing an abrasive cream over the forehead 10 to 20 times in order to remove the top layer of skin prior to applying the electrode.

Technology

We developed the BIS system, including our proprietary BIS index, over 10 years. The BIS index is a numerical index that quantitates the hypnotic component of anesthetic drug effect which correlates with the level of consciousness and is derived from an analysis of the EEG signal. In general, an EEG signal changes from a small-amplitude, high-frequency signal while a person is awake to a large-amplitude, low-frequency signal while a person is deeply anesthetized. Historically, researchers have used observations about these changes in the EEG signal to create mathematical algorithms to track the effects of anesthetics on the brain. However, these algorithms have not been widely adopted because studies have indicated that they generally do not provide sufficient clinically useful information to assess levels of consciousness with commonly used anesthetics and doses.

In developing the BIS index, we sought to improve these early EEG analyses in two ways. First, by using bispectral analysis, a mathematical tool that examines signals such as the EEG, we can extract new information from the EEG signal. Second, we developed proprietary processing algorithms that extract information from bispectral analysis, power spectral analysis and time domain analysis. Geophysicists originally used bispectral analysis in the early 1960s to study ocean wave motion, atmospheric pressure changes and seismic activity. The advent of high-speed, low-cost digital signal processors has enabled the use of bispectral analysis for other applications. By using bispectral analysis, we are able to extract a distinctive fingerprint of the underlying signal structure of the EEG and represent it as a three-dimensional mathematical model.

We created the BIS index to quantify changes in the EEG that relate to the effects of anesthetics on the brain in order to assess levels of consciousness. Over a number of years, Aspect and others collected a large database of high fidelity EEG recordings and clinical assessments from volunteers and patients receiving a wide variety of anesthetics. Researchers used clinical assessments such as a sedation rating scale, picture or word recall memory tests and response to stimuli to define levels of consciousness. Using statistical methods, we identified features within the EEG that correlated with sedation and loss of consciousness. We then used proprietary statistical methods to combine these features to generate an interpretive numerical index, which we refer to as the BIS index. The BIS index ranges from 100, indicating that the patient is awake, to zero, indicating an absence of electrical brain activity.

Clinical Development

Our clinical research and regulatory affairs group is responsible for:

- establishing collaborative relationships with leading clinical researchers,
- encouraging publications related to the BIS index in scientific literature,
- monitoring compliance with the FDA and other regulatory agencies' requirements,
- conducting clinical research with the goal of extending the application of patient monitoring with the BIS system to other settings and clinical uses, and
- collecting data for new product development.

We have a clinical database of over 5,000 cases for use in algorithm development and product validation based on trials that we conducted or sponsored or that third parties conducted.

In 1996, the FDA cleared the BIS index for marketing as a measure of anesthetic effect on the brain. The regulatory process involved studies we conducted on over 900 volunteers and patients. These studies characterized the relationships between the BIS index value and various clinical endpoints, including movement, response to incision, response to verbal command as a measure of consciousness in volunteers and patients, memory function, drug utilization and speed of patient recovery following surgery.

In October 2003, the FDA cleared a new indication for use specifying that use of BIS monitoring to help guide anesthetic administration may be associated with the reduction of the incidence of awareness with recall in adults during general anesthesia and sedation. This clearance was based on data that was collected in several multi-center, multinational studies to assess the incidence of awareness with recall and the impact of BIS monitoring. More than 30,000 patients were enrolled in these studies, which we conducted over a period of 18 months. Results from these studies demonstrate that awareness with recall occurs in approximately 1 to 2 cases per 1,000 patients during general anesthesia. Although our clinical research and practice experience suggests that awareness with recall is more likely to occur when BIS values are high, we do not believe that our experience demonstrates conclusively that patient monitoring with the BIS system will identify or prevent all cases of awareness with recall.

Since the introduction of our products, clinicians have reported to us cases of possible awareness with recall during surgical procedures monitored with the BIS system. These reports may not include all cases of awareness with recall that might have occurred during procedures where patients were monitored with the BIS system. In most of the cases that were reported to us, when BIS index values were recorded at the time of awareness with recall, high BIS index values were noted, indicating that the BIS index correctly identified the increased risk of awareness with recall in these patients. It is possible that, in a number of these reported cases, awareness with recall may not have been detected by monitoring with the BIS system.

We are also collaborating with researchers that are investigating the relationship between deep anesthetic levels as measured using the BIS system and one-year morbidity and mortality. One initial report (Weldon CB, Mahla ME, Van der Aa MT, Monk T. Advancing Age and Deeper Intraoperative Anesthetic Levels Are Associated with Higher First Year Death Rates. *Anesthesiology 2002; 96: A-1097*) suggested that deep anesthesia is associated with increased post-operative mortality in elderly patients undergoing general anesthesia. A second study involving over 4,000 patients has reportedly confirmed this association (Lennmarken C, Lindholm, ML, Greenwald S, Sandin R. Confirmation that Low Intraoperative BIS Levels Predict Increased Risk of Post-Operative Mortality. *Anesthesiology 2003*, Annual Meeting A-303). Finally, a retrospective analysis of Medicare national hospital data has suggested that hospitals that routinely use intraoperative BIS monitoring may have decreased postoperative one-year mortality rates (Monk T, Sigl J, Weldon C. Intraoperative BIS Utilization is Associated with Reduced One-Year Post-Operative Mortality. *Anesthesiology 2003*, Annual Meeting A-1361). We believe that these preliminary findings need to be further confirmed in additional trials.

Sales, Marketing and Customers

Our customers include anesthesia providers, hospitals, outpatient surgical centers and individual practitioners in office-based practice. We market and sell our products to our customers through:

- our direct sales force,
- distributors, and
- original equipment manufacturers.

For the years ended December 31, 2003, 2002 and 2001 no one customer accounted for 10% or more of our total revenue.

Domestic

We market our BIS system in the United States primarily through a combination of a direct sales force, specialty distributors and original equipment manufacturers. As of December 31, 2003, our domestic sales force was comprised of 48 sales professionals, three clinical specialists and six inside sales representatives.

We augment our direct sales force with medical products distributors in selected markets, including Canada and locations in the United States. We also market our products through the sales organizations of our original equipment manufacturers and contracts with hospital group purchasing organizations.

For those healthcare organizations desiring to purchase our BIS monitors, we offer two options. Our customers have the option either to purchase BIS monitors outright or to acquire BIS monitors pursuant to a sales-type lease agreement whereby the customer contractually commits to purchase a minimum number of BIS Sensors per BIS monitor per year. Under a sales-type lease agreement, our customers purchase BIS Sensors and the BIS monitor for the purchase price of the BIS Sensors plus an additional charge per BIS Sensor to pay for the purchase price of the BIS monitor and related financing costs over the term of the agreement. We also grant these customers an option to purchase the BIS monitors at the end of the term of the agreement, which is typically three to five years. Revenue related to BIS monitors sold pursuant to sales-type leases is recognized either at shipment or delivery of the BIS monitors in accordance with the agreed upon contract terms with interest income recognized over the life of the sales-type lease. We believe that the sales-type lease arrangement in some cases reduces the time required for customers to adopt the BIS system because it provides them with an option to utilize their operating budget to fund the purchase.

Under certain limited circumstances, we also offer customers the opportunity to use the BIS monitors under our Equipment Placement program, which we refer to as the EP program. Under the EP program, the customer is granted the right to use the BIS monitors for a mutually agreed upon period of time. During this period, the customer purchases BIS Sensors at a price that includes a premium above the list price of the BIS Sensors to cover the rental of the equipment, but without any minimum purchase commitments. At the end of the agreed upon period, the customer has the option of purchasing the BIS monitors, continuing to use them under the EP program or returning them to us. Beginning in 2002, we substantially reduced our focus and reliance on the EP program.

We focus our marketing initiatives on the various constituencies that may be involved in the decision-making process concerning the purchase of our products. For clinical audiences, we exhibit at tradeshows, sponsor speakers at professional meetings and develop articles for publication in conjunction with industry experts. In addition, we work with hospitals to publicize their adoption of patient monitoring with the BIS system in an effort to assist them in communicating their commitment to improving the quality and efficiency of patient care.

Group Purchasing Agreements

We have entered into several agreements with group purchasing organizations whereby the member healthcare organizations have the right to purchase BIS monitors and BIS Sensors under the pricing terms contained in the respective agreements. Under these agreements, the group purchasing organizations' field forces have agreed to work with our sales force to facilitate the adoption of our BIS technology by their affiliated healthcare organizations. We have agreements with the following group purchasing organizations:

Group Purchasing Organization	Effective Date	Termination Provisions
Consorta, Inc.	November 1, 2000	Unless terminated earlier by either party by giving 90 days prior written notice, this agreement expires on October 31, 2005.
Healthtrust Purchasing Group, L.P.	September 1, 2000	Unless terminated earlier by either party by giving 60 days prior written notice, this agreement expires on September 30, 2004.
Novation	August 13, 1998	Unless terminated earlier by Novation by giving at least 90 days prior written notice or by us by giving at least 180 days prior written notice, this agreement expires on December 31, 2004. Novation may elect to renew the agreement for an additional one-year period.

During 2003, our agreements with Premier Purchasing Partners, L.P., AmeriNet, Inc. and Health Services Corporation of America expired. The expiration of these agreements did not have a material effect on our results of operations, cash flows or financial position.

International

In 1998, we established our international operations and opened our international headquarters in The Netherlands. In 1999, we established a subsidiary in the United Kingdom. We continue to develop our international sales and distribution program through a combination of distributors and marketing partners, including companies with which we have entered into original equipment manufacturer relationships. As of December 31, 2003, we employed 21 persons in our international organization. The majority of our international sales are denominated in United States dollars. See Note 16, "Segment Information and Enterprise Reporting," of the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for domestic and international financial information.

We are increasingly subject to a number of challenges which specifically relate to our international business activities. These challenges include:

- failure of local laws to provide the same degree of protection against infringement of our intellectual property,
- protectionist laws and business practices that favor local competitors, which could slow our growth in international markets,
- difficulties in terminating or modifying distributor arrangements because of restrictions in markets outside the United States,
- less acceptance by foreign anesthesia providers of the use of disposable products similar to the BIS Sensors,
- delays in regulatory approval of our products,
- currency conversion issues arising from sales denominated in currencies other than the United States dollar,
- foreign currency exchange rate fluctuations,
- longer sales cycles to sell products like the BIS system to hospitals and outpatient surgical centers, which could slow our revenue growth from international sales, and
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable.

Distribution Agreements

We entered into a master distribution agreement, effective September 1, 2000, with Datex-Ohmeda Division of Instrumentarium Corporation, under which Datex-Ohmeda agreed to act as a nonexclusive distributor of our A-2000 BIS Monitor, BIS Sensors and related products in a number of territories outside the United States. The master distribution agreement expired on November 1, 2003. We are in the process of replacing the master distribution agreement with country-specific distribution agreements with Datex-Ohmeda sales subsidiaries and other distributors in various countries. To date, we have entered into several new country-specific distribution agreements, and we continue to negotiate others.

We entered into a distribution agreement, effective October 1, 1999 and amended effective March 1, 2001, with Philips Medizinsysteme Boeblingen GmbH (formerly Agilent Technologies, Inc., which was formerly part of Hewlett-Packard Company), under which Philips agreed to act as a nonexclusive distributor of our BIS Sensors in a number of territories outside the United States. This distribution agreement expired on September 30, 2001. Philips retains the right to distribute BIS Sensors under the OEM Development and Purchase Agreement described below.

We have entered into a distribution agreement, dated January 21, 1998, with Nihon Kohden Corporation, under which Nihon Kohden has agreed to act as an exclusive distributor of our BIS monitors and related products in Japan. This agreement expired on February 21, 2004 and was automatically renewed as the term of the agreement automatically renews for one-year periods unless either party provides written notice of termination to the other party, at least three months prior to expiration of the agreement or any renewal period.

Original Equipment Manufacturer Relationships

We have entered into agreements with the following eight patient monitoring or anesthesia equipment companies that provide for the integration of our BIS technology into their equipment:

Original Equipment Manufacturer	Effective Date	Introduction of BIS Module
Datascope Corp.	July 24, 2003	Expect introduction during fiscal year 2004
Dixtal Biomedica Ind E Com Ltda.	February 13, 2003	Expect introduction in first quarter of 2004
Datex-Ohmeda Division of Instrumentarium Corporation	September 1, 2000	July 2002 — Internationally October 2002 — United States
GE Medical Systems — Information Technologies	December 22, 1999	February 2002
Philips Medizinsysteme Boeblingen GmbH	August 6, 1999	October 2000
Dräger Medizintechnik GmbH	May 5, 1999	Expect introduction during fiscal year 2004
Nihon Kohden Corporation	January 21, 1998	July 2002 — received Ministry of Health, Labor and Welfare approval of their BIS module
Spacelabs Medical, Inc.	April 1, 1996	October 1998

Datascope Corp. Under an OEM Development and Purchase Agreement, dated July 24, 2003, between Aspect and Datascope Corp., Datascope agreed to integrate our BIS technology with Datascope's patient monitors. The initial term of this agreement begins on the effective date and shall continue for a period of five years following the introduction of the Datascope patient monitor with our BIS technology. On each anniversary date one additional year is added to the term of this agreement to maintain a five year rolling term unless either party provides written notice of termination to the other party at least 60 days prior to the anniversary date.

Dixtal Biomedica Ind E Com Ltda. Under an OEM Development and Purchase Agreement, dated February 13, 2003, between Aspect and Dixtal Biomedica Ind E Com Ltda., Dixtal agreed to integrate our BIS technology with Dixtal's patient monitors. The initial term of this agreement shall commence on the effective date and shall continue for a period of three years following introduction of the Dixtal BIS Module. The term of this agreement shall be renewed automatically for successive 12 month periods unless either party provides written notice of termination to the other party at least 60 days prior to the expiration of the agreement.

Datex-Ohmeda Division of Instrumentarium Corporation. Under an OEM Purchase Agreement, dated September 1, 2000, between Aspect and Datex-Ohmeda Division of Instrumentarium Corporation, Datex-Ohmeda agreed to integrate our BIS technology with Datex-Ohmeda's patient monitors. Unless terminated sooner, this agreement expires on December 31, 2005. The term of the agreement automatically renews for one-year periods unless either party provides written notice of termination to the other party, at least 12 months prior to expiration of the agreement. Under a separate agreement with Datex-Ohmeda, dated September 1, 2000, we agreed to supply certain sensor products to Datex-Ohmeda for certain monitoring

products developed and introduced by Datex-Ohmeda. Unless terminated sooner, this agreement expires on December 31, 2005. The term of this agreement automatically renews for one-year periods unless either party provides written notice of termination to the other party, at least 12 months prior to expiration of the agreement. In October 2003, GE Medical Systems acquired Instrumentarium Corporation. We are currently evaluating the impact that this acquisition may have on our agreements and operations.

GE Medical Systems — Information Technologies. Under an OEM Development and Purchase Agreement, dated December 22, 1999, between Aspect and GE Medical Systems — Information Technologies, GE Medical Systems agreed to integrate our BIS technology with GE Medical Systems' patient monitors. Unless terminated sooner, the agreement expires December 31, 2004. The term of the agreement automatically renews for one-year periods unless either party provides written notice of termination to the other party, at least 60 days prior to the expiration of the agreement.

Philips Medizinsysteme Boeblingen GmbH. Under an OEM Development and Purchase Agreement, dated August 6, 1999, between Aspect and Philips, Philips agreed to integrate our BIS technology with Philips' patient monitors. Unless terminated sooner, this agreement expires on August 6, 2005. The term of the agreement automatically renews for one-year periods unless either party provides written notice of termination to the other party, at least 60 days prior to expiration of the agreement.

Dräger Medizintechnik GmbH. Under a Product Agreement with Dräger Medizintechnik GmbH, dated May 5, 1999, Dräger agreed to integrate our technology with Dräger's anesthesia equipment. Unless terminated sooner, this agreement will expire on December 31, 2005. This agreement automatically renews for successive one-year periods thereafter unless either party provides written notice of termination to the other party, at least twelve months prior to expiration of the renewal period.

Nihon Kohden Corporation. Under an International License Agreement, dated January 21, 1998, between Aspect and Nihon Kohden, we have licensed our technology to Nihon Kohden on a worldwide non-exclusive basis. Nihon Kohden has the right to incorporate our technology into its patient monitoring systems. Unless terminated sooner, the agreement expires four years following approval by the Japanese Ministry of Health and Welfare of a Nihon Kohden patient monitor which integrates Aspect's BIS technology. Nihon Kohden obtained this approval in July 2002.

Spacelabs Medical, Inc. Pursuant to the terms of a Distribution and License Agreement, dated April 1, 1996, between Aspect and Spacelabs Medical, Inc., we have granted to Spacelabs a worldwide, non-exclusive license to the BIS index to develop, manufacture, market and sell Spacelabs monitoring equipment that incorporates the BIS index. Spacelabs also has the right to distribute our BIS Sensors on a non-exclusive basis throughout the world with the exception of the United States. Unless terminated sooner, this agreement expires in April 2006. In July 2002, Instrumentarium Corporation acquired Spacelabs Medical, Inc. This acquisition did not have a material impact on our agreements and our operations. In October 2003, GE Medical Systems acquired Instrumentarium Corporation. As part of the acquisition, GE Medical Systems has stated that Spacelabs Medical, Inc. will be divested. We are currently evaluating the impact that this divestiture may have on our agreements and operations.

In addition to the original equipment manufacturer agreements described above, we have also entered into an agreement with Boston Scientific Corporation, a worldwide developer, manufacturer and marketer of medical devices, to introduce new sedation management technology to interventional and specialty medical procedure suites. Under this OEM Product Development Agreement, dated August 7, 2002, we have agreed with Boston Scientific Corporation to introduce new sedation management technology for use in interventional and specialty medical procedure suites, including the gastrointestinal endoscopy suite, the interventional cardiology suite and the interventional radiology suite. The alliance will focus on the development and distribution of brain monitoring technology specifically designed to enhance the safety, efficiency and delivery of sedation to patients undergoing less-invasive medical procedures. As part of this alliance, we granted Boston Scientific Corporation an option to distribute the newly developed technology for monitoring patients under sedation in a range of less-invasive medical specialties. The term of this agreement continues until such time that Boston Scientific Corporation is no longer distributing our products, but in no event will extend beyond December 31, 2012.

Research and Development

Our research and development efforts focus primarily on continuing to improve the function and features of the BIS system and enhancing our technical leadership in signal-processing technology for use in patient care. We intend to leverage the BIS technology for the development of new monitoring products and proprietary disposable sensors for new applications and to take advantage of new opportunities such as the intensive care unit and procedural sedation markets.

During the fiscal years ended December 31, 2003, 2002 and 2001, we spent approximately $7.3 million, $7.8 million and $7.5 million, respectively, in our research and development efforts, including clinical and regulatory expenses.

Our research and development department has four primary areas of responsibility:

- algorithm research,
- product development,
- pre-production quality assurance, and
- clinical engineering.

In 2003, we developed the BISx system which offers our original equipment manufacturer partners a BIS monitoring solution that provides the processing technology required to obtain BIS information from a single device the size of a hockey puck. The BISx system has been designed to integrate with a wide range of patient monitoring platforms sold by leading monitoring manufacturers. BISx simplifies the incorporation of BIS technology into our partners' monitoring systems and opens the door to a class of monitoring systems that has historically been out of reach due to the cost of integration. We also maintained backwards compatibility with our existing BIS engine technology to simplify the adoption of BISx by our existing partners.

We are in the process of investigating other product areas that utilize our expertise in anesthesia delivery and monitoring of the brain. We currently have a team that is investigating the use of the BIS monitoring platform to diagnose and track neurological disorders. We believe that because BIS technology quantifies changes in patients' brain wave activity, or EEG, and we have shown the BIS index correlates with memory function and changes in brain metabolism, it may be useful in detecting neurological disorders in patients. We are evaluating the application of the BIS technology to measure brain function, which may apply to detection of Alzheimer's disease, sleep cycles, seizure detection and/or other neurological disorders, including depression. Our recent research shows a correlation between the BIS index and the severity of dementia in patients with Alzheimer's disease and vascular dementia. This research complements our prior research demonstrating the correlation between the BIS index and the effects of pharmacological agents on the brain, changes in cerebral metabolic activity and clinical measures of cognitive and memory function. In 2003, we announced the results of studies which were done in collaboration with the Neuropsychiatric Institute and David Geffen School of Medicine at UCLA, showing that EEG-based brain monitoring technology predicts treatment response to antidepressant medications in depressed patients. We are also undertaking a clinical study working with the Depression Clinical and Research Program at Massachusetts General Hospital to explore the use of quantitative EEG-based brain monitoring technology as a predictor and correlate of treatment outcome in depressed patients.

Additionally, on July 12, 2002, we entered into an agreement with the Regents of the University of California under which the Regents of the University of California granted to us an option to enter into a license agreement conveying to Aspect an exclusive license to commercialize brain monitoring technology for depression which was developed by the Neuropsychiatric Institute and David Geffen School of Medicine at UCLA. We may exercise this option at anytime prior to July 12, 2004 by providing written notice to the Regents of the University of California. Upon the exercise of our option, both parties have agreed to execute an exclusive license agreement, the terms of which have already been finalized.

Manufacturing

We use 12,000 square feet of our 61,000 square foot facility located in Newton, Massachusetts for manufacturing purposes with the remainder used for development, warehouse and administrative space. In this facility, we assemble all of our BIS monitors and BIS Module Kits, and we produce substantially all of our

BIS Sensors on two semi-automated production lines. Prior to 1998, we outsourced all BIS Sensor manufacturing. We currently outsource to third parties the production of our Zipprep EEG Electrodes.

Our production process for our BIS monitors and BIS Module Kits consists of final assembly, integration and testing of standard and custom components. Our production process for our BIS Sensors consists of several manufacturing and assembly processes using custom components. Qualified sub-contractors, who have met our supplier certification process and are placed on an approved vendors list, produce certain custom components for our products. Some of the components that are necessary for the assembly of our BIS system, including some of the components used in our BIS Sensors, are currently provided to us by sole-source suppliers or a limited group of suppliers. We purchase components through purchase orders rather than long-term supply agreements and generally do not maintain large volumes of inventory. We have experienced shortages and delays in obtaining some of the components of our BIS system in the past, and we may experience similar shortages and delays in the future.

We maintain a quality-assurance program covering our manufacturing operations. Suppliers of purchased components are required to meet stated specifications. We certify suppliers prior to use by conducting audits and product inspections. We engage in ongoing evaluations of the performance of our suppliers by evaluating the results of inspections and tests as well as the timeliness of product deliveries. We employ numerous quality-assurance procedures during our in-house manufacturing processes to ensure finished products meet specification. Quality assurance procedures include operator training, process validation, equipment calibration, inspection and testing. All manufacturing procedures and processes are formally approved and updated using established revision control procedures. Documentation of in-process and final testing results is maintained in device history records for every unit. We also maintain an ongoing post-sale performance-monitoring program.

Competition

The medical device industry is subject to intense competition. We currently have three competitors in the U.S. market whose monitoring systems have been approved by the FDA. The competitive devices are based on signal-processing of the EEG and are marketed by well-established medical products companies with significant resources. We believe that new competition will come from companies, including patient monitoring companies, currently marketing conventional EEG monitors utilizing standard signal-processing techniques such as spectral edge frequency analyses and median frequency analyses. We also believe that new competition will come from companies that market EEG monitors utilizing novel signal-processing technologies. Several potential competitive products are currently being marketed outside the United States although we do not believe that these products provide any significant advantages relative to our BIS technology. These other products and techniques include the use of auditory evoked potentials, heart rate variability, pupillary reflexes and skin blood flow measurement techniques. Additionally, a number of academic researchers worldwide are studying the potential use of other techniques to measure the effects of anesthetics.

We believe that the principal competitive factors that companies in the market for anesthesia-monitoring products must address include:

- improved patient outcomes,
- cost effectiveness,
- FDA approval/clearance,
- acceptance by leading anesthesia providers,
- availability of the technology in modular patient monitoring systems,
- ease of use for anesthesia providers,
- the publication of peer reviewed clinical studies,
- sales and marketing capability,

- timing and acceptance of product innovation,
- patent protection, and
- product quality.

Patents and Proprietary Rights

Medical technology companies place considerable importance on obtaining patent and trade secret protection for new technologies, products and processes. We consider the protection of our proprietary technologies and products to be important to the success of our business and rely on a combination of patents, licenses, copyrights and trademarks to protect our technologies and products. Our policy is to prosecute and enforce our patents and proprietary technology. We intend to continue to file United States and foreign patent applications to protect technology, inventions and improvements that are considered important to the development of our business. We also rely upon trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain our competitive position.

Trade secret protection for our unpatented confidential and proprietary information is important to us. To protect our trade secrets, we generally require our employees, consultants, scientific advisors, and parties to collaboration and licensing agreements to execute confidentiality agreements upon the commencement of employment, the consulting relationship, or the collaboration or licensing arrangement with us. However, others could either develop independently the same or similar information or obtain access to our proprietary information.

We have established a substantial proprietary position with respect to our products and our core signal processing technology, bispectral analysis, and its application to biological signals. The patent position of medical device companies is highly uncertain and involves complex legal and factual questions. There can be no assurance that any claims which are included in pending or future patent applications will be issued, that any issued patents will provide us with competitive advantage or will not be challenged by third parties, or that the existing or future patents of third parties will not have an adverse effect on our ability to commercialize our products. Furthermore, there can be no assurance that other companies will not independently develop similar products, duplicate any of our products or design around patents that may be issued to us. Litigation or administrative proceedings may be necessary to enforce any patents issued to us or to determine the scope and validity of others' proprietary rights in court or administrative proceedings.

We were issued our most recent patent on November 25, 2003. As of December 31, 2003, we held 20 United States patents and had filed six additional United States patent applications. We also have numerous corresponding patents and pending patent applications in certain major industrial countries, including Canada, the major European market countries, Australia, Japan, Mexico and Brazil. The following chart summarizes our United States patents and patent applications:

Number of Issued Patents	Number of Patent Applications	Technology Covered	Patent Expiration Date
2	1	Closed loop delivery of anesthesia	May 3, 2020 May 3, 2020
4	—	Application of Bispectral and higher order analysis and various statistical modeling technologies to EEG signals	March 13, 2007 April 30, 2008 June 14, 2011 October 17, 2012
2	2	Methods of ensuring the reliability of the computed values	December 24, 2016 January 30, 2018
—	1	Method of monitoring anesthetic state using changes in arterial compliance	
1	—	Method of evaluating BIS information to facilitate clinical decision making	August 18, 2018
2	—	Application of bispectral analysis to electrocardiogram signals	May 15, 2007 June 4, 2008
—	2	Method of assessment of neurological conditions using EEG Bispectrum	
1	—	Zipprep self-prepping disposable electrode technology	April 26, 2011
2	—	Technology relating to the interface between the BIS Sensor and the BIS monitor	October 20, 2015 October 20, 2015
5	—	BIS Sensor technology	October 11, 2016 October 11, 2016 October 11, 2016 June 19, 2018 June 9, 2019
1	—	Signal acquisition technology for digital signal converter	January 17, 2012
20	6		

We have also been granted a perpetual, royalty-free, non-exclusive license by Siemens Medical Systems, Inc. to a United States patent covering signal acquisition technology for digital signal converters. Additionally, on July 12, 2002, we entered into an agreement with the Regents of the University of California under which the Regents of the University of California granted to us an option to enter into a license agreement conveying to us an exclusive license to commercialize brain monitoring technology for depression which was developed by the Neuropsychiatric Institute and David Geffen School of Medicine at UCLA. We may exercise this option at anytime prior to July 12, 2004 by providing written notice to the Regents of the University of California. Upon the exercise of our option, both parties have agreed to execute an exclusive license agreement, the terms of which have already been finalized.

Government Regulation

The manufacture and sale of medical diagnostic devices intended for commercial distribution and use are subject to extensive government regulation in the United States and in other countries. Our existing products are regulated in the United States as medical devices by the FDA under the Federal Food, Drug, and Cosmetic Act, or FDC Act. Pursuant to the FDC Act, the FDA regulates the research, testing, manufacturing, safety, labeling, storage, record keeping, advertising, distribution and production of medical devices.

Noncompliance with applicable regulations can result in refusal of the government to grant clearance for devices, withdrawal of prior clearances or approvals, total or partial suspension of production, fines, injunctions, civil penalties, recall or seizure of products and criminal prosecution.

Generally, before we can introduce a new product in the United States, we must obtain FDA clearance of a premarket notification under Section 510(k) of the FDC Act, referred to as a 510(k) notification, or approval of a premarket approval application under Section 515 of the FDC Act. To date, we have received clearance of 510(k) notification from the FDA with respect to the following products:

Product	Date of Clearance of 510(k) Notification
Zipprep EEG Electrodes	June 1994
A-1050 EEG Monitor with BIS	January 1996
BIS Standard Sensor	October 1996
BIS Clinical Utility Indication	October 1996
A-2000 BIS Monitor	February 1998
BIS Sensor Plus	January 2000
BIS Pediatric Sensor	October 2000
BIS XP Sensor family, including the BIS Quatro Sensor and BIS Extend Sensor	October 2000
BIS Module Kit	October 2000
BIS XP system	June 2001
A-2000 BIS Monitor Indication for Use change (Awareness)	October 2003
BISx system	February 2004

Once we have received clearance of a 510(k) notification, any products we manufacture or distribute are subject to extensive and continuing regulation by the FDA, including compliance with current Good Manufacturing Practices regulations, record keeping requirements, reporting of adverse experience with the use of the device, post-market surveillance, and other actions deemed necessary by the FDA. A new 510(k) notification is also required when a medical device manufacturer makes a change or modification to a legally marketed device that could significantly affect the safety or effectiveness of the device, or where there is a major change or modification in the intended use of the device. When any change or modification is made to a device or its intended use, the manufacturer must make the initial determination whether the change or modification is of a kind that would necessitate the filing of a new 510(k) notification. The FDA's regulations provide only limited guidance for making this determination.

The FDC Act regulates our quality control and manufacturing procedures by requiring us to demonstrate and maintain compliance with current Good Manufacturing Practices regulations, including quality systems regulations, as specified by the FDA. This regulation requires, among other things, that:

- we use written procedures to control our product development and manufacturing process,
- we validate, by extensive and detailed testing of every aspect of the process, our ability to produce devices which meet our manufacturing specifications,
- we investigate deficiencies in the manufacturing process or in the products produced, and
- we maintain detailed record keeping.

The current Good Manufacturing Practices regulations are applicable to manufacturers that produce components specifically for use in a medical device, and require design controls and maintenance of service records.

The FDA monitors compliance with current Good Manufacturing Practices regulations by conducting periodic inspections of manufacturing facilities. If violations of applicable regulations are noted during FDA

inspections of our manufacturing facilities, the continued marketing of our products may be adversely affected. During the last routine inspection of our manufacturing facility by the FDA, the FDA noted no adverse observations. We believe that we have continued to maintain manufacturing facilities and procedures that are fully compliant with all applicable government quality systems regulations and guidelines.

In June 1998, we obtained ISO 9001: 1994 /EN 46001 international quality management system certification and European Medical Device Directive EC certification. These certifications show that our development, production and distribution of products comply with these standards and directives. Our continued compliance with these standards and directives has been confirmed since June 1998 in semi-annual surveillance audits. In April 2003, we obtained ISO 13485/CMDR certification from a CMDCAS (Canadian) recognized registrar. The ISO 9001, ISO 13485 and Medical Device Directive certifications signify compliance with the requirements enabling us to affix the CE Mark to our current products. The CE Mark denotes conformity with European standards for safety and allows certified devices to be placed on the market in all European Union countries. Since June 1998, medical devices cannot be sold in European Union countries unless they display the CE Mark.

We have established a dedicated regulatory and quality assurance group to maintain regulatory compliance and manage all of our quality-assurance activities. This group is responsible for the following activities:

- all regulatory submissions and communications,
- scheduling and performing company-wide internal audits,
- coordinating product update procedures and corrective actions,
- maintaining adherence to appropriate procedures and applicable requirements related to the FDA's quality systems regulations and appropriate international regulations, and
- coordinating appropriate documentation for FDA/ISO 9001/ISO 13485/CMDR/MDD review and audits.

Third-Party Reimbursement

Third-party payors, including Medicare, Medicaid, private health insurance carriers, managed care organizations, health care administration authorities in foreign countries and other organizations, may affect the pricing or demand for our products by regulating the maximum amount of reimbursement provided by these payors to the anesthesia providers, hospitals, outpatient surgical centers or physicians' offices where surgical procedures are performed.

We believe that anesthesia providers will not be separately reimbursed for patient-monitoring activities utilizing the BIS system. When facilities, such as hospitals or outpatient surgical centers, are reimbursed a fixed fee calculated on a per case, per stay, or per capita basis, the cost of monitoring with the BIS system will not be recovered by these providers unless the incremental costs of this monitoring are offset by savings in other costs, such as the costs of anesthetics or costs of the operating room or post-anesthesia care unit. This type of reimbursement policy has been adopted by Medicare, for example, for both inpatient and outpatient surgery. In such cases, patient monitoring with the BIS system may not result in sufficient savings to offset these costs. When reimbursement is based on charges or costs, patient monitoring with the BIS system may have the effect of reducing reimbursement because the charges or costs for surgical procedures, including operating room and post-anesthesia care unit charges and costs, may decline as a result of monitoring with the BIS system.

In January 2002, the Japanese Ministry of Health, Labor and Welfare granted reimbursement approval for use of our BIS monitors. Healthcare providers in Japan will be eligible to receive partial reimbursement of 1,000 yen each time BIS monitoring is used. We believe that BIS monitoring is the only commercially available consciousness monitoring technology in Japan.

Employees

As of December 31, 2003, we had 198 full-time employees worldwide in the following functional areas:

Number of Employees	Functional Area
99	Sales, Marketing and Clinical Support
31	Manufacturing and Engineering
28	General and Administrative
25	Research and Development
15	Clinical and Regulatory Affairs

None of our employees is covered by a collective bargaining agreement. We consider relations with our employees to be good.

Scientific Advisors

We seek advice from a number of leading scientists and physicians on scientific and medical matters, including experts in EEG monitoring, pharmacology and anesthesia management. These individuals advise us concerning a number of matters, including:

- our research and development programs,
- the design and implementation of our clinical research program,
- our publication strategies,
- the identification of market opportunities from the clinical perspective, and
- specific scientific and technical issues.

Item 2. Properties.

We currently lease approximately 61,000 square feet in Newton, Massachusetts of which approximately 12,000 square feet is used for manufacturing and approximately 49,000 square feet is used for development, warehouse and administrative space. This lease expires on December 31, 2006. Effective February 1, 2004, the lease on our office space in Leiden, The Netherlands expired. In October 2003, we entered into a new lease for our international organization for approximately 2,765 square feet of office space located in De Meern, The Netherlands. This lease expires in October 2008. We believe our current facilities are sufficient to meet our needs through the fiscal year ending December 31, 2004 and that additional space will be available at a reasonable cost to meet our space needs thereafter.

Item 3. Legal Proceedings.

We are not a party to any material threatened or pending legal proceedings.

Item 4. Submission of Matters to a Vote of Security Holders.

No matter was submitted to a vote of security holders during the fourth quarter of the fiscal year ended December 31, 2003 through the solicitation of proxies or otherwise.

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters.

(a) *Market for Registrant's Common Equity*

Our common stock has been traded on the Nasdaq National Market under the symbol "ASPM" since January 28, 2000. The following table sets forth, for the years ended December 31, 2002 and 2003, the range of high and low sales prices for our common stock on the Nasdaq National Market. These prices do not include retail mark-up, mark-down or commissions and may not represent actual transactions.

	High	Low
2002:		
Quarter Ended March 30, 2002	$11.520	$7.910
Quarter Ended June 29, 2002	$10.899	$3.550
Quarter Ended September 28, 2002	$ 4.550	$2.170
Quarter Ended December 31, 2002	$ 5.500	$2.410
2003:		
Quarter Ended March 29, 2003	$ 4.630	$3.320
Quarter Ended June 28, 2003	$ 8.170	$3.500
Quarter Ended September 27, 2003	$10.500	$6.920
Quarter Ended December 31, 2003	$12.240	$8.870

On March 1, 2004, the last reported sales price of our common stock on the Nasdaq National Market was $17.25 per share. As of March 1, 2004, there were approximately 365 holders of record of our common stock.

(b) *Initial Public Offering*

On February 2, 2000, we sold 3,500,000 shares of our common stock, at an initial public offering price of $15.00 per share, pursuant to a Registration Statement on Form S-1 (Registration No. 333-86295), which was declared effective by the Securities and Exchange Commission on January 27, 2000. On February 4, 2000, the underwriters exercised in full their over-allotment option to purchase an additional 525,000 shares of our common stock at $15.00 per share. The managing underwriters of our initial public offering were Morgan Stanley & Co. Incorporated, Deutsche Bank Securities Inc. and U.S. Bancorp Piper Jaffray Inc.

The aggregate gross proceeds raised in the offering were approximately $60.4 million. Our total expenses in connection with the offering were approximately $5.7 million, of which $4.2 million was for underwriting discounts and commissions and, based on our reasonable estimate, approximately $1.5 million was for other expenses. Our net proceeds from the offering were approximately $54.6 million. From January 27, 2000, through December 31, 2003, we used approximately $9.6 million of the net proceeds for the acquisition of machinery and equipment, leasehold improvements, furniture and fixtures, demonstration and evaluation equipment and new information systems. In addition, from January 27, 2000, through December 31, 2003, we used approximately $40.3 million of the net proceeds for general corporate purposes, including working capital, product development, increasing our sales and marketing capabilities and expanding our international operations. As of December 31, 2003, we had approximately $4.7 million of proceeds remaining from the offering, and pending use of the proceeds, we have invested these funds in short-term, interest-bearing, investment-grade securities.

(c) *Dividend Policy*

We have never paid or declared any cash dividends on our common stock or other securities and do not anticipate paying cash dividends in the foreseeable future. We currently intend to retain all future earnings, if any, for use in the operation and expansion of our business. Payment of future cash dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion. Additionally, our revolving line of credit agreements with each of Fleet National Bank and Boston Scientific Corporation prohibit the declaration or payment of cash dividends without the consent of these parties.

Item 6. Selected Consolidated Financial Data.

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes and other financial information included elsewhere in this Annual Report on Form 10-K. The consolidated statements of operations data for the years ended December 31, 2003, 2002 and 2001, and the consolidated balance sheet data as of December 31, 2003 and 2002, are derived from our audited consolidated financial statements included in this Annual Report on Form 10-K. The consolidated statements of operations data for the years ended December 31, 2000 and 1999 and the consolidated balance sheet data as of December 31, 2001, 2000, and 1999 are derived from our audited consolidated financial statements not included in this Annual Report on Form 10-K. The historical results presented here are not necessarily indicative of future results.

	Year Ended December 31,				
	2003	2002	2001	2000	1999
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenue	$44,091	$ 39,776	$ 35,829	$36,024	$27,187
Costs of revenue	10,898	11,815	12,446	11,279	9,324
Gross profit margin	33,193	27,961	23,383	24,745	17,863
Operating expenses:					
Research and development	7,287	7,827	7,467	5,713	4,847
Sales and marketing	25,321	28,449	28,396	21,979	16,543
General and administrative	7,833	7,942	7,803	6,390	4,829
Total operating expenses	40,441	44,218	43,666	34,082	26,219
Loss from operations	(7,248)	(16,257)	(20,283)	(9,337)	(8,356)
Interest income, net	725	956	2,564	3,993	1,317
Net loss	$(6,523)	$(15,301)	$(17,719)	$(5,344)	$(7,039)
Net loss per share:					
Basic and diluted	$ (0.34)	$ (0.83)	$ (1.01)	$ (0.34)	$ (4.57)
Weighted average shares used in computing net loss per share:					
Basic and diluted	19,413	18,450	17,614	15,755	1,539

	December 31,				
	2003	2002	2001	2000	1999
			(in thousands)		
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$26,063	$31,765	$36,358	$58,489	$14,535
Restricted cash	5,100	5,100	5,100	—	—
Working capital	30,680	36,734	41,266	58,455	12,279
Total assets	47,740	54,480	63,369	79,411	29,402
Long-term debt	525	1,015	964	2,617	3,872
Total stockholders' equity	30,968	36,797	48,056	63,974	13,079

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

This Annual Report on Form 10-K contains, in addition to historical information, forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. These forward-looking statements involve risks and uncertainties and are not guarantees of future performance. Words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate" and variations of these words and similar expressions are intended to identify forward-looking statements. Our actual results could differ significantly from the results discussed in these forward-looking statements. In addition, subsequent events and developments may cause our expectations to change. While we may elect to update these forward-looking statements we specifically disclaim any obligation to do so, even if our expectations change. See the important factors in the cautionary statements below under the heading "Factors Affecting Future Operating Results" that we believe could cause our actual results to differ materially from the forward-looking statements we make.

Overview

We derive our revenue primarily from sales of BIS monitors, BIS Module Kits and related accessories, which we collectively refer to as Equipment, and sales of BIS Sensors. For management purposes, we segregate our revenue by export sales by region and sales by products as shown in the following table:

	2003	2002	2001
		(in thousands)	
Domestic revenue	$35,968	$33,089	$28,165
Percent of total revenue	82%	83%	79%
International revenue	$ 8,123	$ 6,687	$ 7,664
Percent of total revenue	18%	17%	21%
BIS Sensor revenue	$30,391	$26,724	$24,347
Percent of total revenue	69%	67%	68%
Equipment revenue	$13,700	$13,052	$11,482
Percent of total revenue	31%	33%	32%

At December 31, 2003, we had cash, cash equivalents, restricted cash and short-term investments of approximately $31.2 million and working capital of approximately $30.7 million.

We follow a system of fiscal quarters as opposed to calendar quarters. Under this system, the first three quarters of each fiscal year end on the Saturday closest to the end of the calendar quarter and the last quarter of the fiscal year always ends on December 31.

We believe our ability to grow our revenue is directly related to our ability to sell our Equipment to healthcare organizations and influence our customers to purchase and use our BIS Sensors. We believe the increase in our installed base of Equipment resulting from the sale of BIS monitors and the sale of original equipment manufacturers' equipment incorporating our BIS Module Kit have been the primary reasons for the growth in revenue from the sale of BIS Sensors. In order to successfully grow our business, we need to continue to focus on both selling our Equipment and improving our per monitor and per module sensor utilization rate. To achieve this growth, we continue to implement new sales and marketing programs. We expect that as we grow our business, revenue from the sale of BIS Sensors should contribute an increasing percentage of total revenue. Additionally, we believe that over time, revenue from the sale of BIS Module Kits will increase as a percentage of total Equipment revenue as healthcare organizations purchase our technology as part of an integrated solution offered by our original equipment manufacturers. In 2003, approximately 62% of our growth in our installed base was attributable to placements by our original equipment manufacturers.

We believe that maintaining our gross profit margin and controlling the growth of our operating expenses are important factors to achieving profitability. To maintain our gross profit margin we believe we must continue to focus on maintaining our average unit prices for both BIS monitors and BIS Sensors, increase revenue from the sale of BIS Sensors as a percentage of total revenue, as BIS Sensors have a higher gross profit margin than Equipment, and continue to reduce the costs of manufacturing our products.

In addition, the transition from BIS monitor placements to BIS module placements has adversely impacted our gross profit margin on Equipment as BIS Module Kits have a lower gross margin than the BIS monitors. However, we believe that this transition should, over time, improve our total gross profit margin as we expect BIS module placements to be a contributing factor to increasing revenue from the sale of our BIS Sensors.

For those healthcare organizations desiring to purchase our BIS monitors, we offer two options. Our customers have the option either to purchase BIS monitors outright or to acquire BIS monitors pursuant to a sales-type lease agreement whereby the customer contractually commits to purchase a minimum number of BIS Sensors per BIS monitor per year. Under our sales-type leases, customers purchase BIS Sensors and the BIS monitor for the purchase price of the BIS Sensors plus an additional charge per BIS Sensor to pay for the purchase price of the BIS monitor and related financing costs over the term of the agreement. We also grant these customers an option to purchase the BIS monitors at the end of the term of the agreement, which is typically three to five years. We recognize equipment revenue under sales-type lease agreements either at shipment or delivery in accordance with the agreed upon contract terms with interest income recognized over the life of the sales-type lease. The cost of the BIS monitor acquired by the customer is recorded as costs of revenue in the same period. Sales-type leases accounted for approximately 4%, 4% and 3% of total revenue in 2003, 2002 and 2001, respectively.

Under certain limited circumstances, we also offer customers the opportunity to use the BIS monitors under our Equipment Placement program, which we refer to as the EP program. Under the EP program, the customer is granted the right to use the BIS monitors for a mutually agreed upon period of time. During this period, the customer purchases BIS Sensors at a price that includes a premium above the list price of the BIS Sensors to cover the rental of the equipment, but without any minimum purchase commitments. At the end of the agreed upon period, the customer has the option of purchasing the BIS monitors, continuing to use them under the EP program or returning them to us. Beginning in 2002, we substantially reduced our focus and reliance on the EP program. Sensor revenue related to the EP program was approximately $1.4 million, $1.4 million and $1.2 million at December 31, 2003, 2002 and 2001, respectively. At December 31, 2003 and 2002 the number of BIS monitors used in the EP program had decreased by 31% and 26%, respectively.

We have subsidiaries in The Netherlands and the United Kingdom to facilitate the sale of our products into the international market. We are continuing to develop our international sales and distribution program through a combination of distributors and marketing partners, including companies with which we have entered into original equipment manufacturer relationships.

In January 1998, we entered into a distribution agreement with Nihon Kohden Corporation to distribute BIS monitors in Japan. In March 2000, Nihon Kohden received approval from the Japanese Ministry of Health, Labor and Welfare for marketing in Japan our A-1050 EEG Monitor with BIS and in May 2001, received approval for marketing in Japan our A-2000 BIS Monitor. Nihon Kohden has requested but has not yet received approval to market the BIS XP system in Japan. In January 2002, the Japanese Ministry of Health, Labor and Welfare granted reimbursement approval for use of our BIS monitors. With this approval, healthcare providers in Japan are eligible to receive partial reimbursement of 1,000 Yen each time BIS monitoring is used. In July 2002, the Japanese Ministry of Health, Labor and Welfare approved our BIS module for marketing in Japan. Sales to Nihon Kohden represented approximately 13%, 22% and 26%, respectively, of international revenue in 2003, 2002 and 2001, respectively.

Various factors may adversely affect our quarterly operating results through the first fiscal quarter of 2004 and the year ending December 31, 2004. These factors include a potentially adverse effect on Equipment revenue and gross profit margin on Equipment as we continue to shift the focus of our placements from BIS monitors to BIS modules. In addition, in Japan, Nihon Kohden is awaiting approval of the BIS XP system, and we believe customers may continue to delay purchases of our products or may choose not to purchase our products pending this approval. Finally, on November 1, 2003, our international master distribution agreement with Datex-Ohmeda expired. We are currently replacing this agreement with country-specific distribution agreements with Datex-Ohmeda sales subsidiaries and other distributors in various countries. A delay in signing these country-specific distribution agreements may adversely affect Equipment revenue in the

international market. To date, we have entered into several new country-specific distribution agreements, and we continue to negotiate others.

Critical Accounting Policies

Management's discussion and analysis of the financial condition and results of operations is based upon the consolidated financial statements which have been prepared in accordance with accounting principles generally accepted in the United States. Note 2 of the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K includes a summary of our significant accounting policies and methods used in the preparation of our financial statements. In preparing these financial statements, we have made estimates and judgments in determining certain amounts included in the financial statements. The application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. We do not believe there is a significant likelihood that materially different amounts would be reported under different conditions or using different assumptions. We believe that our critical accounting policies are as follows:

Revenue Recognition

We sell our BIS monitors primarily through a combination of a direct sales force and through distributors. Our BIS Module Kits are sold through original equipment manufacturers. BIS Sensors are sold through a combination of a direct sales force, distributors and original equipment manufacturers. Direct product sales are structured as sales, sales-type lease arrangements or sales under our EP program. We recognize revenue from product sales when earned as required by generally accepted accounting principles and in accordance with Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition* and EITF 00-21, *Revenue Arrangements with Multiple Deliverables.* Revenue is recognized when persuasive evidence of an arrangement exists, product delivery, including customer acceptance, has occurred or services have been rendered, the price is fixed or determinable and collectibility is reasonably assured. For product sales, revenue is not recognized until title and risk of loss have transferred to the customer.

We also recognize revenue from prepaid license and royalty fees. This revenue is deferred until product shipment or delivery in accordance with the terms of the agreement and license and royalty fees are earned in accordance with the terms of the respective agreements. In August 2002, we recorded approximately $6,300,000 of deferred revenue related to an OEM product development and distribution agreement with Boston Scientific Corporation. The deferred revenue is being recognized ratably over the term of the OEM product development and distribution agreement, which represents our best estimate of our period of significant continuing obligation to provide Boston Scientific Corporation exclusive distribution rights to newly developed technology. If our estimate of the period of significant continuing obligation is revised, this may have an impact on our revenue recognition of the deferred revenue related to the Boston Scientific Corporation agreement.

We follow Statement of Financial Accounting Standards, or SFAS, No. 13, *Accounting For Leases*, for our sales-type lease agreements. Under our sales-type leases, customers purchase BIS Sensors and the BIS monitor for the purchase price of the BIS Sensors plus an additional charge per BIS Sensor to pay for the purchase price of the BIS monitor and related financing costs over the term of the agreement. The minimum lease payment, consisting of the additional charge per BIS Sensor, less the unearned interest income, which is computed at the interest rate implicit in the lease, is recorded as the net investment in sales-type leases. We recognize equipment revenue under sales-type lease agreements either at shipment or delivery in accordance with the agreed upon contract terms with interest income recognized over the life of the sales-type lease. The cost of the BIS monitor acquired by the customer is recorded as costs of revenue in the same period. We review and assess the net realizability of our investment in sales-type leases at each reporting period. This review includes determining, on a customer specific basis, if a customer is significantly underperforming relative to the customer's cumulative level of committed BIS Sensor purchases as required by the sales-type lease agreement. If a customer is underperforming, we record an allowance for lease payments as a charge to revenue to reflect the lower estimate of the net realizable investment in sales-type lease balance.

Under our EP program, the customer is granted the right to use the BIS monitors for a mutually agreed upon period of time. During this period, the customer purchases BIS Sensors at a price that includes a premium above the list price of the BIS Sensors to cover the rental of the equipment, but without any minimum purchase commitments. At the end of the agreed upon period, the customer has the option of purchasing the BIS monitors, continuing to use them under the EP program or returning them to us. Under the EP program, no equipment revenue is recognized as the equipment remains our property and title does not pass to the customer and the criteria for sales-type leases under SFAS No. 13 are not met. The BIS monitors under the EP program are depreciated over two years and the depreciation is charged to costs of revenue. BIS Sensor revenue is recognized either at shipment or delivery of the BIS Sensors in accordance with the agreed upon contract terms.

We recognize revenue either at shipment or delivery in accordance with the agreed upon contract terms with distributors and original equipment manufacturers in accordance with SAB No. 104. Sales to distributors and original equipment manufacturers include a clause in the contracts that indicates that customer acceptance is limited to confirmation that our products function in accordance with our applicable product specifications in effect at the time of delivery. Formal acceptance by the distributor or original equipment manufacturer is not necessary to recognize revenue provided that we objectively demonstrate that the criteria specified in the acceptance provisions are satisfied. Each product is tested prior to shipment to ensure that it meets the applicable product specifications in effect at the time of delivery. Additionally, we have historically had a minimal number of defective products shipped to distributors and original equipment manufacturers and any defective products are subject to repair or replacement under warranty as distributors and original equipment manufacturers do not have a right of return.

Our obligations under warranty are limited to repair or replacement of any product that we reasonably determine to be covered by the warranty. We record an estimate for our total warranty obligation in accordance with SFAS No. 5, *Accounting for Contingencies.*

Accounts Receivable

We determine our allowance for doubtful accounts by using estimates based on our historical collections experience, current trends, historical write-offs of our receivables, credit policy and a percentage of our accounts receivable by aging category. We also review the credit quality of our customer base as well as changes in our credit policies. We continuously monitor collections and payments from our customers. While credit losses have historically been within our expectations and the provisions established, our credit loss rates in the future may not be consistent with our historical experience. To the extent we experience a deterioration in our historical collections experience or increased credit losses, bad debt expense would likely increase in future periods.

Inventories

We value inventory at the lower of cost or estimated market, and determine cost on a first-in, first-out basis. We regularly review inventory quantities on hand and record a provision for excess or obsolete inventory primarily based on production history and on our estimated forecast of product demand. The medical industry in which we market our products is characterized by rapid product development and technological advances that could result in obsolescence of inventory. Additionally, our estimates of future product demand may prove to be inaccurate, in which case we would need to change our estimate of the provision required for excess and obsolete inventory. If revisions are deemed necessary, we would recognize the adjustments in the form of a charge to costs of revenue at the time of the determination. Therefore, although we continually update our forecasts of future product demand, any significant unanticipated declines in demand or technological developments, such as the introduction of new products by our competitors, could have a significant negative impact on the value of our inventory, results of operations and cash flows in future periods.

Warranty

Equipment that we sell generally is covered by a warranty period of one year. We accrue a warranty reserve for estimated costs to provide warranty services. Our estimate of costs to service our warranty obligations is based on our historical experience and expectation of future conditions. While our warranty costs have historically been within our expectations and the provisions established, to the extent we experience increased warranty claim activity or increased costs associated with servicing those claims, our warranty expenses will increase, and we would experience decreased gross profit margin and cash flow.

Results of Operations

The following tables present, for the periods indicated, information expressed as a percentage of revenue and a summary of our total revenue. This information has been derived from our consolidated statements of operations included elsewhere in this Annual Report on Form 10-K. You should not draw any conclusions about our future results from the results of operations for any period.

	Year Ended December 31,		
	2003	2002	2001
Revenue	100%	100%	100%
Costs of revenue	25	30	35
Gross profit margin	75	70	65
Operating expenses:			
Research and development	17	20	21
Sales and marketing	57	71	79
General and administrative	18	20	22
Total operating expenses	92	111	122
Loss from operations	(17)	(41)	(57)
Interest income, net	2	2	7
Net loss	(15)%	(39)%	(50)%

Year Ended December 31, 2003 Compared to Year Ended December 31, 2002

	2003	2002	Percentage Increase (Decrease)
	(in thousands except unit amounts)		
Revenue — Worldwide			
BIS Sensor	$ 30,391	$ 26,724	14%
BIS monitor	6,942	8,181	(15)%
BIS Module Kit	3,229	1,479	118%
Other equipment and accessories	3,529	3,392	4%
Total Equipment	13,700	13,052	5%
Total revenue	$ 44,091	$ 39,776	11%
Unit Analysis — Worldwide			
BIS Sensors	2,244,000	2,055,000	9%
BIS monitors	1,340	1,714	(22)%
Original equipment manufacturer BIS modules	2,259	1,066	112%
Installed base	19,517	16,210	20%

Revenue. The increase in revenue from the sale of BIS Sensors from 2002 to 2003 was primarily attributable to an increase of approximately 9% in the number of BIS Sensors sold as a result of growth in the installed base of BIS monitors and BIS modules. The increase in the number of BIS Sensors sold was complemented by an increase in the average selling price of BIS Sensors of approximately 4%. Our installed base of BIS monitors and BIS modules increased approximately 20% to 19,517 units at December 31, 2003 compared to 16,210 units at December 31, 2002.

The increase in revenue from the sale of Equipment from 2002 to 2003 was primarily driven by an increase in BIS Module Kit revenue of approximately 118%. The increase in module revenue for this period was due to an increase of approximately 112% in the number of BIS Module Kits shipped to our original equipment manufacturers, from 1,066 BIS Module Kits in 2002 to 2,259 BIS Module Kits in 2003. The increase in BIS Module Kit revenue in this period was partially offset by a decrease in BIS monitor revenue of approximately 15%. The decrease in BIS monitor revenue resulted from a decrease of approximately 22% in unit volume, as we shipped 1,714 BIS monitors in 2002 compared to 1,340 BIS monitors in 2003. The decrease in monitor unit volume was a result of a decrease of approximately 25% in international BIS monitors shipped, particularly relating to units shipped to Japan. Sales of BIS monitor units in Japan decreased from 200 units shipped in 2002 to none in 2003 as Nihon Kohden delayed additional BIS monitor purchases pending the Japanese Ministry of Health, Labor and Welfare approval of the XP technology.

Our gross profit margin was approximately 75% of revenue in 2003 as compared to a gross profit margin of approximately 70% of revenue in 2002. The increase in gross profit margin for the year ended December 31, 2003 was a result of four factors. First, we experienced increased sales of our BIS Sensors as a percentage of total revenue during the year ended December 31, 2003. BIS Sensors accounted for approximately 69% of total revenue for the year ended December 31, 2003 as compared to 67% for the year ended December 31, 2002. BIS Sensors have a higher gross profit margin than Equipment. Second, we had an increase in the worldwide average unit price on BIS monitors of approximately 8% in 2003 compared to 2002. Third, we have had a reduction in depreciation expense related to BIS monitors used in the EP program as the existing pool of BIS monitors becomes fully depreciated and we substantially reduce our focus and reliance on the EP program. Finally, we recognized approximately $615,000 of deferred revenue in the year ended December 31, 2003 related to the strategic alliance with Boston Scientific Corporation without any corresponding costs of revenue, increasing the gross profit margin by approximately 2%. We expect our gross profit margin to increase slightly in 2004 compared with 2003 as we expect sales from BIS Sensors to continue to increase as a percentage of our total revenue.

Expense Overview

	2003	2002	Percentage Increase (Decrease)
	(in thousands)		
Expenses			
Research and development	$ 7,287	$ 7,827	(7)%
Sales and marketing	$25,321	$28,449	(11)%
General and administrative	$ 7,833	$ 7,942	(1)%

Research and Development. The decrease in research and development expenses in 2003 as compared to 2002 was primarily attributable to a decrease in research and development personnel and related payroll and other expenses of approximately $659,000. This decrease was offset by an increase in consulting expenses of approximately $138,000 for various ongoing projects. We expect research and development expenses in 2004 to increase moderately as compared with 2003 as we continue to invest in clinical studies and expand applications for our technology, including our initiatives into neuroscience.

Sales and Marketing. The decrease in sales and marketing expenses in 2003 as compared to 2002 was attributable to decreases of approximately $757,000 in travel and entertainment expenses, approximately $987,000 in operating expenses associated with our international subsidiaries, approximately $739,000 in

expenses related to advertising, public relations, tradeshows and the internet, approximately $339,000 in recruiting expenses and approximately $748,000 in payroll expense. The $987,000 decrease in expenses associated with our international subsidiaries was driven by a decrease of approximately $573,000 in personnel and related payroll expenses. The decreases in sales and marketing expenses were offset by an increase in commissions expense of approximately $1.2 million. We expect sales and marketing expenses in 2004 to decrease compared with 2003 as a result of cost reductions in various programs and improved control over discretionary spending.

General and Administrative. The decrease in general and administrative expenses in 2003 as compared to 2002 was attributable to a decrease of approximately $388,000 in professional services and a decrease of approximately $137,000 in our provision for doubtful accounts due to improvements in our historical collection experience. These decreases were offset by increases of approximately $302,000 in personnel related payroll and other expenses and approximately $101,000 primarily as a result of an increase in the annual premium for our directors and officers liability insurance coverage. We expect general and administrative expenses in 2004 to increase as compared with 2003 as we anticipate increases in expenses for professional services and consultants.

Interest Income, Net. Net interest income decreased to approximately $725,000 in 2003 from approximately $956,000 in 2002, a decrease of approximately 24%. Interest income decreased to approximately $924,000 in 2003 from approximately $1.2 million in 2002, a decrease of approximately 23%. The decrease in interest income was primarily attributable to lower cash and investment balances resulting from continued operating losses and our other uses of cash, and lower interest rates on our investments as a result of general interest rate declines.

Interest expense decreased to approximately $198,000 in 2003 from approximately $243,000 in 2002, a decrease of approximately 18%. The decrease in interest expense in 2003 was a result of lower average outstanding debt obligations because we did not draw down on our lines of credit in 2003 as we did in 2002. We expect net interest income to decline in 2004 as compared with 2003 as a result of continuing low interest rates and a lower cash and investment balance.

Net Loss. As a result of the factors discussed above, in 2003 we had a net loss of approximately $6.5 million as compared with a net loss of approximately $15.3 million in 2002.

Year Ended December 31, 2002 Compared to Year Ended December 31, 2001

	2002	2001	Percentage Increase (Decrease)
	(in thousands except unit amounts)		
Revenue — Worldwide			
BIS Sensor	$ 26,724	$ 24,347	10%
BIS monitor	8,181	7,569	8%
BIS Module Kit	1,479	2,347	(37)%
Other equipment and accessories	3,392	1,566	117%
Total Equipment	13,052	11,482	14%
Total revenue	$ 39,776	$ 35,829	11%
Unit Analysis — Worldwide			
BIS Sensors	2,055,000	1,900,000	8%
BIS monitors	1,714	1,926	(11)%
Original equipment manufacturer BIS modules	1,066	1,684	(37)%
Installed base	16,210	13,578	19%

Revenue. We believe that the primary factor that contributed to the increase in revenue from the sale of Equipment in 2002 as compared to 2001 was an increase of approximately 117% in the sale of other equipment and accessories, particularly sales of the BIS XP system upgrade kits. Additionally, we had an increase of

approximately 8% in BIS monitor revenue. The increase in BIS monitor revenue resulted from an increase of approximately 32% in the monitor average unit price partially offset by a decrease of approximately 11% in monitor unit volume. The decrease in monitor unit volume was primarily related to a reduction of sales in Japan from 430 units in 2001 to 200 units in 2002 as Nihon Kohden delayed additional BIS monitor purchases pending Japanese Ministry of Health, Labor and Welfare approval of our BIS XP system. The increase in the monitor average unit price reflects an increase of approximately 60% in the domestic average selling price of BIS monitors in 2002 compared to 2001. Offsetting the increase in BIS monitor revenue was a decrease of approximately 37% in revenue from the sale of BIS Module Kits which resulted from a decrease of approximately 37% in module unit volume in 2002 as compared to 2001.

The increase in revenue from the sale of BIS Sensors from 2001 to 2002 was primarily attributable to an increase of approximately 8% in the number of BIS Sensors sold as a result of growth in the installed base of BIS monitors and BIS modules and a slight increase in the average selling price of the BIS Sensors. Our installed base of BIS monitors and BIS modules increased approximately 19% to 16,210 units at December 31, 2002 compared to 13,578 at December 31, 2001.

Our gross profit margin was approximately 70% of revenue in 2002 as compared to a gross profit margin of approximately 65% of revenue in 2001. The increase in gross profit margin percentage for the year ended December 31, 2002 as compared to the year ended December 31, 2001 was a result of two factors. First, we experienced increased sales of our BIS Sensors as a percentage of total revenue. BIS Sensors have a higher gross margin than Equipment. Second, we experienced an increase in the average worldwide selling price of BIS monitors of approximately 32% in the year ended December 31, 2002 compared to the year ended December 31, 2001.

Expense Overview

	2002	2001	Percentage Increase (Decrease)
	(in thousands)		
Expenses			
Research and development	$ 7,827	$ 7,467	5%
Sales and marketing	$28,449	$28,396	0%
General and administrative	$ 7,942	$ 7,804	2%

Research and Development. The increase in research and development expenses in 2002 as compared to 2001 was primarily attributable to increases in research and development personnel and related payroll and other expenses of approximately $735,000, which included approximately $194,000 related to the reduction in force announced in November 2002, consulting expenses of approximately $119,000 and approximately $33,000 in patent related expenses. These increases were offset by a decrease in product development expenses of approximately $190,000 as a result of the completion of the development of our BIS XP system and BIS Extend Sensor and a decrease in clinical studies expenses of approximately $150,000.

Sales and Marketing. During 2002, there were increases in expenses related to clinical education initiatives of approximately $168,000 and in operating expenses associated with our international subsidiaries of approximately $1.1 million, of which approximately $783,000 was personnel and related payroll and other expenses. The international personnel and related payroll expenses included approximately $520,000 of severance, including amounts related to the resignation in January 2002 of our vice president and managing director of international and the reduction of force announced in November 2002. These increases were offset by decreases in consulting expenses of approximately $710,000, expenses associated with increasing our name and brand awareness through advertising, public relations, tradeshows and the internet of approximately $293,000 and approximately $65,000 in sales and marketing personnel and related payroll and other expenses, net of approximately $72,000 related to the reduction in force.

General and Administrative. The increase in general and administrative expenses in 2002 as compared to 2001 was attributable to increases in professional and consulting expenses of approximately $291,000, insurance expense of approximately $355,000 and general and administrative personnel and related payroll and other expenses of approximately $97,000. The increases in general and administrative expenses were offset by decreases in investor relations expenses of approximately $137,000 and franchise, use and other tax expenses of approximately $185,000.

Interest Income, Net. Net interest income decreased to approximately $956,000 in 2002 from approximately $2.6 million in 2001, a decrease of approximately 63%. Interest income decreased to approximately $1.2 million in 2002 from approximately $2.9 million in 2001, a decrease of approximately 59%. The decrease in interest income was primarily attributable to lower cash and investment balances resulting from continued operating losses and other uses of cash and lower interest rates on our investments as a result of general interest rate declines. Interest expense decreased to approximately $243,000 in 2002 from approximately $365,000 in 2001, a decrease of approximately 34%. The decrease in interest expense in 2002 was a result of the repayment of our equipment and term loans in May 2001, lower average outstanding debt obligations resulting from payments under our other debt obligations, and lower interest rates on our working capital line of credit as compared to the equipment and term loans.

Net Loss. As a result of the factors discussed above, in 2002 we had a net loss of approximately $15.3 million as compared to a net loss of approximately $17.7 million in 2001.

Quarterly Results of Operations

The following table sets forth unaudited selected operating results for each of the eight fiscal quarters in the two years ended December 31, 2003. We believe that the following selected quarterly information includes all adjustments (consisting only of normal, recurring adjustments) that we consider necessary to present this information fairly. This financial information should be read in conjunction with the financial statements and related notes included elsewhere in this Annual Report on Form 10-K. Our results of operations have fluctuated in the past and are likely to continue to fluctuate significantly from quarter to quarter in the future. Therefore, results of operations for any previous periods are not necessarily indicative of results of operations to be recorded in the future.

	Quarter Ended							
	March 30, 2002	June 29, 2002	September 28, 2002	December 31, 2002	March 29, 2003	June 28, 2003	September 27, 2003	December 31, 2003
	(in thousands)							
Revenue	$ 9,687	$10,051	$ 9,995	$10,043	$10,127	$10,709	$11,189	$12,066
Gross profit margin	6,169	7,027	7,192	7,573	7,578	7,992	8,428	9,195
Operating expenses	11,143	10,917	10,828	11,330	10,296	9,972	9,982	10,191
Net loss	(4,699)	(3,662)	(3,406)	(3,534)	(2,524)	(1,795)	(1,387)	(817)

Liquidity and Capital Resources

Our liquidity requirements have historically consisted of research and development expenses, sales and marketing expenses, capital expenditures, working capital and general corporate expenses. From our inception through January 2000, we financed our operations primarily from the sale of our convertible preferred stock. Through December 31, 2003, we raised approximately $77.6 million from private equity financings and received approximately $3.4 million in equipment financing and approximately $5.1 million of financing related to our investment in sales-type leases. We also received approximately $2.8 million of financing under a term loan in December 1999. The outstanding principal on the equipment and term loans was paid in May 2001. In February 2000, we closed our initial public offering of an aggregate of 4,025,000 shares of common stock and received net proceeds of approximately $54.6 million.

In May 2001, we entered into an agreement with Fleet National Bank, or Fleet, for a $5.0 million revolving line of credit, which expires in May 2004. The revolving line of credit with Fleet contains restrictive covenants that require us to maintain liquidity and net worth ratios and is secured by certain of our

investments, which are shown as restricted cash on our consolidated balance sheet. We are required to maintain restricted cash and securities with a net equity value equal to 102% of the $5.0 million commitment. Interest on any borrowings under the revolving line of credit with Fleet is, at our election, either the prime rate or at LIBOR plus 2.25%. At December 31, 2003, the interest rate on the line of credit with Fleet was 4.00%. Up to $1.5 million of the $5.0 million revolving line of credit is available for standby letters of credit. There was no outstanding balance under this line of credit at December 31, 2003. At December 31, 2003, we had standby letters of credit outstanding in the amount of $165,137. We are currently in the process of renewing our line of credit agreement with Fleet.

In August 2002, we entered into a strategic alliance with Boston Scientific Corporation whereby we sold 1,428,572 shares of our common stock at a purchase price per share of $7.00 to Boston Scientific Corporation. Gross cash proceeds from this sale of common stock were $10,000,004. Note 19 of our Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K includes additional information relating to the strategic alliance with Boston Scientific Corporation.

In August 2002, we also entered into an agreement with Boston Scientific Corporation for a revolving line of credit under which we are entitled to borrow up to $5.0 million. The revolving line of credit expires in August 2007 and may be extended at the discretion of Boston Scientific Corporation. Interest on any borrowings under this revolving line of credit is at a rate equal to the LIBOR rate at which Boston Scientific Corporation, under its own revolving credit facility, is entitled to borrow funds, plus any additional amounts payable thereon by Boston Scientific Corporation under such revolving credit facility, plus eighty basis points. Our revolving line of credit with Boston Scientific Corporation is secured by our inventory and certain of our accounts receivable and contains certain restrictive covenants covering the collateral. At December 31, 2003, there was no outstanding balance under this revolving line of credit.

We expect to meet our short-term liquidity needs through the use of cash and short-term investments on hand at December 31, 2003. We believe that the financial resources available to us, including our current working capital and available revolving lines of credit will be sufficient to finance our planned operations and capital expenditures through the end of 2004. However, our future liquidity and capital requirements will depend upon numerous factors, including the resources required to further develop our marketing and sales organization domestically and internationally, to finance our research and development programs, to implement new marketing programs, to finance our sales-type lease program and to meet market demand for our products.

Working capital at December 31, 2003 was approximately $30.7 million compared to approximately $36.7 million at December 31, 2002. The decrease in working capital from December 31, 2002 to December 31, 2003 was primarily attributable to our net loss of approximately $6.5 million in 2003.

We used approximately $5.2 million of cash for operations in 2003. Cash used for operations during this period was primarily driven by operating losses of approximately $6.5 million, an increase in accounts receivable of approximately $870,000 due to increased sales, particularly in the fourth quarter of 2003, an increase in our investment in sales-type leases of approximately $268,000 and a decrease in deferred revenue of approximately $898,000 primarily related to the recognition of the deferred revenue related to the strategic alliance entered into with Boston Scientific Corporation. These were offset by decreases in inventory of approximately $819,000 and an increase of approximately $744,000 in accrued liabilities.

The decrease in inventory was a result of an initiative to promote lean manufacturing principles and as a result, inventory has decreased during the year. We expect inventory levels to remain at similar levels, in relation to revenue, for the foreseeable future. There was also approximately $48,000 of raw material components of monitors, which were written down to zero cost and subsequently scrapped or used for repair service. The increase in accrued liabilities of $744,000 was driven by an increase in accrued bonus for 2003, which was paid in January 2004. We used approximately $25.5 million for operations during the three years ended December 31, 2003, which was primarily driven by operating losses. The operating losses were offset by a decrease in inventory of approximately $3.2 million due to improved inventory management and a net increase in deferred revenue of approximately $4.6 million primarily related to proceeds received in connection with the strategic alliance entered into in August 2002.

We received approximately $6.0 million of cash from investing activities in 2003. The cash received from investing activities in 2003 was primarily the result of the sales and maturities of our investments in marketable securities. We received approximately $6.5 million, net, of proceeds from sales and maturities of marketable securities and invested approximately $868,000 primarily related to expenditures for the purchase of computer hardware and third-party software and machinery and equipment. We received approximately $11.6 million for investing activities during the three years ended December 31, 2003 primarily as a result of net proceeds from sales and maturities of marketable securities of approximately $20.9 million offset by an increase in restricted cash of approximately $5.1 million and approximately $3.7 million in expenditures for manufacturing equipment, leasehold improvements, furniture and fixtures and computer hardware and third-party software.

We used approximately $7,000 of cash for financing activities in 2003 primarily as a result of payments of principal on debt related to our investment in sales-type leases of approximately $965,000, offset by proceeds from the issuance of our common stock upon the exercise of stock options granted under our stock option plans and for purchases under our employee stock purchase plan of approximately $499,000 and proceeds from the sale of our investment in sales type leases of approximately $266,000. We received approximately $2.5 million of cash from financing activities during the three years ended December 31, 2003. Cash provided by financing activities during this period was primarily the result of proceeds from the sale of shares of our common stock in connection with a strategic alliance entered into in August 2002, and the sale of a portion of our investment in sales-type leases, offset by payments on our equipment loan, term loan and debt related to our investment in sales-type leases.

We guarantee certain operating lease obligations of our subsidiaries of approximately $208,000 for the lease of automobiles.

In July 1999, we entered into an agreement under which we can sell a portion of our existing and future investment in sales-type leases to Americorp Financial, Inc. Through December 31, 2003, we sold approximately $5.1 million of our investment in sales-type leases. In accordance with SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities — A replacement of FASB Statement No. 125*, the proceeds from these sales are classified as debt. Payments on the outstanding principal under this debt match the timing of the payments due on the underlying investment in sales-type leases. At December 31, 2003, approximately $1.2 million is recorded as debt on our consolidated balance sheet.

We had capital expenditures of approximately $868,000 for the year ended December 31, 2003, which related primarily to improvements to our information systems through the purchase of computer hardware and third-party software. At December 31, 2003, we had entered into an agreement to purchase a piece of manufacturing equipment for use in the production of our BIS Sensors. We anticipate that the level of capital expenditures in 2004 will increase from the level of capital expenditures during the year ended December 31, 2003 mostly as a result of the expected purchase of this manufacturing equipment.

We have summarized below our contractual cash obligations as of December 31, 2003.

	Payments Due By Period				
Contractual Obligations	Total	Less Than One Year	One to Three Years	Three to Five Years	After Five Years
Operating leases	$3,686,065	$1,258,949	$2,239,422	$187,694	$ —
Debt related to the sale of investment in sales type leases	1,203,572	678,554	521,465	3,553	—
Total contractual cash obligations	$4,889,637	$1,937,503	$2,760,887	$191,247	$ —

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which

are typically established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Income Taxes

We have net operating loss and research and development tax credit carryforwards for federal income tax purposes of approximately $80,740,000 and $2,247,000, respectively, at December 31, 2003 that began expiring in 2002 and will continue to expire through 2023 if not utilized.

The net operating loss and research and development tax credit carryforwards are subject to review by the Internal Revenue Service. Ownership changes, as defined under Sections 382 and 383 in the Internal Revenue Code, may limit the amount of these tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on our value immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years.

Effects of Inflation

We believe that inflation and changing prices over the past three years have not had a significant impact on our revenue or on our results of operations.

Conversion to Euro

Twelve of the 15 members of the European Union have adopted the Euro as their legal currency. Our current information systems allow us to process Euro-denominated transactions. We are also assessing the business implications of the conversion to the Euro, including long-term competitive implications and the effect of market risk with respect to financial instruments. The majority of our international sales are denominated in U.S. dollars. We do not believe the Euro has had a significant effect on our business, financial condition or results of operations. However, the expenses and capital spending of our international subsidiaries are transacted in the respective country's local currency. As a result, changes in foreign currency exchange rates or weak economic conditions in foreign markets could affect our financial condition or results of operations.

Recent Accounting Pronouncements

In December 2002, the Financial Accounting Standards Board, or FASB, issued SFAS No. 148, *Accounting for Stock-Based Compensation — Transition and Disclosure.* SFAS No. 148 amends SFAS No. 123 and APB No. 28, *Interim Financial Reporting*, to present alternative methods of transition for an entity that voluntarily adopts the fair value based method of accounting for stock-based employee compensation, and provides modifications to the disclosure provisions to require prominent disclosure about the effects on reported net income of an entity's accounting policy decisions with respect to stock-based employee compensation in quarterly and annual financial statements. At this time, we have not voluntarily adopted the fair value method of accounting under SFAS No. 123. However, appropriate disclosures about the effects on reported net loss of our accounting policy with respect to stock-based employee compensation is reported in our consolidated financial statements.

In January 2003, the FASB issued Financial Interpretation No. 46, or FIN 46, *Consolidation of Variable Interest Entities*, and in December 2003, issued a revision to FIN 46 (FIN 46R). FIN 46 requires that if an entity has a controlling financial interest in a variable interest entity, the assets, liabilities and results of activities of the variable interest entity should be included in the consolidated financial statements of the entity. FIN 46 is effective immediately for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period ending after December 15, 2003. The adoption of FIN 46 did not have a material effect on our results of operations, cash flows or financial position.

In April 2003, the FASB issued SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities.* This statement amends and clarifies financial accounting and reporting for derivative

instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS No. 133. SFAS No. 149 is effective for contracts entered into or modified after June 30, 2003. The adoption of SFAS No. 149 did not have a material effect on our results of operations, cash flows or financial position.

In May 2003, the FASB issued SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. SFAS No. 150 establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. SFAS No. 150 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 otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. The Company adopted SFAS No. 150 as of July 1, 2003. The adoption of SFAS No. 150 did not have a material effect on our results of operations, cash flows or financial position.

Factors Affecting Future Operating Results

This Annual Report on Form 10-K includes forward-looking statements, including information relating to our ability to achieve profitability, information with respect to market acceptance of our BIS system, continued growth in sales of our BIS monitors, BIS Module Kits and BIS Sensors, our dependence on the BIS system, our ability to remain competitive and achieve future growth, information with respect to other plans and strategies for our business and factors that may influence our revenue for each fiscal quarter in 2004 and for the year ending December 31, 2004. The following important factors represent current challenges to us that create risk and uncertainty. Failure to adequately overcome any of the following challenges could have a material adverse effect on our results of operations, business or financial condition.

We will not be profitable if hospitals and anesthesia providers do not buy and use our BIS system in sufficient quantities.

Our customers may determine that the cost of the BIS system exceeds cost savings in drugs, personnel and post-anesthesia care recovery resulting from use of the BIS system. In addition, hospitals and anesthesia providers may not accept the BIS system as an accurate means of assessing a patient's level of consciousness during surgery or in the intensive care unit. If extensive or frequent malfunctions occur, these providers may also conclude that the BIS system is unreliable. If hospitals and anesthesia providers do not accept the BIS system as cost-effective, accurate and reliable, they will not buy and use the BIS system in sufficient quantities to enable us to be profitable.

The success of our business also depends in a large part on continued use of the BIS system by our customers and, accordingly, sales by us of BIS Sensors. We expect that over time sales of BIS Sensors will increase as a percentage of our revenue as compared to sales of Equipment as we build our installed base of monitors and modules. If use of our BIS system, and accordingly, sales of our BIS Sensors, do not increase, it could adversely affect our revenue.

We depend on our BIS system for substantially all of our revenue, and if the BIS system does not gain widespread market acceptance, then our revenue will not grow.

We began selling our current BIS system in early 1998 and introduced the latest version, the BIS XP system, at the end of the third fiscal quarter of 2001. In 2002, we introduced commercially the BIS Extend Sensor for patients who are monitored over an extended period of time, such as in intensive care unit settings. To date, we have not achieved widespread market acceptance of the BIS system for use in the operating room or in the intensive care unit. Because we depend on our BIS system for substantially all of our revenue and we have no other significant products, if we fail to achieve widespread market acceptance for the BIS system, we will not be able to sustain or grow our product revenue.

Various market factors may adversely affect our quarterly operating results through the first fiscal quarter of 2004 and for the year ending December 31, 2004.

Various factors may adversely affect our quarterly operating results through the first fiscal quarter of 2004 and the year ending December 31, 2004. First, we continue to shift the focus of our placements from BIS monitors to BIS modules which may lead to a reduction in Equipment revenue and gross margin on Equipment. Second, in Japan, Nihon Kohden is awaiting approval of the BIS XP system from the Japanese Ministry of Health, Labor and Welfare which may cause delays in purchasing decisions by customers in Japan, or these potential customers may choose not to purchase our products. Third, on November 1, 2003, our international master distribution agreement with Datex-Ohmeda expired. We are currently replacing this agreement with country-specific distribution agreements with Datex-Ohmeda sales subsidiaries and other distributors in various countries. A delay in signing these country-specific distribution agreements may adversely affect Equipment revenue in the international market. The continuation of difficult worldwide economic conditions, reductions in hospital purchasing programs and the cost of transitioning our installed base to the BIS XP system may also adversely impact our revenue and operating results through the first fiscal quarter of 2004 and for the year ending December 31, 2004.

Fluctuations in our quarterly operating results could cause our stock price to decrease.

Our operating results have fluctuated significantly from quarter to quarter in the past and are likely to vary in the future. These fluctuations are due to several factors relating to the sale of our products, including:

- the timing and volume of customer orders for our BIS system,
- implementation of, and our subsequent reduction on the focus of, our EP program,
- use of and demand for our BIS Sensors,
- transition of sales focus from BIS monitors to BIS Module Kits,
- customer cancellations,
- introduction of competitive products,
- regulatory approvals,
- changes in management,
- turnover in our direct sales force,
- effectiveness of new marketing and sales programs,
- reductions in orders by our distributors and original equipment manufacturers, and
- the timing and amount of our expenses.

Because of these fluctuations, it is likely that in some future quarter or quarters our operating results could again fall below the expectations of securities analysts or investors. If our quarterly operating results are below expectations in the future, the market price of our common stock would also likely decrease. In addition, because we do not have a significant backlog of customer orders for our BIS system, revenue in any quarter depends on orders received in that quarter. Our quarterly results may also be adversely affected because some customers may have inadequate financial resources to purchase our products or may fail to pay for our products after receiving them. In particular, hospitals are increasingly experiencing financial constraints, consolidations and reorganizations as a result of cost containment measures and declining third-party reimbursement for services, which may result in decreased product orders or an increase in bad debts in any quarter.

If the estimates we make, and the assumptions on which we rely in preparing our financial statements prove inaccurate, our actual results may vary from those reflected in our projections and accruals.

Our financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of our assets, liabilities, revenues and expenses, the amounts of charges accrued by us and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. There can be no assurance, however, that our estimates, or the assumptions underlying them, will be correct.

If approval of our BIS XP system is not obtained in Japan, our revenue and operating results could be adversely affected.

In Japan, Nihon Kohden is awaiting approval of the BIS XP system from the Japanese Ministry of Health, Labor and Welfare. Until approval is obtained, customers in Japan may delay their purchasing decisions with respect to our products or may decide not to purchase our products at all. As a result, if approval for this product is not obtained in Japan in the near future, or at all, it could limit the growth of our international revenue.

We may need additional financing for our future capital needs and may not be able to raise additional funds on terms acceptable to us, or at all.

We believe that the financial resources available to us, including our current working capital and available revolving lines of credit, will be sufficient to finance our planned operations and capital expenditures through the end of 2004. If we are unable to increase our revenue and achieve positive cash flow, we will need to raise additional funds. We may also need additional financing if:

- we need additional cash to fund research and development costs of products currently under development,
- we decide to expand faster than currently planned,
- we develop new or enhanced services or products ahead of schedule,
- we decide to undertake new sales and/or marketing initiatives,
- we are required to defend or enforce our intellectual property rights,
- sales of our products do not meet our expectations in the United States or internationally,
- we need to respond to competitive pressures, or
- we decide to acquire complementary products, businesses or technologies.

We can provide no assurance that we will be able to raise additional funds on terms acceptable to us, if at all. If future financing is not available or is not available on acceptable terms, we may not be able to fund our future needs which would significantly limit our ability to implement our business plan. In addition, we may have to issue securities that may have rights, preferences and privileges senior to our common stock.

Cases of awareness with recall during monitoring with the BIS system could limit market acceptance of BIS systems and could expose us to product liability claims.

Clinicians have reported to us cases of possible awareness with recall during surgical procedures monitored with the BIS system. In most of the cases that were reported to us, when BIS index values were recorded at the time of awareness, high BIS index values were noted, indicating that the BIS index correctly identified the increased risk of awareness with recall in these patients. However, in a small number of these reported cases, awareness with recall may not have been detected by monitoring with the BIS system. We have not systematically solicited reports of awareness with recall. It is possible that additional cases of

awareness with recall during surgical procedures monitored with the BIS system have not been reported to us. Anesthesia providers and hospitals may elect not to purchase and use BIS systems if there is adverse publicity resulting from the report of cases of awareness with recall that were not detected during procedures monitored with the BIS system. If anesthesia providers and hospitals do not purchase and use the BIS system, then we may not sustain or grow our product revenue. Although clinical studies have demonstrated that patient monitoring with the BIS system may reduce the incidence of awareness with recall we may be subject to product liability claims for cases of awareness with recall during surgical procedures monitored with the BIS system. These claims could require us to spend significant time and money in litigation or to pay significant damages.

Data that was collected in our three multi-center, multinational studies to assess the incidence of awareness with recall and the impact of BIS monitoring were reported during 2003. Results from these studies demonstrate that awareness with recall occurs in approximately 1 to 2 cases per 1,000 patients during general anesthesia. Use of BIS monitoring to help guide anesthetic administration may be associated with the reduction of the incidence of awareness with recall in adults using general anesthesia and sedation. If the patient safety benefits of BIS monitoring are not persuasive enough to lead to wider adoption of our BIS technology, our business could be adversely affected.

We may not be able to compete with new products or alternative techniques developed by others, which could impair our ability to remain competitive and achieve future growth.

The medical industry in which we market our products is characterized by rapid product development and technological advances. Our competitors have introduced commercially three anesthesia monitoring products approved by the United States Food and Drug Administration, or FDA. If we do not compete effectively with these monitoring products, our revenue will be adversely affected. Our current or planned products are at risk of obsolescence from:

- other new monitoring products, based on new or improved technologies,
- new products or technologies used on patients or in the operating room during surgery in lieu of monitoring devices,
- electrical or mechanical interference from new or existing products or technologies,
- alternative techniques for evaluating the effects of anesthesia,
- significant changes in the methods of delivering anesthesia, and
- the development of new anesthetic agents.

We may not be able to improve our products or develop new products or technologies quickly enough to maintain a competitive position in our markets and continue to grow our business.

If we do not successfully develop and introduce enhanced or new products we could lose revenue opportunities and customers.

As the market for our BIS system matures, we need to develop and introduce new products for anesthesia monitoring or other applications. In 2002, we introduced commercially the BIS Extend Sensor for patients who are typically monitored for an extended period of time, such as in intensive care unit settings. We do not know whether the use of the BIS system in the intensive care unit will achieve market acceptance. In addition, we have begun to research the use of BIS monitoring to diagnose and track neurological diseases, and face at least the following two related risks:

- we may not successfully adapt the BIS system to function properly for procedural sedation, when used with anesthetics we have not tested or with patient populations we have not studied, such as infants, and
- our technology is complex, and we may not be able to develop it further for applications outside anesthesia monitoring, such as the diagnosis and tracking of neurological diseases.

If we do not successfully adapt the BIS system for new products and applications both within and outside the field of anesthesia monitoring, or if such products and applications are developed but not successfully commercialized, then we could lose revenue opportunities and customers.

If we do not develop and implement a successful sales and marketing strategy, we will not expand our business.

In the past, we have experienced high turnover in our direct sales force. It is possible that high turnover may occur in the future. If new sales representatives do not acquire the technological skills to sell our products in a timely and successful manner or we experience high turnover in our direct sales force, we may not be able to sustain and grow our product revenue. On an ongoing basis, we develop and introduce new sales and marketing programs. If we do not implement these new sales and marketing programs in a timely and successful manner, we may not be able to achieve the level of market awareness and sales required to expand our business. We have only limited sales and marketing experience both in the United States and internationally and may not be successful in developing and implementing our strategy. We need to:

- provide or assure that distributors and original equipment manufacturers provide the technical and educational support customers need to use the BIS system successfully,
- promote frequent use of the BIS system so that sales of our disposable BIS Sensors increase,
- establish and implement successful marketing and sales programs that encourage our customers to purchase our products or the products that are made by original equipment manufacturers incorporating our technology,
- manage geographically dispersed operations, and
- modify our products and marketing and sales programs for foreign markets.

In order to reach the level of sales we need to achieve profitability, we need to further develop our direct and indirect sales channels.

In order to increase our sales, we need to continue to strengthen our relationships with our international distributors and continue to add international distributors. We need to also continue to strengthen our relationships with our original equipment manufacturers and other sales channels and increase sales through these channels. On an ongoing basis we develop and implement new sales and marketing programs and clinical education programs to promote the use of the BIS system by our customers. If we do not further develop our direct and indirect sales channels and successfully implement the new sales and marketing programs and clinical education programs that encourage our customers to purchase and use our products, we will not reach the level of sales necessary to achieve profitability

Our third-party distribution and original equipment manufacturer relationships could negatively affect our profitability, cause sales of our products to decline and be difficult to terminate if we are dissatisfied.

Sales through distributors could be less profitable than direct sales. Sales of our products through multiple channels could also confuse customers and cause the sale of our products to decline. We do not control our original equipment manufacturers and distribution partners. Our partners could sell competing products, may not incorporate our technology into their products in a timely manner and may devote insufficient sales efforts to our products. In addition, our partners are generally not required to purchase minimum quantities. As a result, even if we are dissatisfied with the performance of our partners, we may be unable to terminate our agreements with these partners or enter into alternative arrangements.

We may not be able to generate enough additional revenue from our international expansion to offset the costs associated with establishing and maintaining foreign operations.

A component of our growth strategy is to expand our presence in foreign markets. We conduct international business primarily in Europe and Japan and we are attempting to increase the number of

countries in which we do business. It is costly to establish international facilities and operations and to promote the BIS system in international markets. We have encountered barriers to the sale of our BIS system outside the United States, including less acceptance by anesthesia providers for use of disposable products, such as BIS Sensors, delays in regulatory approvals outside of the United States, particularly in Japan, and difficulties selling through indirect sales channels. In addition, we have little experience in marketing and distributing products in these markets. Revenue from international activities may not offset the expense of establishing and maintaining these foreign operations.

We may not be able to meet the unique operational, legal and financial challenges that we will encounter in our international operations, which may limit the growth of our business.

We are increasingly subject to a number of challenges which specifically relate to our international business activities. These challenges include:

- failure of local laws to provide the same degree of protection against infringement of our intellectual property,
- protectionist laws and business practices that favor local competitors, which could slow our growth in international markets,
- difficulties in terminating or modifying distributor arrangements because of restrictions in markets outside the United States,
- less acceptance by foreign anesthesia providers of the use of disposable products similar to the BIS Sensors,
- delays in regulatory approval of our products,
- currency conversion issues arising from sales denominated in currencies other than the United States dollar,
- foreign currency exchange rate fluctuations,
- longer sales cycles to sell products like the BIS system to hospitals and outpatient surgical centers, which could slow our revenue growth from international sales, and
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable.

If we are unable to meet and overcome these challenges, our international operations may not be successful which would limit the growth of our business.

We may experience customer dissatisfaction and our reputation could suffer if we fail to manufacture enough products to meet our customers' demands.

We rely on third-party manufacturers to assemble and manufacture the components of our BIS monitors, BIS Module Kits and a portion of our BIS Sensors. We manufacture substantially all BIS Sensors in our own manufacturing facility. We have only one manufacturing facility. If we fail to produce enough products at our own manufacturing facility or at a third-party manufacturing facility or experience a termination or modification of any manufacturing arrangement with a third party, we may be unable to deliver products to our customers on a timely basis. Our failure to deliver products on a timely basis could lead to customer dissatisfaction and damage our reputation.

Our reliance on sole-source suppliers could adversely affect our ability to meet our customers' demands for our products in a timely manner or within budget.

Some of the components that are necessary for the assembly of our BIS system, including some of the components used in our BIS Sensors, are currently provided to us by sole-source suppliers or a limited group of suppliers. We purchase components through purchase orders rather than long-term supply agreements and generally do not maintain large volumes of inventory. We have experienced shortages and delays in obtaining

some of the components of our BIS systems in the past, and we may experience similar shortages or delays in the future. The disruption or termination of the supply of components could cause a significant increase in the costs of these components, which could affect our profitability. A disruption or termination in the supply of components could also result in our inability to meet demand for our products, which could lead to customer dissatisfaction and damage our reputation. Furthermore, if we are required to change the manufacturer of a key component of the BIS system, we may be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could delay our ability to manufacture BIS systems in a timely manner or within budget.

We may be required to bring litigation to enforce our intellectual property rights, which may result in substantial expense and may divert our attention from the implementation of our business strategy.

We believe that the success of our business depends, in part, on obtaining patent protection for our products, defending our patents once obtained and preserving our trade secrets. We rely on a combination of contractual provisions, confidentiality procedures and patent, trademark and trade secret laws to protect the proprietary aspects of our technology. These legal measures afford only limited protection and competitors may gain access to our intellectual property and proprietary information. Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets and to determine the validity and scope of our proprietary rights. Any litigation could result in substantial expense and diversion of our attention from the growth of the business and may not be adequate to protect our intellectual property rights.

We may be sued by third parties which claim that our products infringe on their intellectual property rights, particularly because there is substantial uncertainty about the validity and breadth of medical device patents.

We may be exposed to litigation by third parties based on claims that our products infringe the intellectual property rights of others. This risk is exacerbated by the fact that the validity and breadth of claims covered in medical technology patents involve complex legal and factual questions for which important legal principles are unresolved. Any litigation or claims against us, whether or not valid, could result in substantial costs, could place a significant strain on our financial resources and could harm our reputation. In addition, intellectual property litigation or claims could force us to do one or more of the following:

- cease selling, incorporating or using any of our products that incorporate the challenged intellectual property, which would adversely affect our revenue,
- obtain a license from the holder of the infringed intellectual property right, which license may not be available on reasonable terms, if at all, and
- redesign our products, which would be costly and time-consuming.

We could be exposed to significant product liability claims which could divert management attention and adversely affect our cash balances, our ability to obtain and maintain insurance coverage at satisfactory rates or in adequate amounts and our reputation.

The manufacture and sale of our products expose us to product liability claims and product recalls, including those which may arise from misuse or malfunction of, or design flaws in, our products or use of our products with components or systems not manufactured or sold by us. Product liability claims or product recalls, regardless of their ultimate outcome, could require us to spend significant time and money in litigation or to pay significant damages. We currently maintain product liability insurance; however, it may not cover the costs of any product liability claims made against us. Furthermore, we may not be able to obtain insurance in the future at satisfactory rates or in adequate amounts. In addition, publicity pertaining to the misuse or malfunction of, or design flaws in, our products could impair our ability to successfully market and sell our products.

Several class action lawsuits have been filed against the underwriters of our initial public offering which may result in negative publicity and potential litigation against us that would be costly to defend and the outcome of which is uncertain and may harm our business.

The underwriters of our initial public offering are named as defendants in several class action complaints which have been filed allegedly on behalf of certain persons who purchased shares of our common stock between January 28, 2000 and December 6, 2000. These complaints allege violations of the Securities Act of 1933 and the Securities Exchange Act of 1934. Primarily they allege that there was undisclosed compensation received by our underwriters in connection with our initial public offering. While we and our officers and directors have not been named as defendants in these suits, based on comparable lawsuits filed against other companies, there can be no assurance that we and our officers and directors will not be named in similar complaints in the future. In addition, the underwriters may assert that we are liable for some or all of any liability that they are found to have to the plaintiffs, pursuant to the indemnification provisions of the underwriting agreement we entered into as part of the initial public offering, or otherwise.

We can provide no assurance as to the outcome of these complaints or any potential suit against us or our officers and directors. Any conclusion of these matters in a manner adverse to us could have a material adverse affect on our financial position and results of operations. In addition, the costs to us of defending any litigation or other proceeding, even if resolved in our favor, could be substantial. Such litigation could also substantially divert the attention of our management and our resources in general. Even if we are not named as defendants in these lawsuits, we may also be required to incur significant costs and our management may be distracted by being required to provide information, documents or testimony in connection with the actions against our underwriters. Uncertainties resulting from the initiation and continuation of any litigation or other proceedings and the negative publicity associated with this litigation could harm our ability to compete in the marketplace.

Boston Scientific Corporation may be able to impact corporate actions requiring stockholder approval because it owns a significant amount of our common stock, and, if our strategic alliance with Boston Scientific Corporation is not successful, our operating results will be adversely affected.

As of March 1, 2004, Boston Scientific Corporation owned approximately 19.6% of our outstanding common stock. We have an agreement with Boston Scientific Corporation, pursuant to which Boston Scientific Corporation has agreed not to acquire any shares of our common stock in excess of 25% of the outstanding shares of our common stock prior to December 31, 2004 without our prior approval. If Boston Scientific Corporation increases its ownership of our outstanding common stock, it may impact corporate actions requiring stockholder approval. In addition, on August 7, 2002, we formed a strategic alliance with Boston Scientific Corporation. In connection with this strategic alliance, we entered into an agreement pursuant to which we granted Boston Scientific Corporation an option to distribute newly developed technology for monitoring patients under sedation in a range of less-invasive medical specialties. If such products are not successfully developed, marketed and sold under the agreement in a manner consistent with our expectations, the growth of our business and our operating results will be adversely affected. Even if we successfully develop new sedation management technology for less-invasive medical procedures, Aspect and Boston Scientific Corporation may not successfully market and sell this new technology.

We may not reserve amounts adequate to cover product obsolescence, claims and returns, which could result in unanticipated expenses and fluctuations in operating results.

Depending on factors such as the timing of our introduction of new products which utilize our BIS technology, as well as warranty claims and product returns, we may need to reserve amounts in excess of those currently reserved for product obsolescence, excess inventory, warranty claims and product returns. These reserves may not be adequate to cover all costs associated with these items. If these reserves are inadequate, we would be required to incur unanticipated expenses which could result in unexpected fluctuations in quarterly operating results.

We may not be able to compete effectively, which could result in price reductions and decreased demand for our products.

We are facing increased competition in the domestic level of consciousness monitoring market as a result of three competitors' monitoring systems which have been approved by the FDA. These products are marketed by well-established medical products companies with significant resources. We may not be able to compete effectively with these and other potential competitors. We may also face substantial competition from companies which may develop sensor products that compete with our proprietary BIS Sensors for use with our BIS monitors or with third-party monitoring systems or anesthesia delivery systems that incorporate the BIS index. We also expect to face competition from companies currently marketing conventional electroencephalogram, or EEG, monitors using standard and novel signal-processing techniques. Other companies may develop anesthesia-monitoring systems that perform better than the BIS system and/or sell for less. In addition, one or more of our competitors may develop products that are substantially equivalent to our FDA-approved products, in which case they may be able to use our products as predicate devices to more quickly obtain FDA approval of their competing products. Medical device companies developing these and other competitive products may have greater financial, technical, marketing and other resources than we do. Competition in the sale of anesthesia-monitoring systems could result in price reductions, fewer orders, reduced gross margins and loss of market share.

Our ability to market and sell our products and generate revenue depends upon receipt of domestic and foreign regulatory approval of our products and manufacturing operations.

Before we can market new products in the United States, we must obtain clearance from the FDA. If the FDA concludes that any of our products do not meet the requirements to obtain clearance of a premarket notification under Section 510(k) of the Food, Drug and Cosmetic Act, then we would be required to file a premarket approval application. The approval process for a premarket approval application is lengthy, expensive and typically requires extensive preclinical and clinical trial data. We may not obtain clearance of a 510(k) notification or approval of a premarket approval application with respect to any of our products on a timely basis, if at all. If we fail to obtain timely clearance or approval for our products, we will not be able to market and sell our products, which will limit our ability to generate revenue. We may also be required to obtain clearance of a 510(k) notification from the FDA before we can market certain previously marketed products which we modify after they have been cleared. We have made certain enhancements to our currently marketed products which we have determined do not necessitate the filing of a new 510(k) notification. However, if the FDA does not agree with our determination, it will require us to file a new 510(k) notification for the modification and we may be prohibited from marketing the modified device until we obtain FDA clearance.

The FDA also requires us to adhere to current Good Manufacturing Practices regulations, which include production design controls, testing, quality control, storage and documentation procedures. The FDA may at any time inspect our facilities to determine whether adequate compliance has been achieved. Compliance with current Good Manufacturing Practices regulations for medical devices is difficult and costly. In addition, we may not continue to be compliant as a result of future changes in, or interpretations of, regulations by the FDA or other regulatory agencies. If we do not achieve continued compliance, the FDA may withdraw marketing clearance or require product recall. When any change or modification is made to a device or its intended use, the manufacturer may be required to reassess compliance with current Good Manufacturing Practices regulations, which may cause interruptions or delays in the marketing and sale of our products.

Sales of our products outside the United States are subject to foreign regulatory requirements that vary from country to country. The time required to obtain approvals from foreign countries may be longer than that required for FDA approval, and requirements for foreign licensing may differ from FDA requirements.

The federal, state and foreign laws and regulations regarding the manufacture and sale of our products are subject to future changes, as are administrative interpretations of regulatory agencies. If we fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to enforcement actions, including product seizures, recalls, withdrawal of clearances or approvals and civil and criminal penalties.

If we do not retain our senior management and other key employees, we may not be able to successfully implement our business strategy.

Our president and chief executive officer, Nassib Chamoun, joined us at our inception in 1987. Our chairman, J. Breckenridge Eagle, began serving as a director in 1988. Many other members of our management and key employees have extensive experience with us and other companies in the medical device industry. Our success is substantially dependent on the ability, experience and performance of these members of our senior management and other key employees. Because of their ability and experience, if we lose one or more of the members of our senior management or other key employees, our ability to successfully implement our business strategy could be seriously harmed.

If we do not attract and retain skilled personnel, we will not be able to expand our business.

Our products are based on complex signal-processing technology. Accordingly, we require skilled personnel to develop, manufacture, sell and support our products. Our future success will depend largely on our ability to continue to hire, train, retain and motivate additional skilled personnel, particularly sales representatives who are responsible for customer education and training and post-installation customer support. Consequently, if we are not able to attract and retain skilled personnel, we will not be able to expand our business.

Failure of users of the BIS system to obtain adequate reimbursement from third-party payors could limit market acceptance of the BIS system, which could prevent us from achieving profitability.

Anesthesia providers are generally not reimbursed separately for patient monitoring activities utilizing the BIS system. For hospitals and outpatient surgical centers, when reimbursement is based on charges or costs, patient monitoring with the BIS system may reduce reimbursements for surgical procedures, because charges or costs may decline as a result of monitoring with the BIS system. Failure by hospitals and other users of the BIS system to obtain adequate reimbursement from third-party payors, or any reduction in the reimbursement by third-party payors to hospitals and other users as a result of using the BIS system could limit market acceptance of the BIS system, which could prevent us from achieving profitability.

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

Interest Rate Exposure

Our investment portfolio consists primarily of high-grade commercial paper, high grade corporate bonds and debt obligations of various governmental agencies. We manage our investment portfolio in accordance with our investment policy. The primary objectives of our investment policy are to preserve principal, maintain a high degree of liquidity to meet operating needs, and obtain competitive returns subject to prevailing market conditions. Investments are made with an average maturity of 12 months or less and a maximum maturity of 24 months. These investments are subject to risk of default, changes in credit rating and changes in market value. These investments are also subject to interest rate risk and will decrease in value if market interest rates increase. Due to the conservative nature of our investments and relatively short effective maturities of the debt instruments, we believe interest rate risk is mitigated. Our investment policy specifies the credit quality standards for our investments and limits the amount of exposure from any single issue, issuer or type of investment.

Our investment in sales-type leases, line of credit agreements and sales-type lease debt agreements are also subject to market risk. The interest rates implicit in our sales-type leases and on our sales-type lease debt agreements are fixed and not subject to interest rate risk. The interest rates on our line of credit agreements are variable and subject to interest rate risk. The interest rate risk related to the lines of credit is mitigated primarily by the fact that the lines of credit, when drawn on, are generally outstanding for short periods of time in order to fund short-term cash requirements.

Foreign Currency Exposure

Most of our revenue, expenses and capital spending are transacted in U.S. dollars. The expenses and capital spending of our two international subsidiaries are transacted in the respective country's local currency and subject to foreign currency exchange rate risk. Our 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. Currently, all material transactions are denominated in U.S. dollars, and we have not entered into any material transactions that are denominated in foreign currencies.

Item 8. Financial Statements and Supplementary Data.

The information required by this item may be found on pages F-1 through F-27 of this Annual Report on Form 10-K.

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

The Audit Committee of our Board of Directors annually considers and recommends to the Board of Directors the selection of our independent auditors. As recommended by the Audit Committee, the Board of Directors, on June 13, 2002, dismissed our independent accountants, Arthur Andersen LLP, and on June 19, 2002, engaged Ernst & Young LLP to serve as our independent auditors and to audit our consolidated financial statements for the fiscal year ended December 31, 2002.

Arthur Andersen's reports on our consolidated financial statements for the fiscal years ended December 31, 2001 and December 31, 2000 did not contain an adverse opinion or disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope or accounting principles.

During the fiscal years ended December 31, 2001 and December 31, 2000, and the subsequent interim period through the date of Arthur Andersen's dismissal, there were (i) no disagreements with Arthur Andersen on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure which, if not resolved to Arthur Andersen's satisfaction, would have caused Arthur Andersen to make reference to the subject matter of such disagreement in connection with its report on our consolidated financial statements for such years, and (ii) no reportable events, as listed in Item 304(a)(1)(v) of Regulation S-K.

During the fiscal years ended December 31, 2001 and December 31, 2000, and the subsequent interim period through the date of Ernst & Young's engagement, we had not consulted Ernst & Young regarding either (i) the application of accounting principles to a specified transaction, either completed or proposed; or the type of audit opinion that might be rendered on our consolidated financial statements, and neither a written report was provided to us or oral advice was provided that Ernst & Young concluded was an important factor considered by us in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K), or a reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

Item 9A. Controls and Procedures.

(a) *Evaluation of Disclosure Controls and Procedures.*

Our management, with the participation of our Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a–15(e) and 15d-15(e) under the Securities Exchange Act) as of December 31, 2003. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our CEO and CFO concluded that, as of December 31, 2003, our disclosure controls and procedures were (1) designed to ensure that material information relating to us, including our consolidated subsidiaries, is made known to our CEO and CFO by

others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

(b) *Changes in Internal Controls.*

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act) occurred during the fiscal quarter ended December 31, 2003 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART III

Item 10. Directors and Executive Officers of the Registrant.

The information with respect to directors and executive officers required under this item is incorporated by reference to the information set forth under the section entitled *"Election of Directors"* in our proxy statement for our 2004 Annual Meeting of Stockholders to be held on May 25, 2004. Information relating to certain filings of Forms 3, 4 and 5 is contained in our 2004 proxy statement under the section entitled *"Section 16(a) Beneficial Ownership Reporting Compliance"* and is incorporated herein by reference.

The information required under this item pursuant to Item 401(h) and 401(i) of Regulation S-K relating to an Audit Committee financial expert and identification of the Audit Committee of our Board of Directors is contained in our 2004 proxy statement under the caption *"Corporate Governance"* and is incorporated herein by reference.

We have adopted a written code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on our website. We intend to disclose any amendments to, or waivers from, our code of business conduct and ethics on our website which is located at www.aspectmedical.com.

Item 11. Executive Compensation.

The information required under this item is incorporated by reference to the sections entitled *"Information About Executive Compensation," "Compensation of Directors"* and *"Compensation Committee Interlocks and Insider Participation"* in our 2004 proxy statement.

The sections entitled *"Report of the Compensation Committee"* and *"Comparative Stock Performance Graph"* in our 2004 proxy statement are not incorporated herein by reference.

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

The information required under this item is incorporated by reference to the section entitled *"Stock Ownership Information"* and *"Securities Authorized for Issuance Under Equity Compensation Plans"* in our 2004 proxy statement.

Item 13. Certain Relationships and Related Transactions.

The information required under this item is incorporated by reference to the section entitled *"Certain Relationships and Related Transactions"* in our 2004 proxy statement.

Item 14. Principal Accountant Fees and Services.

The information required under this item is incorporated by reference to the section entitled *"Independent Auditors Fees and Other Matters"* in our 2004 proxy statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K.

(a) Consolidated Financial Statements.

For a list of the consolidated financial information included herein, see Index to the Consolidated Financial Statements on page F-1 of this Annual Report on Form 10-K.

(b) Reports on Form 8-K.

On October 21, 2003 we furnished a Current Report on Form 8-K to the Securities and Exchange Commission announcing our financial results for the fiscal quarter ended September 27, 2003. The date of this Current Report on Form 8-K is October 21, 2003.

On February 4, 2004, we furnished a Current Report on Form 8-K to the Securities and Exchange Commission announcing our financial results for the fiscal quarter ended December 31, 2003. The date of this Current Report on Form 8-K is February 4, 2004.

(c) List of Exhibits.

The exhibits listed in the Exhibit Index immediately preceding the exhibits are filed as part of this Annual Report on Form 10-K.

(d) Financial Statement Schedules.

All schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the accompanying Consolidated Financial Statements or notes thereto.

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.

ASPECT MEDICAL SYSTEMS, INC.

Date: March 12, 2004

By: /s/ J. NEAL ARMSTRONG
J. Neal Armstrong
Vice President and Chief Financial Officer

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

Signature	Title	Date
/s/ NASSIB G. CHAMOUN Nassib G. Chamoun	President, Chief Executive Officer and Director (Principal Executive Officer)	March 12, 2004
/s/ J. BRECKENRIDGE EAGLE J. Breckenridge Eagle	Chairman of the Board of Directors	March 12, 2004
/s/ J. NEAL ARMSTRONG J. Neal Armstrong	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 12, 2004
/s/ BOUDEWIJN L.P.M. BOLLEN Boudewijn L.P.M. Bollen	President of International Operations and Director	March 12, 2004
/s/ EDWIN M. KANIA Edwin M. Kania	Director	March 12, 2004
/s/ JAMES J. MAHONEY, JR. James J. Mahoney, Jr.	Director	March 12, 2004
/s/ RICHARD J. MEELIA Richard J. Meelia	Director	March 12, 2004
/s/ DONALD R. STANSKI, M.D. Donald R. Stanski, M.D.	Director	March 12, 2004

ASPECT MEDICAL SYSTEMS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT AUDITORS

The Board of Directors and Stockholders of
Aspect Medical Systems, Inc.

We have audited the accompanying consolidated balance sheets of Aspect Medical Systems, Inc. as of December 31, 2003 and 2002, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. The consolidated financial statements of Aspect Medical Systems, Inc. as of December 31, 2001, and for each of the three years in the period ended December 31, 2001 were audited by other auditors who have ceased operations and whose report dated January 28, 2002, expressed an unqualified opinion on those statements.

We conducted our audits in accordance with auditing standards generally accepted in the 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 2003 and 2002 consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Aspect Medical Systems, Inc. at December 31, 2003 and 2002, and the results of its operations and cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States.

/s/ ERNST & YOUNG LLP

Boston, Massachusetts
January 23, 2004

NOTE: THIS IS A COPY OF THE AUDIT REPORT PREVIOUSLY ISSUED BY ARTHUR ANDERSEN LLP IN CONNECTION WITH ASPECT MEDICAL SYSTEMS, INC.'S FORM 10-K FILING FOR THE FISCAL YEAR ENDED DECEMBER 31, 2001. THE INCLUSION OF THIS PREVIOUSLY ISSUED ARTHUR ANDERSEN LLP REPORT IS PURSUANT TO THE "TEMPORARY FINAL RULE AND FINAL RULE REQUIREMENTS FOR ARTHUR ANDERSEN LLP AUDITING CLIENTS," ISSUED BY THE SECURITIES AND EXCHANGE COMMISSION IN MARCH 2002. NOTE THAT THE PREVIOUSLY ISSUED ARTHUR ANDERSEN LLP REPORT INCLUDES REFERENCES TO CERTAIN FISCAL YEARS WHICH ARE NOT REQUIRED TO BE PRESENTED IN THE ACCOMPANYING CONSOLIDATED FINANCIAL STATEMENTS AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2003. THIS AUDIT REPORT HAS NOT BEEN REISSUED BY ARTHUR ANDERSEN LLP IN CONNECTION WITH THIS FILING ON FORM 10-K.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Aspect Medical Systems, Inc.:

We have audited the accompanying consolidated balance sheets of Aspect Medical Systems, Inc. (a Delaware corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the 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 financial statements referred to above present fairly, in all material respects, the financial position of Aspect Medical Systems, Inc. and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

/s/ ARTHUR ANDERSEN LLP

Boston, Massachusetts
January 28, 2002

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2003	December 31, 2002
ASSETS		
Current assets:		
Cash and cash equivalents	$ 12,343,808	$ 11,542,833
Restricted cash	5,100,000	5,100,000
Short-term investments	13,718,727	20,222,500
Accounts receivable, net of allowances of $150,000 and $408,000 at December 31, 2003 and 2002, respectively	5,772,982	4,666,098
Current portion of investment in sales-type leases	1,797,044	1,859,237
Inventory, net	1,514,682	2,333,385
Other current assets	1,146,675	1,319,091
Total current assets	41,393,918	47,043,144
Property and equipment, net	2,996,272	4,121,560
Long-term investment in sales-type leases	2,613,074	2,282,751
Long-term portion of notes receivable from related parties	736,833	1,032,572
Total assets	$ 47,740,097	$ 54,480,027
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	$ 678,554	$ 887,538
Accounts payable	1,189,198	1,246,567
Accrued liabilities	7,871,139	7,127,091
Deferred revenue	975,180	1,047,651
Total current liabilities	10,714,071	10,308,847
Long-term portion of deferred revenue	5,533,375	6,359,210
Long-term debt	525,018	1,015,101
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, $.01 par value; 5,000,000 shares authorized, no shares issued or outstanding	—	—
Common stock, $.01 par value; 60,000,000 shares authorized, 19,502,079 and 19,370,823 shares issued and outstanding at December 31, 2003 and 2002, respectively	195,021	193,708
Additional paid-in capital	131,131,044	130,606,576
Notes receivable from employees and directors	(78,335)	(271,049)
Accumulated other comprehensive (loss) income	(3,731)	20,900
Accumulated deficit	(100,276,366)	(93,753,266)
Total stockholders' equity	30,967,633	36,796,869
Total liabilities and stockholders' equity	$ 47,740,097	$ 54,480,027

The accompanying notes are an integral part of these consolidated financial statements.

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2003	2002	2001
Revenue	$44,090,900	$ 39,776,394	$ 35,828,851
Costs of revenue	10,898,058	11,815,387	12,445,938
Gross profit margin	33,192,842	27,961,007	23,382,913
Operating expenses:			
Research and development	7,287,417	7,826,874	7,466,621
Sales and marketing	25,321,287	28,449,042	28,396,057
General and administrative	7,832,524	7,941,829	7,803,506
Total operating expenses	40,441,228	44,217,745	43,666,184
Loss from operations	(7,248,386)	(16,256,738)	(20,283,271)
Interest income	923,752	1,198,519	2,930,140
Interest expense	(198,466)	(242,952)	(365,428)
Net loss	$(6,523,100)	$(15,301,171)	$(17,718,559)
Net loss per share:			
Basic and diluted	$ (0.34)	$ (0.83)	$ (1.01)
Weighted average shares used in computing net loss per share:			
Basic and diluted	19,413,268	18,450,002	17,614,036

The accompanying notes are an integral part of these consolidated financial statements.

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Comprehensive Income (Loss)	Common Stock		Additional Paid-in Capital	Notes Receivable From Employees and Directors	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
		Shares	Par Value						
Balance, December 31, 2000		17,377,257	$173,773	$125,056,086	$(510,787)	$(75,043)	$ 63,029	$(60,733,536)	$ 63,973,522
Issuance of common stock upon exercise of common stock options	$ —	414,710	4,147	1,586,047	—	—	—	—	1,590,194
Payments on notes receivable from employees and directors	—	—	—	—	175,010	—	—	—	175,010
Deferred compensation related to stock options	—	—	—	13,490	—	(13,490)	—	—	—
Amortization of deferred compensation related to stock options	—	—	—	—	—	65,371	—	—	65,371
Comprehensive loss:									
Net loss	(17,718,559)	—	—	—	—	—	—	(17,718,559)	(17,718,559)
Other comprehensive loss — Unrealized loss on marketable securities	(29,412)	—	—	—	—	—	(29,412)	—	(29,412)
Comprehensive loss:	$(17,747,971)	—	—	—	—	—	—	—	—
Balance, December 31, 2001		17,791,967	177,920	126,655,623	(335,777)	(23,162)	33,617	(78,452,095)	48,056,126
Issuance of common stock in connection with a strategic alliance, net of issuance costs of approximately $170,000	—	1,428,572	14,285	3,515,775	—	—	—	—	3,530,060
Issuance of common stock upon exercise of common stock options	—	150,284	1,503	426,899	—	—	—	—	428,402
Payments on notes receivable from employees and directors	—	—	—	—	64,728	—	—	—	64,728
Deferred compensation related to stock options	—	—	—	8,033	—	(8,033)	—	—	—
Amortization of deferred compensation related to stock options	—	—	—	246	—	31,195	—	—	31,441
Comprehensive loss:									
Net loss	(15,301,171)	—	—	—	—	—	—	(15,301,171)	(15,301,171)
Other comprehensive loss — Unrealized loss on marketable securities	(12,717)	—	—	—	—	—	(12,717)	—	(12,717)
Comprehensive loss:	$(15,313,888)	—	—	—	—	—	—	—	—
Balance, December 31, 2002		19,370,823	$193,708	$130,606,576	$(271,049)	$ —	$ 20,900	$(93,753,266)	$ 36,796,869

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY — (Continued)

	Comprehensive Income (Loss)	Common Stock		Additional Paid-in Capital	Notes Receivable From Employees and Directors	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
		Shares	Par Value						
Issuance of common stock upon exercise of common stock options	$ —	131,256	$ 1,313	$ 497,722	$ —	$ —	$ —	$ —	$ 499,035
Payments on notes receivable from employees and directors	—	—	—	—	192,714	—	—	—	192,714
Deferred compensation related to stock options	—	—	—	26,746	—	(26,746)	—	—	—
Amortization of deferred compensation related to stock options	—	—	—	—	—	26,746	—	—	26,746
Comprehensive loss:									
Net loss	(6,523,100)	—	—	—	—	—	—	(6,523,100)	(6,523,100)
Other comprehensive loss —									
Unrealized loss on marketable securities	(24,631)	—	—	—	—	—	(24,631)	—	(24,631)
Comprehensive loss:	$ (6,547,731)	—	—	—	—	—	—	—	—
Balance, December 31, 2003		19,502,079	$195,021	$131,131,044	$(78,335)	$ —	$ (3,731)	$(100,276,366)	$(30,967,633)

The accompanying notes are an integral part of these consolidated financial statements.

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2003	2002	2001
Cash flows from operating activities:			
Net loss	$ (6,523,100)	$(15,301,171)	$(17,718,559)
Adjustments to reconcile net loss to net cash used for operating activities:			
Depreciation and amortization	1,993,275	2,619,515	2,942,027
Provision for doubtful accounts	(237,350)	(100,000)	100,000
Compensation expense related to stock options	26,746	31,441	65,371
Changes in assets and liabilities —			
(Increase) decrease in accounts receivable	(869,534)	828,998	(1,829,524)
Decrease (increase) in inventory	818,703	2,774,781	(343,687)
Decrease (increase) in other assets	88,851	(96,099)	197,869
(Increase) decrease in investment in sales-type leases	(268,130)	(734,029)	734,492
Decrease in accounts payable	(57,369)	(317,423)	(313,305)
Increase (decrease) in accrued liabilities	744,048	(309,145)	962,349
(Decrease) increase in deferred revenue	(898,306)	5,887,929	(420,233)
Net cash used for operating activities	(5,182,166)	(4,715,203)	(15,623,200)
Cash flows from investing activities:			
Loans to related parties	—	(50,000)	(1,155,500)
Payments on loans to related parties	379,304	98,847	195,817
Acquisition of property and equipment	(867,987)	(1,045,639)	(1,830,271)
Increase in restricted cash	—	—	(5,100,000)
Purchases of marketable securities	(17,345,858)	(21,601,392)	(29,081,621)
Proceeds from sales and maturities of marketable securities	23,825,000	23,398,803	41,731,907
Net cash provided by investing activities	5,990,459	800,619	4,760,332
Cash flows from financing activities:			
Proceeds from working capital line of credit	—	—	3,000,000
Payment on working capital line of credit	—	(3,000,000)	—
Principal payments on equipment loan	—	—	(720,670)
Principal payments on term loan	—	—	(1,884,933)
Proceeds from sale of investment in sales-type leases	265,730	1,072,735	341,420
Principal payments on debt related to investment in sales-type leases	(964,797)	(963,856)	(1,089,422)
Proceeds from issuance of common stock	499,035	3,958,462	1,590,194
Payments received on notes receivable from employees and directors	192,714	64,728	175,010
Net cash (used for) provided by financing activities	(7,318)	1,132,069	1,411,599
Net increase (decrease) in cash and cash equivalents	800,975	(2,782,515)	(9,451,269)
Cash and cash equivalents, beginning of period	11,542,833	14,325,348	23,776,617
Cash and cash equivalents, end of period	$ 12,343,808	$ 11,542,833	$ 14,325,348
Supplemental disclosure of cash flow information:			
Interest paid	$ 191,608	$ 242,031	$ 403,632

The accompanying notes are an integral part of these consolidated financial statements.

(1) Description of Operations

Aspect Medical Systems, Inc. and its subsidiaries (the "Company") develop, manufacture and market an anesthesia monitoring system called the BIS® system. The BIS system provides information that allows clinicians to better assess and manage a patient's level of consciousness in the operating room and intensive care settings and administer the amount of anesthesia needed by each patient. The Company's BIS system incorporates the Company's proprietary disposable BIS Sensors and the Company's BIS monitor or BIS Module Kit. The Company's latest generation BIS monitor, the A-2000® BIS Monitor, was cleared for marketing by the United States Food and Drug Administration ("FDA") in February 1998. The Company's latest version of the BIS system, the BIS XP system, was cleared for marketing by the FDA in June 2001. The BIS system is based on the Company's patented core technology, the BIS index.

The Company incurred net losses of $6,523,100, $15,301,171 and $17,718,559 for the years ended December 31, 2003, 2002 and 2001, respectively. At December 31, 2003, the Company had an accumulated deficit of $100,276,366. The principal risks that may affect the business, results of operations and financial condition of the Company include the Company's ability to effectively market and sell the Company's products, market acceptance of the Company's technology and products, the Company's ability to raise sufficient capital to fund operations, limited sales and marketing experience, the reliance on a single product family, manufacturing risks, the dependence on single source or limited suppliers, technological risks and other risks.

(2) Summary of Significant Accounting Policies

A summary of the significant accounting policies used by the Company in the preparation of its consolidated financial statements follows:

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

Foreign Currency

The functional currency of the Company's international subsidiaries is the U.S. dollar. Foreign currency transaction gains and losses are recorded in the consolidated statements of operations and have not been material.

Cash, Cash Equivalents and Marketable Securities

The Company invests its excess cash in money market accounts, certificates of deposit, high-grade commercial paper, high grade corporate bonds and debt obligations of various government agencies. The Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

The Company accounts for its investments in marketable securities in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, *Accounting for Certain Investments in Debt and Equity Securities.* In accordance with SFAS No. 115, the Company has classified all of its investments in marketable securities as available-for-sale at December 31, 2003 and 2002. The marketable securities are reported at fair value, with any unrealized gains and losses excluded from earnings and reported as a separate component of stockholders' equity as other comprehensive income (loss).

Revenue Recognition

The Company sells its BIS monitors primarily through a combination of a direct sales force and through distributors. The Company sells its BIS Module Kits through original equipment manufacturers. BIS Sensors are sold through a combination of a direct sales force, distributors and original equipment manufacturers. Direct product sales are structured as sales, sales-type lease arrangements or sales under the Company's Equipment Placement ("EP") program. Sales, sales-type lease agreements and sales under the EP program are subject to the Company's standard terms and conditions of sale and do not include any customer acceptance criteria, installation or other post shipment obligations (other than warranty) or any rights of return. The Company's BIS monitor is a standard product and does not require installation as it can be operated with the instructions included in the operator's manual.

The Company recognizes revenue from product sales when earned as required by generally accepted accounting principles and in accordance with Staff Accounting Bulletin ("SAB") No. 104, *Revenue Recognition* and EITF 00-21, *Revenue Arrangements with Multiple Deliverables.* Revenue is recognized when persuasive evidence of an arrangement exists, product delivery, including customer acceptance, has occurred or services have been rendered, the price is fixed or determinable and collectibility is reasonably assured. For product sales, revenue is not recognized until title and risk of loss have transferred to the customer.

The Company follows SFAS No. 13, *Accounting For Leases*, for its sales-type lease agreements. Under the Company's sales-type leases, customers purchase BIS Sensors and the BIS monitor for the purchase price of the BIS Sensors plus an additional charge per BIS Sensor to pay for the purchase price of the BIS monitor and related financing costs over the term of the agreement. In accordance with SFAS No. 13, the minimum lease payment, consisting of the additional charge per BIS Sensor, less the unearned interest income, which is computed at the interest rate implicit in the lease, is recorded as the net investment in sales-type leases. The Company recognizes equipment revenue under sales-type lease agreements either at shipment or delivery in accordance with the agreed upon contract terms with interest income recognized over the life of the sales-type lease. The cost of the BIS monitor acquired by the customer is recorded as costs of revenue in the same period.

In addition, the Company reviews and assesses the net realizability of its investment in sales-type leases at each reporting period. This review includes determining, on a customer specific basis, if a customer is significantly underperforming relative to the customer's cumulative level of committed BIS Sensor purchases as required by the sales-type lease agreement. If a customer is underperforming, the Company records an allowance for lease payments as a charge to revenue to reflect the lower estimate of the net realizable investment in sales-type lease balance.

As of December 31, 2003, the Company does not consider any sales-type lease agreement, against which an allowance for lease payments has been established, an impaired asset.

Under the Company's EP program, the customer is granted the right to use the BIS monitors for a mutually agreed upon period of time. During this period, the customer purchases BIS Sensors at a price that includes a premium above the list price of the BIS Sensors to cover the rental of the equipment, but without any minimum purchase commitments. At the end of the agreed upon period, the customer has the option of purchasing the BIS monitors, continuing to use them under the EP program or returning them to the Company. Under the EP program, no equipment revenue is recognized as the equipment remains the Company's property and title does not pass to the customer and the criteria for sales-type leases under SFAS No. 13 are not met. The BIS monitors under the EP program are depreciated over two years and the depreciation is charged to costs of revenue. BIS Sensor revenue is recognized either at shipment or delivery of the BIS Sensors in accordance with the agreed upon contract terms.

The Company recognizes revenue either at shipment or delivery in accordance with the agreed upon contract terms with distributors and original equipment manufacturers in accordance with SAB No. 104. Sales

to distributors and original equipment manufacturers include a clause in the contracts that indicates that customer acceptance is limited to confirmation that the Company's products function in accordance with the Company's applicable product specifications in effect at the time of delivery. Formal acceptance by the distributors or original equipment manufacturers is not necessary to recognize revenue provided that the Company objectively demonstrates that the criteria specified in the acceptance provisions are satisfied. Each product is tested prior to shipment to ensure that it meets the applicable product specifications in effect at the time of delivery. Additionally, the Company has historically had a minimal number of defective products shipped to distributors and original equipment manufacturers and any defective products are subject to repair or replacement under warranty as distributors and original equipment manufacturers do not have a right of return.

The Company's obligations under warranty are limited to repair or replacement of any product that the Company reasonably determines to be covered by the warranty. The Company records an estimate for its total warranty obligation in accordance with SFAS No. 5, *Accounting for Contingencies*, and discloses its warranty policy.

The technical, service and educational support that the Company provides to distributors and original equipment manufacturers at the outset of each new arrangement is part of the overall relationship with the distributors and original equipment manufacturers and is not an element of each shipment of product. It is critical that the Company provide these support activities to ensure that the distributors and original equipment manufacturers understand how the BIS system works, how to service it and how to best educate clinicians in order to have the clinicians integrate the BIS system into their clinical practice. The Company accounts for the cost of providing such support activities to distributors and original equipment manufacturers as sales and marketing expenses.

In connection with the Stock Purchase Agreement and OEM Product Development Agreement with Boston Scientific Corporation ("BSC") discussed in Note 19, the Company recorded approximately $6,300,000 of deferred revenue. The deferred revenue is being recognized ratably over the term of the OEM product development and distribution agreement with BSC, which represents the Company's best estimate of its period of significant continuing obligation to provide BSC exclusive distribution rights to newly developed technology. The term of the OEM product development and distribution agreement continues until such time that BSC is no longer distributing the Company's products, but in no event will extend beyond December 31, 2012.

Research and Development Costs

The Company charges research and development costs to operations as incurred. Research and development costs include costs associated with new product development, product improvements and extensions, clinical studies and project consulting expenses.

Accounts Receivable

Estimates are used in determining the Company's allowance for doubtful accounts based on the Company's historical collections experience, historical write-offs of its receivables, current trends, credit policy and a percentage of the Company's accounts receivable by aging category. The Company also reviews the credit quality of its customer base as well as changes in the Company's credit policies. The Company continually monitors collections and payments from its customers.

Inventory

The Company values inventory at the lower of cost or estimated market, and determines cost on a first-in, first-out basis. The Company regularly reviews inventory quantities on hand and records a provision for excess

or obsolete inventory primarily based on production history and on its estimated forecast of product demand. The medical industry in which the Company markets its products is characterized by rapid product development and technological advances that could result in obsolescence of inventory. Additionally, the Company's estimates of future product demand may prove to be inaccurate, in which case it would need to change its estimate of the provision required for excess and obsolete inventory. If revisions are deemed necessary, the Company would recognize the adjustments in the form of a charge to its costs of revenue at the time of the determination.

Warranty

Equipment that the Company sells generally is covered by a warranty period of one year. The Company accrues a warranty reserve for estimated costs to provide warranty services. The Company's estimate of costs to service its warranty obligations is based on historical experience and an expectation of future conditions. Warranty expense for the years ended December 31, 2003, 2002 and 2001, and accrued warranty cost, included in accrued liabilities in the consolidated balance sheets at December 31, 2003 and 2002, was as follows:

Balance as of January 1, 2001	$1,475,000
Warranty expense	(43,800)
Deductions and other	(341,080)
Balance as of December 31, 2001	1,090,120
Warranty expense	(599,800)
Deductions and other	(122,522)
Balance as of December 31, 2002	367,798
Warranty expense	(150,034)
Deductions and other	(70,451)
Balance as of December 31, 2003	$ 147,313

Guarantees

The Company guarantees operating lease obligations of its subsidiaries for the lease of automobiles. The maximum potential future payment under these financial guarantees was approximately $208,000 at December 31, 2003.

Shipping and Handling Costs

Shipping and handling costs are included in costs of revenue. Shipping and handling costs for the years ended December 31, 2003, 2002 and 2001 were approximately $400,000, $392,000 and $288,000, respectively.

Advertising Costs

Advertising costs are expensed as incurred. These costs are included in sales and marketing expense in the consolidated statements of operations. Advertising costs for the years ended December 31, 2003, 2002 and 2001 were approximately $360,000, $672,000 and $626,000, respectively.

Property and Equipment

Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful lives of the related equipment. Equipment held under capital leases is stated at the lower of

the fair market value of the equipment or the present value of the minimum lease payments at the inception of the lease and is amortized on a straight-line basis over the shorter of the lives of the related assets or the term of the leases. Repair and maintenance expenditures are charged to expense as incurred. The Company does not develop software for internal use and the costs of software acquired for internal use are accounted for in accordance with the AICPA's Statement of Position ("SOP") 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use.*

Income Taxes

The Company accounts for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes.* Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences, utilizing currently enacted tax rates, of temporary differences between the carrying amounts and the tax basis of assets and liabilities. Deferred tax assets are recognized, net of any valuation allowance, for the estimated future tax effects of deductible temporary differences and tax operating loss and credit carryforwards.

Concentration of Credit Risk and Single or Limited Source Suppliers

Financial instruments that potentially expose the Company to concentrations of credit risk primarily consist of cash, cash equivalents, accounts receivable, investment in sales-type lease receivables and marketable securities. To minimize the financial statement risk with respect to accounts receivable and investment in sales-type lease receivables, the Company maintains reserves for potential credit losses and such losses, in the aggregate, have not exceeded management's expectations. The Company maintains cash, cash equivalents and investments in marketable securities with various financial institutions. The Company performs periodic evaluations of the relative credit quality of investments and Company policy is designed to limit exposure to any one institution or type of investment. The primary objective of the Company's investment strategy is the safety of the principal invested. The Company does not maintain foreign exchange contracts or other off-balance sheet financial investments.

The Company currently obtains certain key components of its products from single or limited sources. The Company purchases components pursuant to purchase orders rather than long-term supply agreements and generally does not maintain large volumes of inventory. The Company has experienced shortages and delays in obtaining certain components of its products in the past. There can be no assurance that the Company will not experience similar shortages and delays in the future. The disruption or termination of the supply of components or a significant increase in the costs of these components from these sources could have a material adverse effect on the Company's business, financial position and results of operations.

Net Loss Per Share

The Company follows SFAS No. 128, *Earnings per Share.* Basic net loss per share represents net loss available to common stockholders divided by the weighted average number of common shares outstanding. The Company has excluded all shares of restricted common stock that are subject to repurchase by the Company from the weighted average number of common shares outstanding. Diluted net loss per share is the same as basic net loss per share as the inclusion of restricted common stock subject to repurchase and common stock issuable pursuant to the exercise of stock options and warrants would be antidilutive. For the years ended December 31, 2003, 2002 and 2001, the Company has excluded from the calculation of the Company's diluted earnings per share approximately 989,000, 590,000 and 1,049,000 shares, respectively, related to restricted common stock subject to repurchase and common stock issuable pursuant to the exercise of stock options and warrants because the inclusion of these shares would have been antidilutive as a result of the Company's net loss position for each of the three years then ended.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Other than the Company's net loss, the only other element of comprehensive income (loss) impacting the Company is the unrealized gains (losses) on its marketable securities for all years presented.

Stock-Based Compensation

SFAS No. 123, *Accounting for Stock-Based Compensation*, requires the measurement of the fair value of stock options or warrants to be included in the statement of income or disclosed in the notes to financial statements. The Company accounts for stock-based compensation for employees using the intrinsic value method under APB Opinion No. 25 and has adopted the fair value disclosure-only alternative under SFAS No. 148, *Accounting for Stock-Based Compensation — Transition and Disclosure.* The Company has computed the weighted-average fair value of options granted in 2003, 2002 and 2001 using the Black-Scholes option-pricing model pursuant to SFAS No. 123. The following table shows the weighted average assumptions used in the applicable periods and the weighted average fair market value of the options granted in each period.

	Year Ended December 31,		
	2003	2002	2001
Risk-free interest rate	2.99%	4.40%	5.04%
Expected dividend yield	—	—	—
Expected life of options	5 years	5 years	5 years
Expected volatility	57%	75%	75%
Weighted average fair market value of options granted	$3.14	$6.10	$8.84

If the Company had recognized compensation cost for these awards consistent with SFAS No. 123, the Company's net loss and pro forma net loss per common share would have been increased to the following pro forma amounts:

	Year Ended December 31,		
	2003	2002	2001
Net loss:			
Net loss as reported	$ (6,523,100)	$(15,301,171)	$(17,718,559)
Add: Stock-based employee compensation expense included in reported net loss	—	—	—
Deduct: Stock-based employee compensation expense determined under fair value based method for all awards	(7,111,619)	(7,744,169)	(7,000,785)
Pro forma net loss	$(13,634,719)	$(23,045,340)	$(24,719,344)
Net loss per share:			
Basic and diluted net loss per common share:			
As reported	$ (0.34)	$ (0.83)	$ (1.01)
Pro forma	$ (0.70)	$ (1.25)	$ (1.40)

Compensation expense for non-employee stock options was $26,746, $31,441 and $65,371 for the years ended December 31, 2003, 2002 and 2001, respectively.

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options. Also, because options vest over several years and the Company expects to grant options in future years, the above pro forma results of applying the provisions of SFAS No. 123 are not necessarily representative of the pro forma results in future years.

Use of Estimates

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

Fair Value of Financial Instruments

The estimated fair market values of the Company's financial instruments, which include cash equivalents, marketable securities, accounts receivable, investment in sales-type leases, accounts payable and long-term debt, approximate their carrying values.

Reclassifications

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

Recent Accounting Pronouncements

In December 2002, the FASB issued SFAS No. 148, *Accounting for Stock-Based Compensation — Transition and Disclosure.* SFAS No. 148 amends SFAS No. 123 and APB No. 28, *Interim Financial Reporting*, to present alternative methods of transition for an entity that voluntarily adopts the fair value based method of accounting for stock-based employee compensation, and provides modifications to the disclosure provisions to require prominent disclosure about the effects on reported net income of an entity's accounting policy decisions with respect to stock-based employee compensation in quarterly and annual financial statements. At this time, the Company has not voluntarily adopted the fair value method of accounting under SFAS No. 123. However, appropriate disclosures about the effects on reported net loss of the Company's accounting policy with respect to stock-based employee compensation are provided in these financial statements.

In January 2003, the FASB issued Financial Interpretation No. 46, ("FIN 46"), *Consolidation of Variable Interest Entities*, and in December 2003, issued a revision to FIN 46 (FIN 46R). FIN 46 requires that if an entity has a controlling financial interest in a variable interest entity, the assets, liabilities and results of activities of the variable interest entity should be included in the consolidated financial statements of the entity. FIN 46 is effective immediately for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period ending after December 15, 2003. The adoption of FIN 46 did not have a material effect on the Company's results of operations, cash flows or financial position.

In May 2003, the FASB issued SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. SFAS No. 150 establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. SFAS No. 150 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 otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. The Company adopted SFAS No. 150 as of July 1, 2003. The adoption of SFAS No. 150 did not have a material effect on the Company's results of operations, cash flows or financial position.

(3) Comprehensive Income (Loss)

The Company's total comprehensive loss is as follows:

	Year Ended December 31,		
	2003	2002	2001
Net loss	$(6,523,100)	$(15,301,171)	$(17,718,559)
Other comprehensive loss:			
Unrealized loss on marketable securities	(24,631)	(12,717)	(29,412)
Comprehensive loss	$(6,547,731)	$(15,313,888)	$(17,747,971)

(4) Cash Equivalents, Restricted Cash and Marketable Securities

Cash and cash equivalents consist of the following:

	December 31,	
	2003	2002
Cash	$11,344,104	$ 8,795,587
Commercial paper	999,704	2,747,246
	$12,343,808	$11,542,833

At December 31, 2003, the Company maintained $5,100,000 of restricted cash as part of its revolving line of credit agreement with a commercial bank (see Note 18).

Available-for-sale marketable securities at December 31, 2003 and 2002 consist of the following:

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
December 31, 2003 —				
U.S. Government debt securities	$ 507,988	$ 292	$ —	$ 508,280
Corporate obligations	11,716,999	47,667	(51,691)	11,712,975
Commercial paper	1,497,472	—	—	1,497,472
	$13,722,459	$ 47,959	$(51,691)	$13,718,727
December 31, 2002 —				
Corporate Obligations	$20,201,600	$118,244	$(97,344)	$20,222,500
	$20,201,600	$118,244	$(97,344)	$20,222,500

All available-for-sale marketable securities have contractual maturities of one to two years.

The aggregate fair value of investments with unrealized losses was $9,768,915 and $8,611,123 at December 31, 2003 and 2002, respectively. All such investments have been in an unrealized loss position for less than a year.

The cost of securities sold is determined based on the specific identification method for purposes of recording realized gains and losses. Gross realized gains and losses on the sales of investments have not been material.

(5) Investment in Sales-Type Leases

The Company leases equipment to customers under sales-type leases. The components of the Company's net investment in sales-type leases are as follows:

	December 31,	
	2003	2002
Total minimum lease payments receivable	$6,492,607	$6,257,456
Less:		
Unearned interest income	984,751	949,315
Allowance for lease payments	1,097,738	1,166,153
Net investment in sales-type leases	4,410,118	4,141,988
Less — current portion	1,797,044	1,859,237
	$2,613,074	$2,282,751

Future minimum lease payments due under non-cancelable leases as of December 31, 2003 are as follows:

Year Ending December 31,	
2004	$2,489,174
2005	1,830,532
2006	1,214,148
2007	708,308
2008	250,445
	$6,492,607

(6) Inventory

Inventory consists of the following:

	December 31,	
	2003	2002
Raw materials	$ 739,331	$1,060,709
Work-in-progress	61,763	129,673
Finished goods	713,588	1,143,003
	$1,514,682	$2,333,385

For the years ended December 31, 2003, 2002 and 2001 approximately $48,000, $30,000 and $473,000, respectively, of raw material components of monitors were written down to zero cost and subsequently scrapped or used for repair and service.

(7) Property and Equipment

Property and equipment consist of the following:

	Useful Life in Years	December 31, 2003	December 31, 2002
Construction in progress	—	$ 339,585	$ 51,152
Computer equipment	3	5,262,446	4,882,427
Demonstration, evaluation and rental equipment	2	61,342	65,013
Machinery and equipment	3 to 5	4,554,864	4,364,911
Furniture and fixtures	3	1,934,496	1,855,067
Leasehold improvements	Shorter of the lease or useful life of the asset	1,629,620	1,629,620
		13,782,353	12,848,190
Accumulated depreciation and amortization		(10,786,081)	(8,726,630)
		$ 2,996,272	$ 4,121,560

(8) Income Taxes

Deferred income tax assets consist of the following:

	December 31, 2003	December 31, 2002
Net operating loss carryforwards	$ 29,433,000	$ 29,664,000
Tax credit carryforwards	3,315,000	2,288,000
Other	6,484,000	4,316,000
Gross deferred tax assets	39,232,000	36,268,000
Valuation allowance	(39,232,000)	(36,268,000)
Net deferred tax asset	$ —	$ —

The Company has provided a full valuation allowance against its gross deferred tax assets at December 31, 2003 and 2002 because the future realizability of such assets is uncertain. The change in the valuation allowance was $2,964,000 from December 31, 2002 to December 31, 2003. Should the Company achieve profitability in the future, various components of the gross deferred tax assets would be available to offset future income tax liabilities and expenses.

The Company has net operating loss and research and development tax credit carryforwards for federal income tax purposes of approximately $80,740,000 and $2,247,000, respectively, at December 31, 2003, that began expiring in 2002 and will continue to expire through 2023 if not utilized. The net operating loss and research and development tax credit carryforwards are subject to review by the Internal Revenue Service. Ownership changes, as defined under Sections 382 and 383 in the Internal Revenue Code, may limit the amount of these tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the Company's value immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years.

(9) Stockholders' Equity

Convertible Preferred Stock

On February 2, 2000, upon the closing of the Company's initial public offering, all 11,067,238 shares of the Company's convertible preferred stock automatically converted into 11,067,238 shares of common stock.

Warrants

In December 1998, the Company issued warrants to purchase 192,902 shares of common stock in association with the issuance of convertible preferred stock. The warrants had an exercise price of $12.50 per share and warrants to purchase 160,110 shares of common stock expired unexercised on February 2, 2003. The Company allocated the proceeds received between the preferred stock and the warrants based on the estimated fair market values of the convertible preferred stock and the warrants.

Common Stock

At December 31, 2003, the Company has reserved 5,842,958 shares of common stock for issuance under the Company's stock option plans and 145,683 shares of common stock for issuance under the Company's 1999 Employee Stock Purchase Plan.

(10) Stock Option Plans

The Company's stock option plans provide for the grant, at the discretion of the Board of Directors, of options for the purchase of up to 8,560,000 shares of common stock to employees, directors and advisors. Option exercise prices are determined by the Board of Directors. Stock options and restricted common stock generally vest over two to four years and provide for the acceleration of vesting upon a change of control of the Company. At December 31, 2003, 1,368,790 shares of common stock were available for future grant under the Company's stock option plans.

A summary of stock option activity is as follows:

	Number of Shares	Option Exercise Prices	Weighted Average Option Price per Share
Outstanding, December 31, 2000	3,406,731	$ .20-47.88	$10.77
Granted	955,668	9.50-13.79	12.04
Exercised	(382,737)	.20-12.63	3.48
Canceled	(569,884)	.80-47.88	15.49
Outstanding, December 31, 2001	3,409,778	.20-47.88	11.16
Granted	1,323,700	2.51-10.55	7.40
Exercised	(90,694)	.20-10.20	2.39
Canceled	(543,672)	2.80-28.63	10.52
Outstanding, December 31, 2002	4,099,112	.20-47.88	10.23
Granted	740,725	3.62-10.12	5.25
Exercised	(83,560)	.20-10.00	3.30
Canceled	(282,109)	2.51-47.88	11.81
Outstanding, December 31, 2003	4,474,168	$ .20-47.88	$ 9.43
Exercisable, December 31, 2003	2,973,255	$ .20-47.88	$10.20
Exercisable, December 31, 2002	2,327,699	$ .20-47.88	$10.03
Exercisable, December 31, 2001	1,791,303	$ .20-47.88	$ 8.36

During 1997 and 1998, the Company accelerated the vesting of certain employees' and directors' stock options. These employees and directors exercised options to acquire 1,495,470 shares of common stock. The option exercise price was paid in the form of cash of $45,735 and by delivery to the Company of full recourse promissory notes of $336,580. These promissory notes bear interest at 5.28% per annum and are payable over periods ranging up to five years. The shares of common stock were subject to a repurchase right by the Company. As of December 31, 2003, no shares remained subject to repurchase and $44,100 of these loans remained outstanding.

During 2000, one employee exercised stock options to purchase 143,511 shares of common stock with a full recourse promissory note of $234,420. The loan is payable over five years and bears interest at a rate of 8% per annum. As of December 31, 2003, $34,235 of this loan remained outstanding. These loans are included as a reduction of stockholders' equity in the accompanying consolidated balance sheets.

A summary of outstanding and exercisable options as of December 31, 2003 is as follows:

	Outstanding			Exercisable	
Exercise Price	Number	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$ 0.20 - $ 3.26	452,527	4.34	$1.41	402,398	$ 1.21
3.62 - 3.62	20,500	8.46	3.62	3,417	3.62
3.68 - 3.68	470,631	8.62	3.68	120,552	3.68
3.85 - 4.20	670,523	6.07	4.05	484,614	4.12
4.96 - 8.56	501,232	6.79	7.00	326,187	7.23
9.40 - 9.80	159,500	5.24	9.73	78,950	9.72
10.00 - 10.00	479,692	8.06	10.00	221,632	10.00
10.12 - 10.20	470,251	6.51	10.18	358,204	10.20
10.55 - 12.45	455,581	7.39	11.57	309,349	11.61
12.50 - 47.88	793,731	6.72	21.58	667,952	22.16
$ 0.20 - $47.88	4,474,168	6.74	$9.43	2,973,255	$10.20

1991 Amended and Restated Stock Option Plan

The Company's 1991 Amended and Restated Stock Option Plan provides for the granting, at the discretion of the Board of Directors, of options for the purchase of up to 3,360,000 shares of common stock to employees, directors and advisors. Options granted under the 1991 Amended and Restated Stock Option Plan terminate ten years from the date of grant. Option exercise prices are determined by the Board of Directors.

1998 Stock Incentive Plan

The Company's 1998 Stock Incentive Plan (the "1998 Incentive Plan") was adopted by the Board of Directors on July 8, 1998. The Board of Directors has authorized the Compensation Committee to administer the 1998 Incentive Plan, including the granting of options to executive officers. At December 31, 2003, the 1998 Incentive Plan provided for the granting, at the discretion of the Compensation Committee, of options for the purchase of up to 3,000,000 shares of common stock (subject to adjustment in the event of stock splits and other similar events) to employees, directors and advisors. Options granted under the 1998 Incentive Plan terminate ten years from the date of grant. Option exercise prices are determined by the Compensation Committee, but cannot be less than 100% of fair market value for incentive stock options.

1998 Director Stock Option Plan

In February 1998, the Company adopted the 1998 Director Stock Option Plan (the "Director Plan"). Under the terms of this plan, directors of the Company who are not employees of the Company are eligible to receive nonstatutory options to purchase shares of common stock. At December 31, 2003, a total of 200,000 shares of common stock could be issued upon exercise of options under this plan. The initial options granted under the Director Plan are exercisable as to 50% of the shares pursuant to the option as of the date of grant and as to one-sixth of the shares on the first, second and third anniversaries of the date of grant, provided that the optionee continues to serve as a director and provide for the acceleration of vesting upon a change of control of the Company. Additional options, which are granted annually, will be exercisable in three equal annual installments on each of the first, second and third anniversaries of the date of grant, provided that the

optionee continues to serve as a director. Options granted under the Director Plan terminate on the earlier of (i) ten years from the date of grant, or (ii) sixty days after the optionee ceases to serve as a director.

1999 Employee Stock Purchase Plan

In December 1999, the Company adopted its 1999 Employee Stock Purchase Plan (the "Purchase Plan"). The Purchase Plan allows eligible employees the right to purchase shares of common stock at the lower of 85% of the closing price per share of common stock on the first or last day of an offering period. Each offering period is six months. An aggregate of 300,000 shares of common stock have been reserved for issuance pursuant to the Purchase Plan. As of December 31, 2003, 154,317 shares of the Company's common stock had been issued under the Purchase Plan.

2001 Stock Incentive Plan

The Company's 2001 Stock Incentive Plan (the "2001 Incentive Plan") was adopted by the Company's Board of Directors on March 19, 2001 and approved by the Company's stockholders on May 22, 2001. The Board of Directors has authorized the Compensation Committee to administer the 2001 Incentive Plan, including the granting of options to executive officers. At December 31, 2003, the 2001 Incentive Plan provided for the granting, at the discretion of the Compensation Committee, of options for the purchase of up to 2,000,000 shares of common stock (subject to adjustment in the event of stock splits and other similar events) to employees, directors and advisors. Options granted under the 2001 Incentive Plan terminate ten years from the date of grant. Option exercise prices are determined by the Compensation Committee, but cannot be less than 100% of fair market value for incentive stock options.

(11) Distribution and Licensing Agreements

The Company has entered into various distribution, licensing and royalty agreements relating to its products with distributors and original equipment manufacturers covering both the domestic and international markets. These agreements have original terms ranging from two to ten years. In connection with these agreements, approximately $6,485,000 and $7,385,000 of payments received were classified as deferred revenue as of December 31, 2003 and 2002, respectively. The deferred revenue includes prepaid license and royalty fees. The deferred revenue is recognized either at shipment or delivery in accordance with the agreed upon contract terms and as license and royalty fees are earned. License and royalty fees are related to future technological developments and will be recognized upon shipment or delivery of units incorporating the technology in accordance with the agreed upon contract terms. For the years ended December 31, 2003 and 2002, the Company had approximately $23,000 and $22,000, respectively, in deferred revenue related to revenue arrangements, which had been deferred until the revenue recognition criteria in SAB No. 104 and other authoritative accounting literature have been met.

(12) 401(k) Savings Plan

The Company has a 401(k) savings plan in which substantially all domestic employees can participate. Employer contributions are at the discretion of the Board of Directors and vest ratably over five years. The Company made no contributions to the plan during the years ended December 31, 2003, 2002 and 2001.

(13) Commitments and Contingencies

Leases

The Company leases approximately 61,000 square feet of development, production and administrative space in Newton, Massachusetts under an operating lease that expires in December 2006. Effective February 1, 2004, the lease on the Company's office space in Leiden, The Netherlands expired. A new

operating lease for the Company's international organization was entered into for approximately 2,765 square feet of office space in De Meern, The Netherlands. This lease expires in October 2008. Rent expense was approximately $936,000, $966,000 and $967,000 in 2003, 2002 and 2001, respectively. Future gross minimum lease commitments for all non-cancelable operating leases as of December 31, 2003 are as follows:

Year Ending December 31,	
2004	$1,258,949
2005	1,141,039
2006	1,098,383
2007	93,847
2008	93,847
Total minimum lease payments	$3,686,065

(14) Other Related Party Transactions

In addition to the related party transactions discussed in Note 10, the Company has made other loans to certain employees and a consultant of the Company. Through April 30, 2002, the Company loaned, on a full recourse basis, an aggregate of $1,441,000, to an officer, certain employees and a consultant of the Company. In May 2002, the Company loaned, on a full recourse basis, $50,000 to another officer of the Company, which together with accrued interest, was paid in full in March 2003, after that officer left the employ of the Company. All loans are evidenced by promissory notes bearing interest with rates ranging from 5.00% to 8.00% per annum. The loans are payable over periods ranging from one to five years and in each case are secured by assets of the borrower, including shares of the Company's common stock owned by the borrower. The long-term portion of the loans is included in long-term notes receivable from related parties, and the short-term portion of approximately $44,000 and $128,000 at December 31, 2003 and 2002, respectively, is included in other current assets in the accompanying consolidated balance sheets. The aggregate outstanding balance on these loans at December 31, 2003 and 2002 was approximately $781,000 and $1,160,000, respectively.

In January 2002, the Company entered into a consulting agreement with one of its directors to provide consulting, advisory and neuroscience business planning services to the Company. Effective April 11, 2003, this director resigned from the Company's Board of Directors. Through April 11, 2003, the Company had paid approximately $9,000 to this director under his consulting agreement. From April 11, 2003 through December 31, 2003, the Company paid approximately $12,000 to this individual under his consulting agreement.

(15) Accrued Liabilities

Accrued liabilities consist of the following:

	December 31, 2003	December 31, 2002
Payroll and payroll-related	$5,492,082	$3,975,418
Professional services	223,211	372,287
Warranty	147,313	367,798
Accrued research and development expenses	105,284	110,210
Accrued sales and marketing expenses	486,151	1,054,279
Accrued general and administrative expenses	222,568	248,837
Deferred rent expense	176,957	190,201
Taxes payable	614,528	687,875
Unvouchered invoices	403,045	120,186
	$7,871,139	$7,127,091

(16) Segment Information and Enterprise Reporting

The Company operates in one reportable segment as it markets and sells one family of anesthesia monitoring systems. The Company does not disaggregate financial information by product or geographically, other than export sales by region and sales by product, for management purposes. Substantially all of the Company's assets are located within the United States. All of the Company's products are manufactured in the United States.

Revenue by geographic destination and as a percentage of total revenue is as follows:

	Year Ended December 31, 2003	2002	2001
Geographic Area by Destination			
Domestic	$35,968,270	$33,089,108	$28,164,957
International	8,122,630	6,687,286	7,663,894
	$44,090,900	$39,776,394	$35,828,851

	Year Ended December 31, 2003	2002	2001
Geographic Area by Destination			
Domestic	82%	83%	79%
International	18	17	21
	100%	100%	100%

The Company did not have sales in any individual country, other than the United States, that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2003, 2002 and 2001.

(17) Valuation and Qualifying Accounts

The following tables set forth activity in the Company's valuation and qualifying accounts:

	Balance at Beginning of Period	Additions: Charges (Credits) to Expenses and Costs of Revenue	Additions: Charges (Credits) to Revenue	Deductions	Balance at End of Period
Allowance for Doubtful Accounts					
Year Ended —					
December 31, 2001	$ 422,000	$ 100,000	$ —	$ —	$ 522,000
December 31, 2002	522,000	(100,000)	—	14,000	408,000
December 31, 2003	408,000	(237,000)	—	21,000	150,000
Reserve for Excess or Obsolete Inventory					
Year Ended —					
December 31, 2001	$ 536,000	$ 233,000	$ —	$473,000	$ 296,000
December 31, 2002	296,000	(80,000)	—	30,000	186,000
December 31, 2003	186,000	70,000	—	48,000	208,000
Allowance for Lease Payments					
Year Ended —					
December 31, 2001	$ 997,000	$ —	$(40,000)	$ —	$ 957,000
December 31, 2002	957,000	—	209,000	—	1,166,000
December 31, 2003	1,166,000	—	186,000	254,000	1,098,000

(18) Loan Agreements

In May 2001, the Company entered into an agreement with a commercial bank for a revolving line of credit. The Company is entitled to borrow up to $5,000,000 under the revolving line of credit, which expires in May 2004 and, subject to annual review by the commercial bank, may be extended at the discretion of the commercial bank. Interest on any borrowings under the revolving line of credit is, at the election of the Company, either the prime rate or at LIBOR plus 2.25%. Up to $1,500,000 of the $5,000,000 revolving line of credit is available for standby letters of credit. At December 31, 2003, the Company had outstanding standby letters of credit totaling $165,137.

The revolving line of credit agreement contains restrictive covenants that require the Company to maintain liquidity and net worth ratios and is secured by certain investments of the Company, which are shown as restricted cash in the accompanying consolidated balance sheets, in an amount equal to 102% of the $5,000,000 commitment, or $5,100,000. At December 31, 2003, there was no outstanding balance under the revolving line of credit, and the Company was in compliance with all covenants contained in the revolving line of credit agreement. At December 31, 2003, the interest rate on the revolving line of credit was 4.00%.

In August 2002, the Company entered into an agreement for a $5,000,000 revolving line of credit with BSC in connection with a strategic alliance (see Note 19).

In July 1999, the Company entered into an agreement under which it can sell a portion of its existing and future investment in sales-type leases to a third-party finance company. Through December 31, 2003, the Company sold approximately $5.1 million of its investment in sales-type leases. In accordance with SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities — A*

Replacement of FASB Statement No. 125, the proceeds from these sales have been classified as debt in the accompanying consolidated balance sheets. This debt bears interest at rates ranging from 10.25% to 12.50%. Payments on the outstanding principal under this debt match the timing of the payments due on the underlying investment in sales-type leases.

Future principal payments under the Company's sales-type lease debt agreements are as follows:

Year Ending December 31,	
2004	$ 678,554
2005	335,920
2006	129,115
2007	56,430
2008	3,553
Total principal payments	$1,203,572

(19) Strategic Alliance with Boston Scientific Corporation

On August 7, 2002, the Company formed a strategic alliance with BSC. In connection with this strategic alliance, the Company sold 1,428,572 shares of the Company's common stock at a purchase price per share of $7.00 to BSC pursuant to a stock purchase agreement. Gross cash proceeds from this sale of common stock were $10,000,004. In addition, the Company granted BSC an option under an OEM product development and distribution agreement to distribute newly developed technology for monitoring patients under sedation in a range of less-invasive medical specialties. The Company allocated the fair market value between the common stock and the option to be the exclusive distributor. The excess of $4.41 per share paid by BSC over the closing price of the Company's common stock, or approximately $6,300,000 in total, was attributed to the value of the rights provided to BSC under the OEM Product Development Agreement.

Approximately $5,532,000 of the aggregate purchase price is recorded as deferred revenue in the accompanying consolidated balance sheet at December 31, 2003, which represents the unamortized portion of the purchase price in excess of the closing price of the Company's common stock on August 7, 2002. The deferred revenue will be recognized ratably over the term of the OEM agreement, which represents the Company's best estimate of its period of significant continuing obligation to provide BSC exclusive distribution rights to newly developed technology. The term of the agreement continues until such time that BSC is no longer distributing the Company's products, but in no event will extend beyond December 31, 2012. Approximately $615,000 and $154,000 was recognized as revenue for the years ended December 31, 2003 and 2002, respectively.

As part of the strategic alliance with BSC, the Company also entered into an agreement pursuant to which BSC has agreed to provide the Company a $5,000,000 revolving line of credit, which expires in August 2007 and may be extended at the discretion of BSC. Interest on any borrowings under this revolving line of credit is at a rate equal to the LIBOR rate at which BSC, under its own revolving credit facility, is entitled to borrow funds, plus any additional amounts payable thereon by BSC under such revolving credit facility, plus eighty basis points. The Company's revolving line of credit with BSC is secured by the Company's inventory and certain of the Company's accounts receivable and contains certain restrictive covenants covering the collateral. At December 31, 2003, there was no outstanding balance under this revolving line of credit, and the Company was in compliance with all covenants contained in the revolving line of credit agreement.

(20) Summarized Quarterly Financial Data (Unaudited)

The tables that follow summarize unaudited quarterly financial data for the years ended December 31, 2003 and December 31, 2002:

	For the Quarter Ended			
	March 29, 2003	June 28, 2003	September 27, 2003	December 31, 2003
Revenue	$10,127,290	$10,708,844	$11,189,071	$12,065,695
Gross profit margin	7,577,830	7,992,415	8,428,179	9,194,418
Operating expenses	10,296,362	9,971,515	9,982,284	10,191,067
Net loss	$(2,523,676)	$(1,795,197)	$(1,386,853)	$ (817,374)
Basic and diluted net loss per share	$ (0.13)	$ (0.09)	$ (0.07)	$ (0.04)

	For the Quarter Ended			
	March 30, 2002	June 29, 2002	September 28, 2002	December 31, 2002
Revenue	$ 9,686,566	$10,051,223	$ 9,995,213	$10,043,392
Gross profit margin	6,169,030	7,027,172	7,191,934	7,572,871
Operating expenses	11,143,113	10,917,212	10,827,372	11,330,048
Net loss	$(4,699,518)	$(3,661,838)	$(3,406,117)	$(3,533,698)
Basic and diluted net loss per share	$ (0.26)	$ (0.20)	$ (0.18)	$ (0.18)

EXHIBIT INDEX

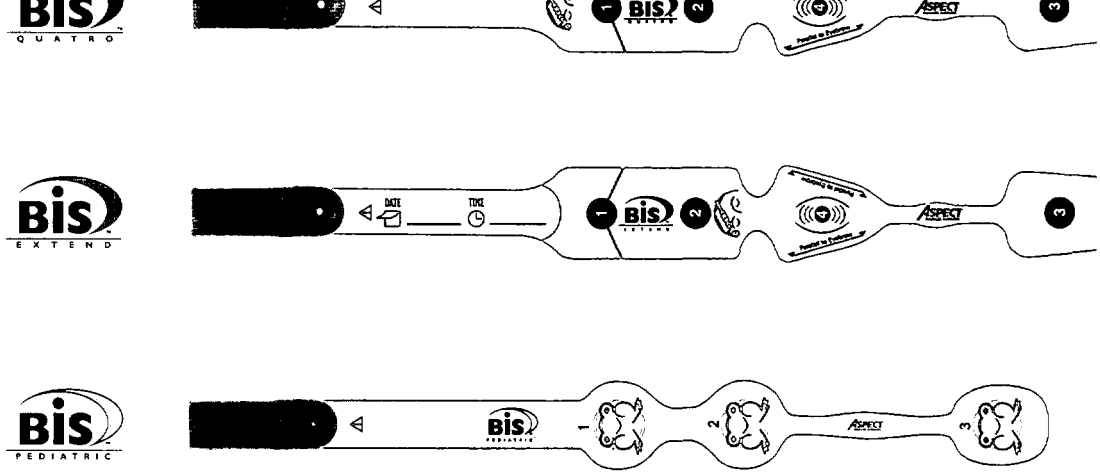
Exhibit No.	Exhibit
3(i).1	Restated Certificate of Incorporation is incorporated herein by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
3(ii).1	Amended and Restated By-Laws are incorporated herein by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2001 (File No. 0-24663).
4.1	Specimen common stock certificate is incorporated herein by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
4.2	See Exhibits 3(i).1 and 3(ii).1 for provisions of the Registrant's certificate of incorporation and by-laws defining the rights of holders of common stock.
10.1	1998 Director Stock Option Plan, as amended, is incorporated herein by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.2†	International Distribution Agreement, dated as of January 21, 1998, by and between the Registrant and Nihon Kohden Corporation is incorporated herein by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.3†	International License Agreement, dated as of January 21, 1998, by and between the Registrant and Nihon Kohden Corporation is incorporated herein by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.4	License Agreement, dated as of October 31, 1995, by and between the Registrant and Siemens Medical Systems, Inc. is incorporated herein by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.5†	Product Agreement, dated May 5, 1999, by and between the Registrant and Drager Medizintechnik GmbH is incorporated herein by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.6†	OEM Development and Purchase Agreement, dated August 6, 1999, by and between the Registrant and Philips Medizinsysteme Boeblingen GmbH (formerly Agilent Technologies, Inc.) is incorporated herein by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.7†	Letter Agreement, dated August 27, 1999, by and between the Registrant and Philips Medizinsysteme Boeblingen GmbH (formerly Agilent Technologies, Inc.) is incorporated herein by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.8†	Distribution and License Agreement, dated as of April 1, 1996, between SpaceLabs Medical, Inc. and the Registrant is incorporated herein by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.9	Promissory Note, dated February 18, 1997, as amended on April 14, 1997, made in favor of the Registrant by Nassib G. Chamoun, together with Pledge Agreement, dated as of February 18, 1997, as amended on April 14, 1997, by and between the Registrant and Nassib G. Chamoun are incorporated herein by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.10	Promissory Note, dated May 1, 1997, made in favor of the Registrant by Nassib G. Chamoun, together with Pledge Agreement, dated as of May 1, 1997, by and between the Registrant and Nassib G. Chamoun are incorporated herein by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.11	Promissory Note, dated May 1, 1997, made in favor of the Registrant by Nassib G. Chamoun, together with Pledge Agreement, dated as of May 1, 1997, by and between the Registrant and Nassib G. Chamoun are incorporated herein by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).

Exhibit No.	Exhibit
10.12	Form of Promissory Note made in favor of the Registrant by certain directors and executive officers, together with Form of Pledge Agreement, by and between the Registrant and certain directors and executive officers, together with a schedule of material terms are incorporated herein by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.13	Promissory Note, dated April 10, 1998, made in favor of the Registrant by Jeffrey Barrett, together with Pledge Agreement, dated as of April 10, 1998, by and between the Registrant and Jeffrey Barrett are incorporated herein by reference to Exhibit 10.18 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.14	Fourth Amended and Restated Registration Rights Agreement, dated December 17, 1998, by and among the Registrant and the several purchasers named on the signature pages thereto is incorporated herein by reference to Exhibit 10.21 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.15†	Supplier Agreement, dated August 13, 1999, between Novation, LLC and the Registrant is incorporated herein by reference to Exhibit 10.24 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.16†	OEM Development and Purchase Agreement, dated December 22, 1999, by and between the Registrant and GE Marquette Medical Systems, Inc. is incorporated herein by reference to Exhibit 10.26 to the Registrant's Registration Statement on Form S-1 (File No. 333-86295).
10.17†	Master Distribution Agreement, dated September 1, 2000, by and between the Registrant and Datex-Ohmeda Division of Instrumentarium Corporation is incorporated herein by reference to Exhibit 10.21 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-24663).
10.18	Promissory Note, dated July 13, 2000, made in favor of the Registrant by Nassib Chamoun, together with Pledge Agreement, dated as of July 13, 2000, by and between the Registrant and Nassib Chamoun is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2000 (File No. 0-24663).
10.19	Sublease Agreement, dated as of October 15, 1999, by and between Newton Technology Park LLC and the Registrant is incorporated herein by reference to Exhibit 10.24 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-24663 Iomega).
10.20	Promissory Note, dated April 10, 2001, made in favor of Registrant by Nassib G. Chamoun, together with Pledge Agreement, dated as of April 10, 2001, by and between the Registrant and Nassib G. Chamoun is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2001 (File No. 0-24663).
10.21	Revolving Credit Facility, dated as of May 16, 2001, by and between the Registrant and Fleet National Bank, together with Promissory Note, dated May 16, 2001, by and between the Registrant and Fleet National Bank and Pledge Agreement, dated as of May 16, 2001, by and between the Registrant and Fleet National Bank is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2001 (File No. 0-24663).
10.22	First Amendment, dated December 21, 2001, to Loan Agreement, dated as of May 16, 2001, by and between the Registrant and Fleet National Bank is incorporated herein by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001 (File No. 0-24663).
10.23†	Addendum No. 1, effective January 1, 2002, to OEM Development and Purchase Agreement, dated December 22, 1999, by and between the Registrant and GE Medical Systems, Inc. is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 30, 2002 (File No. 0-24663).
10.24	Advisory Board Agreement, dated as of January 23, 2002, by and between Stephen E. Coit and the Registrant is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 30, 2002 (File No. 0-24663).

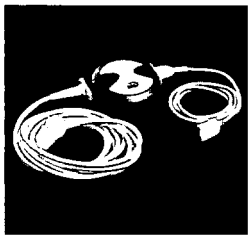
Exhibit No.	Exhibit
10.25	Amendment Number 1, dated June 10, 2002, to the Master Distribution Agreement, dated September 1, 2000, by and between the Registrant and Datex-Ohmeda Division of Instrumentarium Corporation is incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the period ended June 29, 2002 (File No. 0-24663).
10.26	Stock Purchase Agreement, dated as of August 7, 2002, by and between the Registrant and Boston Scientific Corporation is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated August 7, 2002 (File No. 0-24663).
10.27	Registration Rights Agreement, dated as of August 7, 2002, by and between the Registrant and Boston Scientific Corporation is incorporated herein by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K dated August 7, 2002 (File No. 0-24663).
10.28	Loan Agreement, dated August 7, 2002, by and between the Registrant and Boston Scientific Corporation, together with Security Agreement, dated August 7, 2002, by and between the Registrant and Boston Scientific Corporation and Promissory Note dated as of August 7, 2002, made by the Registrant in favor of Boston Scientific Corporation are incorporated herein by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K dated August 7, 2002 (File No. 0-24663).
10.29†	OEM Product Development Agreement, dated as of August 7, 2002, by and between the Registrant and Boston Scientific Corporation is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended September 28, 2002 (File No. 0-24663).
10.30	Third Amendment, dated March 21, 2003, to Loan Agreement, dated as of May 16, 2001, by and between the Registrant and Fleet National Bank is incorporated herein by reference to Exhibit 10.33 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-24663).
10.31†	OEM Development and Purchase Agreement, dated February 13, 2002, by and between the Registrant and Dixtal Biomedica Ind E Com Ltda. is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 29, 2003 (File No. 0-24663).
10.32	Special Bonus Program for Nassib G. Chamoun dated April 24, 2003 is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the period ended March 29, 2003 (File No. 0-24663).
10.33†	OEM Development and Purchase Agreement, dated July 24, 2003, by and between the Registrant and Datascope Corp. is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended September 27, 2003 (File No. 0-24663).
10.34†	Addendum 1, effective January 1, 2003, to the OEM Purchase Agreement, dated September 1, 2000, by and between the Registrant and Datex-Ohmeda Division of Instrumentarium Corporation is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the period ended September 27, 2003 (File No. 0-24663).
10.35†	Addendum 1, effective January 1, 2003, to the OEM Development and Purchase Agreement, dated August 6, 1999, by and between the Registrant and Philips Medizinsysteme Boeblingen GmbH (formerly Agilent Technologies, Inc.).
10.36†	Addendum 3, Effective March 13, 2003, to the OEM Development and Purchase Agreement, dated December 22, 1999, by and between the Registrant and GE Marquette Medical Systems, Inc.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Ernst & Young LLP.
23.2	Notice Regarding Consent of Arthur Andersen LLP.
31.1	Certification by Chief Executive Officer Pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.

Exhibit No.	Exhibit
31.2	Certification by Chief Financial Officer Pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certification by Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

† Confidential treatment has been requested as to certain portions of this Exhibit. Such portions have been omitted and filed separately with the Securities and Exchange Commission.



EXPANSION OF PARTNERSHIPS AND INTEGRATION SOLUTIONS



In the past year, Aspect continued to make BIS technology more accessible in the many environments where brain monitoring can help improve patient care, from the operating room to the intensive care unit to the procedural sedation suite. The recent introduction of BISx™ further improves this accessibility by putting the power of BIS technology into a small, portable device capable of interfacing with the range of technologies and monitoring platforms used across the continuum of healthcare environments. Aspect now has partnership agreements with every major manufacturer of patient monitoring technology, including new agreements with Datascope and Dixtal signed in 2003, and more recently with Dräger Medical (a Dräger and Siemens Company). BIS technology is the only consciousness monitoring solution that offers widespread availability and compatibility. We believe that this represents a significant opportunity to drive our market penetration and sensor utilization.

IMPROVED OPERATING PERFORMANCE

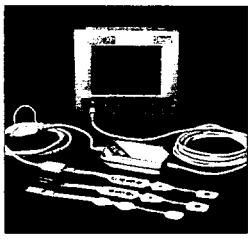
The significance of these developments was reflected in Aspect's financial performance in 2003:

- Gross profit margin percentage increased from 70% to 75%
- Worldwide revenue increased by 11%
- Worldwide sensor revenue increased by 14%
- Operating expenses decreased by 8%
- Net loss per share decreased by 59% for the year
- The installed base of BIS monitors grew by 9%
- The installed base of BIS modules grew by 102%

Looking ahead, we believe that we will achieve profitability in the second half of 2004.

NEW VISIONS FOR THE FUTURE

Research collaboration with leading investigators in the neurosciences continues to show great promise for new applications of Aspect's core brain monitoring expertise. In 2003, we presented studies describing how our technology may aid the early detection of Alzheimer's disease, and initiated additional research to determine whether this approach could have a role in monitoring the progression and treatment of Alzheimer's disease. Further, our research in depression indicated that EEG-based brain monitoring technology may help predict treatment response to antidepressant medications in depressed patients. Psychiatrists currently have no objective measure to determine if and how well a therapy is working for a patient. We hope to help eliminate this guessing game and advance patient care by enabling clinicians to identify a patient's optimal medication regimen more quickly.



CLOSING THOUGHTS

2003 marked a year of steady financial progress and strategic advances toward Aspect's short- and long-term business objectives. We have entered 2004 energized and committed to sustainable success. We will continue to focus on our objectives of growing revenue, controlling operating expenses, developing partnerships, and advancing research for future applications of our technology. With the dedication of our employees, strength of our partnerships, and the support of our stockholders, we expect that 2004 will bring continued growth and progress in pursuit of our mission to make important strides in the quality and safety of patient care.

Sincerely,

Nassib G. Chamoun
President, CEO, and Founder

Annual Meeting of Stockholders

Stockholders are welcome to attend our annual meeting, which will be held at 9:00 am on Tuesday, June 15, 2004, at the office of Hale and Dorr LLP, 60 State Street, Boston, Massachusetts. We look forward to meeting our stockholders and answering any questions you may have at the meeting.

Forward-Looking Statements

Certain statements made in this Annual Report to Stockholders are forward-looking statements that are subject to risks and uncertainties. There are a number of factors that could cause the Company's future performance and results of operations to differ materially from such statements, including without limitation those set forth under the heading "Factors Affecting Future Operating Results" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, which is filed with the Securities and Exchange Commission. These statements should not be relied upon as representing the Company's expectations or beliefs as of any date subsequent to the date of the Annual Report.

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