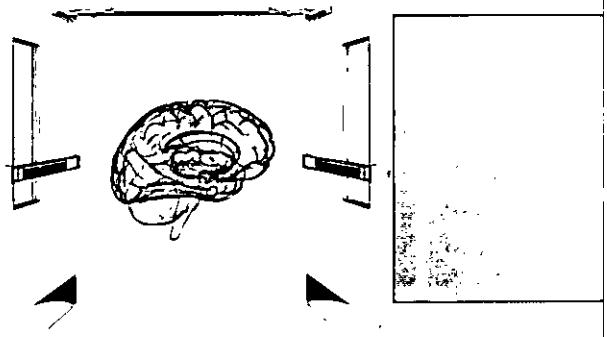
2007 ANNUAL REPORT



Dear Shareholders

Twenty years ago, Aspect Medical Systems took the first step in the development of a simple, clinically effective brain monitoring device that could be used routinely to improve patient care. At the time no one could have guessed the extensive research, development and perseverance that would be required to bring this technology to market. Aspect has prevailed throughout this period as a result of a deep-rooted commitment to advancing the quality and safety of patient care. Our efforts have established the BIS brand as the quality and performance leader in consciousness monitoring and we are pleased with the progress that we made in 2007 to build our leadership position. Today, more than 47,000 BIS systems have been installed worldwide, and in 2007 alone, more than five million patients were BIS monitored.

2007 was an important transition year for Aspect and our financial results reflect the beginning of strategic changes taking effect. Overall product revenue growth slowed to an eight percent rate as we shifted our emphasis in the United States to growing utilization within our existing customer base. The resulting declines in hardware revenue obscured an improving trend in sensor revenue growth during the year, which contributed to an overall improvement in our product margins. International results were even more favorable with sensor growth over 30 percent and overall product revenue growth improving from the prior year.

Operating expenses grew slightly faster than our product revenue, particularly in the first part of the year, due to our new facility costs and expenses related to the conclusion of our Boston Scientific alliance. We continue to make important investments in our sales, marketing and clinical efforts with a goal of further developing our markets and creating revenue growth.

While 2007 was a difficult year for our stock price, we remain confident in our strategy, the extensive clinical data in support of BIS monitoring and the overall stability of the consciousness monitoring business. We have continued to perform well against competition. Moreover, we completed an attractive $125 million convertible note financing that allowed us to repurchase shares of our common stock held by Boston Scientific and to replenish our cash reserves. In addition, we continued to comfortably manage the investment in our neuroscience program formerly funded by Boston Scientific. Our balance sheet remains strong with almost $110 million in cash and marketable securities giving us considerable financial resources to continue to invest in and build Aspect.

☐ Clinical Milestones

In 2007, Aspect's commitment to clinical research and innovation was rewarded with the Cochrane Library's publication of a favorable evidence-based review of the impact of BIS monitoring on anesthesia care. The Cochrane Library is considered one of the world's leading independent sources of reviews of scientific literature.

Aspect's clinical research program also achieved several new important milestones.

- We initiated two long-term outcome studies in collaboration with the Cleveland Clinic to assess the relationship between anesthesia exposure and cancer recurrence and other long term outcomes.
- A study presented at the annual meeting of the American Society of Anesthesiologists (ASA) explored the relationship between depth of consciousness (as measured by BIS) and changes in inflammatory biomarkers after major orthopedic surgery. This study suggests that BIS-guided anesthesia may help moderate the body's inflammatory response to the trauma of surgery.
- Several studies were reported during the year that examined fluctuations in BIS and facial electromyogram, or EMG. These studies reinforced the potential clinical value of using these measures to manage intraoperative patient responses to pain.
- Finally, in the intensive care unit (ICU), a successful prospective randomized study conducted at Duke University examined the impact of BIS monitoring on sedation practices in the neuro ICU. Patients whose sedation was guided to maintain a target BIS range were significantly less likely to experience an adverse undersedation event, such as self-extubation.

☐ A Spotlight on Anesthesia Safety

In 2007, topics associated with anesthesia safety continued to be in the public eye. In November, the movie "Awake" was released in theaters across the country. While the movie is Hollywood fiction, the problem of anesthesia awareness depicted in the movie remains a reality, and numerous patient accounts continue to attest to the incredible pain and long-term trauma sometimes associated with anesthesia awareness. Fortunately, most anesthesia professionals now accept the view that awareness is a legitimate patient safety concern, and acknowledge the role of brain monitoring in mitigating the risk of awareness. Nonetheless, the issue remains controversial as evidenced by an article and editorial published recently in the *New England Journal of Medicine* that questioned the value of BIS monitoring in reducing risk of awareness.

Despite all of the attention focused on anesthesia awareness, recent research suggests that over-exposure to anesthesia may be an even more important clinical concern with longer-term patient outcomes and safety implications. In March 2007, the United States Food and Drug Administration (FDA) convened an advisory board to review concerns about neurotoxic effects from exposure to anesthetic drugs seen in neonatal animals. Similarly, at the annual meeting of the ASA last October, the keynote speech and much of the discussion centered on emerging scientific evidence regarding the consequences of excessive exposure to anesthetics. These studies suggest that a range of negative outcomes, including seizures, delirium, post-operative cognitive dysfunction, inflammatory response, cancer recurrence and even mortality, may be associated with overexposure to anesthetic agents. Early research in this area suggests that the patients who are the most vulnerable to excessive exposure to anesthetics are the young, the elderly, and those with significant co-morbidities, such as malignancies and heart disease. Notably, these populations tend to present the greatest challenges to anesthesia professionals. In this context, our continued goal is to help anesthesia professionals individualize anesthesia care – providing not too much, not too little, but just the right amount that each patient needs.

☐ Market Focus

In 2008, our principal goal is to continue to capture the substantial untapped opportunity in the OR market. We will continue to focus our U.S. sales organization on increasing sensor utilization among existing large customers and to provide these customers with a variety of clinical education resources. Our experience has shown that as clinicians become more comfortable integrating BIS monitoring into their practice through training and education, they tend to use the technology more frequently to achieve its quality and safety benefits. We also intend to maintain a dedicated sales group that sells to integrated delivery networks, or IDNs. Today, many hospitals that comprise the remaining untapped market are members of an IDN where purchasing and policy decisions are set at the network level.

Outside of the U.S., our plan is to continue to expand our sensor distribution channels by collaborating more closely with OEM partners and distributors. In addition, we will support country-by-country initiatives that encourage anesthesia professional societies to consider guidelines that incorporate brain monitoring.

☐ Product Enhancements and Anesthesia Outcomes Research

Our near and mid-term product development strategy is to offer new products and technological enhancements that address the ways in which anesthesia practices are evolving and changing, and that are designed to give our substantial installed customer base new reasons to use our technology. For example, we expect to introduce a bilateral monitoring system that allows clinicians to track differences in brain function between the right and left sides of the head. We are also initiating additional new studies to further examine how variability in BIS values and facial EMG during surgery may be associated with intraoperative arousal and post-operative pain, with the goal of helping anesthesia professionals track intraoperative analgesic requirements and reduce post operative pain.

The initiation of additional clinical trials to define the value of BIS monitoring on long-term patient outcomes is also a key goal in 2008. Although the final results from studies that examine the role of anesthetic depth on longer-term patient outcomes may not be available for some time, important interim results focusing on process improvements, complications requiring interventions in the recovery room, delirium and post operative cognitive dysfunction are expected to

be reported earlier. We also plan to further investigate the role of BIS technology in optimizing use of intravenous anesthesia. We believe that this research is a necessary response to growing clinical interest in intravenous anesthesia as well as growing concern regarding the long-term consequences associated with anesthesia exposure, particularly of inhaled anesthetics. This research will also explore the impact of integrated BIS information with closed-loop anesthesia delivery systems.

Our continued support of these global clinical studies allows Aspect to collaborate with anesthesia's academic researchers and thought leaders. We believe these thought leaders, in turn, represent the most effective vehicle for educating the next generation of anesthesia providers who are not yet convinced that BIS monitoring should be used routinely.

Finally, we believe that by continuing to demonstrate improved outcomes associated with BIS monitoring, we will be better able to help our customers meet "pay-for-performance" standards that are emerging in the U.S. and parts of Europe. The pay-for-performance approach ties clinician payment to measurable benchmarks of quality and safety outcomes that we believe BIS monitoring can help clinicians achieve.

☐ Neuroscience Initiatives

Longer term, we continue to be very excited by the potential new product opportunities resulting from our research and development efforts in depression and Alzheimer's disease. Further, we are pleased that we were able to regain full commercial rights to our neuroscience program following the conclusion of our alliance with Boston Scientific.

In depression, our primary clinical studies continue to be focused on developing EEG-based treatment response biomarkers designed to guide clinicians in selecting effective antidepressant medication for the millions of people worldwide who suffer from depression. It typically takes several weeks before the efficacy of a specific antidepressant can be determined, and patients may undergo several trial and error drug regimens or abandon treatment before finding relief.

In 2007, Aspect completed the BRITE Major Depression study ("Biomarkers for Rapid Identification of Treatment Efficacy"), which was conducted at nine leading academic centers across the United States. The study was designed to demonstrate the ability of Aspect's technology to predict an individual's response to antidepressant treatment after only one week of medication.

Last December, we announced positive results of the BRITE study, which demonstrated that Aspect's depression biomarker served as a reliable predictor of both response and remission to antidepressant therapy. The study also suggested that treatment guided with Aspect's technology may lead to better patient outcomes by individualizing medication decisions earlier in the treatment process.

Following the successful completion of the BRITE trial, our focus in 2008 is the planning and execution of a pivotal study called the RAPID trial (Rapid Assessment for Prediction of Improvement in Depression). The objective of the RAPID trial, which we intend to initiate in Q2 2008, is to prospectively validate Aspect's biomarker as a predictor of antidepressant treatment response.

In addition to seeking to help healthcare professionals guide pharmaceutical-based treatments for depression, we are also exploring the role of brain monitoring in optimizing device-based therapies – particularly neurostimulation approaches – for depression and other neuro-psychiatric conditions. Based on our experience to date, we believe that our biomarker technology could be valuable in the optimization of neurostimulation treatment for neuropsychiatric conditions, and is well-positioned to contribute significantly to the trend toward personalized medicine for the benefit of patients, clinicians and payers alike. We plan to continue to explore this area in 2008.

The opportunity to enable clinicians to improve care for patients suffering from Alzheimer's disease is also significant. Four and a half million people in the U.S. are living with Alzheimer's and 400,000 new cases are diagnosed each year. Aspect will continue to follow patients in two major longitudinal trials to evaluate our EEG-based measure of cognitive function. The first study, the Cape Cod Memory study, has enrolled nearly 400 healthy elderly subjects to investigate EEG measures of cognitive function and predictors of future cognitive decline. The second study is designed to follow 80 subjects with Mild Cognitive Impairment (MCI) over a two year period. This study is now almost fully enrolled and we plan to review the data over the next two years to investigate if our EEG metric can distinguish MCI subjects who experience decline from those whose cognitive status remains stable during the study period.

In summary, a wealth of exciting research and product development initiatives are underway at Aspect. Looking forward, Aspect will continue to be guided by an innovative spirit to seek new opportunities, improve patient care, reinforce our industry-leading position and expand our knowledge-base, technology and partnerships – all while striving to create long-term value for our shareholders. This spirit has guided us through the trials and triumphs of our first 20 years, and I'm confident that it will continue to guide us to serve patients, providers and shareholders well in the future. I'm looking forward to the road ahead, and thank you for your continued support.

Sincerely,

Nassib G. Chamoun
President, CEO and Founder

Corporate Information

Annual Meeting of Shareholders

All shareholders are welcome to attend our annual meeting, which will be held at 9:00 am on Wednesday, May 21, 2008, at Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts. We look forward to meeting our shareholders and answering any questions you may have at the meeting.

Forward-Looking Statements

Certain statements made in this Annual Report to Shareholders are forward-looking statements that are subject to risks and uncertainties, including statements regarding the Company's near-term and long-term operating plans, strategies, goals, prospects and financial and operating performance and results. There are a number of important 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, "Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007, which is filed with the Securities and Exchange Commission. These statements should not be relied upon as representing the Company's expectations of beliefs as of any date subsequent to the date of this Annual Report.

Board of Directors

Nassib G. Chamoun
President, Chief Executive Officer, and Founder

J. Breckenridge Eagle
Chairman of the Board of Directors

Boudewijn Bollen
Member of the Board of Directors

Michael Esposito
Partner
Norbridge, Inc

David W Feigal, M.D., M.P.H.
Senior VP Global Regulatory and Global Safety Surveillance
Élan Pharmaceuticals

Edwin M. Kania, Jr.
Senior Managing Director and Chairman
Flagship Ventures

John O'Connor
Retired, PricewaterhouseCoopers LLP

James J. Mahoney, Jr.
President, The Mahoney Group

Donald Stanski, M.D.
Vice President, Global Head, Modeling and Simulation
Novartis Pharma AG
Professor of Anesthesia (emeritus)
Stanford University

Executive Officers

Nassib G. Chamoun
President, Chief Executive Officer, and Founder

J. Breckenridge Eagle
Chairman of the Board of Directors

Michael Falvey
Vice President, Chief Financial Officer and Secretary

Margery Ahearn
Vice President of Human Resources

John Coolidge
Vice President of Manufacturing Operations

Marc Davidson
Vice President of Engineering

Philip H. Devlin
Vice President and General Manager of Neuroscience

William Floyd
Executive Vice President of Worldwide Sales and Marketing

Scott D. Kelley, M.D.
Vice President of Medical Affairs

Paul J. Manberg, Ph.D.
Vice President of Clinical, Regulatory and Quality Assurance

Investor Relations

Financial Relations Board
111 East Wacker Drive
Chicago, Illinois 60601
312.266.7800

Corporate Counsel

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
617.526.6000

Auditors

Ernst & Young LLP
200 Clarendon Street
Boston, Massachusetts 02116
617.266.2000

Transfer Agent

Computershare Investor Services
250 Royall Street
Canton, Massachusetts 02021
781.575.2000
www.computershare.com

Corporate Headquarters

Aspect Medical Systems, Inc.
One Upland Road
Norwood, Massachusetts 02062
t: 617.559.7000
f: 617.559.7400
e: bis_info@aspectms.com

International Headquarters

Aspect Medical Systems
International B.V.
Rijnzathe 7d2
3454 PV De Meern
The Netherlands
t: 31.30.662.9140
f: 31.30.662.9150
e: amsint@aspectms.com

Form 10-K

The Company's Annual Report on Form 10-K, as filed with the Securities and Exchange Commission for the fiscal year ended December 31, 2007, is available free of charge upon written request to Aspect Medical Systems, Inc., Investor Relations Department, One Upland Road, Norwood, Massachusetts 02062

ASPECT™
MEDICAL SYSTEMS

One Upland Road
Norwood, MA 02062
tel: (617) 559-7000
fax: (617) 559-7400
www.aspectmedical.com

Financial Information

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

YEAR ENDED DECEMBER 31,	2007	2006	2005	2004	2003
Product revenue	$ 92,078	$ 85,018	$ 73,471	$ 54,902	$ 43,476
Strategic alliance revenue	5,246	6,316	3,524	662	615
Total revenue	97,324	91,334	76,995	55,564	44,091
Costs of product revenue	23,319	22,171	19,303	12,992	10,898
Gross margin	74,005	69,163	57,692	42,572	33,193
Gross profit margin percentage	76.0%	75.7%	74.9%	76.6%	75.3%
Operating expenses:					
Research and development	16,052	15,280	10,464	7,470	7,287
Sales and marketing	39,823	35,571	30,298	26,695	25,241
General and administrative	15,486	12,446	10,291	8,946	7,833
Total operating expenses	71,361	63,297	51,053	43,111	40,361
Income (loss) from operations	2,644	5,866	6,639	(539)	(7,168)
Interest income, net	3,009	3,332	1,926	923	725
Income (loss) before taxes	5,653	9,198	8,565	384	(6,443)
Provision (benefit) for income taxes	3,397	(27,891)	90	81	80
Net income (loss)	$ 2,256	$ 37,089	$ 8,475	$ 303	$ (6,523)
Net income (loss) per share:					
Basic	$ 0.12	$ 1.66	$ 0.39	$ 0.02	$ (0.34)
Diluted	$ 0.11	$ 1.59	$ 0.35	$ 0.01	$ (0.34)
Weighted average shares used in computing net income (loss) per share:					
Basic	19,614	22,378	21,508	20,142	19,413
Diluted	20,247	23,380	23,921	22,286	19,413

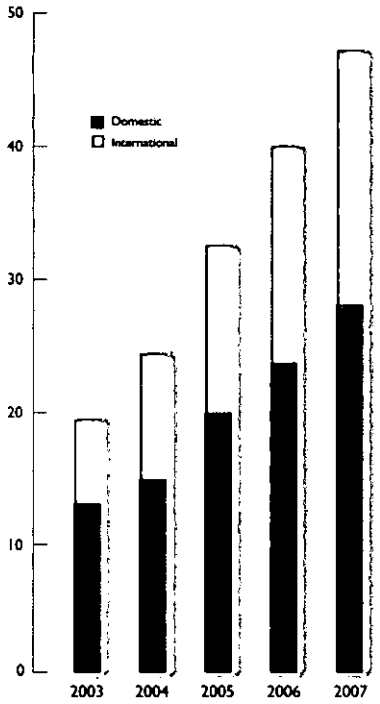
CONSOLIDATED BALANCE SHEET DATA *(in thousands):*

AS OF DECEMBER 31,	2007	2006	2005	2004	2003
Cash, cash equivalents, restricted cash and marketable securities	$109,484	$ 63,470	$ 61,341	$ 43,734	$ 33,776
Working capital[1]	118,824	70,645	64,853	41,814	29,904
Total assets	173,477	125,254	87,132	61,690	47,740
Long-term debt	125,000	—	—	186	525
Total stockholders' equity	36,675	109,248	67,423	45,586	30,968

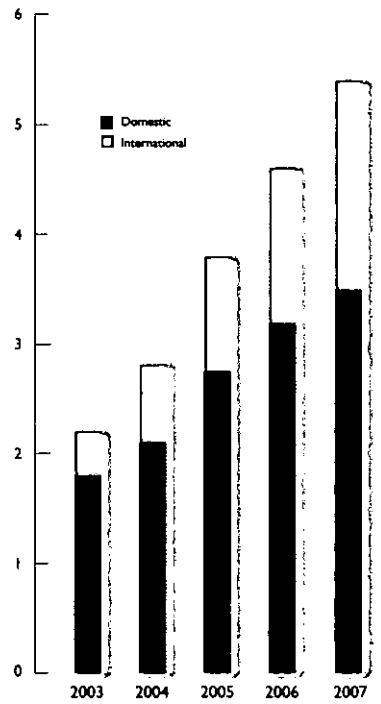
[1] Certain working capital amounts in the above table have been corrected to reflect the proper classification of our short and long-term investments in marketable securities. These corrections increased working capital by approximately $16.9 million and $7.6 million at December 31, 2005 and 2004, respectively, decreased working capital by $775,000 at December 31, 2003, and have no effect on our earnings, cash flows, stockholder's equity or our compliance with debt covenants.

These selected condensed financial statements should be read in conjunction with the full audited financial statements presented in Aspect's Form 10-K, as filed with the Securities and Exchange Commission.

Total Installed Base of Monitors and Modules
(in thousands)

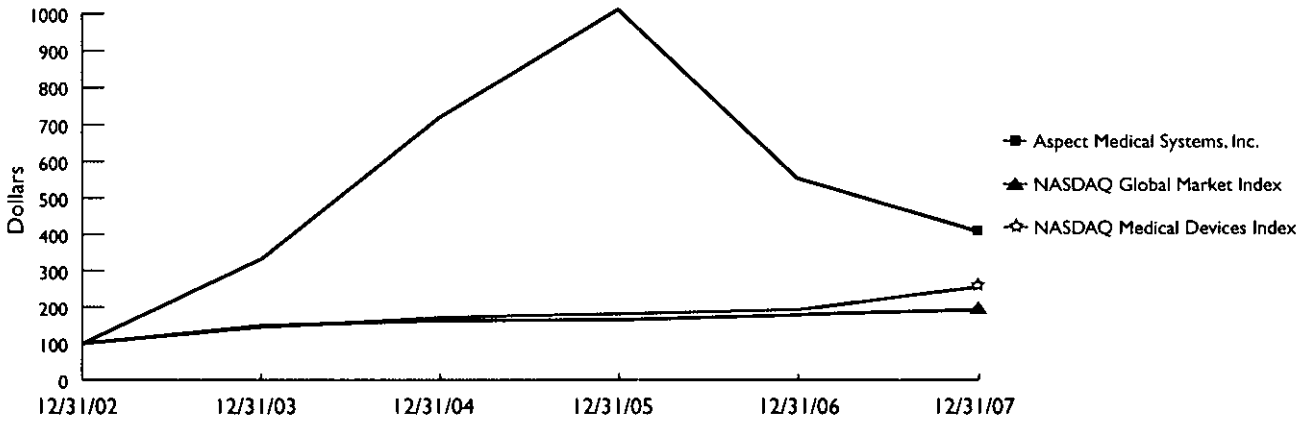


Sensor Shipment Total – Domestic & International
(in millions)



Comparative Stock Performance Graph

The comparative stock performance graph below compares the cumulative total stockholder return (assuming reinvestment of dividends, if any) from investing $100 on December 31, 2002 and plotted at the end of the last trading day of the fiscal years ended December 31, 2003, 2004, 2005, 2006 and 2007, in each of (i) our common stock, (ii) the NASDAQ Global Market Index of U.S. Companies and (iii) an index of surgical, medical and dental instruments and supplies companies listed on the NASDAQ Global Market.



Measurement Period (Fiscal Year Covered)	Aspect Medical Systems, Inc.	NASDAQ Global Market Index	NASDAQ Medical Devices Index
12/31/02	$ 100.00	$ 100.00	$ 100.00
12/31/03	$ 337.20	$ 149.50	$ 146.10
12/31/04	$ 721.50	$ 162.70	$ 170.80
12/31/05	$1,013.30	$ 166.20	$ 188.30
12/31/06	$ 554.90	$ 182.60	$ 199.20
12/31/07	$ 413.00	$ 198.00	$ 255.40

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, 2007

☐ **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.)*
One Upland Road **Norwood, Massachusetts** *(Address of Principal Executive Offices)*	**02062-1546** *(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 if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☑

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

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

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

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

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2007 (based on the closing price as quoted on the Nasdaq Global Market on such date) was $83,187,580. The registrant had 17,167,411 shares of Common Stock, $0.01 par value per share, outstanding as of March 3, 2008.

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, 2007. Portions of such proxy statement are incorporated by reference into Part III of this Form 10-K.

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Forward-Looking Information

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, including information relating to our ability to maintain profitability, information with respect to market acceptance of our BIS system, continued growth in sales of our BIS monitors, original equipment manufacturer products and BIS Sensors, our dependence on the BIS system, regulatory approvals for our products, 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 the fiscal quarter ending March 29, 2008 and thereafter. Words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate" and variations of these words and similar expressions are intended to identify our forward-looking statements. These forward-looking statements are not guarantees of future performance and involve risks and uncertainties including those described in "Item 1A — Risk Factors" and elsewhere in this annual report and that are otherwise described from time to time in our Securities and Exchange Commission reports filed after this report. The forward-looking statements included in this annual report represent our estimates as of the date of this annual report. We specifically disclaim any obligation to update these forward-looking statements in the future, except as specifically required by law or the rules of the Securities and Exchange Commission. These forward-looking statements should not be relied upon as representing our estimates or views as of any date subsequent to the date of this annual report.

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 assess and manage a patient's level of consciousness in the operating room, intensive care and procedural sedation settings and is intended to assist the clinician in better determining the amount of anesthesia or sedation needed by each patient. We developed the BIS system over 10 years, and it is the subject of 23 issued United States patents and 9 pending United States patent applications. Our proprietary BIS system includes our BIS monitor, BIS Module Kit or BISx system, which allows original equipment manufacturers to incorporate the BIS index into their monitoring products, and our group of sensor products, which we collectively refer to as BIS Sensors.

As of December 31, 2007, the worldwide installed base of BIS monitors and original equipment manufacturer products was approximately 47,400 units. We estimate that BIS technology is installed in approximately 60% of all domestic operating rooms, and is available in more than 160 countries. We estimate that more than 25 million patients worldwide 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 incidence of unintentional intraoperative awareness with recall,
- 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, and
- improvements in the quality of recovery.

We are in the process of investigating other product areas that utilize our expertise in anesthesia delivery and monitoring of the brain. For example, we have a team investigating the use of the BIS monitoring platform to

diagnose and track neurological diseases. For additional information regarding these other product areas, see "Business — Research and Development" appearing elsewhere in this annual report.

We derive our revenue primarily from sales of BIS monitors, our original equipment manufacturer products (including BIS Module Kits and the BISx system) and related accessories, which we collectively refer to as Equipment, and sales of BIS Sensors. We have also historically derived a portion of our revenue from strategic alliances, primarily our alliance with Boston Scientific Corporation, which we terminated in June 2007. In fiscal years 2007, 2006 and 2005, revenue from the sale of Equipment represented approximately 17%, 22% and 26%, respectively, of our revenue, and revenue from the sale of BIS Sensors represented approximately 78%, 71% and 69%, respectively, of our revenue. In fiscal years 2007, 2006 and 2005, strategic alliance revenue represented approximately 5%, 7% and 5%, respectively, of our revenue.

We maintain a website with the address *www.aspectmedical.com*. We are not including the information contained on our website, or information that can be accessed by links 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, or SEC. 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 SEC.

2007 DEVELOPMENTS

Initiation of Outcome Studies

In March 2007, we announced the initiation of two studies being conducted with the Cleveland Clinic to investigate the impact of anesthetic management techniques on patient outcomes. The first is a vascular study which seeks to determine if avoidance of deep anesthesia, administration of steroids and control of blood sugar levels improves outcomes in patients undergoing major vascular surgery. The study is expected to evaluate up to 900 patients scheduled for elective major vascular surgeries at Cleveland Clinic hospitals. Patients will be randomized to a surgical care protocol that includes administration of a steroid or placebo, intensive or conventional glucose management and lighter or deeper anesthetic management. Researchers will assess multiple outcome measures during and after surgery, including the incidence of major perioperative morbidity such as heart attack, as well as incidence of surgical complications, delirium, and quality of life.

The second study is designed to test the hypothesis that avoiding deep general anesthesia reduces cancer recurrence rates in women under going surgery for breast cancer. The study is expected to evaluate up to 1,100 breast cancer patients scheduled to undergo mastectomies. Patients will be randomly assigned to regional anesthesia/ analgesia with sedation or light anesthesia, or to a full general anesthetic and morphine analgesia. Participants will be followed for up to 10 years to determine the rate of cancer recurrence or metastasis. BIS monitoring will be used to determine whether the depth of general anesthesia is related to patient outcomes.

Sale of 2.50% Convertible Senior Notes due 2014

In June 2007, we completed a private placement of $125,000,000 aggregate principal amount of 2.5% convertible notes due 2014, which we refer to as the notes. The notes are senior unsecured obligations and will rank equally with all of our existing and future senior debt and to all of our subordinated debt. Interest on the notes is payable semiannually in cash on June 15th and December 15th of each year with the first payment being made on December 15, 2007. The notes will mature on June 15, 2014. Net proceeds received from the issuance of the notes were approximately $121,000,000, which is net of the underwriter's discount of approximately $4,000,000. In connection with the notes offering, we incurred total offering costs of approximately $4,471,000.

Termination of Alliance with Boston Scientific Corporation and Related Stock Repurchase

On June 11, 2007, we entered into a termination and repurchase agreement with Boston Scientific Corporation. Under the terms of the agreement, we and Boston Scientific Corporation agreed to terminate the following agreements:

- the OEM product development agreement dated as of August 7, 2002, as amended January 31, 2005 and February 5, 2007, which we refer to as the 2002 agreement, pursuant to which we were to develop certain products that Boston Scientific Corporation would then commercialize in the area of monitoring patients under sedation in a range of less invasive medical specialties, and pursuant to which we granted Boston Scientific Corporation an exclusive option to become the distributor for a period of time of certain products;
- the product development and distribution agreement dated as of May 23, 2005, which we refer to as the 2005 Agreement, pursuant to which we were to develop new applications of our brain-monitoring technology in the area of the diagnosis and treatment of neurological, psychiatric and pain disorders and Boston Scientific was appointed the exclusive distributor of such products; and
- the letter agreement dated August 7, 2002, and security agreement dated August 7, 2002, pursuant to which Boston Scientific Corporation agreed to make revolving interest-bearing loans to us from time to time at our request, such revolving loans being evidenced by a promissory note in the original principal amount of $5,000,000 dated August 7, 2002.

In addition to the termination of the agreements referenced above, on June 13, 2007, we repurchased 2,000,000 shares of our common stock held by Boston Scientific Corporation at a price of approximately $15.91 per share, for an aggregate repurchase price of $31,816,000. The per share price represents the average of the closing prices of our common stock as reported on the NASDAQ Global Market for the 20 consecutive trading days up to and including the date of the termination and repurchase agreement. In accordance with the agreement, for a period of 180 days following the date of the agreement, we had the right to purchase any or all of the balance of our shares of common stock then owned by Boston Scientific at a price of $15.00 per share or the average of the closing prices for our common stock over the 10 trading days prior to the date we exercise our right to repurchase, whichever is higher. Additionally, Boston Scientific Corporation had agreed that for a period of 180 days after the effective date of the agreement that it would not sell, contract to sell, grant any option to purchase or dispose of any of the shares of our common stock held of record by Boston Scientific Corporation on the effective date. On July 10, 2007, we exercised our right under the termination and repurchase agreement and repurchased an additional 2,500,000 shares of common stock from Boston Scientific Corporation for $37,655,000. On November 7, 2007, we entered into a letter agreement with Boston Scientific Corporation pursuant to which we agreed to waive the specified provisions of the termination and repurchase agreement entered into on June 11, 2007. We agreed to waive the lock-up and the call option set forth in the agreement with respect to the remaining 1,513,239 shares of our common stock held by Boston Scientific Corporation because Boston Scientific Corporation and a third party reached an agreement pursuant to which that third party agreed to purchase all of such shares.

BIS VIEW Clearance

In June 2007, we received United States Food and Drug Administration, or FDA, 510(k) clearance for our newest stand-alone monitor, the BIS VIEW™. The BIS VIEW offers customers a compact design and simplified operation for lower acuity clinical environments with limited room for monitoring equipment. In August 2007, we had our first commercial shipment of the BIS VIEW.

Results of BRITE Major Depression Study

In December 2007, we announced the results of our BRITE, or Biomarkers for Rapid Identification of Treatment Efficacy in Major Depression, trial. Enrollment in this trial was concluded in March 2007. The BRITE study results demonstrated that our EEG-based Antidepressant Treatment Response, or ATR, indicator is a significant predictor of patient response and remission from depression when utilized one week following initiation of treatment with escitalopram, an anti-depressant drug. Patient response was defined by researchers as a 50 percent improvement in depression symptoms as measured by the Hamilton Depression Rating Scale, or HAM-D, after

seven weeks of treatment, and remission was defined as recovery from depression (HAM-D less than 7) after seven weeks of treatment. The BRITE trial was conducted in collaboration with leading investigators from 10 facilities across the United States and enrolled more than 300 patients.

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 comprises our BIS monitor, BIS Module Kit or BISx system and our BIS Sensors. The BIS Sensors are applied to a patient's forehead to acquire the electroencephalogram, or EEG, a measure of the electrical activity of the brain. The EEG is then analyzed by the BIS monitor, BIS Module Kit or BISx system 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

Our principal product offerings consist of the following:

EQUIPMENT

BIS VIEW

The BIS VIEW is our basic featured standalone monitor, which has fewer optional configurations compared with the BIS VISTA monitor. The BIS VIEW monitor runs on the BISx platform. The initial commercial shipment of the BIS VIEW took place in 2007.

BIS VISTA

The BIS VISTA is our stand-alone monitor which offers enhanced display and user interface as well as greater processing capability, including the ability to support advanced monitoring features. The BIS VISTA monitor runs on the BISx platform. The initial commercial shipment of the BIS VISTA took place in 2006.

BISx system

The BISx system is our original equipment manufacturer BIS monitoring solution that provides the processing technology required to obtain BIS information from a single device the approximate size of a hockey puck. The BISx system is designed to integrate with a wide range of patient monitoring platforms sold by original equipment manufacturers. BISx simplifies the incorporation of BIS technology into our partners' monitoring systems and makes available 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. The initial commercial shipment of the BISx system took place in 2004.

BIS XP system

The BIS XP system offers enhanced performance capabilities and expanded benefits as compared with 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 to resist 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. The BIS XP system runs on the A-2000 BIS Monitor, BIS Vista, BIS View, BIS Module Kit platform and BISx system. The initial commercial shipment of the BIS XP system took place in 2001.

A-2000 BIS Monitor

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. The initial commercial shipment of the A-2000 BIS Monitor took place in 1998.

BIS Module Kit

Our BIS Module Kit is designed to facilitate the integration of the BIS index into equipment marketed by 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.

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

Semi-Reusable Sensor (SRS)

Semi-reusable version of a BIS Sensor that uses the same algorithm and hardware as our disposable sensors. Currently, the SRS is only available in markets outside of the United States, excluding Japan. The initial commercial shipment of the SRS took place in 2005.

BIS Extend Sensor

We created the BIS Extend Sensor 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 is designed to resist electrical artifact and 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, BIS Module Kit or BISx system. We introduced commercially the BIS Extend Sensor in 2002.

BIS Pediatric Sensor

The BIS Pediatric Sensor is smaller and easier to apply than our other BIS Sensors, and is designed to be 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, BIS Module Kit or BISx system. The initial commercial shipment of the BIS Pediatric Sensor took place in 2001.

BIS Quatro Sensor

The BIS Quatro Sensor 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 compared with 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, BIS Module Kit, or BISx system. We introduced commercially the BIS Quartro Sensor in 2001.

BIS Sensor Plus

The BIS Sensor Plus 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 compared with 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. The initial commercial shipment of the BIS Sensor Plus took place in 2001.

BIS Standard Sensor

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 is designed to provide 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. The BIS Standard Sensor was introduced commercially in 1997.

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 quantifies 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 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 were not widely adopted because studies indicated that they generally did 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 signal 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, Regulatory and Quality Assurance

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 for use as a direct measure of the effects of anesthetics and sedatives on the brain. The regulatory approval 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 demonstrated 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 rates. One initial report (Monk TG, Saini V, Weldon BC, Sigl JC Anesthetic Management and One-Year Mortality after Noncardiac surgery. *Anesthesia Analg.* 2005 Jan;100(1):4-10.) 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.

Recent Clinical Studies

In March 2007, we announced the initiation of two studies being conducted with the Cleveland Clinic to investigate the impact of anesthetic management techniques on patient outcomes. The first is a vascular study which seeks to determine if avoidance of deep anesthesia, administration of steroids and control of blood sugar levels improves outcomes in patients undergoing major vascular surgery. The study is expected to evaluate up to 900 patients scheduled for elective major vascular surgeries at Cleveland Clinic hospitals. Patients will be randomized to a surgical care protocol that includes administration of a steroid or placebo, intensive or conventional glucose management and lighter or deeper anesthetic management. Researchers will assess multiple outcome measures during and after surgery, including the incidence of major perioperative morbidity such as heart attack, as well as incidence of surgical complications, delirium, and quality of life.

The second study is designed to test the hypothesis that avoiding deep general anesthesia reduces cancer recurrence rates in women under going surgery for breast cancer. The study is expected to evaluate up to 1,100 breast cancer patients scheduled to undergo mastectomies. Patients will be randomly assigned to regional anesthesia/ analgesia with sedation or light anesthesia, or to a full general anesthetic and morphine analgesia. Participants will be followed for up to 10 years to determine the rate of cancer recurrence or metastasis. BIS monitoring will be used to determine whether the depth of general anesthesia is related to patient outcomes.

Additionally, we are currently in the process of conducting a multi-center collaborative study called the Childhood Awareness and Recall Evaluation, or CARE study, to document the incidence and risk factors for interoperative awareness in children between the ages of five and fifteen. Enrollment in this study was completed in December 2007.

In December 2007, we announced the results of our BRITE trial. The BRITE study results demonstrated that our EEG-based ATR indicator is a significant predictor of patient response and remission from depression when utilized one week following initiation of treatment with escitalopram, an anti-depressant drug. Patient response was defined by researchers as a 50 percent improvement in depression symptoms as measured by the HAM-D rating scale after seven weeks of treatment, and remission was defined as recovery from depression (HAM-D less than 7) after seven weeks of treatment. The BRITE trial was conducted in collaboration with leading investigators from 10 facilities across the United States and enrolled more than 300 patients.

In 2005, we agreed to collaborate with The Brain Resource Company in a multi-year clinical study to evaluate brain electrical activity in patients identified with mild cognitive impairment, or MCI, a memory impairment that often precedes Alzheimer's disease. Interim results of this study indicate that our EEG-based biomarker correlates with standard measures of cognitive performance and suggest that EEG information may be helpful in determining which patients in the normal to MCI range are likely to experience cognitive decline. Subjects in this study were prospectively evaluated using our brain assessment technology to obtain an EEG cognitive functional score. The EEG assessments from the MCI patients were then compared with assessments in a recently acquired database of normal elderly subjects and Alzheimer's disease patients. Results of this study indicate that patients suffering from MCI showed brain assessment scores between those of healthy and Alzheimer's disease subjects.

Since 2003, 434 normal elderly subjects have enrolled in a longitudinal memory study, which we refer to as the Cape Cod Memory Study, conducted by us in which EEG and clinical information such as measures of cognitive performance and change in clinical status, are collected on a quarterly basis over years. This data collected in the course of the Cape Cod Memory Study is intended to enable us to develop EEG biomarkers to: (i) assess cognitive performance and (ii) identify patients at risk of worsening cognition, which may be due to developing dementia caused by Alzheimer's disease. To date, we have published results showing that BIS-AD correlates with metrics of cognitive performance and is an independent predictor of future (1 year) worsening of cognition in normal elderly subjects.

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, 2007, 2006 and 2005, we incurred expenses of approximately $16.1 million, $15.3 million and $10.5 million, respectively, in connection with 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 manufacturers a BIS monitoring solution that provides the processing technology required to obtain BIS information from a single device the approximate size of a hockey puck. The BISx system has been designed to integrate with a wide range of patient monitoring platforms sold by original equipment manufacturers. The BISx system simplifies the incorporation of BIS technology into our original equipment manufacturer's monitoring systems and makes integration feasible with 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 the BIS index quantifies changes in patients' EEG, and we have shown the BIS index correlates with memory function and changes in brain metabolism, our technologies may be useful in detecting neurological disorders in patients. We are evaluating the application of the EEG-based parameters including those derived from the BIS index to measure brain function, which may assist in the detection of Alzheimer's disease, depression and other neurological disorders, including sleep cycles and seizure detection. Although additional research and development and clinical trials will be required, our research shows a correlation between the EEG-based parameters 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 EEG-based parameters and the effects of pharmacological agents on the brain, changes in cerebral metabolic activity and clinical measures of cognitive and memory function.

In July 2004, we exercised our right to acquire from the Regents of the University of California an exclusive license to commercialize brain monitoring technology in the field of diagnosis and management of neurological diseases and conditions, which technology was developed by the Neuropsychiatric Institute and David Geffen School of Medicine at UCLA. On July 27, 2007, we acquired an additional exclusive license from the Regents of the University of California to other certain brain monitoring technology in the field of diagnosis and management of neurological diseases.

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, 2007, 2006 and 2005, 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, 2007, our domestic direct sales force was composed of 70 sales professionals, which included product specialists and inside sales representatives.

We augment our direct sales force with medical products distributors in selected markets within 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 acquire our BIS monitors directly from us, we offer two primary 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. 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.

In addition to the two options noted above, 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.

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 to their patients and communities 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 with the group purchasing organization. Under these agreements, the group purchasing organizations' field forces have agreed to work with our sales force to encourage the adoption of our BIS technology by their member healthcare organizations. We have agreements with the following group purchasing organizations:

Group Purchasing Organization	Effective Date	Termination Provisions
Healthtrust Purchasing Group, L.P.	July 28, 2000	Unless terminated earlier by either party by giving 60 days prior written notice, this agreement expires on December 31, 2008.
Novation.	January 27, 2005	Unless terminated earlier by either party by giving 90 days prior written notice, this agreement expires on February 15, 2008. This agreement has been extended until August 1, 2008.
Consorta, Inc.	March 1, 2006	Unless terminated earlier by either party by giving 90 days prior written notice, this agreement expires on March 1, 2009.

International

We conduct our international operations through our international headquarters in the Netherlands and through subsidiaries in the United Kingdom, France and Germany. 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, 2007, we employed 39 persons in our international organization located in Europe, Asia, Australia and South America. The majority of our international sales are denominated in United States dollars. See Note 15, "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 subject to a number of challenges which specifically relate to our international business activities. These challenges include:

- failure of local laws to provide adequate 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 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. The initial term of this agreement ended in January 2003, and is subject to automatic renewal annually unless either party provides written notice of termination to the other party at least three months prior to expiration of any renewal period. This agreement automatically renewed for an additional one-year period on February 21, 2008.

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 patient monitoring equipment:

- Datascope Corp.,
- Dixtal Biomedica Ind E Com Ltda.,
- Philips Medizinsysteme Boeblingen GmbH,
- Mennen Medical LTD
- Dräger Medical Systems,
- Nihon Kohden Corporation,
- Spacelabs Healthcare, Inc., and
- Shenzhen Mindray Bio-Medical Electronics Co., Ltd.

These companies have agreed to integrate our BIS technology with their patient monitoring systems. The agreements expire at various times through 2013, unless extended by agreement of the parties.

Under a purchase agreement dated August 30, 2005, between Aspect and General Electric, or GE, we have agreed to sell to GE's Healthcare Division certain of our products. This agreement, which expires on December 31, 2008, subject to certain automatic renewal provisions, supersedes all prior agreements between GE and us, including agreements with GE Marquette Medical Systems and Datex-Ohmeda.

We entered into a license, development and supply agreement with Spacelabs in October 2005. Under the terms of this agreement, we agreed to sell to Spacelabs certain of our products. The term of the Agreement began on October 17, 2005 and expires three years following the introduction of the Spacelabs BISx Module. The agreement automatically extends for additional one-year periods unless either party notifies the other within 180 days prior to the expiration of that additional one-year term.

Manufacturing

We use approximately 40,000 square feet of our 136,503 square foot facility located in Norwood, Massachusetts for manufacturing purposes with the remainder used for research and development, sales and marketing, general and administrative purposes and warehouse space. In this facility, we assemble all of our BIS hardware, and we produce all of our BIS Sensors.

Our production process for our BIS hardware consists of final assembly, integration and testing of standard and custom components. Our production process for our BIS Sensors involves assembly of custom components on automated machinery. 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 and in select cases, long-term supply agreements. We 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 and those of our suppliers. Our quality assurance program is subject to auditing by both the FDA and International Organization for Standardization, or ISO, agencies.

Competition

The medical device industry is subject to intense competition. We are facing increased competition in the level of consciousness market in the United States as a result of a number of competitors' monitoring systems, which have been cleared 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 we and other companies competing in the market for anesthesia-monitoring products must address include:

- improved patient outcomes,
- cost effectiveness,
- FDA approval or 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 that 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. We may be required to engage in litigation or administrative proceedings to enforce any patents issued to us or to determine the scope and validity of others' proprietary rights.

As of December 31, 2007, we held 23 United States patents and had filed nine additional United States patent applications. Our issued United States patents generally relate to our BIS technologies and uses thereof and expire at various dates between 2008 and 2022. 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, Brazil, China and India.

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 1, 2004, we exercised our right to acquire an exclusive license from the Regents of the University of California to certain brain monitoring technology in the field of diagnosis and management of neurological diseases and conditions which was developed at the Neuropsychiatric Institute and David Geffen School of Medicine at UCLA. On July 27, 2007 we acquired an additional exclusive license from the Regents of the University of California to other certain brain monitoring technology in the field of diagnosis and management of neurological diseases.

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 a 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
BIS SRS (Semi-reusable sensor)	February 2005
BIS VISTA	September 2005
BISx 4 Channel	November 2005
Bilateral Sensor	December 2006
Zipprep Electrode	January 2007
BIS VIEW	June 2007
VISTA/BISx	November 2007

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 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 in 2005, the FDA noted no adverse observations. We believe that we have continued to maintain manufacturing facilities and procedures that are 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. In September 2005, we obtained ISO 13485: 2003/CMDR re-certification from a CMDCAS (Canadian) recognized registrar. The ISO 9001, ISO 13485 and Medical Device Directive, or MDD, 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 and 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.

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

Employees

As of December 31, 2007, we had 285 employees worldwide in the following functional areas:

Number of Employees	Functional Area
138	Sales, Marketing and Clinical Support
48	Manufacturing
40	General and Administrative
40	Research and Development
19	Clinical and Regulatory Affairs
285	Total

None of our employees are 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 1A. Risk Factors.

You should carefully consider the following risk factors, in addition to other information included in this annual report, in evaluating our business. If any of the following risks occur, our business, financial condition and operating results could be materially adversely affected.

Risks Relating to the Company

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

Although we were profitable for the years ended December 31, 2007 and 2006, we will not continue to be profitable or increase our level of profitability 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 that may result from use of the BIS system. Also, if third party 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 may decline as a result of monitoring with the BIS system. In addition, hospitals and anesthesia providers may not accept the BIS system as an accurate or superior means of assessing a patient's level of consciousness during surgery or in the intensive care unit. If extensive or frequent malfunctions occur, healthcare 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 continue to be profitable.

Moreover, additional clinical research we or third parties undertake may fail to support the benefit of our products, including failing to support evidence of a link between the use of BIS monitoring and a reduction in the incidence of awareness. For example, a third party study recently published in the *New England Journal of Medicine* compared BIS monitoring with a protocol based on end-tidal gas anesthetic in a patient population considered to be at high risk of awareness and concluded that, based upon a similar occurrence of awareness in both groups, no benefit of BIS monitoring was demonstrated. If the patient safety benefits of BIS monitoring are not persuasive enough to lead to a wider adoption of our BIS technology, our business, financial condition and results of operations could be adversely affected.

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, our ability to grow our revenue and maintain profitability could be adversely affected.

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 commercially the latest version, the BIS XP system, at the end of the third fiscal quarter of 2001. We also offer BIS monitoring systems, including the BISx system, for integration into equipment sold by original equipment manufacturers. 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 from healthcare providers or professional anesthesia organizations. 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 factors may adversely affect our quarterly operating results through the first fiscal quarter of 2008.

Various factors may adversely affect our quarterly operating results through the first fiscal quarter of 2008. Among these factors are the following: first, we continue to shift the focus of our sales and marketing emphasis from expanding our customer base to developing our existing customers and increasing their sensor utilization and procedure penetration. If an increase in revenue from our BIS Sensors does not happen as quickly as we expect, or does not happen at all, our operating results could be adversely affected. As a result of this shift in focus, we expect

our revenue from the sale of equipment to decrease. Second, although the Japanese Ministry of Health, Labor and Welfare, or the Japanese Ministry, has approved the sale of the BIS XP system through our distributor, Nihon Kohden, the potential benefits of this approval may not be recognized for some time, or at all. Third, the Joint Commission on Accreditation of Healthcare Organizations, or JCAHO, the American Society of Anesthesiologists House of Delegates and the American Association of Nurse Anesthetists, or AANA, have each issued position statements that we believe are favorable to our business and may have the effect of improving acceptance and utilization of our products by the medical community. However, industry organizations and others in the anesthesia community may not agree with these favorable position statements and, accordingly, potential benefits to our business, such as increased market acceptance and utilization, may not be significant or realized at all.

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;
- market acceptance of our BIS VISTA monitor;
- use of and demand for our BIS Sensors;
- transition of sales focus from expanding our customer base to developing our existing customers and increasing their sensor utilization and procedure penetration;
- customer cancellations;
- introduction of competitive products;
- regulatory approvals;
- changes in management;
- turnover in our direct sales force;
- effectiveness of new marketing and sales programs;
- communications published by industry organizations or other professional entities in the anesthesia community that are unfavorable to our business;
- trading in our convertible debt instruments;
- repurchases of shares of our common stock;
- the amount of our outstanding indebtedness and interest payments under debt obligations;
- reductions in orders by our distributors and original equipment manufacturers; and
- the timing and amount of our expenses.

Because of these factors, it is likely that in some future quarter or quarters our operating results could 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 likely decrease. In addition, because we do not have a substantial backlog of customer orders for our BIS system or our BIS Sensors, 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 continue to experience 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 debt allowances 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 financial statements.

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. This includes estimates and judgments regarding revenue recognition, warranty reserves, inventory valuations, valuation allowances for deferred tax assets, allowances for doubtful accounts and share-based compensation expense. We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances at the time such estimates and judgments were made. There can be no assurance, however, that our estimates and judgments, or the assumptions underlying them, will be correct.

Compliance with changing regulation of corporate governance and public disclosure as well as potential new accounting pronouncements are likely to impact our future financial position or results of operations.

Changing laws, regulations and standards relating to corporate governance and public disclosure, new SEC regulations and NASDAQ Global Market rules are creating uncertainty for companies such as ours. These new or changed laws, regulations and standards are subject to varying interpretations in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies, which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. In addition, future changes in financial accounting standards may cause adverse, unexpected revenue fluctuations and affect our financial position or results of operations. New accounting pronouncements and varying interpretations of pronouncements have occurred with frequency in the past and may occur again in the future and as a result we may be required to make changes in our accounting policies, for example the 2006 requirement under Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*, to expense stock options.

Our efforts to comply with evolving laws, regulations and standards have resulted in, and are likely to continue to result in, increased general and administrative expenses and management time related to compliance activities. We expect these efforts to require the continued commitment of significant resources. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, our reputation may be harmed and we might be subject to sanctions or investigation by regulatory authorities, such as the SEC. Any such action could adversely affect our financial results and the market price of our common stock.

Failure to maintain effective internal controls in accordance with section 404 of the Sarbanes-Oxley act could have a material adverse effect on our business and stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 requires management's annual review and evaluation of our internal controls, and attestations of the effectiveness of our internal controls by our independent auditors. Our failure to maintain the effectiveness of our internal controls in accordance with the requirements of Section 404 of the Sarbanes-Oxley Act, as such standards are modified, supplemented or amended from time to time, could have an adverse effect on our business, operating results and stock price.

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 line of credit, will be sufficient to finance our planned operations and capital expenditures through at least the next 12 months. If we are unable to increase our revenue and continue to maintain positive cash flow, we will need to raise additional funds. We may also need additional financing if:

- the research and development costs of our products or technology currently under development, including costs to fund our neuroscience program following termination in June 2007 of our alliance with Boston Scientific Corporation, increase beyond current estimates;

- 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, or respond to other legal challenges with respect to our products, including product liability claims;
- sales of our products do not meet our expectations domestically or internationally, including sales of our BIS Sensors; we are required or elect to pay the principal under our 2.5%
- convertible senior notes due 2014 in cash at or prior to maturity;
- 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 operations which would significantly limit our ability to implement our business plan and could result in a default under our 2.5% convertible senior notes due 2014. In addition, we may have to issue equity securities that may have rights, preferences and privileges senior to our common stock or issue debt securities that may contain limitations or restrictions on our ability to engage in certain transactions in the future.

Cases of awareness with recall during monitoring with the BIS system could limit market acceptance of the BIS system 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 the BIS system 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 our multi-center, multinational clinical studies have demonstrated that the 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, we may be subject to product liability claims for cases of awareness with recall during surgical procedures monitored with the BIS system. Any of these claims could require us to spend significant time and money in litigation or to pay significant damages.

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 device industry in which we market our products is characterized by rapid product development and technological advances. Our competitors have received clearance by the United States Food and Drug Administration, or FDA, for, and have introduced commercially, anesthesia monitoring products. If we do not compete effectively with these monitoring products, our revenue could be adversely affected. Our current and 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 to grow our business.

If we do not maintain our relationships with the anesthesia community and if anesthesiologists and other healthcare providers do not recommend and endorse our products, our sales may decline or we may be unable to increase our sales and profits.

Physicians typically influence the medical device purchasing decisions of the hospitals and other healthcare institutions in which they practice. Consequently, our relationships with anesthesiologists are critical to our growth. We believe that these relationships are based on the quality of our products, our long-standing commitment to the consciousness monitoring market, our marketing efforts and our presence at medical society and trade association meetings. Any actual or perceived diminution in our reputation or the quality of our products, or our failure or inability to maintain our commitment to the consciousness monitoring market and our other marketing and product promotion efforts could damage our current relationships, or prevent us from forming new relationships, with anesthesiologists and other anesthesia professionals and cause our growth to be limited or decline and our business to be harmed.

In order for us to sell our products, anesthesia professionals must recommend and endorse them. We may not obtain the necessary recommendations or endorsements from this community. Acceptance of our products depends on educating the medical community as to the distinctive characteristics, perceived benefits, safety, clinical efficacy and cost-effectiveness of our products compared to traditional methods of consciousness monitoring and the products of our competitors, and on training healthcare professionals in the proper application of our products. If we are not successful in obtaining and maintaining the recommendations or endorsements of anesthesiologists and other healthcare professionals for our products, our sales may decline or we may be unable to increase our sales and profits.

Negative publicity or unfavorable media coverage could damage our reputation and harm our operations.

Certain companies that manufacture medical devices have received significant negative publicity in the past when their products did not perform as the medical community or patients expected. This publicity, and the perception such products may not have functioned properly, may result in increased litigation, including large jury awards, legislative activity, increased regulation and governmental review of company and industry practices. If we were to receive such negative publicity or unfavorable media attention, whether warranted or unwarranted, our reputation would suffer, our ability to market our products would be adversely affected, we may be required to change our products and become subject to increased regulatory burdens and we may be required to pay large judgments or fines. Any combination of these factors could further increase our cost of doing business and adversely affect our financial position, results of operations and cash flows.

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

Our success in developing or acquiring and commercializing new products and enhancements of current products is affected by our ability to:

- identify and respond, in a timely manner, to new market trends or opportunities;
- assess customer needs;
- successfully develop or acquire competitive products;
- complete regulatory clearance in a timely manner;
- successfully develop cost effective manufacturing processes;

- introduce such products to our customers in a timely manner; and
- achieve market acceptance of the BIS system.

If we are unable to continue to develop or acquire and market new products and technologies, we may experience a decrease in demand for our products, and a loss of market share and our business would suffer. As the market for our BIS system matures, we need to develop or acquire and introduce new products for anesthesia monitoring or other applications. Additionally, we have begun to research the use of BIS monitoring to diagnose, track and manage neurological diseases, including Alzheimer's disease and depression. We face at least the following two risks with respect to our planned development of new products and our entrance into potential new markets:

- 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.

We are focused on the market for brain monitoring products. The projected demand for our products could materially differ from actual demand if our assumptions regarding this market and its trends and acceptance of our products by the medical community prove to be incorrect or do not materialize or if other products or technologies gain more widespread acceptance, which in each case would adversely affect our business prospects and profitability.

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 our clinical trials are delayed or unsuccessful, our business could be adversely affected.

We are conducting several clinical studies, including studies in the areas of interoperative awareness in children, depression and Alzheimer's disease, and the association between deep anesthesia and long-term patient outcomes. Clinical trials require sufficient patient enrollment, which is a function of many factors, including the size of the patient population, the nature of the protocol and the eligibility criteria for the clinical trial. Delays in patient enrollment can result in increased costs and longer development times.

We cannot predict whether we will encounter problems with respect to any of our completed, ongoing or planned clinical trials that will cause us or regulatory authorities to delay or suspend our clinical trials or delay the analysis of data from our completed or ongoing clinical trials. Moreover, the final results of our clinical trials may not support or confirm any preliminary or interim results and we may not successfully reach the endpoints in these trials. Even if we successfully complete our clinical trials, the FDA or other regulatory agencies may not accept the results.

Any of the following could delay the completion of our ongoing and planned clinical trials, or result in a failure of these trials to support our business:

- delays or the inability to obtain required approvals from institutional review boards or other governing entities at clinical sites selected for participation in our clinical trials;
- delays in enrolling patients and volunteers into clinical trials;
- lower than anticipated retention rates of patients and volunteers in clinical trials;
- negative results from clinical trials for any of our potential products, including those involving the management of depression and the early diagnosis and tracking of Alzheimer's disease; and
- failure of our clinical trials to demonstrate the efficacy or clinical utility of our potential products.

If we determine that the costs associated with attaining regulatory approval of a product exceed the potential financial benefits or if the projected development timeline is inconsistent with our determination of when we need to get the product to market, we may choose to stop a clinical trial and/or development of a product.

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. In addition, in order to increase our sales, we need to continue to strengthen our relationships with our international distributors and continue to add international distributors. Also, we need to 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 need to develop and introduce new sales and marketing programs and clinical education programs to promote the use of the BIS system by our customers. We are currently shifting the focus of our sales and marketing emphasis from expanding our customer base to developing our existing customers and increasing their sensor utilization and procedure penetration. If we do not implement these new sales and marketing and education 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. Among other things, 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 sales and marketing and education 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.

We encourage our direct sales force, distributors and original equipment manufacturers to maximize the amount of our products they sell and they may engage in aggressive sales practices that may harm our reputation.

We sell our products through a combination of a direct sales force, third party distributors and original equipment manufacturers. As a means to incentivize the sales force, distributors and original equipment manufacturers, the compensation we pay increases with the amount of our products they sell. For example, the compensation paid to the members of our direct sales force consists, in part, of commissions and, the greater the amount of sales, the higher the commission we pay. The participants in our sales channels may engage in sales practices that are aggressive or considered to be inappropriate by existing or potential customers. In addition, we do not exercise control over, and may not be able to provide sufficient oversight of, the sales practices and techniques used by third party distributors and original equipment manufacturers. Negative public opinion resulting from these sales practices can adversely affect our ability to keep and attract customers and could expose us to litigation.

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 international 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 international markets. Revenue from international activities may not offset the expense of establishing and maintaining these international 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 adequate protection against infringement of our intellectual property,
- protectionist laws and business practices that favor local competitors, which could slow or prohibit 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, such as 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 and could adversely impact our results of operations.

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, original equipment manufacturer products 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 for any reason, including damage or destruction of the 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. Even if we are able to identify alternative facilities to manufacture our products, if necessary, we may experience disruption in the supply of our products until such facilities are available. Although we believe we possess adequate insurance for damage to our property and the disruption of our business from casualties, such insurance may not be sufficient to cover all of

our potential losses and may not be available to us on acceptable terms or at all. Additionally, 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, and in select cases, 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. If a supplier is no longer willing or able to manufacture components that we purchase and integrate into the BIS system, we may attempt to design replacement components ourselves that would be compatible with our existing technology. In doing so, we would incur additional research and development expenses, and there can be no assurance that we would be successful in designing or manufacturing any replacement components. 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 system products 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. Any patents we have obtained or will obtain in the future might also be invalidated or circumvented by third parties. Our pending patent applications may not issue as patents or, if issued, may not provide commercially meaningful protection, as competitors may be able to design around our patents or produce alternative, non-infringing designs. 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 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 subject 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 may be costly, time-consuming and may not be successful.

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. There may be increased risk of misuse of our products if persons not skilled in consciousness monitoring attempt to use our BIS monitoring products. 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 and could lead to product recalls.

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 and the Securities Exchange Act of 1934, as amended, or the Securities Exchange Act. 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.

We and Boston Scientific recently jointly terminated our strategic alliance and other agreements and, as a result, we may not have sufficient funding to finance our neuroscience programs.

On June 11, 2007, we and Boston Scientific Corporation entered into a termination and repurchase agreement under which we jointly agreed to terminate the following agreements between the parties:

- the original equipment manufacturer product development agreement dated as of August 7, 2002, pursuant to which we were seeking to develop certain products that Boston Scientific Corporation would then commercialize in the area of monitoring patients under sedation in a range of less invasive medical specialties, and pursuant to which we granted Boston Scientific Corporation an exclusive option to become the distributor for a period of time of certain of our products;
- the product development and distribution agreement dated as of May 23, 2005, pursuant to which we were seeking to develop new applications of its brain-monitoring technology in the area of the diagnosis and treatment of neurological, psychiatric and pain disorders and Boston Scientific Corporation was appointed the exclusive distributor of such products. Under this agreement, which we refer to as the neuroscience

alliance, Boston Scientific Corporation had agreed to provide $25.0 million of funding over a five year period. We received $10.0 million under this agreement.

- the letter agreement dated August 7, 2002, and the security agreement dated August 7, 2002, pursuant to which Boston Scientific Corporation agreed to make revolving interest-bearing loans to us from time to time at our request, such revolving loans being evidenced by a promissory note in the original principal amount of $5,000,000 dated August 7, 2002 made by us in favor of Boston Scientific Corporation.

As a result of the termination of our alliance with Boston Scientific Corporation, we have regained the commercial rights to products subject to the alliance that we previously shared, but we have lost the support that Boston Scientific Corporation would have provided under the alliance to develop and market products for monitoring patients under sedation and for neuroscience applications. Specifically, we will lose funding and distribution support from Boston Scientific Corporation for these products. Consequently, we may need to find alternative sources of funds, which may not be available, and we may need to develop our own distribution capabilities or use a third-party distributor. There can be no guarantee that we will be able to develop these new products successfully on our own or that we will be able to reach any agreement with a third-party distributor on terms acceptable to us, or at all.

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 a number of competitors' monitoring systems which have been cleared for marketing 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. We are seeking to develop new products and technologies in the areas of depression and Alzheimer's disease. If we are not successful in developing new products or technologies, or if we experience delays in development or release of such products, we may not be able to compete successfully.

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.

Our products are classified as medical devices and are subject to extensive regulation in the United Sates by the FDA and other federal, state, and local authorities. These regulations relate to the manufacturing, labeling, sale, promotion, distribution, importing, exporting and shipping of our products. Before we can market new products or a new use of, or claim for, an existing product in the United States, we must obtain clearance or approval 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. For example, there can be no guarantee that the FDA will accept the results from our depression clinical trial as supportive of a 510(k) notification without requiring additional studies and/or a premarket approval application. Both of these processes can be lengthy, expensive, may require extensive data from preclinical studies and clinical trials and may require significant user fees. The premarket approval process typically is more burdensome, expensive, time-consuming and uncertain than the premarket notification process. We may not obtain clearance of a 510(k) notification or approval of a premakret 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 determinations, it will require us to file a new 510(k) notification for the modification, and we may be prohibited from marketing the modified devices until we obtain FDA clearance, or be required to recall devices that may be on the market, or be subject to other sanctions.

Medical devices may be marketed only for the indications for which they are approved or cleared. The FDA may fail to approve or clear indications that are necessary or desirable for successful commercialization of our products. The FDA also may refuse our request for 510(k) clearance or premarket approval of new products, new intended uses, or modification to products once they are approved or cleared. Our approvals or clearance can be revoked if safety or effectiveness problems develop.

Our promotional materials and training methods must comply with the FDA and other applicable laws and regulations. If the FDA determines that our promotional materials or training constitute promotion of an unapproved use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil monetary penalties, or criminal prosecution. It also is possible that other federal, state, or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, our reputation could be damaged, adoption of the products could be impaired, and we might not be able to promote the products for certain uses for which we had expected to promote them.

The FDA also requires us to adhere to current Good Manufacturing Practices regulations, also known as the Quality System Regulation (QSR) in the case of medical devices, which include production controls, design controls, testing, quality control, documentation procedures, verification and validation of the design and of the production process, purchasing controls for materials and components, implementation of corrective and preventive actions, and servicing, among other requirements. The FDA may at any time inspect our facilities to determine whether adequate compliance with QSR requirements has been achieved. Compliance with the QSR 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 issue a warning letter, withdraw marketing clearance, require product recall, seize products, seek an injunction or consent decree, or seek criminal prosecution, among other possible remedies. When any change or modification is made to a device or its intended use, the manufacturer may be required to reassess compliance with the QSR 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.

Even if we obtain the necessary FDA clearances or approvals, if we or our suppliers fail to comply with ongoing regulatory requirements our products could be subject to restrictions or withdrawal from the market.

We are subject to the Medical Device Reporting, or MDR, regulations that require us to report to the FDA if our products may have caused or contributed to patient death or serious injury, or if our device malfunctions and a recurrence of the malfunction would likely result in a death or serious injury. We must also file reports of device corrections and removals and adhere to the FDA's rules on labeling and promotion. Our failure to comply with these or other applicable regulatory requirements could result in enforcement action by the FDA, which may include any of the following:

- untitled letters, warning letters, fines, injunctions and civil penalties,
- administrative detention, which is the detention by the FDA of medical devices believed to be adulterated or misbranded,
- customer notification, or orders for repair, replacement or refund,
- voluntary or mandatory recall or seizure of our products,
- operating restrictions, partial suspension or total shutdown of production,
- refusal to review pre-market notification or pre-market approval submissions,
- rescission of a substantial equivalence order or suspension or withdrawal of a pre-market approval, and
- criminal prosecution.

Any of the foregoing actions by the FDA could have a material adverse effect on our business and results of operations.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws and regulations and, if we are unable to fully comply with such laws, could face substantial penalties.

Our operations may be directly or indirectly affected by various state and federal healthcare fraud and abuse laws, including the federal Anti-Kickback Statute, which prohibits any person from knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing or arranging for an item or service, for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs. If our past or present operations are found to be in violation of these laws, we or our officers may be subject to civil or criminal penalties, including large monetary penalties, damages, fines, imprisonment and exclusion from Medicare and Medicaid program participation. If enforcement action were to occur, our business and financial condition would be harmed.

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, or if we do not maintain good relationships with our employees, 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.

In addition, we may be subject to claims that we engage in discriminatory or other unlawful practices with respect to our hiring, termination, promotion and compensation processes for our employees. Such claims, with or without merit, could be time consuming, distracting and expensive to defend, could divert attention of our management from other tasks important to the success of our business and could adversely affect our reputation as an employer.

If we make any acquisitions, we will incur a variety of costs and may never successfully integrate the acquired business into ours.

We may attempt to acquire businesses, technologies, services or products that we believe are a strategic complement to our business. We may encounter operating difficulties and expenditures relating to integrating an acquired business, technology, service or product. These acquisitions may also absorb significant management attention that would otherwise be available for ongoing development of our business. Moreover, we may never realize the anticipated benefits of any acquisition. We may also make dilutive issuances of equity securities, incur debt or experience a decrease in the cash available for our operations, or incur contingent liabilities in connection with any future acquisitions, all of which could have a material adverse affect on our business, financial condition and results of operations.

Our employees may engage in misconduct or other improper activities, including insider trading.

We are exposed to the risk that employee fraud or other misconduct could occur. Misconduct by employees could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state healthcare fraud and abuse laws and regulations, to accurately report financial information or data or to disclose unauthorized activities to us. Employee misconduct could also involve the improper use of customer information or information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a Code of Business Conduct and Ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses.

In addition, during the course of our operations, our directors, executives and employees may have access to material, non-public information regarding our business, our results of operations or potential transactions we are considering. Despite the adoption of an Insider Trading Policy, we may not be able to prevent a director or employee from trading in our common stock on the basis of or while having access to material, non-public information. If a director or employee was to be investigated, or an action was to be brought against a director or employee, for insider trading, it could have a negative impact on our reputation and our stock price. Such a claim, with or without merit, could also result in substantial expenditures of time and money, and divert attention of our management team from other tasks important to the success of our business.

Failure of users of the BIS system, or users of future products we may develop, to obtain adequate reimbursement from third-party payors could limit market acceptance of the BIS system and other products, which could prevent us from sustaining 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 sustaining profitability.

In addition, market acceptance of future products serving the depression and Alzheimer's disease markets could depend upon adequate reimbursement from third-party payors. The ability and willingness of third-party payors to authorize coverage and sufficient reimbursement to compensate and encourage physicians to use such products is uncertain.

Transactions engaged in by our largest stockholders, our directors or executives involving our common stock may have an adverse effect on the price of our stock.

Sales of our shares by our largest stockholders could have the effect of lowering our stock price. The perceived risk associated with the possible sale of a large number of shares by these stockholders, or the adoption of significant short positions by hedge funds or other significant investors, could cause some of our stockholders to sell their stock, thus causing the price of our stock to decline. In addition, actual or anticipated downward pressure on our stock price due to actual or anticipated sales of stock by directors or officers of Aspect could cause other institutions or individuals to engage in short sales of our common stock, which may further cause the price of our stock to decline.

From time to time our directors and executive officers sell shares of our common stock on the open market. These sales are publicly disclosed in filings made with the SEC. In the future, our directors and executive officers may sell a significant number of shares for a variety of reasons unrelated to the performance of our business. Our stockholders may perceive these sales as a reflection on management's view of the business and result in some stockholders selling their shares of our common stock. These sales could cause the price of our stock to drop.

We have various mechanisms in place to discourage takeover attempts, which may reduce or eliminate our stockholders' ability to sell their shares for a premium in a change of control transaction.

Various provisions of our certificate of incorporation and by-laws and of Delaware corporate law may discourage, delay or prevent a change in control or takeover attempt of our company by a third party that is opposed by our management and board of directors. Public stockholders who might desire to participate in such a transaction may not have the opportunity to do so. These anti-takeover provisions could substantially impede the ability of public stockholders to benefit from a change of control or change in our management and board of directors. These provisions include:

- preferred stock that could be issued by our board of directors to make it more difficult for a third party to acquire, or to discourage a third party from acquiring, a majority of our outstanding voting stock,
- classification of our directors into three classes with respect to the time for which they hold office,
- non-cumulative voting for directors,
- control by our board of directors of the size of our board of directors,
- limitations on the ability of stockholders to call special meetings of stockholders,
- inability of our stockholders to take any action by written consent, and
- advance notice requirements for nominations of candidates for election to our board of directors or for proposing matters that can be acted upon by our stockholders at stockholder meetings.

Risks Related to our Issuance of $125 Million Principal Amount of 2.5% Convertible Senior Notes due 2014

Our increased indebtedness as a result of the issuance of $125 million principal amount of 2.5% convertible senior notes, or the notes, may harm our financial condition and results of operations.

Our level of indebtedness could have important consequences to investors, because:

- it could adversely affect our ability to satisfy our obligations under the notes;
- a substantial portion of our cash flows from operations will have to be dedicated to interest payments, principal payments and, if we irrevocably elect to net share settle the notes, conversion payments and may not be available for operations, working capital, capital expenditures, expansion, acquisitions or general corporate or other purposes;
- it may impair our ability to obtain additional financing in the future;
- it may limit our flexibility in planning for, or reacting to, changes in our business and industry; and
- it may make us more vulnerable to downturns in our business, our industry or the economy in general.

Our operations may not generate sufficient cash to enable us to service our debt. If we fail to make a payment on the notes, we could be in default on the notes, and this default could cause us to be in default on our other indebtedness outstanding at that time. Conversely, a default on our other outstanding indebtedness may cause a default under the notes.

We may not have the cash necessary to pay interest on the notes, to settle conversions of the notes (if we have obtained stockholder approval to elect net share settlement of the notes, and we irrevocably elect such settlement method) or to repurchase the notes upon a fundamental change.

The notes bear interest semi-annually at a rate of 2.5% per annum. In addition, we may in certain circumstances be obligated to pay additional interest. If at any time on or prior to the 45th scheduled trading day preceding the maturity date of the notes we obtain stockholder approval of the net share settlement feature in connection with the potential conversion of the notes, and if we irrevocably elect to use such feature, then upon conversion of the notes we would:

- pay cash in an amount equal to the lesser of one-fortieth of the principal amount of the notes being converted and the daily conversion value (the product of the conversion rate and the current trading price) of the notes being converted and,
- issue shares of our common stock only to the extent that the daily conversion value of the notes exceeded one-fortieth of the principal amount of the notes being converted for each trading day of the relevant 40 trading day observation period.

Holders of notes also have the right to require us to repurchase all or a portion of their notes for cash upon the occurrence of a fundamental change. Any of our future debt agreements or securities may contain similar provisions. We may not have sufficient funds to pay interest, pay any such cash amounts to the note holders upon conversion or make the required repurchase of the notes at the applicable time and, in such circumstances, may not be able to arrange the necessary financing on favorable terms, if at all. In addition, our ability to pay interest, pay cash to the note holders upon conversion or make the required repurchase, as the case may be, may be limited by law or the terms of other debt agreements or securities. Our failure to pay such cash amounts to holders of notes or make the required repurchase, as the case may be, however, would constitute an event of default under the indenture governing the notes which, in turn, could constitute an event of default under other debt agreements or securities, thereby resulting in their acceleration and required prepayment and further restrict our ability to make such payments and repurchases.

The net share settlement feature of the notes, if available, may have adverse consequences.

If we have obtained stockholder approval to elect net share settlement of the notes, the net share settlement feature of the notes may:

- result in holders receiving no shares of our common stock upon conversion or fewer shares of our common stock relative to the conversion value of the notes;
- reduce our liquidity because we will be required to pay the principal portion in cash;
- delay holders' receipt of the proceeds upon conversion; and
- subject holders to market risk before receiving any shares upon conversion.

If we obtain stockholder approval of the net share settlement feature in connection with the potential conversion of the notes, and if we irrevocably elect to use such feature, then upon conversion of the notes we would (1) pay cash in an amount equal to the lesser of one-fortieth of the principal amount of the notes being converted and the daily conversion value (the product of the conversion rate and the current trading price) of the notes being converted and (2) issue shares of our common stock only to the extent that the daily conversion value of the notes exceeded one-fortieth of the principal amount of the notes being converted for each trading day of the relevant 40 trading day observation period.

Because the consideration due upon conversion of notes is based in part on the trading prices of our common stock, any decrease in the price of our common stock after notes are tendered for conversion may significantly decrease the value of the consideration received upon conversion. Furthermore, because under net share settlement we must settle at least a portion of our conversion obligation in cash, the conversion of notes may significantly reduce our liquidity.

Future sales of our common stock in the public market or the issuance of securities senior to our common stock could adversely affect the trading price of our common stock and the value of the notes and our ability to raise funds in new securities offerings.

Future sales of our common stock, the perception that such sales could occur or the availability for future sale of shares of our common stock or securities convertible into or exercisable for our common stock could adversely affect the market prices of our common stock and the value of the notes prevailing from time to time and could impair our ability to raise capital through future offerings of equity or equity-related securities. In addition, we may issue common stock or equity securities senior to our common stock in the future for a number of reasons, including to finance our operations and business strategy, to adjust our ratio of debt to equity, to satisfy our obligations upon the exercise of options or for other reasons.

As of December 31, 2007, we had outstanding options to purchase 4,265,961 shares of our common stock at a weighted average exercise price of $17.31 per share (942,184 of which have not yet vested) issued to employees, directors and consultants pursuant to our 1991 Amended and Restated Stock Option Plan, 1998 Stock Incentive Plan, Amended and Restated 1998 Director Equity Incentive Plan and 2001 Stock Incentive Plan, as amended. In order to attract and retain key personnel, we may issue additional securities, including stock options, restricted stock grants and shares of common stock, in connection with our employee benefit plans, or may lower the price of existing stock options. No prediction can be made as to the effect, if any, that the sale, or the availability for sale, of substantial amounts of common stock by our existing stockholders pursuant to an effective registration statement or under Rule 144, through the exercise of registration rights or the issuance of shares of common stock upon the exercise of stock options, or the perception that such sales or issuances could occur, could adversely affect the prevailing market prices for our common stock and the value of the notes.

Conversion of the notes will dilute the ownership interest of existing stockholders, including holders who had previously converted their notes.

To the extent we issue any shares of our common stock upon conversion of the notes, the conversion of some or all of the notes will dilute the ownership interests of existing stockholders, including holders who have received shares of our common stock upon prior conversion of the notes. Any sales in the public market of the common stock

issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the notes may encourage short selling by market participants because the conversion of the notes could depress the price or our common stock.

Provisions in the indenture for the notes may deter or prevent a business combination that may be favorable to note holders.

If a fundamental change occurs prior to the maturity date of the notes, holders of the notes will, have the right, at their option, to require us to repurchase all or a portion of their notes. In addition, if a make-whole fundamental change occurs prior to the maturity date of the notes, we will in some cases increase the conversion rate for a holder that elects to convert its notes in connection with such make-whole fundamental change. In addition, the indenture governing the notes prohibits us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the notes. These and other provisions could prevent or deter a third party from acquiring us.

The notes may not be rated or may receive a lower rating than anticipated.

We do not intend to seek a rating on the notes. However, if one or more rating agencies rates the notes and assigns the notes a rating lower than the rating expected by investors, or reduces or indicates that they may reduce their rating in the future, the market price of the notes and our common stock could be harmed.

The effective subordination of the notes to our secured indebtedness to the extent of the collateral securing such indebtedness may limit our ability to satisfy our obligations under the notes.

The notes will be our senior unsecured obligations and rank equally with any senior debt and senior to any subordinated debt. However, the notes will be effectively subordinated to our secured indebtedness to the extent of the value of the collateral securing such indebtedness. As of December 31, 2007, we did not have any secured indebtedness outstanding. The provisions of the indenture governing the notes do not prohibit us from incurring secured indebtedness in the future. Consequently, in the event of a bankruptcy, liquidation, dissolution, reorganization or similar proceeding with respect to us, the holders of any secured indebtedness will be entitled to proceed directly against the collateral that secures such secured indebtedness. Therefore, such collateral will not be available for satisfaction of any amounts owed under our unsecured indebtedness, including the notes, until such secured indebtedness is satisfied in full.

The structural subordination of the notes to our secured liabilities and all liabilities and preferred equity of our subsidiaries may limit our ability to satisfy our obligations under the notes.

The notes will be effectively subordinated to all unsecured and secured liabilities and preferred equity of our subsidiaries. In the event of a bankruptcy, liquidation, dissolution, reorganization or similar proceeding with respect to any such subsidiary, we, as a common equity owner of such subsidiary, and, therefore, holders of our debt, including holders of the notes, will be subject to the prior claims of such subsidiary's creditors, including trade and other payables, but excluding intercompany indebtedness. As of December 31, 2007, our subsidiaries had an accounts payable and accrued liabilities balance of approximately $955,000. The provisions of the indenture governing the notes do not prohibit our subsidiaries from incurring additional liabilities or issuing preferred equity in the future.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

We lease 136,503 square feet of administrative and manufacturing space in Norwood, Massachusetts. The lease expires in 2016 and we have been granted the option to extend the term for three additional five-year periods.

We lease approximately 9,280 square feet of office space located in De Meern, The Netherlands for our international operations. This lease expires in December 2011.

We believe that our current facilities are adequate for our needs for the foreseeable future.

Item 3. Legal Proceedings.

On October 10, 2007, Vanessa Simmonds, a purported holder of Aspect Medical common stock, filed suit in the U.S. District Court for the Western District of Washington against Morgan Stanley and Deutsche Bank AG, the lead underwriters of our 2000 initial public offering, alleging violations of Section 16(b) of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. The complaint alleges that the combined number of shares of our common stock beneficially owned by the lead underwriters and certain of our unnamed officers, directors, and principal stockholders exceeded ten percent of our outstanding common stock from the date of our initial public offering on January 28, 2000, through at least January 27, 2001. The complaint further alleges that those entities and individuals were subject to the reporting requirements of Section 16(a) of the Exchange Act and the short-swing trading prohibition of Section 16(b) of the Exchange Act, and failed to comply with those provisions. The complaint seeks to recover from the lead underwriters any "short-swing profits" obtained by them in violation of Section 16(b) of the Exchange Act. Aspect Medical was named as a nominal defendant in the action, but has no liability for the asserted claims. None of our directors or officers serving in such capacities at the time of our initial public offering (many of whom still serve as officers or directors of Aspect Medical) are currently named as defendants in this action, but there can be no guarantee that the complaint will not be amended, or a new complaint or suit filed, naming such directors or officers as defendants in this action or another action alleging a violation of the same provisions of the Exchange Act. On February 25, 2008, Ms. Simmonds filed an amended complaint asserting substantially similar claims as those set forth in the initial complaint. We have waived service and are in the process of considering what, if any, action to take in response to this litigation. We currently believe that the outcome of this litigation will not have a material adverse impact on our consolidated financial position and results of operations.

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, 2007 through the solicitation of proxies or otherwise.

PART II

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

Market Information

Our common stock has been traded on the Nasdaq Global Market under the symbol "ASPM" since July 1, 2006 and on the Nasdaq National Market since January 28, 2000. The following table sets forth, for the years ended December 31, 2006 and 2007, the range of high and low sales prices for our common stock on the Nasdaq Global Market and prior to July 1, 2006, the Nasdaq National Market. These prices do not include retail mark-up, mark-down or commissions and may not represent actual transactions.

	High	Low
2006:		
Quarter Ended April 1, 2006	$36.47	$24.89
Quarter Ended July 1, 2006	28.67	16.39
Quarter Ended September 30, 2006	19.66	14.10
Quarter Ended December 31, 2006	20.92	16.63
2007:		
Quarter Ended March 31, 2007	$19.51	$14.47
Quarter Ended June 30, 2007	17.58	14.75
Quarter Ended September 29, 2007	15.70	11.84
Quarter Ended December 31, 2007	16.08	12.59

On March 3, 2008, the last reported sales price of our common stock on the Nasdaq Global Market was $11.93 per share. As of March 3, 2008, there were approximately 396 holders of record of our common stock.

Dividends

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 earnings 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 agreement with Bank of America prohibits the declaration or payment of cash dividends without the consent of the bank.

Information relating to compensation plans under which our equity securities are authorized for issuance is set forth in Part III, Item 12 of this Annual Report on Form 10-K.

Issuer Purchases of Equity Securities

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
June 1, 2007 — June 30, 2007(1)	1,000,000	$15.57	1,000,000	—
June 1, 2007 — June 30, 2007(2)	2,000,000	$15.91	2,000,000	—
July 1, 2007 — July 28, 2007(3)	2,500,000	$15.06	2,500,000	—
Total	5,500,000	$15.46	5,500,000	—

(1) These shares were repurchased in connection with our 2.5% convertible senior note offering in June 2007. We repurchased 1,000,000 shares of common stock for $15,570,000 in privately negotiated transactions. The repurchased shares were cancelled and retired.

(2) On June 13, 2007, we repurchased 2,000,000 shares of common stock held by Boston Scientific Corporation at a price of approximately $15.91 per share, or an aggregate of $31,816,000. The repurchase was made in accordance with the Termination and Repurchase Agreement by and between Boston Scientific Corporation and us, dated June 11, 2007. The repurchased shares were cancelled and retired.

(3) On July 10, 2007, we repurchased 2,500,000 shares of common stock held by Boston Scientific Corporation at a price of approximately $15.06 per share, or an aggregate of $37,655,000. The repurchase was made in accordance with the Termination and Repurchase Agreement by and between Boston Scientific Corporation and us, dated June 11, 2007. The repurchased shares were cancelled and retired.

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, 2007, 2006 and 2005, and the consolidated balance sheet data as of December 31, 2007 and 2006, 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, 2004 and 2003 and the consolidated balance sheet data as of December 31, 2005, 2004, and 2003 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,				
	2007	2006	2005	2004	2003
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Product revenue	$92,078	$ 85,018	$73,471	$54,902	$43,476
Strategic alliance revenue	5,246	6,316	3,524	662	615
Total revenue	97,324	91,334	76,995	55,564	44,091
Costs of product revenue	23,319	22,171	19,303	12,992	10,898
Gross margin	74,005	69,163	57,692	42,572	33,193
Operating expenses:					
Research and development	16,052	15,280	10,464	7,470	7,287
Sales and marketing	39,823	35,571	30,298	26,695	25,241
General and administrative	15,486	12,446	10,291	8,946	7,833
Total operating expenses	71,361	63,297	51,053	43,111	40,361
Income (loss) from operations	2,644	5,866	6,639	(539)	(7,168)
Interest income, net	3,009	3,332	1,926	923	725
Income (loss) before taxes	5,653	9,198	8,565	384	(6,443)
Provision (benefit) for income taxes	3,397	(27,891)	90	81	80
Net income (loss)	$ 2,256	$ 37,089	$ 8,475	$ 303	$ (6,523)
Net income (loss) per share:					
Basic	$ 0.12	$ 1.66	$ 0.39	$ 0.02	$ (0.34)
Diluted	$ 0.11	$ 1.59	$ 0.35	$ 0.01	$ (0.34)
Weighted average shares used in computing net income (loss) per share:					
Basic	19,614	22,378	21,508	20,142	19,413
Diluted	20,247	23,380	23,921	22,286	19,413

	December 31,				
	2007	2006	2005	2004	2003
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$108,480	$ 62,459	$61,259	$43,652	$28,676
Restricted cash	1,004	1,011	82	82	5,100
Working capital (1)	118,824	70,645	64,853	41,814	29,904
Total assets	173,477	125,254	87,132	61,690	47,740
Long-term debt	125,000	—	—	186	525
Total stockholders' equity	36,675	109,248	67,423	45,586	30,968

(1) Certain working capital amounts in the above table have been corrected to reflect the proper classification of our short and long-term investments in marketable securities. These corrections increased working capital by

approximately $16.9 million and $7.6 million at December 31, 2005 and 2004, respectively, decreased working capital by $775,000 at December 31, 2003, and have no effect on our earnings, cash flows, stockholder's equity or our compliance with debt covenants.

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

Overview

We derive our revenue primarily from sales of BIS monitors, our original equipment manufacturer products (including BIS Module Kits and the BISx system) and related accessories, which we collectively refer to as Equipment, and sales of BIS Sensors. We have also historically derived a portion of our revenue from our strategic alliances, primarily our alliance with Boston Scientific Corporation, which we terminated in June 2007. To assist management in assessing and managing our business, we segregate our revenue by sales by region, sales by products and revenue derived from our strategic alliance, as shown in the following table:

	2007	2006	2005
	(dollar amounts in thousands)		
Domestic revenue	$73,107	$70,729	$58,430
Percent of total revenue	75%	77%	76%
International revenue	$24,217	$20,605	$18,565
Percent of total revenue	25%	23%	24%
Total revenue	$97,324	$91,334	$76,995
BIS Sensor revenue	$75,372	$64,752	$53,321
Percent of total revenue	78%	71%	69%
Equipment revenue	$16,706	$20,266	$20,150
Percent of total revenue	17%	22%	26%
Strategic alliance revenue	$ 5,246	$ 6,316	$ 3,524
Percent of total revenue	5%	7%	5%
Total revenue	$97,324	$91,334	$76,995

At December 31, 2007, we had cash, cash equivalents, restricted cash and investments of approximately $109.5 million and working capital of approximately $118.8 million.

We follow a system of fiscal quarters as opposed to calendar quarters. Therefore, 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 after they purchase our Equipment to continue to purchase and use our BIS Sensors. We believe the primary reason for the growth in product revenue is a direct result of continuing to shift the focus of our sales and marketing emphasis from expanding our customer base to developing our existing customers and increasing their sensor utilization and procedure penetration. Seeking to continue to achieve this growth, we plan to implement new sales and marketing programs, particularly in the area of clinical education programs. We expect that as we grow our business, revenue from the sale of BIS Sensors will contribute an increasing percentage of product revenue. Additionally, we believe that, over time, revenue from the sale of BIS Module Kits and our BISx system 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 order to sustain profitability, we believe that we need to continue to maintain our gross margin and control the growth of our operating expenses. To maintain our gross profit margin we believe we must continue to focus on maintaining our average unit sales prices of our BIS Sensors, increasing revenue from the sale of BIS Sensors as a percentage of total revenue, as BIS Sensors have a higher gross margin than Equipment, and continuing to reduce the costs of manufacturing our products.

For those healthcare organizations desiring to acquire our BIS monitors directly from us, we offer two primary 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.

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.

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.

We are party to a distribution agreement with Nihon Kohden Corporation to distribute BIS monitors in Japan. Nihon Kohden has received approval from the Japanese Ministry of Health, Labor and Welfare for marketing in Japan our A-1050 EEG Monitor with BIS, our A-2000 BIS Monitor, our BIS module (our product that integrates BIS monitoring technology into equipment sold by original equipment manufacturers), our BIS XP system and, most recently in December 2007, our BISx and the BIS VISTA monitor. 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. Sales to Nihon Kohden represented approximately 15%, 12% and 19%, respectively, of international revenue in 2007, 2006 and 2005, respectively.

During the first quarter of 2006, we adopted the Financial Accounting Standards Board's, or FASB, Statement of Financial Accounting Standard 123 (revised 2004), *Share-Based Payment*, or SFAS No. 123R, using the modified prospective transition method. Prior to the adoption of SFAS No. 123R, we accounted for share-based payments to employees using the intrinsic value method under Accounting Principles Bulletin, or APB, Opinion No. 25, *Accounting for Stock Issued to Employees*, and, as such, generally recognized no compensation expense for employee stock options. For the years ended December 31, 2007 and 2006, we recognized approximately $8.7 million and $6.7 million, respectively, of stock-based compensation expense in our consolidated statement of income. See Note 2 of the Notes to our Consolidated Financial Statements contained elsewhere in this annual report for further information regarding our adoption of SFAS No. 123R.

Various factors may adversely affect our quarterly operating results through the first quarter of 2008 and beyond. These factors include the impact of the shift in our emphasis from expanding our customer base to developing our existing customer base and increasing their sensor utilization and procedure penetration, the continued challenges of the worldwide economy and the risk that we may not realize expected benefits of favorable industry pronouncements on anesthesia awareness, including the position statements issued by the Joint Commission on Accreditation of Healthcare Organizations, the American Society of Anesthesiologists House of Delegates, and the American Association of Nurse Anesthetists. In addition, in Japan, Nihon Kohden received approval of the BIS XP system in 2005 and we may not recognize the potential benefits of this approval for some time, if at all.

Critical Accounting Policies

Management's discussion and analysis of financial condition and results of operations is based upon our 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 and estimates are as follows:

Revenue Recognition

We sell our BIS monitors primarily through a combination of a direct sales force and distributors. Our original equipment manufacturer products are sold to original equipment manufacturers who in turn sell them to the end-user. 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 when earned in accordance with Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition,* and Emerging Issues Task Force, or EITF, 00-21, *Revenue Arrangements with Multiple Deliverables*. Revenue is recognized when persuasive evidence of an arrangement exists, product delivery 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 $6.3 million of deferred revenue related to an OEM product development and distribution agreement with Boston Scientific Corporation, which we refer to as the 2002 OEM product development and distribution agreement. In June 2007, we terminated the 2002 OEM product development and distribution agreement and as a result we recognized the remaining $3.8 million that had been previously deferred under this agreement.

In May 2005, we entered into a product development and distribution agreement with Boston Scientific Corporation, which we refer to as the 2005 product development and distribution agreement. Pursuant to this agreement, Boston Scientific Corporation agreed to provide to us up to $25.0 million to fund the development of products that incorporate EEG analysis technology for the diagnosis of neurological, psychiatric or pain disorders or screening or monitoring patient response to treatment options for such disorders. In June 2007, we terminated the 2005 product development and distribution agreement with Boston Scientific Corporation. In connection with the termination of the agreement, we reversed a receivable of approximately $285,000 which we had recorded in March 2007 against the strategic alliance revenue that had originally been recorded in the statement of income. Revenue was being recognized on allowable product development activities pursuant to this agreement as the services were performed and costs were incurred.

We follow 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 under-performing 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. Changes in the extent of underperformance in the agreements could increase or decrease the amount of revenue recorded in future periods.

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. Contracts executed for sales to distributors and original equipment manufacturers include a clause 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.

We exercise judgment in determining the specific time periods in which we can recognize revenue in connection with sales of our products and with respect to our strategic alliances. To the extent that actual facts and circumstances differ from our initial judgments, our revenue recognition could change accordingly and any such change could affect our reported results.

Stock-Based Compensation

SFAS No. 123R, which we adopted in the first quarter of fiscal 2006, requires that stock-based compensation expense associated with equity instruments be recognized in the consolidated statement of operations, rather than being disclosed in a pro forma footnote to the consolidated financial statements. Determining the amount of stock-based compensation to be recorded requires us to develop estimates to be used in calculating the grant-date fair value of stock options. We calculate the grant-date fair values using the Black-Scholes valuation model. The use of valuation models requires us to make estimates of the following assumptions:

Risk-free interest rate: the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term used as the assumption in the model.

Expected term: the expected term of an employee option is the period of time for which the option is expected to be outstanding. We use a Monte Carlo simulation model to estimate the expected term assumption for the grant date valuation as we believe that this information is currently the best estimate of the expected term of a new option.

Expected volatility: in estimating our expected volatility, we consider both trends in historical volatility and the implied volatility of our publicly traded options. We used a combination of our implied volatility and historical volatility to estimate expected volatility in the three and 12 months ended December 31, 2007. We believe that in addition to the relevance of historical volatility, consideration of implied volatility achieves the objectives of SFAS No. 123R since it represents the expected volatility that marketplace participants would likely use in determining an exchange price for an option, and is therefore an appropriate assumption to use in the calculation of grant date fair value.

Additionally, we are required to make assumptions regarding the forfeiture rate. SFAS No. 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We used a forfeiture rate of approximately 5% in our calculation at December 31, 2007. We re-evaluate this forfeiture rate on a quarterly basis and adjust the rate as necessary.

These assumptions involve significant judgment and estimates. Future stock-based compensation expense could vary significantly from the amount recorded in the current period due to changes in assumptions and due to the extent of stock option activity and restricted stock issued in future periods.

As of December 31, 2007, the total unrecognized compensation cost related to nonvested stock options and nonvested restricted stock awards was $9.2 million and $913,000, respectively, which will be amortized over the weighted average remaining requisite service periods of 2.1 years and 33 months, respectively.

Allowance for Doubtful Accounts

We determine our allowance for doubtful accounts by making estimates and judgments 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 that 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 value, 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 device 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 or 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 an increased number of warranty claims or increased costs associated with servicing those claims, our warranty expenses will increase, and we may experience decreased gross profit and cash flow.

Income Taxes

Our provision for income taxes is composed of a current and a deferred portion. The current income tax provision is calculated as the estimated taxes payable or refundable on tax returns for the current year. The deferred income tax provision is calculated for the estimated future tax effects attributable to temporary differences and carryforwards using expected tax rates in effect in the years during which the differences are expected to reverse.

Effective January 1, 2007, we adopted the provisions of the Financial Accounting Standards Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109*, or FIN 48. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS No. 109 and prescribes a recognition threshold of more-likely-than-not to be sustained upon examination. Upon adoption of FIN 48, our policy to include interest and penalties related to gross unrecognized tax benefits within our provision for income taxes did not change. We did not accrue interest expense related to these unrecognized tax benefits as due to our historical carryforward loss position, the uncertain benefits have not yet reduced taxes payable and, accordingly, no interest expense has been accrued. The net adjustment to retained earnings upon adoption to FIN 48 on January 1, 2007 was $371,000.

Results of Operations

The following tables present, for the periods indicated, financial 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,		
	2007	2006	2005
Revenue	100%	100%	100%
Costs of revenue	24	24	25
Gross margin	76	76	75
Operating expenses:			
Research and development	16	17	13
Sales and marketing	41	39	40
General and administrative	16	14	13
Total operating expenses	73	70	66
Income from operations	3	6	9
Interest income, net	3	4	2
Income before income taxes	6	10	11
(Provision) benefit for income taxes	(4)	32	—
Net income	2%	42%	11%

Year Ended December 31, 2007 Compared to Year Ended December 31, 2006

	2007	2006	Percentage Increase (Decrease)
	(in thousands except unit amounts)		
Revenue — Worldwide			
BIS Sensors	$ 75,372	$ 64,752	16%
BIS monitor	9,869	12,873	(23)%
Original equipment manufacturer products	3,941	4,743	(17)%
Other equipment and accessories	2,896	2,650	9%
Total equipment	16,706	20,266	(18)%
Total product revenue	92,078	85,018	8%
Strategic alliance	5,246	6,316	(17)%
Total revenue	$ 97,324	$ 91,334	7%
Unit Analysis — Worldwide			
BIS Sensors	5,421,000	4,612,000	18%
BIS monitors	3,208	4,127	(22)%
Original equipment manufacturer products	4,907	5,248	(6)%
Installed base	47,474	39,922	19%

Revenue. Revenue from the sale of BIS Sensors increased approximately 16% from 2006 to 2007. The increase in revenue from the sale of BIS Sensors in 2007 was primarily attributable to the continued shift of the focus of our sales and marketing emphasis from expanding our customer base to seeking to develop our existing customers and increasing their sensor utilization and procedure penetration. During 2007, we experienced an

increase of approximately 18% in the number of BIS Sensors sold which we believe was a result of the change in the focus of our sales and marketing strategy and growth in the installed base of BIS monitors. The number of domestic sensors sold was approximately 3.2 million in 2006 and increased to approximately 3.6 million in 2007, an increase of approximately 12%, while the number of international sensors sold increased approximately 31% from approximately 1.4 million in 2006 to approximately 1.8 million in 2007. The increase in the number of BIS Sensors sold was complemented by an increase in the average selling price of BIS Sensors of approximately 1%. Our installed base of BIS monitors and original equipment manufacturer products increased approximately 19% to 47,474 units at December 31, 2007 compared with 39,922 units at December 31, 2006.

Equipment revenue in 2007 decreased approximately 18% compared with 2006 primarily as a result of a decrease of 23% in BIS monitor revenue and a decrease in original equipment manufacturer product revenue of approximately 17%. This decrease was partially offset by an increase in other equipment and accessory revenue of 9%. The decrease in monitor revenue was a result of a decrease of approximately 22% in the number of monitors sold. In 2007, we sold 3,208 monitors compared with 4,127 in 2006. The majority of the decrease in monitor revenue was on the domestic side where we experienced a 32% decrease in monitor revenue. Domestically, we sold 1,646 monitors in 2007 compared with 2,469 monitors sold in 2006. We believe this overall decrease in unit sales of monitors reflects the shift in our sales and marketing emphasis from expanding our customer base to developing our existing customers and increasing their sensor utilization and procedure penetration. The decrease of 17% in original equipment manufacturer product revenue was a result of a decrease of approximately 6% in the number of modules sold to our original equipment manufacturers combined with a decrease in the average selling price.

For the year ended December 31, 2007, we recorded strategic alliance revenue of approximately $5.2 million compared with approximately $6.3 million for the year ended December 31, 2006. The strategic alliance revenue is primarily attributable to revenue we recognized from our agreements with Boston Scientific Corporation. In June 2007, we entered into a termination and repurchase agreement with Boston Scientific Corporation pursuant to which all agreements with Boston Scientific Corporation, including the 2002 OEM product development and distribution agreement and the 2005 product development and distribution agreement were terminated. In connection with the termination of these agreements, we recognized approximately $3.6 million of strategic alliance revenue in our statement of operations in June 2007. This $3.6 million of revenue comprises $3.8 million which was recognized from the 2002 OEM product development and distribution agreement net of a $285,000 receivable from Boston Scientific Corporation under the 2005 product development and distribution agreement which had been recorded in March 2007 against the strategic alliance revenue where it had originally been recorded in the statement of income.

Our gross margin was approximately 76.0% of revenue in 2007 compared with a gross margin of approximately 75.7% of revenue in 2006. The increase in gross margin in 2007 was primarily the result of favorable changes in the mix of BIS Sensor and hardware revenues. BIS Sensors have a higher gross margin than hardware and accounted for approximately 82% of our total product revenue in 2007 compared with approximately 76% of our total product revenue in 2006.

Expense Overview

	2007	2006	Percentage Increase
	(dollar amounts in thousands)		
Expenses			
Research and development	$16,052	$15,280	5%
Sales and marketing	39,823	35,571	12%
General and administrative	15,486	12,446	24%

Research and Development. The increase in research and development expenses in 2007 compared with 2006 was primarily attributable to an increase in compensation and benefits paid to our research and development personnel of approximately $1.7 million, offset by a decrease in clinical study expenses of approximately $1.0 million. The decrease in clinical study expenses is primarily related to a decrease in expenses resulting from our completion of enrollment for the BRITE study in March 2007. Of the $1.7 million increase in compensation and benefits, approximately $545,000 relates to an increase in stock-based compensation expense that was recorded as a result of an increase in the number of stock options and awards issued during 2007. The

remaining increase in compensation and benefits relates to an increase in salaries and wages of approximately $674,000. We expect research and development expenses in 2008 to increase compared with 2007.

Sales and Marketing. The increase in sales and marketing expenses in 2007 compared with 2006 was primarily attributable to an increase in compensation and benefits paid to our domestic sales and marketing personnel of approximately $2.3 million and an increase in our operating expenses associated with our international subsidiaries of approximately $2.0 million. Of the $2.3 million increase in compensation and benefits for domestic sales and marketing personnel, approximately $771,000 relates to an increase in salaries and wages primarily as a result of annual salary increases and additional headcount, approximately $521,000 relates to an increase in stock-based compensation expense as a result of an increase in the number of stock options and awards issued during 2007, approximately $510,000 relates to sales commissions expense, and approximately $372,000 relates to employee benefits. The $2.0 million increase in operating expenses for our international subsidiaries relates primarily to an increase in salaries and benefits of approximately $1.3 million primarily as a result of annual salary increases, travel and entertainment expenses of $180,000, and other operating expenses of $466,000. The increases in total sales and marketing expenses were partially offset by a reversal of an accrual for our group purchasing commission expenses of approximately $471,000. Based upon review of one of our group purchasing organization contracts, we determined that the expenses we anticipated in connection with this contract, which we previously accrued for, would not be recognized and therefore the accrual was reversed in the fourth quarter of 2007. We expect sales and marketing expenses in 2008 to increase compared with 2007.

General and Administrative. The increase in general and administrative expenses in 2007 compared with 2006 was attributable to an increase in compensation and benefits paid to our general and administrative personnel of approximately $1.7 million, an increase of approximately $584,000 in legal fees, an increase of approximately $383,000 in building rent, and an increase of $309,000 in depreciation expense. The $1.7 million increase in compensation expense and benefits was primarily the result of an increase of approximately $690,000 in stock-based compensation expense as a result of an increase in the number of stock options and awards issued during 2007, an increase in salaries and wages of approximately $510,000 primarily as a result of annual salary increases, and an increase in bonus expense of approximately $314,000. We expect general and administrative expenses in 2008 to increase compared with 2007.

Interest Income. Interest income increased to approximately $5.0 million in 2007 from approximately $3.3 million in 2006, an increase of approximately 50%. The increase in interest income from 2006 to 2007 was primarily attributable to a higher cash and investment balance resulting from the proceeds received in connection with the sale of $125.0 million aggregate principal amount of our 2.5% convertible senior notes due 2014 that we issued in June 2007. We expect interest income to increase in 2008 compared with 2007.

Interest Expense. Interest expense increased to approximately $2.0 million in 2007 from approximately $3,000 in 2006. The increase in interest expense in 2007 was the result of the $125.0 million of aggregate principal amount of our 2.5% convertible senior notes due 2014 that we issued in June 2007. We expect interest expense to increase in 2008 compared with 2007.

Income taxes. Our provision for income taxes comprises a current and a deferred portion. The current income tax provision is calculated as the estimated taxes payable or refundable on tax returns for the current year. The deferred income tax provision is calculated for the estimated future tax effects attributable to temporary differences and carryforwards using expected tax rates in effect in the years during which the differences are expected to reverse. Our income tax provision was approximately $3.4 million for the year ended December 31, 2007 compared with an income tax benefit of approximately $27.9 million for the year ended December 31, 2006.

As of December 31, 2007, we had United States federal net operating loss, or NOL, carryforwards of approximately $44.0 million and state NOL carryforwards of approximately $2.1 million, which expire at various dates through 2027, compared with federal NOL carryforwards of approximately $51.4 million and state NOL carryforwards of approximately $776,000 at December 31, 2006. We have an additional $16.1 million of federal and state net NOLs not reflected in the amounts referenced in the preceding sentence with respect to the amounts for December 31, 2007 that are attributable to stock option exercises which will be recorded as an increase in additional paid in capital on our consolidated balance sheet once they are "realized" in accordance with SFAS No. 123R. As of December 31, 2007, we had federal and state tax credit carryforwards of approximately $2.0 million and $2.2 million, respectively, which expire at various dates through 2027 compared with federal and state tax credit

carryforwards of approximately $2.6 million and $1.7 million as of December 31, 2006. Additionally, the NOL and 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.

Effective January 1, 2007, we adopted the provisions of FIN 48. This Interpretation clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS No. 109 and prescribes a recognition threshold of more-likely-than-not to be sustained upon examination. Upon adoption of FIN 48, our policy to include interest and penalties related to gross unrecognized tax benefits within our provision for income taxes did not change. We did not accrue interest expense related to these unrecognized tax benefits due to our historical carryforward loss position, the uncertain benefits have not yet reduced taxes payable and, accordingly, no interest expense has been accrued. The net adjustment to retained earnings upon adoption to FIN 48 on January 1, 2007 was $371,000.

Year Ended December 31, 2006 Compared to Year Ended December 31, 2005

	2006	2005	Percentage Increase (Decrease)
	(in thousands except unit amounts)		
Revenue — Worldwide			
BIS Sensors	$ 64,752	$ 53,321	21%
BIS monitor	12,873	12,446	3%
Original equipment manufacturer products	4,743	4,851	(2)%
Other equipment and accessories	2,650	2,853	(7)%
Total equipment	20,266	20,150	1%
Total product revenue	85,018	73,471	16%
Strategic alliance	6,316	3,524	79%
Total revenue	$ 91,334	$ 76,995	19%
Unit Analysis — Worldwide			
BIS Sensors	4,612,000	3,819,000	21%
BIS monitors	4,127	3,227	28%
Original equipment manufacturer products	5,248	4,847	8%
Installed base	39,922	32,253	24%

Revenue. The increase in revenue from the sale of BIS Sensors from 2005 to 2006 was primarily attributable to an increase of approximately 21% in the number of BIS Sensors sold as a result of growth in the installed base of BIS monitors and original equipment manufacturer products. The number of domestic sensors sold was approximately 2.8 million in 2005 and increased to approximately 3.2 million in 2006, an increase of approximately 17%, while the number of international sensors sold increased approximately 31% from approximately 1.1 million in 2005 to approximately 1.4 million in 2006. The increase in the number of BIS Sensors sold domestically was complemented by an increase in the average selling price of BIS Sensors of approximately 2% while the international average selling price of BIS Sensors increased by approximately 3%. Our installed base of BIS monitors and original equipment manufacturer products increased approximately 24% to 39,922 units at December 31, 2006 compared with 32,253 units at December 31, 2005.

Equipment revenue in 2006 increased approximately 1% compared with 2005 as the result of an approximate 3% increase in monitor revenue due to an increase of approximately 28% in the number of BIS monitors shipped. This increase was partially offset by decreases in original equipment manufacturer revenue and other equipment revenue. Overall, the flat equipment revenue is primarily attributable to a reduction in average selling prices of both monitors and modules, which was implemented to increase placements of such equipment.

For the year ended December 31, 2006, we recorded strategic alliance revenue of approximately $6.3 million compared with approximately $3.5 million for the year ended December 31, 2005. The strategic alliance revenue is primarily attributable to the revenue that we recognized from our agreements with Boston Scientific Corporation. For the year ended December 31, 2006, approximately $5.6 million, or 91%, of the $6.3 million total strategic alliance revenue recognized relates to the 2005 product development and distribution agreement with Boston Scientific Corporation compared with approximately $2.9 million, or 84%, of the total strategic alliance revenue recognized for the year ended December 31, 2005. Approximately $492,000 relates to the 2002 OEM product development and distribution agreement with Boston Scientific Corporation for both 2005 and 2006.

Our gross profit margin was approximately 75.7% of revenue in 2006 compared with a gross profit margin of approximately 74.9% of revenue in 2005. The increase in the gross profit margin in 2006 compared with 2005 was primarily the result of the increased revenue we recognized from our strategic alliance with Boston Scientific Corporation which has no related impact on costs of revenue and increased sales of our BIS Sensors as a percentage of total product revenue. BIS Sensors accounted for approximately 76% of our total product revenue in 2006 compared with approximately 73% of our total product revenue in 2005.

Expense Overview

	2006	2005	Percentage Increase
	(dollar amounts in thousands)		
Expenses			
Research and development	$15,280	$10,464	46%
Sales and marketing	$35,571	$30,298	17%
General and administrative	$12,446	$10,291	21%

Research and Development. The increase in research and development expenses in 2006 compared with 2005 was primarily attributable to an increase in compensation and benefits to research and development personnel of approximately $2.7 million, an increase in clinical study expenses of approximately $1.5 million, an increase in travel and entertainment expenses of approximately $248,000 and an increase in patent related expenses of approximately $130,000. Of the $2.7 million increase in compensation and benefits, approximately $1.5 million relates to stock-based compensation expense that was recorded as a result of the adoption of SFAS No. 123R. The remaining increase in compensation and benefits relates to an increase in salary expense of approximately $1.2 million primarily as a result of additional headcount. The increase in clinical study expenses and travel and entertainment expenses relates primarily to our research and development efforts in the neuroscience area, particularly related to the continuation of the BRITE trial. The BRITE trial is a study to determine the accuracy of using our brain assessment technology, which analyzes electrical activity in the brain, to predict the effectiveness of antidepressant medications.

Sales and Marketing. The increase in sales and marketing expenses in 2006 compared with 2005 was primarily attributable to an increase in compensation and benefits to our domestic sales and marketing personnel of approximately $1.9 million, an increase in our operating expenses associated with our international subsidiaries of approximately $1.7 million, an increase in travel and entertainment expenses of approximately $410,000, approximately $268,000 in meeting expenses, $176,000 in commissions paid to our OEM partners and approximately $113,000 in speaker support and honorarium expenses. The $1.9 million increase in domestic sales and marketing compensation and benefits expense was driven by an increase of approximately $1.8 million of stock-based compensation expense recorded as a result of the adoption of SFAS No. 123R and an increase of approximately $904,000 in salary expense due to increased headcount. These increases were offset by a decrease in commission expense of approximately $878,000. The increase in expenses from our international subsidiaries was driven by an increase in compensation and benefits of approximately $1.5 million, of which approximately $685,000 relates to stock-based compensation expense recorded as a result of the adoption of SFAS No. 123R and approximately $657,000 relates to an increase in salary expense.

General and Administrative. The increase in general and administrative expenses in 2006 compared with 2005 was attributable to an increase in compensation and benefits to general and administrative personnel of approximately $1.8 million, of which approximately $2.2 million relates to stock-based compensation expense

recorded as a result of adoption of SFAS No. 123R and approximately $404,000 in salaries and wages due to increased headcount, offset by a decrease in bonus expense of approximately $509,000.

Interest Income. Interest income increased to approximately $3.3 million in 2006 from approximately $2.0 million in 2005, an increase of approximately 69%. The increase in interest income from 2005 to 2006 was primarily attributable to higher cash and investment balances as a result of amounts received under the 2005 product development and distribution agreement with Boston Scientific Corporation and also cash received from the exercise of employee stock options.

Income taxes. Our provision for income taxes comprises a current and a deferred portion. The current income tax provision is calculated as the estimated taxes payable or refundable on tax returns for the current year. The deferred income tax provision is calculated for the estimated future tax effects attributable to temporary differences and carryforwards using expected tax rates in effect in the years during which the differences are expected to reverse.

As of December 31, 2006, we had significant deferred tax assets, resulting from net operating loss carryforwards, tax credit carryforwards and deductible temporary differences. In the fourth quarter of 2006, we determined it was more likely than not that substantially all of the deferred tax assets would be realized and, accordingly, released substantially all of our valuation allowance. This decision was based on our cumulative history of earnings before taxes for financial reporting purposes over a 12 quarter period and on the projections of expected future taxable income. The tax assets estimated to be realized in future periods have been calculated by applying a blended federal and state tax rate of 39.57%, which is based upon the tax rates expected to be in effect, apportioned by jurisdiction, in the periods during which the attributes are expected to be utilized. Changes in this blended rate in future periods could have a material effect on both the tax provision in the period of change as well as the net deferred tax asset carrying value.

As of December 31, 2006, we had federal NOL carryforwards of approximately $51.4 million and state NOL's carryforwards of approximately $761,000, which expire at various dates through 2026. We also had an additional $41.9 million of federal and state NOL's that are attributable to stock option exercises which will be recorded as an increase in additional paid-in capital on the consolidated balance sheet once they are "realized" in accordance with SFAS No. 123R. As of December 31, 2006, we had federal and state tax credit carryforwards of $2.6 million and $1.7 million, respectively, which expire at various dates through 2026.

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, 2007 and 2006. 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 in the future.

	Quarter Ended							
	April 1, 2006	July 1, 2006	September 30, 2006	December 31, 2006	March 31, 2007	June 30, 2007	September 29, 2007	December 31, 2007
	(in thousands)							
Revenue	$21,888	$22,631	$22,855	$23,961	$24,119	$26,641	$22,632	$23,932
Gross profit margin	16,542	17,220	17,538	17,863	18,040	20,874	17,099	17,992
Operating expenses	15,317	15,843	15,765	16,370	17,929	18,409	17,145	17,879
Net income (loss)	1,937	2,125	2,418	30,610	517	1,488	(156)	408

Included in operating expenses for the fourth quarter of 2007 is a reversal of an accrual for our group purchasing commission expenses of approximately $471,000. Based upon review of one of our group purchasing organization contracts, we determined that the expenses we anticipated to incur in connection with this contract, which we previously accrued for, would not be recognized and therefore the accrual was reversed in the fourth quarter of 2007.

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 and administrative expenses. From our inception through December 31, 2007, we raised approximately $212.2 million from equity and debt financings, including the following:

- net proceeds of approximately $54.6 million from our initial public offering of an aggregate of 4,025,000 shares of common stock in February 2000;
- approximately $3.4 million in equipment financing;
- approximately $5.1 million related to our investment in sales-type leases;
- proceeds of approximately $10.0 million related to our 2002 OEM product development and distribution agreement with Boston Scientific Corporation;
- proceeds of approximately $8.1 million from the sale of our common stock to Boston Scientific Corporation in 2004;
- $10.0 million in installment payments from Boston Scientific Corporation received in May 2005 and May 2006 pursuant to the 2005 product development and distribution agreement with Boston Scientific Corporation; and
- net proceeds of $121.0 million received in connection with our 2.5% convertible senior notes that we issued in June 2007.

In May 2001, we entered into an agreement with Bank of America, for a $5.0 million revolving line of credit, which expires in May 2008. The revolving line of credit contains restrictive covenants that require us to maintain liquidity and net worth ratios and is secured by certain investments, which are shown as restricted cash on our consolidated balance sheets. In connection with this revolving line of credit agreement, we are required to maintain restricted cash in an amount equal to 102% of the outstanding amounts under the revolving line of credit. At December 31, 2007, we were in compliance with all covenants contained in the revolving line of credit agreement. Interest on any borrowings under the revolving line of credit is, at our election, either the prime rate or the London Inter-Bank Offer Rate, or LIBOR, plus 2.25%. Up to $1.5 million of the $5.0 million revolving line of credit is available for standby letters of credit. At December 31, 2007, the interest rate on the line of credit was 7.25%, there was no amount outstanding under this line of credit and we had standby letters of credit outstanding relating to our leased facility and an international service provider in the amount of approximately $1.0 million which is shown on our consolidated balance sheet as restricted cash.

In June 2007, we completed a private placement of $125.0 million aggregate principal amount of 2.5% convertible notes due 2014. Net proceeds received from the issuance of the notes were $121.0 million, which is net of the underwriters discount of $4.0 million. As of December 31, 2007, we have used approximately $85.0 million of these proceeds to repurchase 5.5 million shares of our common stock, of which 4.5 million shares were repurchased from Boston Scientific Corporation and 1.0 million shares were repurchased in connection with our 2.5% convertible senior note offering that we completed in June 2007.

On August 3, 2006, our Board of Directors authorized the repurchase of up to 2,000,000 shares of our common stock from time to time on the open market or in privately negotiated transactions. As of December 31, 2007, we have repurchased 276,493 shares of our common stock for approximately $5.0 million under this plan.

We expect to meet our near-term liquidity needs through the use of cash and short-term investments on hand at December 31, 2007 and cash generated from operations. We believe that the financial resources available to us, including our current working capital, our long-term investments and available revolving line of credit will be sufficient to finance our planned operations and capital expenditures for at least the next 12 months. 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 and to repay our convertible notes.

We expect to fund the growth of our business over the long term through cash flow from operations and through issuances of capital stock, promissory notes or other securities. Any sale of additional equity or debt securities may result in dilution to our stockholders, and we cannot be certain that additional public or private financing will be available in amounts or on terms acceptable to us, or at all. If we are unable to obtain this additional financing, we may be required to delay, reduce the scope of, or eliminate one or more aspects of our business development activities, which could harm the growth of our business.

Currently, our 2.5% convertible senior notes due 2014 are convertible, under certain circumstance, solely into shares of our common stock. However, under the terms of the Indenture and such notes, we have the option to settle potential conversions of these notes with cash and, if applicable, shares of our common stock, commonly referred to as "net share settlement", if we first obtain stockholder approval of this net share settlement feature and we irrevocably elect to use such settlement method. If we obtain stockholder approval of the net share settlement feature in connection with the potential conversion of such notes and we irrevocably elect to use such settlement method, then upon conversion of such notes we would (1) pay cash in an amount equal to the lesser of one-fortieth of the principal amount of the notes being converted and the daily conversion value (the product of the conversion rate and the current trading price) of the notes being converted and (2) issue shares of our common stock only to the extent that the daily conversion value of the notes exceeded one-fortieth of the principal amount of the notes being converted for each trading day of the relevant 40 trading day observation period. In order to fund the cash payments due upon conversion, we may be required to use a significant portion or all of our existing cash or raise the cash for such payments through the sale of shares of our common stock or additional debt securities or through one or more other financing transactions. We may not have sufficient cash on hand or be able to acquire the necessary funds via financing on terms favorable to us or our stockholders, or at all, which would result in an event of default under the notes. Moreover, the use of a substantial portion of our existing cash may adversely affect our liquidity and cash available to fund the growth of our business.

Working capital at December 31, 2007 was approximately $118.8 million compared to approximately $70.6 million at December 31, 2006. The increase in working capital from December 31, 2006 to December 31, 2007 was attributable to an increase in our cash and short term investments of approximately $43.6 million primarily related to proceeds received upon the issuance of $125.0 million of 2.5% convertible senior notes due 2014 in June 2007 offset by our repurchase of approximately $85.0 million of our common stock and an increase in our deferred tax assets of approximately $3.3 million.

Cash from Operations. We generated approximately $11.6 million of cash from operations in 2007. The positive cash from operating activities generated during this period was primarily driven by our net income of approximately $2.3 million, $8.7 million of non-cash stock-based compensation expense, $2.6 million of non-cash depreciation and amortization expense and a $3.3 million increase in deferred tax assets. These were offset by a decrease in deferred revenue of approximately $5.2 million primarily related to the termination of the 2002 OEM product development and distribution agreement and the 2005 product development and distribution agreement with Boston Scientific Corporation.

We generated approximately $29.2 million of cash from operations during the three years ended December 31, 2007, which was primarily driven by net income of approximately $47.8 million and non-cash stock-based compensation expense of $15.8 million, offset by the reversal in 2006 of our valuation allowance against our deferred tax assets and a decrease in deferred revenue.

Cash from Investing Activities. We used approximately $38.6 million of cash in investing activities in 2007. The cash used for investing activities was primarily the result of net purchases of investments of approximately $35.8 million in 2007 and the acquisition of property and equipment of approximately $2.8 million primarily due to spending related to our new facility and the purchase of components for our new automated sensor manufacturing lines. We anticipate that the level of capital expenditures in 2008 will decrease compared with the level of capital expenditures in 2007.

We used approximately $71.5 million for investing activities during the three years ended December 31, 2007 primarily as a result of net purchases of investments of approximately $59.5 million and acquisition of property, plant and equipment of approximately $11.1 million.

Cash from Financing Activities. We received approximately $37.0 million of cash from financing activities in 2007. The cash received from financing activities was primarily the result of the proceeds received upon the issuance of $125.0 million of 2.5% convertible senior notes due 2014 in June 2007 and $1.6 million in proceeds from the issuance of common stock. These are offset by our repurchase of approximately $85.0 million of our common stock and deferred financing fees of $4.6 million.

We generated approximately $47.4 million of cash from financing activities during the three years ended December 31, 2007. Cash generated by financing activities during this period was primarily the result of proceeds received upon the issuance of $125.0 million of 2.5% convertible senior notes due 2014 in June 2007 and $17.5 million in proceeds from issuance of common stock. These are offset by our repurchase of approximately $85.0 million of our common stock, purchase of approximately $5.0 million of treasury stock and deferred financing fees of $4.6 million.

We have summarized below our contractual cash obligations as of December 31, 2007:

	Payments Due by Period				
Contractual Obligations	Total	Less Than One Year	One to Three Years	Three to Five Years	After Five Years
			(in thousands)		
Operating leases	$ 18,960	$2,049	$4,396	$4,161	$ 8,354
Capital lease	145	40	80	25	—
Long-term debt	125,000	—	—	—	125,000
Total contractual cash obligations	$144,105	$2,089	$4,476	$4,186	$133,354

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.

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.

Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*. SFAS No. 157 defines fair value, establishes a framework for measuring fair value under United States generally accepted accounting principles, or GAAP, and expands disclosures about fair value measurements in interim and annual periods subsequent to initial recognition. SFAS No. 157 applies under other accounting pronouncements that require or permit fair value measurements. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those years. We do not believe that the adoption of SFAS No. 157 will have a material impact on our results of operations, financial position or cash flow.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, including an amendment of FASB Statement No. 115, or SFAS No. 159. SFAS No. 159 permits entities to choose, at specified election dates, to measure eligible items at fair value. A business entity is required to report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting period. SFAS No. 159 is effective for financial statements issued for fiscal years beginning after November 15, 2007. We do not believe that the adoption of SFAS No. 159 will have a material impact on our results of operations, financial position or cash flow.

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities.* The scope of EITF Issue

No. 07-3 is limited to nonrefundable advance payments for goods and services to be used or rendered in future research and development activities pursuant to an executory contractual arrangement. EITF Issue No. 07-3 is effective for financial statements issued for fiscal years beginning after December 15, 2007 and interim periods within those fiscal years. An entity may not apply it before that date. We do not believe that the adoption of EITF No. 07-3 will have an immediate impact on our results of operations, financial position or cash flow, however, the adoption of SFAS No. 141R on January 1, 2009 could materially change the accounting for business combinations subsequent to that date.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations*. The objective of SFAS No. 141R is to improve the representational faithfulness and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects. SFAS No. 141R applies prospectively to business combination for which the acquisition date is on or after December 15, 2008. An entity may not apply it before that date. We do not believe that the adoption of SFAS No. 141 will have a material impact on our results of operations, financial position or cash flow.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interest in Consolidated Financial Statements — an amendment of ARB No. 51*. The objective of SFAS No. 160 is to improve the relevance, comparability and transparency of the financial information that a reporting entity provides in its consolidated financial statement. This statement is effective for fiscal years and interim periods within those fiscal years, beginning on or after December 15, 2008. An entity may not apply it before that date. We do not believe that the adoption of SFAS No. 160 will have a material impact on our results of operations, financial position or cash flow.

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

Interest Rate Exposure

Our investment portfolio consists primarily of money market accounts, certificates of deposit, 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 annual interest income would change by approximately $891,000 in fiscal 2007 and $624,000 in fiscal 2006 for each 100 basis point increase or decrease in interest rates. The fair values of our investment portfolio at December 31, 2007 and December 31, 2006 would change by approximately $1.5 million and $1.1 million, respectively, for each 100 basis point increase or decrease in rates.

Our investment in sales-type leases and a line of credit agreement are also subject to market risk. The interest rates implicit in our sales-type leases are fixed and not subject to interest rate risk. In addition, the interest rate on the 2.5% convertible senior notes due 2014 is fixed and not subject to interest rate risk. The interest rate on our line of credit agreement is variable and subject to interest rate risk. The interest rate risk experienced to date related to the line of credit has been mitigated primarily by the fact that the line of credit, when drawn on, is 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-31 of this Annual Report on Form 10-K.

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

None.

Item 9A. Controls and Procedures.

1. Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2007. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act are recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2007, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

No change in our internal controls over financial reporting occurred during the fiscal quarter ended December 31, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

2. Management's Report on the Effectiveness of Internal Control over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of our assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

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

Our management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2007. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework.*

Based on our assessment, management concluded that, as of December 31, 2007, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm, Ernst & Young LLP, has audited the effectiveness of our internal control over financial reporting as of December 31, 2007. This report appears below.

(c) Attestation Report of the Independent Registered Public Accounting Firm.

Report of Independent Registered Public Accounting Firm

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

We have audited Aspect Medical Systems, Inc.'s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Aspect Medical Systems, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying *Management's Report on the Effectiveness of Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, Aspect Medical Systems, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Aspect Medical Systems, Inc. as of December 31, 2007 and 2006, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007 of Aspect Medical Systems, Inc. and our report dated March 12, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 12, 2008

(c) Changes in Internal Control over Financial Reporting.

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, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

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 2008 Annual Meeting of Stockholders to be held on May 21, 2008. Information relating to certain filings of Forms 3, 4 and 5 is contained in our 2008 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 2008 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 2008 proxy statement.

The section entitled *"Report of the Compensation Committee"* in our 2008 proxy statement is 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 2008 proxy statement.

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

The information required under this item is incorporated by reference to the section entitled *"Certain Relationships and Related Transactions"* in our 2008 proxy statement.

Item 14. Principal Accounting 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 2008 proxy statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(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) 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.

(c) 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 17, 2008

By: /s/ MICHAEL FALVEY
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 17, 2008
/s/ J. BRECKENRIDGE EAGLE J. Breckenridge Eagle	Chairman of the Board of Directors	March 17, 2008
/s/ MICHAEL FALVEY Michael Falvey	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 17, 2008
/s/ BOUDEWIJN L.P.M. BOLLEN Boudewijn L.P.M. Bollen	President of International Operations and Director	March 17, 2008
/s/ MICHAEL ESPOSITO Michael Esposito	Director	March 17, 2008
/s/ DAVID W. FEIGAL, JR., M.D. David W. Feigal, Jr., M.D.	Director	March 17, 2008
/s/ EDWIN M. KANIA Edwin M. Kania	Director	March 17, 2008
/s/ JAMES J. MAHONEY, JR. James J. Mahoney, Jr.	Director	March 17, 2008
/s/ JOHN O'CONNOR John O'Connor	Director	March 17, 2008
/s/ DONALD R. STANSKI, M.D. Donald R. Stanski, M.D.	Director	March 17, 2008

ASPECT MEDICAL SYSTEMS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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, 2007 and 2006, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes 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 consolidated financial position of Aspect Medical Systems, Inc. at December 31, 2007 and 2006, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2007, the Company adopted Financial Accounting Standards Board Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109". Also, as discussed in Note 2 to the consolidated financial statements, effective January 1, 2006, the Company adopted Statement of Financial Accounting Standards No. 123R, "Share-Based Payment" using the modified prospective method.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Aspect Medical Systems, Inc.'s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 12, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 12, 2008

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	December 31, 2007	December 31, 2006
ASSETS		
Current assets:		
Cash and cash equivalents	$ 19,828	$ 9,764
Short-term portion of restricted cash	—	82
Short-term investments	82,134	48,536
Accounts receivable, net of allowances of $322 and $218 at December 31, 2007 and 2006, respectively	12,544	12,776
Current portion of investment in sales-type leases	1,473	1,493
Inventory, net	7,113	6,501
Deferred tax assets	4,729	1,844
Other current assets	2,677	2,157
Total current assets	130,498	83,153
Property and equipment, net	8,455	7,798
Long-term portion of restricted cash	1,004	929
Long-term investments	6,518	4,159
Long-term investment in sales-type leases	2,618	2,817
Deferred financing fees	4,213	—
Long-term deferred tax assets	20,171	26,398
Total assets	$ 173,477	$125,254
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,836	$ 2,215
Accrued liabilities	9,723	8,428
Current portion of obligation under capital lease	28	—
Deferred revenue	87	1,865
Total current liabilities	11,674	12,508
Long-term portion of obligation under capital lease	89	—
Long-term portion of deferred revenue	39	3,498
Long-term debt	125,000	—
Commitments and contingencies		
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, 17,118,037 and 22,363,564 shares issued and outstanding at December 31, 2007 and 2006, respectively	174	226
Treasury stock, at cost; 276,493 shares	(5,008)	(5,008)
Additional paid-in capital	178,837	168,440
Accumulated other comprehensive income (loss)	180	(1)
Accumulated deficit	(137,508)	(54,409)
Total stockholders' equity	36,675	109,248
Total liabilities and stockholders' equity	$ 173,477	$125,254

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

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share amounts)

	Year Ended December 31,		
	2007	2006	2005
Product revenue	$92,078	$ 85,018	$73,471
Strategic alliance revenue	5,246	6,316	3,524
Total revenue	97,324	91,334	76,995
Costs of product revenue(1)	23,319	22,171	19,303
Gross profit	74,005	69,163	57,692
Operating expenses:(1)			
Research and development	16,052	15,280	10,464
Sales and marketing	39,823	35,571	30,298
General and administrative	15,486	12,446	10,291
Total operating expenses	71,361	63,297	51,053
Income from operations	2,644	5,866	6,639
Other income (expense):			
Interest income	5,019	3,335	1,978
Interest expense	(2,010)	(3)	(52)
Income before income taxes	5,653	9,198	8,565
Income tax provision (benefit)	3,397	(27,891)	90
Net income	$ 2,256	$ 37,089	$ 8,475
Net income per share:			
Basic	$ 0.12	$ 1.66	$ 0.39
Diluted	$ 0.11	$ 1.59	$ 0.35
Weighted average shares used in computing net income per share:			
Basic	19,614	22,378	21,508
Diluted	20,247	23,380	23,921
(1) Stock-based compensation included in costs and expenses:			
Costs of product revenue	$ 577	$ 430	$ 13
Research and development	2,010	1,487	245
Sales and marketing	3,210	2,506	71
General and administrative	2,914	2,267	112

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

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Comprehensive Income (Loss)	Common Stock Shares	Common Stock Par Value	Additional Paid-in Capital	Treasury Stock	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance, December 31, 2004		20,839	$208	$145,429	$ —	$ —	$(78)	$(99,973)	$ 45,586
Issuance of common stock upon exercise of common stock options	—	1,415	14	12,497	—	—	—	—	12,511
Issuance of common stock upon ESPP purchase	—	18	—	416	—	—	—	—	416
Issuance of common stock awards	—	1	—	50	—	—	—	—	50
Issuance of stock options to non-employees	—	—	—	225	—	—	—	—	225
Issuance of shares of common stock upon vesting of restricted stock	—	8	—	—	—	—	—	—	—
Deferred compensation related to the issuance of restricted stock	—	—	—	664	—	(664)	—	—	—
Amortization of deferred compensation	—	—	—	—	—	166	—	—	166
Comprehensive income:									
Net income	8,475	—	—	—	—	—	—	8,475	8,475
Other comprehensive loss — Unrealized loss on marketable securities	(6)	—	—	—	—	—	(6)	—	(6)
Comprehensive income:	$ 8,469	—	—	—	—	—	—	—	—
Balance, December 31, 2005		22,281	$222	$159,281	$ —	$(498)	$(84)	$(91,498)	$ 67,423
Issuance of common stock upon exercise of common stock options	—	332	4	2,644	—	—	—	—	2,648
Issuance of common stock upon ESPP purchase	—	18	—	326	—	—	—	—	326
Issuance of common stock awards	—	1	—	26	—	—	—	—	26
Issuance of stock options to non-employees	—	—	—	10	—	—	—	—	10
Issuance of shares of common stock upon vesting of restricted stock	—	8	—	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	6,651	—	—	—	—	6,651
Repurchases of common stock	—	(276)	—	—	(5,008)	—	—	—	(5,008)
Reclassification of deferred compensation upon the adoption of SFAS 123R	—	—	—	(498)	—	498	—	—	—
Comprehensive income:									
Net income	37,089	—	—	—	—	—	—	37,089	37,089
Other comprehensive income — Unrealized gain on marketable securities	83	—	—	—	—	—	83	—	83
Comprehensive income:	$37,172	—	—	—	—	—	—	—	—
Balance, December 31, 2006		22,364	$226	$168,440	$(5,008)	$ —	$ (1)	$(54,409)	$109,248

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY — (Continued)
(in thousands)

	Comprehensive Income (Loss)	Common Stock Shares	Common Stock Par Value	Additional Paid-in Capital	Treasury Stock	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Issuance of common stock upon exercise of common stock options	—	230	$ 3	$ 1,416	$ —	$—	$ —	$ —	$ 1,419
Issuance of common stock upon ESPP purchase	—	15	—	222	—	—	—	—	222
Issuance of stock options to non-employees	—	—	—	6	—	—	—	—	6
Issuance of common stock awards	—	1	—	17	—	—	—	—	17
Issuance of shares of common stock upon vesting of restricted stock	—	8	—	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	8,593	—	—	—	—	8,593
Repurchases of common stock		(5,500)	(55)	—	—	—	—	(84,986)	(85,041)
Implementation of FIN 48	—	—	—	—	—	—	—	(369)	(369)
Tax benefit from stock option exercises	—	—	—	143	—	—	—	—	143
Comprehensive income:									
Net income	2,256	—	—	—	—	—	—	2,256	2,256
Other comprehensive income — Unrealized gain on marketable securities	181	—	—	—	—	—	181	—	181
Comprehensive income:	$2,437	—	—	—	—	—	—	—	—
Balance, December 31, 2007		17,118	$174	$178,837	$(5,008)	$—	$180	$(137,508)	$ 36,675

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

ASPECT MEDICAL SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2007	2006	2005
Cash flows from operating activities:			
Net income	$ 2,256	$ 37,089	$ 8,475
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	2,644	1,597	1,563
Provision for doubtful accounts	129	141	131
Stock-based compensation expense	8,616	6,687	441
Realized tax benefit from stock option exercises	143	—	—
Adjustment for FIN 48 adoption	(371)	—	—
Deferred taxes	3,341	(28,242)	—
Changes in assets and liabilities —			
Decrease (increase) in accounts receivable	103	(1,200)	(4,013)
Increase in inventory	(612)	(1,384)	(2,893)
Increase in other current assets	(520)	(673)	(267)
Decrease (increase) in investment in sales-type leases	219	(564)	272
(Decrease) increase in accounts payable	(379)	(177)	472
Increase (decrease) in accrued liabilities	1,295	(1,768)	2,364
(Decrease) increase in deferred revenue	(5,237)	(1,757)	1,265
Net cash provided by operating activities	11,627	9,749	7,810
Cash flows from investing activities:			
Payments on loans to related parties	—	—	1
Acquisition of property and equipment	(2,827)	(5,668)	(2,628)
Decrease (increase) in restricted cash	7	(929)	—
Purchases of marketable securities	(149,805)	(73,000)	(55,181)
Proceeds from sales and maturities of marketable securities	114,033	61,210	43,244
Net cash used for investing activities	(38,592)	(18,387)	(14,564)
Cash flows from financing activities:			
Principal payments on debt related to investment in sales-type leases	—	—	(497)
Repurchases of common stock	(85,041)	—	—
Purchases of treasury stock	—	(5,008)	—
Deferred financing fees	(4,559)	—	—
Proceeds from issuance of common stock	1,640	2,973	12,927
Proceeds from issuance of long-term debt	125,000	—	—
Repayment of capital lease	(11)	—	—
Net cash provided by (used for) financing activities	37,029	(2,035)	12,430
Net increase (decrease) in cash and cash equivalents	10,064	(10,673)	5,676
Cash and cash equivalents, beginning of period	9,764	20,437	14,761
Cash and cash equivalents, end of period	$ 19,828	$ 9,764	$ 20,437
Supplemental disclosure of cash flow information:			
Interest paid	$ 1,528	$ 3	$ 52
Income taxes paid	$ 85	$ 304	$ 90

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 assess and manage a patient's level of consciousness in the operating room, intensive care and procedural sedation settings and administer the amount of anesthesia or sedation needed by each patient. The Company's BIS system incorporates the Company's proprietary disposable BIS Sensors and the Company's BIS monitor or original equipment manufacturers' products, including the BIS Module Kit and BISx. The BIS system is based on the Company's patented core technology, the BIS index.

(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 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 income 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, 2007 and 2006. The investments are reported at fair value, with any unrealized gains or losses excluded from earnings and reported as a separate component of stockholders' equity as accumulated other comprehensive income or loss. Investments that have contractual maturities of more than twelve months are included in long-term investments in the accompanying consolidated balance sheets.

Revenue Recognition

The Company primarily sells its BIS monitors through a combination of a direct sales force and distributors. The Company sells its BIS Module Kits to original equipment manufacturers who in turn sell them to the end user. 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 when earned in accordance with Staff Accounting Bulletin ("SAB") No. 104, *Revenue Recognition,* and Emerging Issues Task Force ("EITF") 00-21, *Revenue Arrangements with Multiple Deliverables*. Revenue is recognized when persuasive evidence of an arrangement exists, product delivery 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's revenue arrangements with multiple elements are divided into separate units of accounting if specified criteria are met, including whether the delivered element has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered items. The consideration received is allocated among the separate units based on their respective fair values, and the applicable revenue recognition criteria are applied to each of the separate units.

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 agreement, 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, 2007, 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'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.*

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.

(tabular amounts in thousands except per share amounts)

Allowance for Doubtful Accounts

The Company makes estimates and judgments in determining its allowance for doubtful accounts based on the Company's historical collections experience, historical write-offs of its receivables, current trends, credit policies 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 its credit policies. The Company continually monitors collections and payments from its customers and adjusts the allowance for doubtful accounts as needed.

Inventory

The Company values inventory at the lower of cost or estimated market value, 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 device 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 is generally covered by a warranty period of one year. The Company accrues a warranty reserve for estimated costs to provide such 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, 2007, 2006 and 2005, and accrued warranty cost, included in accrued liabilities in the consolidated balance sheets at December 31, 2007 and 2006, was as follows:

Balance as of December 31, 2004	$137
Warranty expense	99
Deductions and other	(77)
Balance as of December 31, 2005	159
Warranty expense	129
Deductions and other	(68)
Balance as of December 31, 2006	220
Warranty expense	79
Deductions and other	(49)
Balance as of December 31, 2007	$250

Shipping and Handling Costs

Shipping and handling costs are included in costs of revenue. Shipping and handling costs for the years ended December 31, 2007, 2006 and 2005 were approximately $1,009,000, $962,000 and $786,000, respectively.

Advertising Costs

Advertising costs are expensed as incurred. These costs are included in sales and marketing expense in the consolidated statements of income. Advertising costs for the years ended December 31, 2007, 2006 and 2005 were approximately $1,114,000, $1,265,000 and $734,000, 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 property and equipment. The costs of improvements to the Company's leased building are capitalized as leasehold improvements and amortized on the straight-line method over the shorter of the life of the lease or the useful life of the asset. 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 American Institute of Certified Public Accountant's Statement of Position 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. See Note 8 for additional disclosure relating to income taxes and the adoption and application of the Financial Accounting Standards Board ("FASB") Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109* ("FIN 48").

Concentration of Credit Risk

Financial instruments that potentially expose the Company to concentrations of credit risk primarily consist of cash, cash equivalents, investments, accounts receivable and investment in sales-type lease receivables. The Company does not require collateral or other security to support financial instruments subject to credit risk. 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 the reserves established by management. The Company maintains cash, cash equivalents and investments with various financial institutions. The Company performs periodic evaluations of the relative credit quality of investments and the Company's 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.

Single or Limited Source Suppliers

The Company currently obtains certain key components of its products from single or limited sources. The Company purchases components pursuant to purchase orders, and in select cases, 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. The Company may 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 and cash flows.

Net Income Per Share

In accordance with SFAS No. 128, *Earnings Per Share*, basic net income per share amounts for the three years ended December 31, 2007, 2006 and 2005 were computed by dividing net income by the weighted average number of common shares outstanding during those periods and diluted net income per share was computed using the weighted average number of common shares outstanding and other dilutive securities, including stock options and unvested restricted stock, during those periods.

(tabular amounts in thousands except per share amounts)

For the years ended December 31, 2007, 2006 and 2005, approximately 2,833,000, 1,125,000 and 271,000, respectively, of potentially dilutive instruments, consisting of common stock options and unvested restricted stock, have been excluded from the computation of diluted weighted average shares outstanding as their effect would be antidilutive.

Basic and diluted net income per share for the years ended December 31, 2007, 2006 and 2005 were determined as follows:

	2007	2006	2005
Basic:			
Net income	$ 2,256	$37,089	$ 8,475
Weighted average shares outstanding	19,614	22,378	21,508
Basic net income per share	$ 0.12	$ 1.66	$ 0.39
Diluted:			
Net income	$ 2,256	$37,089	$ 8,475
Weighted average shares outstanding	19,614	22,378	21,508
Effect of dilutive options and restricted stock	633	1,002	2,413
Weighted average shares assuming dilution	20,247	23,380	23,921
Diluted net income per share	$ 0.11	$ 1.59	$ 0.35

Comprehensive Income (Loss)

Comprehensive income 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 income, the only other element of comprehensive income impacting the Company is the unrealized gains (losses) on its investments for all periods presented.

Stock-Based Compensation

On December 16, 2004, FASB issued SFAS No. 123 (revised 2004), *Share Based Payment*, ("SFAS No. 123R"), which is a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 123R supersedes Accounting Principles Bulletin, or APB, Opinion No. 25, *Accounting for Stock Issued to Employees*, and amends SFAS No. 95, *Statement of Cash Flows*. Under SFAS No. 123R, companies must calculate and record in the statement of operations the cost of equity instruments, such as stock options or restricted stock, awarded to employees for services received; pro forma disclosure is no longer permitted. The cost of the equity instruments is to be measured based on fair value of the instruments on the date they are granted (with certain exceptions) and is required to be recognized over the period during which the employees are required to provide services in exchange for the equity instruments.

Effective January 1, 2006, the Company adopted SFAS No. 123R using the modified prospective transition method. Under this transition method, compensation expense recognized during the year ended December 31, 2007 included: (a) compensation expense for all share-based awards granted prior to, but not yet vested, as of December 31, 2005, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123, and (b) compensation expense for all share-based awards granted subsequent to December 31, 2005, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R. In accordance

(tabular amounts in thousands except per share amounts)

with the modified prospective transition method, the Company's results of operations and financial position for prior periods have not been restated to reflect the impact of SFAS No. 123R.

As a result of adopting SFAS No. 123R on January 1, 2006, the Company's net income and income before taxes were $8,711,000 lower, and basic and diluted earnings per share were $0.44 per share and $0.43 per share lower, respectively, for the year ended December 31, 2007 than if the Company had continued to account for stock-based compensation under APB Opinion No. 25. There was no impact on the Company's statement of cash flows. For the year ended December 31, 2006, the Company's net income and income before taxes were $6,687,000 lower, and basic and diluted earnings per share were $0.30 per share and $0.29 per share lower, respectively, than if the Company had continued to account for stock-based compensation under APB Opinion No. 25.

The following table presents the effect on net income and earnings per share had stock-based compensation expense been recorded for the year ended December 31, 2005 based on the fair-value method under SFAS No. 123, *Accounting for Stock-Based Compensation*.

	2005
Net income:	
Net income as reported	$ 8,475
Add: Stock-based employee compensation expense included in reported net income	—
Deduct: Stock-based employee compensation expense determined under fair value based method for all awards	(6,055)
Pro forma net income	$ 2,420
Net income per share:	
Basic:	
As reported	$ 0.39
Pro forma	$ 0.11
Diluted:	
As reported	$ 0.35
Pro forma	$ 0.10

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles 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, investments, 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 September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ("SFAS No. 157"). SFAS No. 157 defines fair value, establishes a framework for measuring fair value under United States generally accepted accounting principles, or GAAP, and expands disclosures about fair value measurements in interim and annual periods subsequent to initial recognition. SFAS No. 157 applies under other accounting pronouncements that require or permit fair value measurements. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those years. The Company does not believe that the adoption of SFAS No. 157 will have a material impact on its results of operations, financial position or cash flow.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, including an amendment of FASB Statement No. 115 ("SFAS No. 159"). SFAS No. 159 permits entities to choose, at specified election dates, to measure eligible items at fair value (the "fair value option"). A business entity is required to report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting period. SFAS No. 159 is effective for financial statements issued for fiscal years beginning after November 15, 2007. The Company does not believe that the adoption of SFAS No. 159 will have a material impact on its results of operations, financial position or cash flow.

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities*. The scope of EITF Issue No. 07-3 this issue is limited to nonrefundable advance payments for goods and services to be used or rendered in future research and development activities pursuant to an executory contractual arrangement. EITF Issue No. 07-3 is effective for financial statements issued for fiscal years beginning after December 15, 2007 and interim periods within those fiscal years. An entity may not apply it before that date. The Company does not believe that the adoption of EITF No. 07-3 will have a material impact on its results of operations, financial position or cash flow.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* ("SFAS No. 141R"). The objective of SFAS No. 141R is to improve the representational faithfulness and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects. SFAS No. 141R applies prospectively to business combination for which the acquisition date is on or after December 15, 2008. An entity may not apply it before that date. The Company does not believe that the adoption of SFAS No. 141R will have an immediate impact on its results of operations, financial position or cash flow, however, the adoption of SFAS No. 141R on January 1, 2009 could materially change the accounting for business combinations subsequent to that date.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interest in Consolidated Financial Statements — an amendment of ARB No. 51*. The objective of SFAS No. 160 is to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements. This statement is effective for fiscal years and interim periods within those fiscal years, beginning on or after December 15, 2008. An entity may not apply it before that date. The Company does not believe that the adoption of SFAS No. 160 will have a material impact on its results of operations, financial position or cash flow.

(tabular amounts in thousands except per share amounts)

(3) Comprehensive Income

The Company's comprehensive income is as follows:

	Year Ended December 31,		
	2007	2006	2005
Net income	$2,256	$37,089	$8,475
Other comprehensive income:			
Unrealized gain (loss) on marketable securities	180	83	(6)
Comprehensive income	$2,437	$37,172	$8,469

(4) Cash, Cash Equivalents, Restricted Cash and Marketable Securities

Cash and cash equivalents consist of the following:

	December 31,	
	2007	2006
Cash	$19,828	$7,769
Commercial paper	—	1,995
	$19,828	$9,764

At December 31, 2007, the Company maintained approximately $1,004,000 of restricted cash as part of its revolving line of credit agreement with a commercial bank (see Note 17).

Available-for-sale marketable securities at December 31, 2007 and 2006 consist of the following:

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
December 31, 2007 —				
Corporate obligations	$40,157	$ 46	$(58)	$40,145
Commercial paper	45,714	192	—	45,906
Certificates of deposit	2,601	—	—	2,601
	$88,472	$238	$(58)	$88,652
December 31, 2006 —				
Government-Sponsored Enterprises	$ 1,300	$ —	$ (3)	$ 1,297
Corporate obligations	20,596	1	(20)	20,577
Commercial paper	28,096	21	—	28,117
Certificates of deposit	2,704	—	—	2,704
	$52,696	$ 22	$(23)	$52,695

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

The aggregate fair value of investments with unrealized losses was approximately $21,299,000 and $16,416,000 at December 31, 2007 and 2006, respectively. At December 31, 2007 and 2006, 22 and 26 investments were in an unrealized loss position, respectively. All such investments have been in an unrealized loss position for less than a year and these losses are considered temporary. The Company has the ability and intent to hold these investments until a recovery of fair value. When assessing investments for other-than-temporary declines in value, the Company considers such factors as, among other things, how significant the decline in value is as a percentage

(tabular amounts in thousands except per share amounts)

of the original cost, how long the market value of the investment has been less than its original cost and the market in general.

The Company reviews investments in U.S. Government debt securities and corporate obligations for the other-than-temporary impairment whenever the fair value of an investment is less than amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, the Company considers whether it has the ability and intent to hold the investment until a market price recovery and considers whether evidence indicating the cost of the investment is recoverable outweighs evidence to the contrary.

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, 2007	December 31, 2006
Total minimum lease payments receivable	$5,655	$6,148
Less:		
Unearned interest income	849	972
Allowance for lease payments	715	866
Net investment in sales-type leases	4,091	4,310
Less — current portion	1,473	1,493
	$2,618	$2,817

Future minimum lease payments due under non-cancelable leases as of December 31, 2007 are as follows:

Year Ending December 31,	
2008	$1,884
2009	1,380
2010	981
2011	557
2012	138
	$4,940

(6) Inventory

Inventory consists of the following:

	December 31, 2007	December 31, 2006
Raw materials	$4,027	$3,607
Work-in-progress	52	156
Finished goods	3,034	2,738
	$7,113	$6,501

(tabular amounts in thousands except per share amounts)

For the years ended December 31, 2006 and 2005, approximately $176,000 and $132,000, respectively, of raw material components of monitors were written down to zero cost and subsequently scrapped or used for repair and service. No raw material components of monitors were written down for the year ended December 31, 2007.

(7) Property and Equipment

Property and equipment consist of the following:

	Useful Life in Years	December 31, 2007	December 31, 2006
Construction in progress	—	$ 2,516	$ 2,454
Computer equipment	3	6,981	7,368
Demonstration, evaluation and rental equipment	2	—	52
Machinery and equipment	3 to 5	8,097	7,868
Furniture and fixtures	3	2,450	2,660
Leasehold improvements	Shorter of the lease or useful life of the asset	1,304	2,668
Equipment under capital lease (see Note 13)	5	127	—
		21,475	23,070
Accumulated depreciation and amortization		(13,020)	(15,272)
		$ 8,455	$ 7,798

Depreciation expense for property and equipment, including equipment under capital lease, was approximately $2,297,000, $1,597,000 and $1,563,000 for the periods ended December 31, 2007, 2006 and 2005, respectively. In 2007, the Company wrote-off approximately $4,505,000 of fully-depreciated assets. These assets are primarily leasehold improvements related to the Company's previous manufacturing location as well as older assets that have been disposed.

(8) Income Taxes

The components of income (loss) before (benefit) provision for income taxes are as follows:

	December 31, 2007	December 31, 2006	December 31, 2005
Domestic	$5,136	$8,786	$8,226
Foreign	517	412	339
Income before income taxes	$5,653	$9,198	$8,565

(tabular amounts in thousands except per share amounts)

The provision (benefit) for income taxes consists of the following:

	December 31,		
	2007	2006	2005
Current tax expense:			
Federal	$ 163	$ 244	$ —
State	187	—	—
Foreign	125	108	—
Total current expense	475	352	—
Deferred tax expense (benefit):			
Federal	3,131	4,108	3,032
State	(209)	558	420
Foreign	—	—	—
Change in valuation allowance	—	(32,909)	(3,452)
Total deferred tax expense (benefit)	2,922	(28,243)	—
Total provision (benefit)	$3,397	$(27,891)	$ —

The Company's effective rate varies from the statutory rate as follows:

	December 31,		
	2007	2006	2005
United States federal income tax rate	$1,923	$ 3,131	$ 2,882
State taxes, net of federal benefit	312	513	420
Stock-based compensation	1,280	1,199	—
Other permanent differences, net	202	375	150
United States federal and state tax credits	(627)	(552)	—
Other	307	352	—
Change in deferred tax valuation allowance	—	(32,909)	(3,452)
	$3,397	$(27,891)	$ —

The components of the net deferred tax asset and the related valuation allowance are as follows:

	December 31,		
	2007	2006	2005
Net operating loss carryforwards	$15,071	$17,525	$ 38,215
Tax credit carryforwards	3,910	3,702	3,151
Deferred revenue	49	2,122	2,773
Deferred compensation	3,051	1,148	—
Other	2,820	3,745	3,188
Deferred tax assets	24,901	28,242	47,327
Valuation allowance	—	—	(47,327)
Net deferred tax asset	$24,901	$28,242	$ —

(tabular amounts in thousands except per share amounts)

Through the third quarter of 2006, the Company maintained a full valuation allowance on its deferred tax assets. Upon achieving three-years of cumulative profitability, the Company began to weigh the positive and negative evidence included in SFAS No. 109 *Accounting For Income Taxes*, on a quarterly basis to determine if it believed that it was more likely than not that some or all of its deferred tax assets would be realized. In connection with this analysis, the Company reviewed its cumulative history of earnings before taxes over a three-year period and its projections of future taxable income. As of December 31, 2006, after finalizing the 2007 forecast, the Company concluded that the projections supported taxable income for the foreseeable future, and therefore, the Company reversed $28,200,000 of its valuation allowance. The projections of future taxable income include significant judgment and estimation. If the Company is not able to achieve sufficient taxable income in future periods, it might need to record additional valuation allowances on its deferred tax assets in future periods that could be material to the Company's consolidated financial statements.

As of December 31, 2007, the Company had United States federal NOL carryforwards of approximately $44,028,000 and state NOL carryforwards of approximately $2,107,000, which expire at various dates through 2027. The Company has an additional $16,066,000 of federal and state net operating losses not reflected above, that are attributable to stock option exercises which will be recorded as an increase in additional paid in capital on the consolidated balance sheet once they are "realized" in accordance with SFAS No. 123R. As of December 31, 2007, the Company has federal and state tax research and development credit carryforwards of $1,963,000 and $2,197,000, respectively, which expire at various dates through 2027. Additionally, the net operating loss and 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.

Effective January 1, 2007, the Company adopted the provisions of FIN 48. This Interpretation clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS No. 109 and prescribes a recognition threshold of more-likely-than-not to be sustained upon examination. Upon adoption of FIN 48, the Company's policy to include interest and penalties related to gross unrecognized tax benefits within the Company's provision for income taxes did not change. The Company had not accrued interest expense related to these unrecognized tax benefits due to its historical carryforward loss position, as the uncertain benefits have not yet reduced taxes payable and accordingly, no interest expense has been accrued. The net adjustment to retained earnings upon adoption to FIN 48 on January 1, 2007 was $371,000.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits ("UTB") is as follows:

Gross UTB at January 1, 2007	$626,000
Additions based on tax positions related to the current year	51,000
Additions for tax positions of prior years	—
Reductions for tax positions of prior years	(15,500)
Settlements	—
Reductions due to lapse of applicable statute of limitations	—
Gross UTB at December 31, 2007	$661,500
Net UTB impacting the effective tax rate at December 31, 2007	$ 35,500

As of December 31, 2007, the total amount of unrecognized tax benefits was $661,500 (net of the federal benefit on state tax issues), all of which represents the amount of unrecognized tax benefits that, if recognized, would favorably affect the effective income tax rate in future periods.

Also as of the adoption date, the Company had not accrued interest expense related to these unrecognized tax benefits. When appropriate the Company will recognize interest accrued and penalties if incurred, related to unrecognized tax benefits as a component of income tax expense. The Company does not reasonably estimate that the unrecognized tax benefit will change significantly within the next twelve months.

The tax years 1993 through 2006 remain open to examination by major taxing jurisdictions to which the Company is subject, which are primarily in the United States, as carryforward attributes generated in years past may still be adjusted upon examination by the Internal Revenue Service or state tax authorities if they have or will be used in a future period. The Company is currently not under examination by the Internal Revenue Service or any other jurisdiction for any tax years.

The Company's research and development credits expired on December 31, 2007. The credits provided a 5.3% and a 3% reduction in the 2007 and 2006 effective tax rates, respectively. Congress is currently considering bills that will extend the credit. If the research and development credit extension is not legislatively enacted there could be an unfavorable impact on the Company's 2008 effective income tax rate.

(9) Stockholders' Equity

Common Stock

At December 31, 2007, the Company has reserved approximately 4,696,000 shares of common stock for issuance under the Company's equity incentive plans and approximately 69,000 shares of common stock for issuance under the Company's 1999 Employee Stock Purchase Plan.

(10) Equity Incentive Plans

The Company has three stock-based employee compensation plans, one stock-based non-employee director compensation plan and an employee stock purchase plan. Stock options and restricted common stock generally vest over three to four years and provide, in certain instances, for the acceleration of vesting upon a change of control of the Company. Options under stock-based employee compensation plans terminate ten years from the date of grant. The Company's stock-based employee compensation plans provide for the grant, at the discretion of the Board of Directors, of options for the purchase of up to 11,410,000 shares of common stock to employees, directors, consultants and advisors. Option exercise prices are determined by the Board of Directors. At December 31, 2007, approximately 1,132,000 shares of common stock were available for future grant under the Company's equity incentive plans.

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.

1998 Stock Incentive Plan

The 1998 Stock Incentive Plan ("the 1998 Incentive Plan"), provides 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. Option exercise prices are determined by the Compensation Committee, but cannot be less than 100% of fair market value for incentive stock options.

(tabular amounts in thousands except per share amounts)

Amended and Restated 1998 Director Equity Incentive Plan

Under the Amended and Restated 1998 Director Equity Incentive Plan (the "Director Plan"), directors of the Company who are not employees of the Company are eligible to receive nonstatutory options to purchase common stock, restricted stock awards and other common stock-based awards. At December 31, 2007, a total of 350,000 shares of common stock were available for issue under the Director Plan. The Board of Directors administers the Director Plan, including the date on which awards will be issued, the type of award that will be issued and any vesting provisions for stock options and the terms under which restrictions on restricted stock awards will lapse. In certain circumstances, including a change of control (as defined in the Director Plan), the vesting of options and the restrictions applicable to restricted stock awards, will accelerate. No awards may be granted under the Director Plan after April 2015.

1999 Employee Stock Purchase Plan

The 1999 Employee Stock Purchase Plan (the "Purchase Plan") allows eligible employees the right to purchase shares of common stock at the lower of 95% 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, 2007, 230,977 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") provides for the granting, at the discretion of the Compensation Committee, of options for the purchase of up to 4,700,000 shares of common stock (subject to adjustment in the event of stock splits and other similar events) to employees, directors, consultants and advisors. Option exercise prices are determined by the Compensation Committee, but cannot be less than 100% of fair market value for incentive stock options.

Stock Option Activity:

A summary of stock option activity as of December 31, 2007 is as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2006	4,160	$17.00		
Granted	481	15.81		
Exercised	(230)	6.15		
Canceled	(145)	21.30		
Outstanding at December 31, 2007	4,266	$17.31	5.83	$7,344
Vested or expected to vest at December 31, 2007	4,219	$17.27	5.80	$7,342
Exercisable at December 31, 2007	3,324	$16.18	5.15	$7,309

Cash received from stock option exercises under all stock-based compensation plans for the year ended December 31, 2007 was approximately $1,419,000. The intrinsic value of options exercised during the years ended December 31, 2007, 2006 and 2005 was approximately $2,137,000, $4,915,000 and $28,960,000, respectively. The estimated fair value of options that vested during the years ended December 31, 2007, 2006 and 2005 was approximately $6,903,000, $6,329,000 and $6,055,000, respectively.

(tabular amounts in thousands except per share amounts)

A summary of nonvested restricted stock as of December 31, 2007 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2006	45	$23.95
Granted	332	16.09
Vested	102	17.39
Non-vested at December 31, 2007	275	$16.90

As of December 31, 2007, total compensation cost related to non-vested restricted stock not yet recognized was $913,000 which is expected to be recognized in the statement of income over a weighted-average period of 33 months. The fair value of shares that vested during the years ended December 31, 2007 and 2006 was approximately $1,779,000 and $339,000, respectively.

Grant-date fair value:

The Company uses the Black-Scholes option pricing model to calculate the grant-date fair value of an award. During the years ended December 31, 2007, 2006 and 2005, the Company calculated the grant-date fair value using the following weighted average assumptions:

	December 31, 2007	December 31, 2006	December 31, 2005
Options granted	481	671	918
Weighted average exercise price	$ 15.81	$ 26.78	$ 23.64
Weighted average grant date fair value	$ 7.42	$ 11.72	$ 11.12
Assumptions:			
Risk-free interest rate	4.53%	4.71%	3.77%
Expected term	5.2 years	5 years	5 years
Expected volatility	46%	43%	51%
Expected dividend yield	—	—	—

Risk-free interest rate: The implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term used as the assumption in the model.

Expected term: The expected term of an employee option is the period of time for which the option is expected to be outstanding. The Company uses a Monte Carlo simulation model to estimate the expected term assumption for the grant date valuation as it believes that this information is currently the best estimate of the expected term of a new option.

Expected volatility: In estimating its expected volatility, the Company considers both trends in historical volatility and the implied volatility of its publicly traded options. The Company has used a combination of its implied volatility and historical volatility to estimate expected volatility for the year ended December 31, 2007. The Company believes that in addition to the relevance of historical volatility, consideration of implied volatility achieves the objectives of SFAS No. 123R since it represents the expected volatility that marketplace participants would likely use in determining an exchange price for an option, and is therefore an appropriate assumption to use in the calculation of grant date fair value.

Expected dividend yield: This assumption is not applicable in the Company's calculation as the Company has not declared, nor does it expect to declare in the foreseeable future, any dividends.

Expense: The Company uses the straight-line attribution method to recognize expense for all options and restricted stock granted prior to the adoption of SFAS No. 123R and for all options and restricted stock granted after January 1, 2006, the adoption date of SFAS No. 123R. The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest. Stock-based compensation expense is recorded on a straight-line basis over the requisite service period, which is generally the vesting period. SFAS No. 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered option. For the year ended December 31, 2007, the Company applied a forfeiture rate of approximately 5%. The Company re-evaluates its forfeiture rate on a quarterly basis and adjusts the rate as necessary. Prior to the adoption of SFAS No. 123R, the Company recorded forfeitures on an actual basis as they occurred. As a result of the adoption of SFAS No. 123R, the Company's results for the year ended December 31, 2007 include stock-based compensation expense of approximately $8,711,000, of which approximately $95,000 relates to tax on deferred compensation which is included in the consolidated statement of income within the applicable operating expense where the Company reports the option holders' compensation cost.

As of December 31, 2007, total compensation cost related to non-vested stock options not yet recognized was $9,193,000, which is expected to be recognized in the statement of operations over a weighted-average period of approximately 2.1 years.

For the year ended December 31, 2007, the Company recorded stock-based compensation expense for non-employees of approximately $23,000 resulting from the grant of stock options to purchase 800 shares of common stock to one consultant and awards of 1,200 shares of common stock to another consultant.

For the year ended December 31, 2006, the Company recorded stock-based compensation expense for non-employees of approximately $36,000. The Company also granted a stock option to purchase 800 shares of common stock to a consultant which resulted in approximately $10,000 of stock-based compensation expense and awarded 1,200 shares of common stock to a consultant which resulted in approximately $26,000 of stock-based compensation expense.

For the year ended December 31, 2005, the Company recorded stock-based compensation expense for non-employees of approximately $263,000 and stock based compensation expense for employees of approximately $11,000. The non-employee stock based compensation expense related to the grant of stock options to purchase 12,000 shares of common stock to three consultants and stock awards to purchase 1,300 shares of common stock to two consultants. The employee stock-based compensation expense related to stock awards to purchase 350 shares of common stock.

(11) Deferred Revenue

On August 7, 2002, the Company formed a strategic alliance with Boston Scientific Corporation (the "2002 agreement"). In connection with this strategic alliance, the Company recognized approximately $6,300,000 of deferred revenue which was to be recognized ratably over the term of the 2002 agreement. This represented the Company's best estimate of its period of significant continuing obligation to provide Boston Scientific Corporation exclusive distribution rights to the applicable newly developed technology. In June 2007, the Company entered into a Termination and Repurchase Agreement with Boston Scientific Corporation under which the Company terminated the 2002 agreement and recognized approximately $3,835,000 of deferred revenue (see Note 18). Approximately $0 and $3,934,000 related to the 2002 agreement was classified as deferred revenue as of December 31, 2007 and December 31, 2006, respectively.

Additionally, for the years ended December 31, 2007 and December 31, 2006, the Company had approximately $126,000 and $134,000, respectively, in deferred revenue related to revenue arrangements which is being

(tabular amounts in thousands except per share amounts)

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 ("the 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 contributed approximately $687,000, $644,000, and $263,000 to the Plan in the years ended December 31, 2007, 2006, and 2005, respectively.

(13) Lease Commitments

In February 2006, the Company entered into a lease agreement pursuant to which the Company agreed to lease approximately 136,500 square feet of research and development, sales and marketing, production and general and administrative space in Norwood, Massachusetts. The lease expires in December 2016, and the Company has been granted the option to extend the term for three additional five-year periods. In connection with this lease, the Company provided a security deposit in the amount of $911,000 to the lessor in accordance with the terms of the lease agreement. This lease is classified as an operating lease. The lease contains a rent escalation clause that requires additional rental amounts in the later years of the term. Rent expense is being recognized on a straight-line basis over the minimum lease term.

Effective January 1, 2007, the Company entered into an operating lease for the Company's international organization for approximately 9,280 square feet of office space in De Meern, The Netherlands. This lease expires in December 2011.

Rent expense was approximately $1,717,000, $1,282,000 and $1,011,000 in 2007, 2006 and 2005, respectively.

In July 2007, the Company entered into an equipment lease with a term of 48 months. The lease contains a bargain purchase option and is classified as a capital lease. As of December 31, 2007, the Company recorded approximately $127,000 in gross assets under capital lease and related accumulated depreciation of approximately $11,000.

Future gross minimum lease commitments for all non-cancelable capital and operating leases as of December 31, 2007 are as follows:

Year Ending December 31,	Capital Lease	Operating Leases
2008	$ 40	$ 2,049
2009	40	2,229
2010	40	2,167
2011	25	2,073
2012	—	2,088
Thereafter	—	8,354
Total minimum lease payments	$145	$18,960
Less: Amount representing interest	(28)	
Minimum future payments of principal	117	
Less: Current portion	(28)	
Long-term portion	$ 89	

(tabular amounts in thousands except per share amounts)

(14) Commitments and Contingencies

Legal Proceedings

On October 10, 2007, a purported holder of the Company's common stock (the plaintiff), filed suit in the U.S. District Court for the Western District of Washington against Morgan Stanley and Deutsche Bank AG, the lead underwriters of the Company's 2000 initial public offering, alleging violations of Section 16(b) of the Securities Exchange Act of 1934 (the "Exchange Act"). The complaint alleges that the combined number of shares of the Company's common stock beneficially owned by the lead underwriters and certain of the Company's unnamed officers, directors, and principal stockholders exceeded ten percent of the Company's outstanding common stock from the date of its initial public offering on January 28, 2000, through at least January 27, 2001. The complaint further alleges that those entities and individuals were subject to the reporting requirements of Section 16(a) of the Exchange Act and the short-swing trading prohibition of Section 16(b) of the Exchange Act, and failed to comply with those provisions. The complaint seeks to recover from the lead underwriters any "short-swing profits" obtained by them in violation of Section 16(b) of the Exchange Act. The Company was named as a nominal defendant in the action, but has no liability for the asserted claims. None of its directors or officers serving in such capacities at the time of its initial public offering (many of whom still serve as officers or directors of the Company) are currently named as defendants in this action, but there can be no guarantee that the complaint will not be amended, or a new complaint or suit filed, naming such directors or officers as defendants in this action or another action alleging a violation of the same provisions of the Exchange Act. On February 25, 2008, the plaintiff filed an amended complaint asserting substantially similar claims as those set forth in the initial complaint. The Company has waived service and is in the process of considering what, if any, action to take in response to this litigation. The Company currently believes that the outcome of this litigation will not have a material adverse impact on its consolidated financial position and results of operations.

The underwriters of the Company's 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 the Company's common stock between January 28, 2000 and December 6, 2000. These complaints allege violations of the Securities Act and the Exchange Act. Primarily, the complaints allege that there was undisclosed compensation received by our underwriters in connection with the Company's initial public offering. While the Company and its 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 the Company and its officers and directors will not be named in similar complaints in the future.

(15) Accrued Liabilities

Accrued liabilities consist of the following:

	December 31,	
	2007	2006
Payroll and payroll-related	$6,179	$4,585
Professional services	597	427
Warranty	249	220
Deferred rent expense	107	—
Taxes payable	592	699
Interest payable	139	—
Unvouchered invoices	520	1,015
Other accrued liabilities	1,340	1,482
Total accrued liabilities	$9,723	$8,428

(tabular amounts in thousands except per share amounts)

(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 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,		
	2007	2006	2005
Geographic Area by Destination			
Domestic	$73,107	$70,729	$58,430
International	24,217	20,605	18,565
Total	$97,324	$91,334	$76,995

	Year Ended December 31,		
	2007	2006	2005
Geographic Area by Destination			
Domestic	75%	77%	76%
International	25	23	24
Total	100%	100%	100%

The Company did not have sales in any individual country, other than the United States, or to any individual customer, that accounted for more than 10% of the Company's total revenue or accounts receivable for the years ended December 31, 2007, 2006 and 2005.

The Company's long-lived assets included the following:

	Year Ended December 31,	
	2007	2006
Property and equipment		
Domestic	$8,296	$7,664
International	159	134
Total	$8,455	$7,798

(tabular amounts in thousands except per share amounts)

(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, 2005	$ 41	$ 131	$ —	$ 56	$ 116
December 31, 2006	116	141	—	39	218
December 31, 2007	218	129	—	25	322
Reserve for Excess or Obsolete Inventory					
Year Ended —					
December 31, 2005	$ 212	$ 42	$ —	$ 132	$ 122
December 31, 2006	122	267	—	176	213
December 31, 2007	213	32	—	—	245
Allowance for Lease Payments					
Year Ended —					
December 31, 2005	$ 955	$ —	$ (101)	$ (77)	$ 777
December 31, 2006	777	—	110	(21)	866
December 31, 2007	866	—	80	(231)	715
Tax Valuation Allowance					
Year Ended —					
December 31, 2005	$41,918	$ 5,409	$ —	$ —	$47,327
December 31, 2006	47,327	(19,085)	(28,242)	—	—
December 31, 2007	—	—	—	—	—

(18) Loan Agreements

In May 2006, the Company renewed its revolving line of credit agreement with a commercial bank. The Company is entitled to borrow up to $5,000,000 under the revolving line of credit, which expires in May 2008. The line of credit may be extended on an annual basis 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 the London Inter-Bank Offer Rate, or LIBOR which was 4.46% at December 31, 2007, 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, 2007, the Company had outstanding standby letters of credit with the commercial bank of approximately $985,000. At December 31, 2007, there was no outstanding balance under this revolving line of credit.

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. The Company is required to maintain restricted cash in an amount equal to 102% of the outstanding amounts under the revolving line of credit agreement. At December 31, 2007, the Company had $1,004,000 classified as restricted cash on the consolidated balance sheet relating to standby letters of credit issued in connection with the Company's leased building in Norwood, Massachusetts and an international service provider. At December 31, 2007, the Company was in compliance with all covenants contained in the revolving line of credit agreement.

(19) Termination and Repurchase Agreement with Boston Scientific Corporation

On June 11, 2007, the Company entered into a Termination and Repurchase Agreement with Boston Scientific Corporation. Under the terms of the agreement, the Company and Boston Scientific Corporation agreed to terminate the following agreements:

- the OEM Product Development Agreement dated as of August 7, 2002 (as amended January 31, 2005 and February 5, 2007, the "2002 Agreement"), pursuant to which the Company was to develop certain products that Boston Scientific Corporation would then commercialize in the area of monitoring patients under sedation in a range of less invasive medical specialties, and pursuant to which the Company granted Boston Scientific Corporation an exclusive option to become the distributor for a period of time of certain products;

- the Product Development and Distribution Agreement dated as of May 23, 2005 (the "2005 Agreement"), pursuant to which the Company was to develop new applications of its brain-monitoring technology in the area of the diagnosis and treatment of neurological, psychiatric and pain disorders and Boston Scientific was appointed the exclusive distributor of such products; and

- the Letter Agreement dated August 7, 2002, and Security Agreement dated August 7, 2002, pursuant to which Boston Scientific Corporation agreed to make revolving interest-bearing loans to Aspect from time to time at the request of Aspect, such revolving loans being evidenced by a promissory note in the original principal amount of $5,000,000 dated August 7, 2002.

In addition to the termination of the agreements referenced above, on June 13, 2007, the Company repurchased 2,000,000 shares of its common stock held by Boston Scientific Corporation at a price of approximately $15.91 per share, for an aggregate repurchase price of $31,816,000. The per share price represents the average of the closing prices of the Company's common stock as reported on the NASDAQ Global Market for the 20 consecutive trading days up to and including the date of the Termination and Repurchase Agreement. These shares have been cancelled and retired. In accordance with the agreement, for a period of 180 days following the date of the agreement, the Company had the right to purchase any or all of the balance of its shares of common stock held by Boston Scientific Corporation at a price of $15.00 per share or the average of the closing prices for the Company's common stock over the 10 trading days prior to the Company's exercising its right to repurchase, whichever is higher. Additionally, Boston Scientific Corporation had agreed that for a period of 180 days after the effective date of the agreement that it would not sell, contract to sell, grant any option to purchase or dispose of any of the shares of the Company's common stock held of record by Boston Scientific Corporation on the effective date. On July 10, 2007, the Company exercised its right under the Termination and Repurchase Agreement and repurchased an additional 2,500,000 shares of common stock from Boston Scientific Corporation for $37,655,000. The repurchased shares were cancelled and retired. On November 7, 2007, the Company agreed to waive the lock-up and the call option set forth in the Termination and Repurchase Agreement with respect to the remaining 1,513,239 shares of the Company's common stock held by Boston Scientific Corporation because Boston Scientific Corporation and a third party reached an agreement pursuant to which that third party agreed to purchase all of such shares.

Additionally, in connection with the termination of the 2002 Agreement and the 2005 Agreement, the Company recognized approximately $3,550,000 of strategic alliance revenue in June 2007. Approximately $3,835,000 had been recorded previously as deferred revenue relating to the 2002 Agreement, which represented the unamortized portion of the purchase price of $7.00 per share in excess of the closing price of the Company's common stock on August 7, 2002 of $2.59 per share. The $3,835,000 of deferred revenue was offset by approximately $285,000 for a receivable from Boston Scientific Corporation which had been recognized by the Company during the quarter ended March 31, 2007 relating to the 2005 Agreement with Boston Scientific Corporation. Upon the termination of the 2005 Agreement, the Company reversed the receivable against strategic alliance revenue where it was originally recorded in the income statement.

(20) Convertible Debt

In June 2007, the Company completed a private placement of $125,000,000 aggregate principal amount of 2.5% convertible notes due 2014 (the "notes"). The notes are senior unsecured obligations and will rank equally with all of the Company's existing and future senior debt and to all of the Company's subordinated debt. Interest on the notes is payable semiannually in cash on June 15th and December 15th of each year with the first payment being made on December 15, 2007. The notes will mature on June 15, 2014. Net proceeds received from the issuance of the notes were approximately $121,000,000, which is net of the underwriter's discount of approximately $4,000,000. In connection with the notes offering, the Company incurred total offering costs of approximately $4,559,000 which have been recorded as deferred financing fees in the consolidated balance sheet and are being amortized on a straight-line basis over the term of the notes. As of December 31, 2007, approximately $346,000 of the offering costs have been amortized to interest expense.

Holders may convert notes at their option on any day prior to the close of business on the scheduled trading day immediately preceding March 15, 2014 only under the following circumstances:

- during the five business day period after any five consecutive trading day period (the "measurement period") in which the price per note for each trading day of that measurement period was less than 97% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such day;
- during any calendar quarter (and only during such quarter) after the calendar quarter ending September 30, 2007, if the last reported sale price of the Company's common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeds 120% of the applicable conversion price in effect on the last trading day of the immediately preceding calendar quarter; or
- upon the occurrence of specified corporate events.

The notes will be convertible, regardless of the foregoing circumstances, at any time from, and including, March 15, 2014 through the scheduled trading day immediately preceding the maturity date of the notes.

The initial conversion rate for the notes is 52.4294 shares of common stock per $1,000 in principal amount of notes, which is equivalent to an initial conversion price of approximately $19.07 per share of common stock. The conversion rate will be subject to adjustment in some events but will not be adjusted for accrued interest. In addition, if a "make-whole fundamental change" (as defined in the indenture dated as of June 20, 2007 between the Company and U.S. Bank National Association, (the "Indenture")) occurs prior to the maturity date of the notes, the Company will in some cases increase the conversion rate for a holder that elects to convert its notes in connection with such "make-whole fundamental change". No adjustment to the conversion rate will be made if the Company's stock price is less than $15.57 per share or if the stock price exceeds $50.00 (in each case subject to adjustment).

Unless the Company obtains stockholder authorization to utilize the net share settlement feature of the notes and the Company irrevocably elects such settlement method at any time on or prior to the 45th scheduled trading day preceding the maturity date of the notes, upon conversion the Company will deliver a number of shares of its common stock equal to the conversion rate on the related conversion date for each $1,000 principal amount of notes. The Company will deliver cash in lieu of any fractional shares of its common stock based on the last reported sale price of its common stock on the related conversion date (or, if the conversion date is not a trading day, on the next succeeding trading day). If the Company obtains stockholder approval of the net share settlement feature in connection with the potential conversion of the notes, then upon conversion of the notes the Company would (1) pay cash in an amount equal to the lesser of one-fortieth of the principal amount of the notes being converted and the daily conversion value (the product of the conversion rate and the current trading price) of the notes being converted and (2) issue shares of its common stock only to the extent that the daily conversion value of the notes exceeded one-

(tabular amounts in thousands except per share amounts)

fortieth of the principal amount of the notes being converted for each trading day of the relevant 40 trading day observation period.

The Company will not make any sinking fund payments in connection with the notes and the notes may not be redeemed by the Company prior to maturity date.

In connection with the offering of the notes, the Company repurchased an additional 1,000,000 shares of its common stock for $15,570,000 in privately negotiated transactions. These shares have been cancelled and retired.

(21) Stock Repurchase Program

On August 3, 2006, the Company's Board of Directors authorized the repurchase of up to 2,000,000 shares of the Company's common stock through the open market or in privately negotiated transactions. The repurchase program may be suspended or discontinued at any time. There were no repurchases under this plan in 2007. As of December 31, 2007, the Company has repurchased a total of 276,493 shares of common stock under this repurchase program for $5,008,000. Repurchased shares are held in treasury pending use for general corporate purposes, including issuances under various employee stock plans. As of December 31, 2007, the Company is authorized to repurchase an additional 1,723,507 shares of common stock in the future.

(22) Summarized Quarterly Financial Data (Unaudited)

The tables that follow summarize unaudited quarterly financial data for the years ended December 31, 2007 and December 31, 2006:

	For the Quarter Ended			
	March 31, 2007	June 30, 2007	September 29, 2007	December 31, 2007
Revenue	$24,119	$26,641	$22,632	$23,932
Gross profit	18,040	20,874	17,099	17,992
Operating expenses	17,929	18,409	17,145	17,879
Income tax provision	576	1,882	683	255
Net income (loss)	517	1,488	(156)	408
Net income (loss) per share				
Basic	0.02	0.07	(0.01)	0.02
Diluted	0.02	0.07	(0.01)	0.02

	For the Quarter Ended			
	April 1, 2006	July 1, 2006	September 30, 2006	December 31, 2006
Revenue	$21,888	$22,631	$22,855	$ 23,961
Gross profit	16,542	17,220	17,538	17,863
Operating expenses	15,317	15,843	15,765	16,370
Income tax provision (benefit)	23	33	253	(28,200)
Net income	1,937	2,125	2,418	30,610
Net income per share				
Basic	0.09	0.09	0.11	1.37
Diluted	0.08	0.09	0.10	1.32

Included in operating expenses for the quarter ended December 31, 2007 is a reversal of an accrual for the Company's group purchasing commission expenses of approximately $471,000. Based upon review of one of the group purchasing organization contracts, the Company determined that the expenses it anticipated to incur in connection with this contract, which the Company had previously accrued for, would not be recognized and therefore the accrual was reversed in the quarter ended December 31, 2007.

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).
3(ii).2	Amendment to Amended and Restated By-Laws are incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K dated November 1, 2007.
3.2	Certificate of Designations of Series A Junior Participating Preferred Stock is incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K as filed with the Commission on November 29, 2004 (File No. 333-86295).
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, 3(ii).1 and 3(ii).2 for provisions of the Registrant's certificate of incorporation and by-laws defining the rights of holders of common stock.
4.3	Rights Agreement, dated as of November 29, 2004, between Aspect Medical Systems, Inc. and EquiServe Trust Company, N.A., which includes as Exhibit A the form of Certificate of Designations of Series A Junior Participating preferred Stock, as Exhibit B the form of Rights Certificate and as Exhibit C the Summary of Rights to Purchase Preferred Stock is incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K as filed with the Commission on November 29, 2004 (File No. 333-86295).
4.4	Amendment No. 1 to Rights Agreement by and between the Registrant and EquiServe Trust Company, N.A. is incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K dated May 23, 2005.
4.5	Amendment No. 2 to Rights Agreement by and between the Registrant and Computershare Trust Company, N.A. (formerly EquiServe Trust Company, N.A.) is incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K dated November 1, 2007.
4.6	Indenture by and between Aspect Medical Systems, Inc. and U.S. Bank National Association dated as of June 20, 2007 is incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K dated June 20, 2007.
4.7	Form of 2.50% Convertible Senior Note due 2014 is incorporated herein by reference to Exhibit 4.9 to the Registrant's Registration Statement on Form S-3 (File No. 333-145779).
10.1*	Amended and Restated 1998 Director Equity Incentive Plan is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated May 25, 2005.
10.2*	Nonstatutory Stock Option Agreement Granted Under 1998 Director Stock Option Plan is incorporated herein by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K dated May 25, 2005.
10.3*	Form of Restricted Stock Agreement Granted Under Amended and Restated 1998 Director Equity Incentive Plan is incorporated herein by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K dated May 25, 2005.
10.4*	Form of Restricted Stock Agreement Granted Under the Amended and Restated 1998 Director Equity Incentive Plan is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated February 21, 2006.
10.5*	2001 Stock Incentive Plan is incorporated herein by reference to the Registrant's Proxy Statement on Schedule 14A as filed with the Commission on April 18, 2001.
10.6*	Amendment to 2001 Stock Incentive Plan is incorporated herein by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K dated May 25, 2005.
10.7*	Form of Incentive Stock Option Agreement Granted Under 2001 Stock Incentive Plan is incorporated here in by reference to Exhibit 10.39 to the Registrant's Annual Report on Form 10-K dated March 15, 2005.
10.8*	Form of Restricted Stock Agreement Granted Under 2001 Stock Incentive Plan is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated March 30, 2005.

Exhibit No.	Exhibit
10.9†	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).
10.10†	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).
10.11	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).
10.12†	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).
10.13†	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).
10.14	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).
10.15	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).
10.16	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).
10.17	Fifth Amendment, dated May 14, 2004, to Loan Agreement, dated as of May 16, 2001, by and between the Registrant and Fleet National Bank, together with Deposit Pledge Agreement, dated May 14, 2004, 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 July 3, 2004 (File No. 0-24663).
10.18	Sixth Amendment, dated October 8, 2004, to Loan Agreement, dated 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 October 2, 2004 (File No. 0-24663).
10.19	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).]
10.20†	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).
10.21	Amendment No. 1 to OEM Product Development Agreement 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 February 4, 2005.
10.22	Amendment No. 2 to the OEM Product Development Agreement by and between Aspect Medical Systems, Inc. and Boston Scientific Corporation dated as of February 5, 2007 is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated February 7, 2007.
10.23†	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).

Exhibit No.	Exhibit
10.24†	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).
10.25†	BISx Development, Purchase and License Agreement dated January 28, 2004, by and between the Registrant and Draeger 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 April 3, 2004 (File No. 0-24663).
10.26†	BISx License, Development, and Supply Agreement by and between the Registrant and Spacelabs Medical, Inc. is incorporated herein by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K dated November 10, 2005.
10.27†	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).
10.28†	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).
10.29†	Addendum 2, effective January 1, 2004, 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.) is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the period ended April 3, 2004 (File No. 0-24663).
10.30†	Addendum 3, Effective September 1, 2004, 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.) is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q dated August 10, 2006.
10.31	Stock Purchase Agreement, dated as of April 7, 2004, 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 April 7, 2004 (File No. 0-24663) is incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the period ended April 3, 2004 (File No. 0-24663).
10.32†	Exclusive License Agreement, dated July 1, 2004, by and between the Registrant and The Regents of the University of California is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the period ended July 3, 2004 (File No. 0-24663).
10.33†	Capital Equipment Supplier Agreement for Level of Consciousness between Novation, LLC and the Registrant dated January 27, 2005 is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended April 2, 2005 (File No. 0-24663).
10.34†	Product Development and Distribution Agreement between Boston Scientific Corporation and the Registrant dated May 23, 2005 is incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the period ended July 2, 2005 (File No. 0-24663).
10.35†	Purchase Agreement by and between the Registrant and General Electric Company is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated November 10, 2005.
10.36	Net Lease by and between the Registrant and CFRI/CQ Norwood Upland, L.L.C. is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated February 9, 2006.
10.37	Second Amendment to Net Lease dated February 3, 2006, by and between the Registrant and CFRI/CQ Norwood Upland, L.L.C. is incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q dated August 10, 2006.
10.38	Termination and Repurchase Agreement by and between Aspect Medical Systems, Inc. and Boston Scientific Corporation is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated June 11, 2007.

Exhibit No.	Exhibit
10.39	Registration Rights Agreement by and between Aspect Medical Systems, Inc. and Boston Scientific Corporation dated as of June 11, 2007 is incorporated herein by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K dated June 11, 2007.
10.40	Registration Rights Agreement by and between Aspect Medical Systems, Inc. and Goldman, Sachs & Co. dated June 20, 2007 is incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated June 20, 2007.
10.41	Letter dated November 7, 2007 by and between the Registrant and Boston Scientific Corporation is incorporated herein by reference to the Registrant's Current Report on Form 8-K dated November 7, 2007.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Ernst & Young 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.
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.

* Management contracts and compensatory plan or arrangements required to be filed as an Exhibit pursuant to Item 15(b) of Form 10-K.

ASPECT MEDICAL SYSTEMS, INC.

One Upland Road
Norwood, Massachusetts 02062

NOTICE OF 2008 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On May 21, 2008

To our stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of Aspect Medical Systems, Inc. will be held on Wednesday, May 21, 2008 at 9:00 a.m., local time, at our corporate offices, One Upland Road, Norwood, Massachusetts 02062. We refer to Aspect Medical Systems, Inc. herein as "Aspect," "we," or "us." At the Annual Meeting, our stockholders will consider and vote on the following matters:

1. The election of three (3) members to our board of directors to serve as Class II directors, each for a term of three years.
2. The approval of an amendment to increase the number of shares of our common stock authorized for issuance under our 2001 Stock Incentive Plan from 4,700,000 shares to 5,400,000 shares.
3. The ratification of the selection by the Audit Committee of our board of directors of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008.

The stockholders will also act on any other business that may properly come before the Annual Meeting of Stockholders or any adjournment thereof.

Stockholders of record at the close of business on April 9, 2008 are entitled to notice of, and to vote at, the Annual Meeting of Stockholders or any adjournment thereof. Your vote is important regardless of the number of shares you own. Our stock transfer books will remain open for the purchase and sale of our common stock.

We hope that all stockholders will be able to attend the Annual Meeting of Stockholders in person. However, in order to ensure that a quorum is present at the annual meeting, please date, sign and promptly return the enclosed proxy card whether or not you expect to attend the Annual Meeting of Stockholders. A postage-prepaid envelope, addressed to Computershare Trust Company, N.A., our transfer agent and registrar, has been enclosed for your convenience. Sending in your proxy will not prevent you from voting your stock at the Annual Meeting of Stockholders if you desire to do so, as your proxy is revocable at your option.

All stockholders are cordially invited to attend the Annual Meeting of Stockholders.

By Order of the Board of Directors,

Michael Falvey
Secretary

Norwood, Massachusetts
April 17, 2008

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, PLEASE COMPLETE, DATE AND SIGN THE ENCLOSED PROXY CARD AND PROMPTLY MAIL IT IN THE ENCLOSED ENVELOPE IN ORDER TO ASSURE REPRESENTATION OF YOUR SHARES AT THE ANNUAL MEETING. NO POSTAGE NEED BE AFFIXED IF THE PROXY CARD IS MAILED WITHIN THE UNITED STATES.

ASPECT MEDICAL SYSTEMS, INC.

One Upland Road
Norwood, Massachusetts 02062

PROXY STATEMENT

for the 2008 Annual Meeting of Stockholders
To Be Held On May 21, 2008

This Proxy Statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors of Aspect Medical Systems, Inc. for use at the 2008 Annual Meeting of Stockholders to be held on Wednesday, May 21, 2008 at 9:00 a.m., local time, at the executive offices of Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062, and at any adjournment thereof.

All proxies will be voted in accordance with the instructions contained in those proxy cards. If no choice is specified, the proxies will be voted in favor of the matters set forth in the accompanying Notice of 2008 Annual Meeting of Stockholders. Any proxy may be revoked by a stockholder at any time before it is exercised by signing another proxy with a later date, by delivery of written revocation to our Secretary or by appearing at the annual meeting and voting in person.

Our Annual Report to Stockholders for the fiscal year ended December 31, 2007 is being mailed to stockholders with the mailing of the Notice of Annual Meeting of Stockholders and this Proxy Statement on or about April 17, 2008.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2007 as filed with the Securities and Exchange Commission, except for exhibits, will be furnished without charge to any stockholder upon written or oral request to our Investor Relations Department, Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062, telephone: (617) 559-7000.

Voting Securities and Votes Required

Stockholders of record at the close of business on April 9, 2008 will be entitled to notice of, and to vote at, the 2008 Annual Meeting of Stockholders. On that date, 17,195,474 shares of our common stock were issued and outstanding. Each share of common stock entitles the holder to one vote with respect to all matters submitted to stockholders at the 2008 Annual Meeting of Stockholders. We have no other securities entitled to vote at the meeting.

The representation in person or by proxy of at least a majority of the shares of common stock issued, outstanding and entitled to vote at the 2008 Annual Meeting of Stockholders is necessary to establish a quorum for the transaction of business at the 2008 Annual Meeting of Stockholders. If a quorum is not present, the annual meeting will be adjourned until a quorum is obtained.

Directors are elected by a plurality of votes cast by stockholders entitled to vote at the 2008 Annual Meeting of Stockholders. To be approved, any other matters submitted to our stockholders, including the approval of the amendment to our 2001 Stock Incentive Plan and the ratification of Ernst & Young LLP as our independent registered public accounting firm require the affirmative vote of the majority of shares present in person or represented by proxy at the 2008 Annual Meeting of Stockholders. The votes will be counted, tabulated and certified by a representative of Computershare Trust Company, N.A., who will serve as the inspector of elections at the 2008 Annual Meeting of Stockholders.

Shares which abstain from voting as to a particular matter, and shares held in "street name" by banks, brokerage firms or nominees who indicate on their proxy cards that they do not have discretionary authority to vote such shares as to a particular matter, which we refer to as "broker non-votes," will not be considered as present and entitled to vote with respect to a particular matter and will not be considered a vote cast on such matter. Accordingly, neither abstentions nor broker non-votes will have any effect upon the outcome of voting with respect to any matters

voted on at the 2008 Annual Meeting of Stockholders, but will be counted for the purpose of determining whether a quorum exists.

Stockholders may vote in person or by proxy. Execution of a proxy will not in any way affect a stockholder's right to attend the annual meeting and vote in person. Any stockholder voting by proxy has the right to revoke the proxy at any time before it is exercised by giving our Secretary a duly executed proxy card bearing a later date than the proxy being revoked at any time before that proxy is voted, by giving our Secretary written notice that you want to revoke your proxy or by appearing at the annual meeting and voting in person. The shares represented by all properly executed proxies received in time for the annual meeting will be voted as specified in those proxy cards. If the shares you own are held in your name, and you do not specify in the proxy card how your shares are to be voted, they will be voted:

- in favor of the election as Class II directors of those persons named in this Proxy Statement;
- in favor of the amendment to our 2001 Stock Incentive Plan;
- in favor of the ratification of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008; and
- with respect to any other items that may properly come before the meeting.

If the shares you own are held in "street name," the bank, brokerage firm or nominee, as the record holder of your shares, is required to vote your shares in accordance with your instructions. In order to vote your shares held in "street name," you will need to follow the directions your bank, brokerage firm or nominee provides you. If you desire to vote your shares held in "street name" at the Annual Meeting by proxy, you will need to obtain a proxy card from the holder of record.

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our Proxy Statement and Annual Report to Stockholders may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to our Investor Relations Department, Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062, telephone: (617) 559-7000. If you want to receive separate copies of our Proxy Statement or Annual Report to Stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

STOCK OWNERSHIP INFORMATION

The following table sets forth information regarding beneficial ownership of our common stock as of January 31, 2008 by:

- each person or entity known to us to beneficially own more than 5% of the outstanding shares of our common stock,
- each of our directors,
- each of the executive officers named in the "Executive Compensation — Summary Compensation Table" below, whom we refer to herein as our named executive officers, and
- all of our directors and executive officers as a group.

The number of shares of common stock beneficially owned by each person or entity is determined in accordance with the applicable rules of the Securities and Exchange Commission, or SEC, which rules require us to include shares of our common stock over which such person or entity has voting or investment power. The information contained in the following table is not necessarily indicative of beneficial ownership for any other purpose and the inclusion of any shares in the table does not constitute an admission of beneficial ownership of those shares. Shares of our common stock issuable under stock options exercisable on or before April 1, 2008 are deemed beneficially owned and such shares are used in computing the percentage ownership of the person holding the options, but are not deemed outstanding for computing the percentage ownership of any other person. Unless otherwise indicated, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under community property laws. Unless otherwise indicated, the address of all directors and executive officers is c/o Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned(1)	Percentage of Common Stock Beneficially Owned
5% Stockholders		
Coghill Capital Management, L.L.C. (2) One North Wacker Drive Suite 4350 Chicago, IL 60606	2,079,135	12.2
First Manhattan Co. (3) 437 Madison Avenue New York, NY 10022	1,028,641	6.0
FMR Corp. (4) 82 Devonshire Street Boston, Massachusetts 02109	3,359,802	19.6
Massachusetts Financial Services Company (5) 500 Boylston Street Boston, Massachusetts 02464	2,314,794	13.5
RMB Capital Management LLC (6) 115 S. LaSalle Street, 34th Floor Chicago, IL 60603	1,109,598	6.5
Ronald J. Juvonen (7) c/o Downtown Associates, L.L.C. 674 Unionville Road, Suite 105 Kennett Square, PA 19348	1,683,410	9.8
Directors and Named Executive Officers		
Boudewijn L.P.M. Bollen (8)	124,806	*
Nassib G. Chamoun (9)	834,916	4.8
J. Breckenridge Eagle (10)	455,559	2.6
Michael A. Esposito	10,334	*
Michael Falvey	176,057	*
David W. Feigal, Jr., M.D.	25,000	*
William H. Floyd	162,675	*
Edwin M. Kania, Jr. (11)	100,268	*
Scott D. Kelley, M.D.	259,690	1.5
James J. Mahoney, Jr.	29,000	*
John J. O'Connor	10,334	*
Donald R. Stanski, M.D.	40,000	*
All directors and executive officers as a group (17 persons)	2,957,589	15.5

* Less than 1% of our outstanding common stock.

(1) Includes the following number of shares of our common stock issuable upon the exercise of outstanding stock options which may be exercised on or before April 1, 2008 by Mr. Bollen: 101,055; Mr. Chamoun: 467,455; Mr. Eagle: 153,613; Mr. Esposito: 5,334; Mr. Falvey: 156,681; Dr. Feigal: 21,000; Mr. Floyd: 119,299; Mr. Kania: 18,500; Dr. Kelley: 229,641; Mr. Mahoney: 18,000; Mr. O'Connor: 5,334; Dr. Stanski: 36,000; and all directors and executive officers as a group: 1,908,385.

(2) This information is taken from a Schedule 13G/A filed with the SEC on September 19, 2007 by Coghill Capital Management, L.L.C., jointly with its affiliates CCM Master Qualified Fund, Ltd. and Clint D. Coghill. Of the 2,079,135 shares of common stock deemed beneficially owned, each reporting person reported sole voting power as to none of the shares.

(3) This information is taken from a Schedule 13G filed with the SEC on February 13, 2008.

(4) This information is taken from a Schedule 13G/A filed with the SEC on February 14, 2008 by FMR Corp. jointly with its affiliate, Edward C. Johnson III. Of the 3,359,802 shares of common stock deemed beneficially owned, FMR Corp. reports sole voting power as to 531,936 shares. Various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the 3,359,802 shares of common stock. No one person's interest in such shares is more than 5% of the total outstanding common stock.

(5) This information is taken from a Schedule 13G filed with the SEC on February 1, 2008.

(6) This information is taken from a Schedule 13G filed with the SEC on February 13, 2008 by RMB Capital Management, LLC and its affiliates. No one person's interest in the 1,109,598 shares of common stock is more than 5% of the total outstanding common stock.

(7) This information is taken from a Schedule 13G filed with the SEC on February 13, 2008. The shares of common stock are held by Downtown Associates I, L.P., Downtown Associates II, L.P., Downtown Associates III, L.P. and Downtown Associates V, L.P. (collectively referred to as the "Downtown Funds"). The general partner of the Downtown Funds is Downtown Associates, L.L.C. Ronald J. Juvonen, as the Managing Member of the General Partner, has sole voting power to vote and direct the disposition of all shares and thus is deemed to beneficially own all of such shares.

(8) Mr. Bollen retired from his position as President of International Operations effective April 1, 2008.

(9) Includes 120,000 shares of common stock held by The Nassib G. Chamoun 1998 Irrevocable Trust, a trust for the benefit of Mr. Chamoun's minor children. Mr. Chamoun disclaims beneficial ownership of all shares held in this trust.

(10) Includes 20,000 shares of common stock held by Jeanne Warren Eagle, as Trustee for the Trust for John Warren Eagle, of which Mr. Eagle disclaims beneficial ownership and 120,000 shares of common stock held by The Nassib G. Chamoun 1998 Irrevocable Trust, of which Mr. Eagle is the Trustee and disclaims beneficial ownership.

(11) Includes 1,605 shares held by Mr. Kania's minor children.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our directors, executive officers and the holders of more than 10% of our common stock to file with the SEC initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Officers, directors and 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of copies of reports filed by the reporting persons furnished to us, or written representations from reporting persons, we believe that during the fiscal year ended December 31, 2007, the reporting persons complied with all Section 16(a) filing requirements other than with respect to a Form 4 filing by Mr. Manberg on September 5, 2007 to report a cash exercise of an option to purchase 20,000 shares of common stock he made on August 24, 2007.

PROPOSAL ONE — ELECTION OF DIRECTORS

We have a classified board of directors consisting of nine members: three Class I Directors, three Class II Directors and three Class III Directors. At each Annual Meeting of Stockholders, one class of directors is elected for a full term of three years to succeed those directors whose terms are expiring. Based on the recommendation of the Corporate Governance and Nominating Committee, the board of directors has nominated Boudewijn L.P.M. Bollen, J. Breckenridge Eagle and Edwin M. Kania, Jr., to serve as Class II directors. The persons named in the enclosed proxy card will vote to elect, as Class II Directors, Boudewijn L.P.M. Bollen, J. Breckenridge Eagle and Edwin M. Kania, Jr., the three director nominees, unless the proxy card is marked otherwise. Each Class II Director will be elected to hold office until the 2011 Annual Meeting of Stockholders and until his successor is elected and qualified. If a stockholder returns a proxy card without contrary instructions, the persons named as proxies will vote to elect as directors the nominees identified below, each of whom is currently a member of our board of directors. The nominees have indicated their willingness to serve if elected. However, if any director nominee should be unable to serve, the shares of common stock represented by proxies may be voted for a substitute nominee designated by our board of directors or our board of directors may reduce the number of nominees. Our board of directors has no reason to believe that any of the nominees will be unable or unwilling to serve if elected.

For each member of our board of directors, including those who are nominees for election as Class II Directors, there follows information given by each such director concerning his age and length of service as a member of our board of directors, principal occupation and business experience during the past five years and the name of other publicly-held companies of which he serves as a director.

No director or executive officer is related by blood, marriage or adoption to any other director or executive officer. No arrangements or understandings exist between any director or person nominated for election as a director and any other person pursuant to which such person is to be selected as a director or nominee for election as a director.

Board Recommendation

Our board of directors believes that the election of Boudewijn L.P.M. Bollen, J. Breckenridge Eagle and Edwin M. Kania, Jr. to serve as Class II directors is in the best interests of Aspect and our stockholders and, therefore, the board of directors unanimously recommends that the stockholders vote "FOR" the nominees.

Nominees for Term Expiring at the 2011 Annual Meeting (Class II Directors)

Boudewijn L.P.M. Bollen, age 61, became a director in 1998.

Boudewijn L.P.M. Bollen joined Aspect as a director in 1998. From January 2002 to March 2008 and from June 1998 to October 1998, Mr. Bollen served as President of International Operations of Aspect. From October 1998 to January 2002, he was a self-employed consultant. From 1986 to 1998, Mr. Bollen held several positions with Mallinckrodt, Inc., a specialty chemicals and healthcare company, and predecessor entities, including Executive Vice President for Worldwide Sales, Service and Distribution, Vice President of European Sales and Marketing and Vice President and Managing Director for Europe. From 1981 to 1986, Mr. Bollen served as Vice President of Marketing and Sales in Europe for Bentley Laboratories, Inc., a manufacturer of specialized monitoring and medical equipment.

J. Breckenridge Eagle, age 58, served as a director from 1988 to 1991 and from 1996 to the present.

J. Breckenridge Eagle joined Aspect as a director in 1988 and served in that position until 1991. He became a director again in 1996 and has served as Chairman of the board of directors since that date. Mr. Eagle served as President and Chief Operating Officer of Aspect in 1996 and as a consultant to Aspect in 1995. From 1989 to 1995, he was President of ECS, Inc., a medical practice management company, which he founded in 1989. From 1981 to 1988, Mr. Eagle was Chief Financial Officer, Vice President and General Manager of The Health Data Institute, Inc., a health care services company, which he co-founded.

Edwin M. Kania, Jr. age 50, became a director in 1995.

Edwin M. Kania, Jr. joined Aspect as a director in 1995. Since 2000, Mr. Kania has served as Managing Partner and Chairman of Flagship Ventures, a venture capital firm, which he co-founded. Previously, Mr. Kania served as the managing partner of OneLiberty Ventures, a venture capital firm, which was formed in 1995, and as a general partner at Morgan Holland Ventures, a predecessor entity of OneLiberty Ventures, which he joined in 1985. Mr. Kania also serves as a director of EXACT Sciences Corporation.

Directors Whose Terms Expire at the 2009 Annual Meeting (Class III Directors)

Nassib G. Chamoun, age 45, became a director in 1987.

Nassib G. Chamoun is a founder of Aspect and has served as a director since 1987. Mr. Chamoun has served as President of Aspect since 1996 and Chief Executive Officer since 1995. He also served as Chairman of the board of directors from 1987 to 1996 and as Chief Scientific Officer from 1991 to 1995. Prior to 1995, Mr. Chamoun also served as our President and Chief Executive Officer at various times since founding Aspect in 1987. From 1984 to 1987, Mr. Chamoun was a fellow in cardiovascular physiology at the Lown Cardiovascular Laboratory of the Harvard School of Public Health.

Michael A. Esposito, age 51, became a director in 2006.

Michael A. Esposito joined Aspect as a director in December 2006. Since 1998, Mr. Esposito has been a partner at Norbridge, Inc., a diversified management consulting firm, where he currently leads the health industries consulting practice serving pharmaceutical, biotechnology, medical device and diagnostic companies. From 1983 to 1998, Mr. Esposito was Vice President and Global Practice Leader of the Health Care practice at Arthur D. Little, a management consulting firm. Prior to that, Mr. Esposito also held marketing positions with Pfizer, Inc., a pharmaceutical company. He is also a director of Angioblast Systems, Inc.

James J. Mahoney, Jr., age 64, became a director in 2003.

James J. Mahoney, Jr. joined Aspect as a director in March 2003 and has served as lead director since August 2005. Since January 2004, Mr. Mahoney has served as President and has managed The Mahoney Group, an investment firm. Mr. Mahoney is a founding partner and principal of HLM Management Company, a private equity firm that invested in small entrepreneurially managed growth stocks and in privately-held venture capital backed companies. From January 1999 to March 2002, Mr. Mahoney managed HLM Management Company's venture capital program and, from April 2002 to April 2004, he acted as a consultant to HLM Management Company. From 1984 to December 1998, Mr. Mahoney co-managed the stock and venture capital portfolios of, and served as Chief Investment Officer of, HLM Management Company. Mr. Mahoney currently serves as Chairman of the Board of NMT Medical, an advisor to four investment firms and a member of investment committees of three charitable organizations.

Directors Whose Terms Expire at the 2010 Annual Meeting (Class I Directors)

David W. Feigal, Jr., M.D., M.P.H., age 58, became a director in 2004.

David W. Feigal, Jr. joined Aspect as a director in December 2004. Since May 2004, Dr. Feigal has been a principal at NDA Partners LLC, and since November 2006 has been the Senior Vice President, Global Regulatory and Global Safety Surveillance, at Élan Pharmaceuticals. NDA Partners LLC is a firm that consults with biopharmaceutical and medical device businesses on product development matters, where he advises mid-stage device and biopharmaceutical companies about clinical and regulatory strategies, product development and design and the introduction of innovative technologies. Élan Pharmaceuticals develops drugs, vaccines and biologicals. Dr. Feigal spent 12 years, from 1992 to April 2004, at the United States Food and Drug Administration where he served in director level positions for the Center for Devices and Radiological Health, the Center for Biologics Evaluation and Research, and the Center for Drug Evaluation and Research. Since 2004, Dr. Feigal has also served as a Research Professor at the Arizona Biodesign Center at Arizona State University. Dr. Feigal has held faculty appointments at the University of California, San Francisco and the University of California, San Diego schools of medicine.

John J. O'Connor, age 60, became a director in 2006.

John O'Connor joined Aspect as a director in December 2006. Prior to his retirement in November 2006, Mr. O'Connor was a partner at PricewaterhouseCoopers LLP, an independent public accounting firm, from 1982 to November 2006, most recently serving as vice chairman of services from June 2002 to November 2006. Mr. O'Connor served as the leader of the U.S. audit practice at PricewaterhouseCoopers from September 2000 to June 2002, and served as the managing partner of the firm's Boston office from 1995 to September 2000.

Donald R. Stanski, M.D., age 58, became a director in 1996.

Donald R. Stanski joined Aspect as a director in 1996. Since November 2005, Dr. Stanski has served as Vice President and Global Head of Modeling and Simulation, leading a group of scientists who apply quantitative methods to optimize drug developments at Novartis Pharmaceuticals, a pharmaceutical company. Dr. Stanski has been a Professor in the Department of Anesthesia at Stanford University since 1979 and is trained as an anesthesiologist/clinical pharmacologist. He became professor emeritus at Stanford University in November 2005. From January 2004 until November 2005, Dr. Stanski was on public service duty at the United States Food and Drug Administration as a Scientific Advisor for the Director, Center for Drug Evaluation and Research. He served as Chair of the Department of Anesthesia at Stanford University from 1992 to 1997. From July 1998 to June 2001, Dr. Stanski served as the Vice President of Scientific and Medical Programs for Pharsight Corporation, a company that assists in the development of therapeutic products.

Executive Officers of the Corporation

Margery Ahearn, age 45, became an executive officer in 2006.

Margery Ahearn joined Aspect in April 1998 and has served as Vice President of Human Resources since January 2006. Ms. Ahearn served as our Director of Human Resources from 1998 to December 2005. From 1985 through 1998, Ms. Ahearn held a variety of positions, including Senior Human Resource Representative, at Wang Laboratories, Inc., Director of Human Resources at Boston Business Group and Senior Employment Specialist at GTE.

John Coolidge, age 47, became an executive officer in 2004.

John Coolidge joined Aspect in May 1997 and has served as Vice President of Manufacturing since January 2001. Mr. Coolidge served as our Director of Manufacturing from May 1997 to January 2001. From 1995 to 1997, he served as Engineering Manager and was responsible for product development and manufacturing engineering management for the Interventional Vascular business of Medtronic, Inc., a medical technology company. From 1987 to 1995, Mr. Coolidge held a variety of engineering and manufacturing management positions at Johnson and Johnson Medical, Inc., a manufacturer and provider of health care products and services, the most recent of which was Business Unit Manager.

Marc Davidson, age 44, became an executive officer in 2004.

Marc Davidson joined Aspect in December 1999 and has served as Vice President of Engineering since November 2001. Mr. Davidson served as our Director of OEM Engineering from December 1999 to November 2001. From 1985 through 1999, Mr. Davidson held a variety of marketing, engineering, sales and management positions at Hewlett-Packard Company, a manufacturer of computers and medical devices.

Philip H. Devlin, age 51, became an executive officer in 1994.

Philip H. Devlin joined Aspect in 1990 and has served as Vice President and General Manager of Neuroscience since November 2001. From 1994 to November 2001, Mr. Devlin served as Vice President of Research and Development of Aspect, and from 1990 to 1994, he held the position of Director of Product Development of Aspect. From 1984 to 1985 and from 1986 to 1990, Mr. Devlin served as Software Engineer and Manager of Software Engineering at Lifeline Systems, Inc., a medical products and communications company. From 1980 to 1984, he held the position of Chief Biomedical Engineer at Beth Israel Hospital in Boston, Massachusetts and from 1985 to 1986, he served as Technical Marketing Engineer in the Medical Product Group of Hewlett-Packard Company, a manufacturer of computers and medical devices.

Michael Falvey, age 49, became an executive officer in 2004.

Michael Falvey joined Aspect in March 2004. In February 2005, Mr. Falvey was appointed Vice President of Finance, Chief Financial Officer, Secretary and Treasurer. Mr. Falvey served as Vice President of Finance from March 2004 until his appointment as Vice President, Finance and Chief Financial Officer. From August 2003 to March 2004, Mr. Falvey was a self-employed consultant. From 1999 to July 2003, Mr. Falvey served as Vice President, Finance for Millennium Pharmaceuticals, a biopharmaceutical company. From 1991 to 1999, he held financial management positions at Fidelity Investments, an investment management company. From 1988 to 1991, he held financial management positions at Digital Equipment Corporation, a manufacturer of computers, and from 1982 to 1986, he held various financial positions at General Electric, a diversified industrial company.

William Floyd, age 51, became an executive officer in 2001.

William Floyd joined Aspect in May 2001 and has served as Vice President of Sales and Marketing since September 2002. Mr. Floyd served as Vice President of Marketing from May 2001 to September 2002. From May 2000 to May 2001, Mr. Floyd was Principal of Casco Scientific, LLC, a medical device consulting group. From 1992 to 2000, Mr. Floyd held a variety of positions with Boston Scientific Corporation, a manufacturer of medical devices, the most recent of which was Vice President of Marketing, Microvasive Division.

Scott D. Kelley, M.D., age 49, became an executive officer in 2000.

Scott D. Kelley joined Aspect in July 2000 and has served as Vice President and Medical Director since that time. Prior to joining Aspect, Dr. Kelley served as an Associate Professor of Clinical Anesthesia and Director of Liver Transplant at the University of California, San Francisco Medical School from 1990 to 2000.

Paul J. Manberg, Ph.D., age 53, became an executive officer in 1991.

Paul J. Manberg joined Aspect in 1991 and has served as Vice President of Clinical, Regulatory and Quality Assurance since that time. From 1984 to 1990, Dr. Manberg held a variety of clinical research positions at Serono Laboratories, a pharmaceutical company, including Vice President, Research and Development. From 1979 to 1984, he was employed as a Clinical Research Scientist at Burroughs — Wellcome Company, a pharmaceutical company, and served as an Adjunct Research Scientist at the University of North Carolina.

For additional information relating to our executive officers, see the disclosure regarding Messrs. Bollen, Eagle and Chamoun set forth under the heading "Election of Directors." No arrangements or understandings exist between any executive officer and any other person pursuant to which such executive officer is to be selected as an executive officer.

For information relating to shares of our common stock owned by each of our directors, our chief executive officer, chief financial officer and our three most highly compensated executive officers and all directors and executive officers as a group, see the disclosure set forth above under the heading "Stock Ownership Information."

CORPORATE GOVERNANCE

Our board of directors has long believed that good corporate governance is important to ensure that Aspect is managed for the long-term benefit of our stockholders. This section describes key corporate governance guidelines and practices that our board of directors has adopted. Complete copies of our corporate governance guidelines, board committee charters and code of conduct described below are available on our website at www.aspectms.com. Alternatively, you can request a copy of any of these documents by contacting: Investor Relations Department, Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062, telephone: (617) 559-7000.

Corporate Governance Guidelines

Our board of directors has adopted corporate governance guidelines to assist the board of directors in the exercise of its duties and responsibilities and to serve the best interests of Aspect and its stockholders. These

guidelines, which provide a framework for the conduct of the board of directors' business, provide, among other things, that:

- the principal responsibility of the directors is to oversee the management of Aspect;
- a majority of the members of the board shall be independent directors;
- the independent directors meet at least twice a year in executive session;
- directors have full and free access to management and, as necessary and appropriate, independent advisors;
- new directors participate in an orientation program and all directors are expected to participate in continuing director education on an ongoing basis; and
- at least annually the corporate governance and nominating committee oversees a self-evaluation of the board of directors and its committees to determine whether they are functioning effectively.

Executive and Director Compensation Processes

The Compensation Committee has implemented an annual performance review program for our executives, under which corporate and individual performance goals are determined at the beginning of each performance cycle. Annual salary, bonuses, and stock option and restricted stock awards granted to our executives are tied to the achievement of these corporate and individual performance goals.

In evaluating each executive officer's performance, the Compensation Committee generally conforms to the following process:

- business and individual goals and objectives are set for each performance cycle;
- at the end of the performance cycle, the accomplishment of the executive's goals and objectives and his or her contributions to Aspect are evaluated;
- the executive's performance is then compared with peers within Aspect and the results are communicated to the executive; and
- the comparative results, combined with comparative compensation practices of other companies in the industry, are then used to determine salary and stock compensation levels.

The Compensation Committee does not rely on a formula that assigns a pre-determined value to each of the criteria, but instead evaluates an executive officer's contribution in light of all criteria.

In addition, in accordance with the terms of our corporate governance guidelines, our Compensation Committee is required to annually review the compensation of our directors, consult with the members of the Corporate Governance and Nominating Committee on such findings and then make recommendations to the board of directors with respect to director compensation.

Board Determination of Independence

Under applicable Nasdaq Marketplace Rules, a director of Aspect will only qualify as an "independent director" if, in the opinion of the board of directors, that person does not have a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. The board of directors has determined that none of Michael A. Esposito, Edwin M. Kania, Jr., David W. Feigal, Jr., James J. Mahoney, Jr., John J. O'Connor or Donald R. Stanski has a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is an "independent director" as defined under Rule 4200(a)(15) of the Nasdaq Marketplace Rules.

Director Nomination Process

The process followed by the Corporate Governance and Nominating Committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews

of selected candidates by members of the Corporate Governance and Nominating Committee and the board of directors.

In considering whether to recommend any particular candidate for inclusion in the board of directors' slate of recommended director nominees, the Corporate Governance and Nominating Committee applies the criteria set forth in our Corporate Governance Guidelines. These criteria include the candidate's integrity, business acumen, knowledge of Aspect's business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders. The Corporate Governance and Nominating Committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. Our Corporate Governance Guidelines also provide that any director who reaches the age of 75 while serving as a director will retire from our board of directors effective at the end of his or her then current term. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board of directors to fulfill its responsibilities.

Stockholders may recommend individuals to the Corporate Governance and Nominating Committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least a year as of the date such recommendation is made, to Chairman, Corporate Governance and Nominating Committee, c/o Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062. Assuming that appropriate biographical and background material has been provided on a timely basis, the Corporate Governance and Nominating Committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Stockholders also have the right under our bylaws to directly nominate director candidates, without any action or recommendation on the part of the Corporate Governance and Nominating Committee or the board of directors, by following the procedures set forth in the second paragraph under "Stockholder Proposals" below.

Communicating with the Independent Directors

The board of directors will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. The Chairman of the Corporate Governance and Nominating Committee is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he considers appropriate.

Communications will be forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the Chairman of the Corporate Governance and Nominating Committee considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we tend to receive repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to the board of directors should address such communications to Chairman, Corporate Governance and Nominating Committee, c/o Aspect Medical Systems, Inc., One Upland Road, Norwood, MA 02062.

Board Meetings and Attendance

The board of directors met 12 times during the fiscal year ended December 31, 2007, either in person or by teleconference. During the fiscal year ended December 31, 2007, each director attended at least 75% of the aggregate of the number of board of director meetings and the number of meetings held by all committees on which he or she then served.

Director Attendance at Annual Meeting of Stockholders

Our corporate governance guidelines provide that directors are encouraged to attend the annual meeting of stockholders in the event that Aspect determines their attendance is warranted. Three directors attended the 2007 Annual Meeting of Stockholders.

Board Committees

Our board of directors has established three standing committees — Audit, Compensation, and Corporate Governance and Nominating — each of which operates under a charter that has been approved by the board of directors. Current copies of each committee's charter are posted on the "Investors — Corporate Overview" section of our website, www.aspectms.com.

Our board of directors has determined that all of the members of each of the board's three standing committees are independent as defined under Nasdaq Marketplace Rules, including, in the case of all members of the Audit Committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, as amended.

Audit Committee

The Audit Committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of certain reports from our independent registered public accounting firm;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- discussing our risk management policies;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our independent registered public accounting firm and management; and
- preparing the audit committee report required by SEC rules (which is included in this Proxy Statement).

The current members of the Audit Committee are Mr. O'Connor (Chairman), Dr. Feigal and Mr. Mahoney. Our board of directors has determined that each of Mr. Mahoney and Mr. O'Connor is an "audit committee financial expert" as defined by applicable SEC rules. The Audit Committee met seven times during the fiscal year ended December 31, 2007.

Compensation Committee

The Compensation Committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to our Chief Executive Officer's compensation;
- determining our Chief Executive Officer's compensation;
- reviewing and approving, or making recommendations to the board of directors with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to the board of directors with respect to director compensation;

- reviewing and discussing annually with management our "Compensation Discussion and Analysis;" which is included beginning on page 15 of this Proxy Statement, and
- preparing the Compensation Committee report required by SEC rules, which is included on page 20 of this Proxy Statement.

The processes and procedures followed by our Compensation Committee in considering and determining executive and director compensation are described above under the heading "Executive and Director Compensation Processes".

The current members of the Compensation Committee are Mr. Kania (Chairman), Mr. Esposito and Dr. Stanski. The Compensation Committee met three times during the fiscal year ended December 31, 2007.

Corporate Governance and Nominating Committee

The Corporate Governance and Nominating Committee's responsibilities include:

- identifying individuals qualified to become members of our board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- reviewing and making recommendations to the board of directors with respect to management succession planning;
- developing and recommending to the board of directors corporate governance principles; and
- overseeing the evaluation of the board of directors.

The processes and procedures followed by the Corporate Governance and Nominating Committee in identifying and evaluating director candidates are described above under the heading "Director Nomination Process".

The current members of the Corporate Governance and Nominating Committee are Dr. Stanski (Chairman), Mr. Kania and Mr. O'Connor. The Corporate Governance and Nominating Committee met one time during the fiscal year ended December 31, 2007.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We have posted a current copy of the code on our website, www.aspectms.com. In addition, we intend to post on our website all disclosures that are required by law or Nasdaq stock market listing standards concerning any amendments to, or waivers from, any provision of the code.

Audit Committee Report

Management is responsible for the preparation of the financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control over financial reporting for that purpose. The Company's independent registered public accounting firm is responsible for conducting an independent audit of the annual financial statements in accordance with United States generally accepted accounting principles and issuing a report on the results of their audit. The Audit Committee is responsible for providing independent, objective oversight of these processes.

In response to the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and related rules and regulations, management completed the documentation, testing and evaluation of Aspect's system of internal control over financial reporting for the year ended December 31, 2007. The Audit Committee provided oversight and guidance to management and financial personnel during the testing and evaluation process. In connection with this oversight, both management and the independent registered public accounting firm regularly provided updates to the Audit Committee at Audit Committee meetings. At the conclusion of the process, management presented to

the Audit Committee for its review a report on the effectiveness of Aspect's internal control over financial reporting. The Audit Committee also reviewed the independent registered public accounting firm's report included in the Annual Report on Form 10-K for the year ended December 31, 2007 related to their audit of the effectiveness of internal control over financial reporting. The Audit Committee will continue to oversee the efforts pertaining to internal control over financial reporting and management's preparations for the evaluation of internal controls in the fiscal year ending December 31, 2008.

The Audit Committee also reviews, evaluates and discusses with management, internal accounting and financial personnel and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures.

The Audit Committee has reviewed the audited financial statements for the fiscal year ended December 31, 2007, and has discussed these financial statements with management and the independent registered public accounting firm.

The Audit Committee has also received from, and discussed with, our independent registered public accounting firm various communications that our independent registered public accounting firm is required to provide to the Audit Committee, including the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU section 380), or SAS 61, as adopted by the Public Company Accounting Oversight Board in Rule 3200T. SAS 61 requires the independent registered public accounting firm to discuss with the Audit Committee, among other things, the following:

- all critical accounting policies and practices used; material alternative treatments within GAAP that have been discussed with management including the ramification of the alternative treatment as well as the auditors preference; and other material written communications between the auditor and management;
- significant adjustments, management judgment and accounting estimates, significant new accounting policies, and disagreements with management;
- discussion of the independent auditor's judgments about the quality, not just the acceptability, of the Company's accounting principles; and
- any uncorrected misstatements pertaining to the current period whose effects management believes are immaterial to the financial statements as a whole.

The Audit Committee has received the written disclosures and the letter from the Company's independent registered public accounting firm required by Independence Standards Board Standard No. 1 (Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees), as adopted by the Public Company Accounting Oversight Board in Rule 3600T, and has discussed with the Company's independent registered public accounting firm their independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the Company's board of directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2007.

By the Audit Committee of the Board of Directors of Aspect Medical Systems, Inc.

John J. O'Connor (Chairman)
David W. Feigal, Jr., M.D.
James J. Mahoney, Jr.

Registered Public Accounting Firm's Fees

Ernst & Young LLP audited our financial statements for the fiscal years ended December 31, 2007 and December 31, 2006. The following table summarizes the fees that Ernst & Young LLP billed to us for each of the last two fiscal years for audit services and for other services:

Fee Category	2007	2006
Audit Fees	$630,535	$475,000
Audit-Related Fees	$ —	$ 13,400
Tax Fees	$124,540	$191,504
All Other Fees	$ —	$ —
Total Fees	$755,075	$679,904

Audit Fees

Audit fees consist of fees for the audit of our financial statements, the audit of our internal control over financial reporting, the review of the interim financial statements included in our Quarterly Reports on Form 10-Q, accounting consultations related to the audited financial statements and other professional services provided in connection with statutory and regulatory filings or engagements.

Audit-Related Fees

Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit and the review of our financial statements and which are not reported under "Audit Fees." These services relate to employee benefit audits. None of the audit-related fees billed in the fiscal years ended December 31, 2007 and 2006 related to services provided under the de minimus exception to the Audit Committee pre-approval requirements.

Tax Fees

Tax fees consist of fees for tax compliance, tax advice and tax planning services. Tax compliance services, which relate to preparation of original and amended tax returns, accounted for $55,000 of the total tax fees paid for 2007 and $42,200 of the total tax fees paid for 2006. Tax advice and tax planning services relate to assistance with tax planning strategies, tax audits and appeals and employee benefit plans. None of the tax fees billed in the fiscal years ended December 31, 2007 and 2006 related to services provided under the de minimus exception to the Audit Committee pre-approval requirements.

All Other Fees

We did not incur any fees that may be classified as "All Other Fees" during the fiscal years ended December 31, 2007 or 2006.

The percentage of hours expended by Ernst & Young LLP on the audit of our financial statements for the fiscal year ended December 31, 2007 attributed to work performed by persons other than Ernst & Young LLP's full-time, permanent employees did not exceed fifty percent.

Pre-Approval Policy and Procedures

The Audit Committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that Aspect will not engage its independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, the Audit Committee may pre-approve specified types of services that are expected to be provided to Aspect by its independent registered public accounting firm during the following 12 months. Any such

pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

The Audit Committee may also delegate to each individual member of the Audit Committee the authority to approve any audit or non-audit services to be provided to Aspect by its independent registered public accounting firm. Any approval of services by a member of the Audit Committee pursuant to this delegated authority is reported on at the next meeting of the Audit Committee.

EXECUTIVE AND DIRECTOR COMPENSATION

Compensation Discussion and Analysis

Objectives and Rationale of Our Executive Compensation Program

The Compensation Committee of our board of directors oversees our executive compensation program. In this role, the Compensation Committee reviews and approves annually all compensation decisions relating to our named executive officers. The Compensation Committee's primary objectives with respect to executive compensation are to attract, retain and reward executives who can help us achieve our business objectives in this competitive and rapidly changing industry and thereby maximize stockholder returns. The goals of our executive compensation program are to align the interests of management with the interests of stockholders through a system that relates compensation to corporate, business group and individual performance.

Our compensation committee arrives at its executive compensation decisions based in part upon its goal of implementing a compensation program that is built upon specific compensation principles, which are the same for all of our executive officers. These principles, and the ways in which our compensation committee draws upon these principles to formulate specific decisions, can be summarized as follows:

- Competitive and Fair Compensation

We are committed to providing an executive compensation program that helps us to attract, motivate and retain highly qualified, industrious and experienced executives. Our policy is to provide total compensation that is competitive for comparable work and comparable corporate performance among other public companies in our industry with whom we believe that we compete for such executives. To this end, our Compensation Committee considers recommendations regarding competitive benchmarks the Compensation Committee deems relevant. The Compensation Committee regularly uses survey data and SEC filings available on publicly traded companies to compare the compensation of our executive officers and sets our compensation guidelines based, in part, on this review. The surveys most recently included in this review were: Top Five's MEDIC Executive Compensation Survey, The Survey Group's Management Compensation Survey and the Radford's Executive Survey. During late 2006, the Compensation Committee also engaged an independent compensation consultant to help identify an appropriate peer group of companies to use to benchmark 2007 executive compensation levels. These companies are profiled in terms of revenues, growth rate and certain other metrics. The comparable companies in the 2007 peer group included Ariad Pharmaceuticals, Inc., Candela Corp., Cyberonics, Inc., Hologic, Inc., LTX Corp., Tripath Images, Inc., Vital Signs, Inc., and Zoll Medical Corporation. In the Fall of 2007, the compensation committee engaged a new external compensation consultant, Pearl Meyer & Partners, and modified the list of peer group companies that will be used in benchmarking future executive compensation decisions. The new peer group represents similarly-situated medical device and diagnostic companies with similar financial growth and consists of the following:

Abaxis, Inc.	Cardiac Science Corp.	Masimo Corp.	Palomar Medical Technologies Inc.
Abioemed Inc.	Cerus Corp.	Micrus Endovascular Corp.	Possis Medical Inc.
AngioDynamics Inc.	Cyberonics Inc.	Natus Medical Inc.	Spectranetics Corp.
Candela Corp.	HealthTronics Inc.	NeuroMetrix Inc.	Zoll Medical Corp.

These peer companies, along with the previously outlined compensation surveys and input from the chief executive officer and human resource department, were used when benchmarking both base salaries and short-and long-term incentive compensation.

Our Compensation Committee generally targets total cash compensation, which we define as base salary plus discretionary bonuses, for our executives near the 65th percentile of compensation paid to similarly situated executives in the peer group and targets equity near the 75th percentile. Our Compensation Committee also seeks to achieve a balance of the compensation paid to a particular executive and the compensation paid to our other executives.

- Sustained Performance

Our Compensation Committee recognizes the importance of improving long-term value and maintaining alignment with our shareholders. Therefore, our compensation approach is more heavily weighted on long term incentives that we believe reinforce our focus on sustained performance.

Executive officers are rewarded based, in part, upon an assessment of corporate, business group and individual performance. Corporate, business group and individual performance are evaluated by reviewing the extent to which specified goals are met. Targeted performance criteria vary for each executive based on his business group or area of responsibility, and may include:

- achievement of the operating budget for Aspect as a whole or of a business group of Aspect;
- ability to identify and hire consistently high performing employees, and to train them to contribute to our long-term success;
- continued innovation in development and commercialization of our technology;
- timely development, regulatory approval and commercial introduction of new products or processes or expanded uses of existing products;
- development and implementation of successful marketing and commercialization strategies; and
- implementation of financing strategies and establishment of strategic development alliances with third parties.

Subjective performance criteria include:

- an executive's ability to motivate, develop and challenge others;
- the development of skills necessary to grow as our business matures;
- the ability to recognize and pursue new business opportunities;
- the ability to initiate programs to enhance our growth and success; and
- the consistent demonstration of shared corporate values.

The Compensation Committee considers recommendations regarding the level of compensation to be paid to our executive officers when compared to peer group companies, as well as other input from the chief executive officer and the vice president of human resources, when determining the compensation of our executive officers, including decisions regarding the grant of equity compensation. In addition, our chief executive officer assesses each executive officer's contributions to our business and his or her ability to execute on our long-term strategy when making any recommendation regarding an executive officer's compensation. The chief executive officer does not participate in the determination of his own compensation.

Components of our Executive Compensation Program:

The primary elements of our executive compensation program are:

- base salary;
- discretionary annual cash bonuses;
- equity based awards, comprising stock options and restricted stock;
- other employee benefits; and

- change of control benefits.

Our Compensation Committee determines subjectively, after reviewing information provided by our management team, what it believes to be the appropriate level and mix of the various compensation components. Cash compensation in the form of base salary and bonus are offered as short-term incentives. Non-cash compensation in the form of equity is offered as long-term incentives. The mix of these incentives is determined each year by our Compensation Committee based on the short-term and long-term needs of our business. In determining the type and level of compensation paid to each our executive officers, and the corporate and individual performance criteria upon which total compensation and bonus compensation is based, our Compensation Committee generally considers recommendations from our chief executive officer and other members of the executive team. In determining executive compensation for 2007, the Compensation Committee retained an independent compensation consultant to evaluate and make recommendations regarding our executive compensation program.

Base Salary: Base salary is used to recognize the experience, skills, knowledge and responsibilities required of all our employees, including our executives. Base cash compensation is targeted at the 50th percentile of total cash compensation relative to peer company levels. Our Compensation Committee generally reviews and determines base salaries annually and expects to adjust such salaries from time to time in future years to realign salaries with market levels after taking into account corporate, business group and individual performance. When establishing base salaries for 2007, the Compensation Committee considered a variety of factors, including:

- the seniority of the individual;
- the level of the individual's responsibility;
- the ability to replace the individual;
- the base salary of the individual at his or her prior employment, if applicable;
- the number of well qualified candidates to assume the individual's role;
- compensation for comparable positions in our similarly situated companies in our industry; and
- the historical compensation levels of our executives and actual corporate and individual performance vis-à-vis the targeted performance criteria and subjective performance criteria discussed above.

As discussed above, the compensation committee approved a new peer group in the fall of 2007 based upon input from a newly engaged external compensation consultant. During the evaluation of the composite of the survey data and external peer group data, it was determined that several executive salaries were significantly below targeted benchmarked compensation levels. As part of the annual review cycle, the Compensation Committee increased base salaries within reasonable levels and also granted a 6.5% bonus to all executives. This one-time bonus, which was paid in recognition of the compensation level shortfall and not performance, will not impact future base salary levels. Future additional adjustments in salaries are expected to occur over time to keep up with targeted cash compensation levels.

Annual Cash Bonuses: We have a discretionary bonus plan which our Compensation Committee adopted and which covers all of our employees, including our executive officers. In accordance with our Compensation Committee's objectives, base salary plus cash bonuses, if paid out fully, bring total cash compensation for our executive officers to approximately the 65th percentile relative to peer company total cash compensation levels. This annual cash bonus is typically paid in the first quarter of the year subsequent to the year for which the bonus relates. The size of bonuses is determined based upon the achievement of certain pre-determined corporate, business group and individual performance objectives established by our Compensation Committee. Our Compensation Committee believes that our executive officers can reasonably achieve these performance goals based on satisfactory corporate performance and with diligent efforts over the year. Upon completion of the fiscal year, the Compensation Committee assesses the performance of each named executive officer by comparing actual results to the pre-determined goals, and assigns a percentage of each goal attained to arrive at a final, total cash bonus percentage payout.

In February 2007, our Compensation Committee adopted the 2007 bonus plan. Under the 2007 bonus plan, the performance objectives include:

- corporate revenue and profit targets, which account for up to 60% of the bonus amount; and
- the achievement of personal performance goals, such as demonstrating effective leadership, successfully completing difficult assignments, demonstrating integrity, teamwork, excellence and accountability and the achievement of personal objectives that are aligned with each executive's individual area of responsibility, which account for up to 40% of the bonus amount.

Under the 2007 bonus plan, the portion of each individual executive bonus that is tied to corporate revenue and profits was calculated by a formula that weighs the degree of Aspect's achievement of the financial goals against the targets that are established for the year. Depending on the executive's job function, the target bonus that an executive was eligible to receive under the 2007 bonus plan ranged between 41% and 82% of his or her then annual base salary when 100% of the corporate plan for both product revenue and profit targets (before bonus and tax), or $97.0 million and $14.0 million, respectively, is achieved and 100% of performance goals are achieved. The maximum bonus that any executive was eligible to receive in 2007 was equal to 137.5% of his or her target if Aspect achieved 150% of the profit target, or $21.0 million, for the year and all performance goals were achieved. Our Compensation Committee used our external compensation consultant to evaluate the structure of the bonus plan and benchmark other peer company practices. For 2007, the target award as a percentage of base salary, based upon achievement of 100% of the corporate plan for revenue and profits and performance goals, actual payouts, based upon the compensation committee's assessment of the degree to which corporate revenue and profit targets and individual performance objectives had been achieved, and payouts as a percentage of the target level for each of our named executive officers is as follows:

Name	Target Incentive Compensation Level (1)	2007 Incentive Compensation Award ($)	2007 Incentive Compensation Award as a Percentage of Target (%)
Nassib G. Chamoun	75%	185,603	88
Michael Falvey	60%	120,806	88
Boudewijn L.P.M. Bollen	$167,648(2)	147,530	88
William Floyd	82%	150,165	88
Scott D. Kelley, M.D.	41%	94,456	88

(1) As a percentage of base salary unless otherwise noted.

(2) Mr. Bollen's target for incentive compensation level is a fixed amount.

Equity based awards: We offer long-term incentives to our executives in the form of stock options and restricted stock awards. Our equity compensation program is designed to align the long-term interests of our executives and our stockholders, assist in the retention of executives and maintain competitive levels of total compensation. The size of equity awards is generally intended to reflect the executive's position with us and his or her contributions to us, including his or her success in achieving the individual performance criteria described above. Our Compensation Committee also considers our company-level performance, the amount of equity then held by the executive, the amount of such equity that is then vested, the number of option and restricted stock awards outstanding and held by executives relative to total shares outstanding, and the recommendations of management.

Our Compensation Committee approves all grants of options and restricted stock awards to our executives. Our Compensation Committee generally grants options that become exercisable, or vest, over time, typically over a four-year period, subject to the executive's continued employment. Restricted stock awards typically are subject to a right of repurchase by us that lapses, or vests, over time, also typically over a four year period, subject to the executive's continued employment. We believe that providing for awards that vest over time aids in the retention of our executives because this feature encourages executives to continue their employment with us during the exercisability or forfeiture period. Generally, the executive's right to exercise the vested portion of his or her options

ceases shortly after termination of employment, except in the case of death or disability. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to the option, including voting rights. We set the exercise price of all stock options to equal the closing price of our common stock on the Nasdaq Global Market on the date of grant, which is typically the date of our scheduled Board of Directors meetings when the equity awards are formally approved. Our Compensation Committee generally makes equity awards to our executives annually in conjunction with the review of annual performance in the first quarter of the year.

In 2007, our Compensation Committee, after considering several factors, including the proportion and value of current equity awards which have not yet vested, determined to make awards of restricted stock that generally reflect a greater number of shares than in previous periods, to create a compensation package that maintains a strategic focus while creating shareholder value and additional retention incentives for our executives. Our Compensation Committee used both compensation surveys and peer company equity grants when benchmarking our equity grants and practices. Equity compensation is generally targeted at the 75th percentile of total compensation relative to peer group companies. The Compensation Committee also utilized an external compensation consultant when considering the various types of equity vehicles available and the manner in which they would allocate those as part of our executive compensation program. Our right to repurchase shares under these restricted stock awards lapse as to 100% of the shares four years from the date of grant.

We do not have equity ownership guidelines for our executives.

Employee Stock Purchase Program. Executive officers are also eligible to participate in our employee stock purchase plan. The purchase plan is available to all of our eligible employees and generally permits participants to purchase shares of our common stock at a discount of approximately 5% from the fair market value at the beginning or end of the applicable purchase period.

Other Employee Benefits: We maintain broad-based benefits that are provided to all employees, including health and dental insurance, life and disability insurance, and eligibility to participate in our 401(k) plan and an employee stock purchase plan. Executives are eligible to participate in all of our employee plans, in each case on the same basis as other employees.

Change of Control Benefits: Pursuant to the terms of our stock incentive plans, in the event of a change of control all then-unexercisable stock options held by our executive officers will be assumed or equivalent options shall be substituted by the acquiring corporation and such awards will become exercisable in full, and all restricted stock awards will become free and clear of all restrictions and conditions, upon the earlier of (1) the executive's termination without cause by the successor corporation or for good reason by the executive, or (2) one year after such change in control, in the case of our chief executive officer, and 15 months after such change in control, in the case of our other executive officers. This is a so-called "double trigger" change of control arrangement because it provides for change of control benefits only in the event of a change in control, the first trigger, followed by the earlier of the termination of the executive or the passage of a specified period of time, the second trigger. We have determined to provide for this change of control benefit because we recognize that, as is the case with many publicly-held corporations, the possibility of a change in control of Aspect exists and such possibility, and the uncertainty and questions which it may raise among our executive officers, could result in the departure or distraction of executive officers to the detriment of Aspect and our stockholders. We believe a "double trigger" maximizes shareholder value because it prevents an unintended windfall to executives in the event of a friendly change of control, while still providing them appropriate incentives to cooperate in negotiating any change of control in which they believe they may lose their jobs. We do not consider specific amounts payable under these arrangements when establishing annual compensation. We do believe, however, that these arrangements are necessary to offer compensation packages that are competitive.

For a further description of the foregoing change of control arrangements, see "Potential Payments Upon Termination or Change of Control" below.

Tax and Accounting Considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, generally disallows a tax deduction for compensation in excess of $1.0 million paid to our chief executive officer and our other officers whose

compensation is required to be disclosed to our stockholders under the Exchange Act by reason of being among our four most highly compensated officers. Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We periodically review the potential consequences of Section 162(m) and we generally intend to structure the performance-based portion of our executive compensation, where feasible, to comply with exemptions in Section 162(m) so that the compensation remains tax deductible to us. However, the Compensation Committee may, in its judgment, authorize compensation payments that do not qualify for the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

We account for equity compensation paid to our employees under the rules of Statement of Financial Accounting Standards No. 123 (revised 2004), Share Based Payment, referred to as SFAS No. 123(R), which requires us to measure and recognize compensation expense in our financial statements for all share-based payments based upon an estimate of their fair value over the service period of the award. We record cash compensation as an expense at the time the obligation is accrued. Our Compensation Committee generally assesses the accounting impact of restricted stock grants and option awards to our executives, but has not historically factored such impact into the nature or size of such awards.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of SEC Regulation S-K with management. Based on such review and discussions, the Compensation Committee recommended to the board of directors that the Compensation Discussion and Analysis be included in the registrant's proxy statement on Schedule 14A.

By the Compensation Committee of the Board of Directors of Aspect Medical Systems, Inc.

Edwin M. Kania, Jr. (Chairman)
Michael A. Esposito
Donald R. Stanski, M.D.

Compensation Committee Interlocks and Insider Participation

The current members of the Compensation Committee are Mr. Kania (Chairman), Mr. Esposito and Dr. Stanski. No member of the Compensation Committee was at any time during the fiscal year ended December 31, 2007, or formerly, an officer or employee of Aspect or any subsidiary of Aspect. No member of the Compensation Committee had any relationship with us during the fiscal year ended December 31, 2007 requiring disclosure under Item 404 of Regulation S-K under the Securities Exchange Act of 1934.

None of our executive officers has served as a director or member of the compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director of or member of the Compensation Committee.

Summary Compensation Table

The table below summarizes information regarding compensation earned by our named executive officers for the years ended December 31, 2007 and 2006 for our named executive officers.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)(1)	Option Awards ($)(2)	Non-Equity Incentive Plan Compensation(3)	All Other Compensation ($)	Total ($)
Nassib G. Chamoun	2007	$281,216	$30,000(4)	$226,037	$581,411	$185,603	$ 19,626(5)	$1,323,893
Chief Executive Officer and President	2006	$270,400	$ —	$ 74,591	$555,021	$131,820	$ 17,890(5)	$1,049,722
Michael Falvey	2007	$228,800	$22,300(4)	$ 87,512	$361,146	$120,806	$ 6,750(6)	$ 827,314
Vice President, Chief Financial Officer and Secretary	2006	$220,000	$ —	$ 24,664	$337,333	$ 85,800	$ 6,600(6)	$ 674,397
Boudewijn L.P.M. Bollen	2007	$389,738(7)	$ —	$ 87,512	$211,364	$238,211	$107,071(8)	$1,033,896
President of International Operations	2006	$345,079(7)	$ —	$ 24,664	$225,918	$136,188	$ 94,141	$ 825,990
William Floyd	2007	$208,100	$23,100(4)	$ 87,512	$211,410	$150,165	$ 6,750(6)	$ 687,037
Vice President of Sales and Marketing	2006	$200,096	$ —	$ 24,664	$216,709	$143,702	$ 6,600(6)	$ 591,771
Scott D. Kelley, M.D.	2007	$261,797	$22,500(4)	$ 87,512	$206,547	$ 94,456	$ 6,750(6)	$ 679,562
Vice President and Medical Director	2006	$244,227	$ —	$ 24,664	$204,586	$ 76,296	$ 6,600(6)	$ 556,373

(1) The amounts included in the "Stock Awards" column represents the compensation cost we recognized in 2007 and 2006 related to all outstanding restricted stock awards as described in SFAS No. 123(R). For a discussion of the valuation assumptions, see Note 10 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2007.

(2) The amounts included in the "Options Awards" column represents the compensation cost we recognized in 2007 and 2006 related to all outstanding stock option awards as described in SFAS No. 123(R). For a discussion of the valuation assumptions, see Note 10 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2007.

(3) The amounts included in the "Non-Equity Incentive Plan Compensation" column consist of amounts earned by the named executive officer under the 2007 bonus plan, which were paid in February 2008.

(4) Represents a one-time bonus for a 2007 base market adjustment for the executive team.

(5) Includes $11,871 in car lease payments we paid on behalf of Mr. Chamoun, $6,750 we paid to match his 401(k) contributions and approximately $1,000 we paid for insurance. In 2006, we paid approximately $10,285 in car lease payments, $6,600 to match his 401(k) contributions and approximately $1,000 we paid for insurance.

(6) Consists of amounts we paid to match such named executive officer's 401(k) contribution in 2007 and 2006.

(7) All of Mr. Bollen's compensation was paid by us in Euros and the amounts reported reflect the conversion of Mr. Bollen's compensation using the average exchange rate of Euros to U.S. dollars during the fiscal year reported. For the fiscal years ended December 31, 2007 and 2006, Mr. Bollen's salary was approximately €284,000 and €275,000, respectively.

(8) Reflects approximately $55,905 for amounts paid for Mr. Bollen's car lease expense, including taxes and fuel, approximately $43,662 paid for Mr. Bollen's pension benefits and approximately $7,503 which was contributed by us to Mr. Bollen's privately-paid medical insurance plan. The $43,662 paid for pension benefits represents the premium paid by Aspect for Mr. Bollen for his enrollment in the Aspect Medical Systems International Pension Plan, which is a tax qualified plan under the laws of the Netherlands and is administered by a third party. All of our Dutch employees between the ages of 25 and 65 years are eligible, but not required, to participate in the plan. Pursuant to the Aspect Medical Systems International Pension Plan, Mr. Bollen (and other participating employees) makes annual contributions to such Plan in the amount of 5% of their annual pension salary. Aspect's obligations under the Aspect Medical Systems International Pension Plan are limited to making annual premium payments. At the age of 65, the participants will begin to receive cash pension payments under the pension plan until their death and, in certain circumstances, a surviving spouse may be

eligible to receive payments under this pension plan. If Mr. Bollen had ceased employment with us on December 31, 2007, he would be entitled to receive annual cash payments under this plan equal to approximately €13,600 until his death. No participants in the Aspect Medical Systems International Pension Plan are eligible for early retirement and the plan does not provide for granting extra years of credited service.

In 2006, we paid approximately $48,942 for Mr. Bollen's car lease expense, approximately $38,405 for Mr. Bollen's pension benefits and approximately $6,794 was contributed by us to Mr. Bollen's privately-paid insurance plan.

Grants of Plan-Based Awards

The table below sets forth information concerning grants of compensation in the form of plan-based awards made to the named executive officers during the fiscal year ended December 31, 2007.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock or Units (#)(2)	All Other Option Awards: Number of Securities Underlying Options (#)(3)	Exercise or Base Price of Option Awards ($/Sh)	Grant Date Fair Value of Stock and Option Awards(4)
		Threshold ($)	Target ($)	Maximum ($)				
Nassib G. Chamoun	2/28/2007	—	—	—	—	30,000	$16.15	$228,600
	2/28/2007	—	—	—	36,000	—	$ 0.01	$581,400
	n/a	0	$210,912	$290,004			—	—
Michael Falvey	2/28/2007	—	—	—	—	12,500	$16.15	$ 95,250
	2/28/2007	—	—	—	15,000	—	$ 0.01	$242,250
	n/a	0	$137,280	$188,760	—	—	—	—
Boudewijn L.P.M. Bollen	2/28/2007	—	—	—	—	12,500	$16.15	$ 95,250
	2/28/2007	—	—	—	15,000	—	$ 0.01	$242,250
	n/a	0	$222,448(5)	$340,116(5)	—	—	—	—
William Floyd	2/28/2007	—	—	—	—	12,500	$16.15	$ 95,250
	2/28/2007	—	—	—	15,000	—	$ 0.01	$242,250
	n/a	0	$220,642	$334,632	—	—	—	—
Scott D. Kelley, M.D.	2/28/2007	—	—	—	—	12,500	$16.15	$ 95,250
	2/28/2007	—	—	—	15,000	—	$ 0.01	$242,250
	n/a	0	$107,337	$147,588	—	—	—	—

(1) Represents amounts payable under our 2007 bonus plan.

(2) Represents restricted stock awards granted under our 2001 Stock Incentive Plan.

(3) We granted these stock options on February 28, 2007 under our 2001 Stock Incentive Plan. These stock options become exercisable as to one-eighth of the shares of common stock underlying each option six months after the date of grant, with the remainder of each option becoming exercisable in equal monthly installments thereafter over a forty-two month period. Each option has an exercise price equal to the closing price of our common stock on the date of grant as reported on the Nasdaq Global Market.

(4) Represents the grant date fair value of each award computed in accordance with SFAS No. 123(R).

(5) The calculation of Mr. Bollen's target and maximum amounts contains a portion of the amount in Euros. The average exchange rate of Euros to U.S. dollars for the year ended was used to convert the Euro portion of such calculation.

All stock option grants referenced in the foregoing table vest ratably on a monthly basis over a four year period beginning on the last day of each month. Our right to repurchase shares pursuant to restricted stock awards granted in 2007 lapses as to 100% of the shares four years from the date the shares were issued.

Pursuant to the terms of our stock incentive plans, in the event of a change in control all then-unexercisable stock options held by our executive officers will be assumed or equivalent options will be substituted by the acquiring corporation and such options will become exercisable in full, and all restricted stock awards will become free and clear of all restrictions and conditions, upon the earlier of (1) the executive's termination without cause by the successor corporation or for good reason by the executive, or (2) one year after such change in control, in the case of our chief executive officer, and 15 months after such change in control, in the case of our other executive officers.

Outstanding Equity Awards at Fiscal Year-End

The following table shows information regarding unexercised stock options and unvested restricted stock held by the named executive officers as of December 31, 2007.

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Nassib G. Chamoun	52,292		$ 4.20	7/9/2008(1)	43,604	$610,456
	50,000		$10.20	10/5/2009(2)		
	50,000		$23.63	7/12/2010(3)		
	25,000		$11.69	2/21/2011(4)		
	75,000		$10.00	1/1/2012(5)		
	5,000		$ 3.85	7/5/2012(6)		
	14,537		$ 3.68	1/24/2013(7)		
	100,000		$15.66	2/4/2014(8)		
	56,250	18,750	$20.61	2/17/2015(9)		
	22,500	22,500	$29.25	2/14/2016(10)		
	7,500	22,500	$16.15	2/28/2017(11)		
Michael Falvey	117,827	7,173	$14.91	4/2/2014(12)	17,656	$247,184
	16,875	5,625	$20.61	2/17/2015(9)		
	8,438	8,437	$29.25	2/14/2016(10)		
	3,125	9,375	$16.15	2/28/2017(11)		
Boudewijn L.P.M. Bollen	20,000		$10.12	10/10/2008(13)	17,656	$247,184
	5,000		$46.44	5/8/2010(14)		
	5,000		$11.00	5/22/2011(14)		
	9,375		$ 3.68	1/24/2013(7)		
	30,000		$15.66	2/4/2014(8)		
	16,875	5,625	$20.61	2/17/2015(9)		
	8,438	8,437	$29.25	2/14/2016(10)		
	3,125	9,375	$16.15	2/28/2017(11)		
William Floyd	26,000		$12.50	5/28/2011(15)	17,656	$247,184
	2,604		$10.00	1/1/2012(5)		
	3,646		$ 3.85	7/5/2012(6)		
	9,479		$ 3.26	9/12/2012(16)		
	4,640		$ 3.68	1/24/2013(7)		
	11,250		$10.12	10/10/2013(13)		
	30,000		$15.66	2/4/2014(8)		
	16,875	5,625	$20.61	2/17/2015(9)		
	8,438	8,437	$29.25	2/14/2016(10)		
	3,125	9,375	$16.15	2/28/2017(11)		
Scott D. Kelley, M.D.	75,000		$23.63	7/12/2010(3)	17,656	$247,184
	15,000		$ 8.56	11/27/2010(17)		
	13,433		$12.50	5/28/2011(18)		
	25,000		$10.00	1/1/2012(5)		
	12,500		$ 3.85	7/5/2012(6)		
	6,875		$ 3.26	9/12/2012(16)		
	7,028		$ 3.68	1/24/2013(7)		
	13,125		$10.12	10/10/2013(13)		
	30,000		$15.66	2/4/2014(8)		
	16,875	5,625	$20.61	2/17/2015(9)		
	8,438	8,437	$29.25	2/14/2016(10)		
	3,125	9,375	$16.15	2/28/2017(11)		

(1) Option vests over 48 months at a rate of 1/48th per month, beginning July 1, 1998.

(2) Option vests over 48 months at a rate of 1/48th per month, beginning June 30, 1999.

(3) Option vests over 48 months at a rate of 1/48th per month, beginning July 1, 2000.

(4) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2001.

(5) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2002.

(6) Option vests over 48 months at a rate of 1/48th per month, beginning July 1, 2002.

(7) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2003.

(8) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2004.

(9) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2005.

(10) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2006.

(11) Option vests over 48 months at a rate of 1/48th per month, beginning January 1, 2007.

(12) Option vests over 48 months at a rate of 1/48th per month, beginning April 1, 2004.

(13) Option vests over 48 months at a rate of 1/48th per month, beginning November 1, 2003.

(14) Option vests over 36 months at a rate of 1/3rd per year on each the first, second and third anniversaries of the grant date.

(15) Option vests over 48 months at a rate of 1/48th per month, beginning June 1, 2001.

(16) Option vests over 48 months at a rate of 1/48th per month, beginning September 12, 2002.

(17) Option vests over 48 months at a rate of 1/48th per month, beginning November 1, 2000.

(18) Option vests over 48 months at a rate of 1/48th per month, beginning June 1, 2001.

Option Exercises and Stock Vested

The following table shows amounts received by the named executive officers upon exercise of stock options and vesting of restricted stock during 2007.

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)(2)
Nassib G. Chamoun	—	—	2,083	$32,773
Michael Falvey	—	—	625	$ 9,832
Boudewijn L.P.M. Bollen	19,375	$139,496	625	$ 9,832
William Floyd	2,000	$ 24,640	625	$ 9,832
Scott D. Kelley, M.D.	—	—	625	$ 9,832

(1) Represents the difference between the exercise price and the fair market value of our common stock on the date of exercise.

(2) The value realized on vesting of restricted stock awards is determined by multiplying the number of shares that vested by the fair market value of our common stock on the vesting date.

Potential Payments Upon Termination or Change in Control

Pursuant to the terms of our stock incentive plans, in the event of a change of control all then-unexercisable stock options held by our executive officers will be assumed or equivalent options will be substituted by the acquiring corporation and such options will become exercisable in full, and all restricted stock awards will become free and clear of all restrictions and conditions, upon the earlier of (1) the executive's termination without cause by the successor corporation or for good reason by the executive, or (2) one year after such change in control, in the case of our chief executive officer, and 15 months after such change in control, in the case of our other executive officers. Upon a change in control, all unvested stock options and restricted stock awards would be assumed or equivalent awards granted, in which case, the awards would continue upon the same terms and conditions as granted by us. At present, our named executive officers hold the following unvested stock option and restricted stock awards

that would become vested (i) upon a change of control in accordance with the provisions of our stock incentive plans and, (ii) where such named executive officer was terminated without cause by the successor corporation or the named executive officer ceased employment for good reason upon the change in control. For purposes of this table, the unrealized value of unvested stock options and restricted stock awards was calculated by multiplying the number of shares of common stock subject to the award by the closing price of the common stock on December 31, 2007 and then deducting, in the case of stock options, the exercise price thereof.

Name	No. of Shares Underlying Unvested Stock Options Subject to Full Acceleration on Change of Control (#)	No. of Shares of Unvested Restricted Stock Subject to Full Acceleration on a Change of Control (#)	Value of Unvested Stock Options and Restricted Stock Subject to Full Acceleration on Change of Control ($)(1)
Nassib G. Chamoun	—	43,604	$610,456
Michael Falvey	—	17,656	$247,184
Boudewijn L.P.M. Bollen	—	17,656	$247,184
William Floyd	—	17,656	$247,184
Scott D. Kelley, M.D.	—	17,656	$247,184

(1) The calculation for the value of unvested stock options subject to full acceleration on change of control does not include stock options for which the option price exceeds the closing price of our common stock on December 31, 2007 of $14.00.

Compensation of Directors

We reimburse our non-employee directors for reasonable out-of-pocket expenses incurred in attending meetings of the board of directors or any committee of the board of directors. Non-employee directors also receive:

- a $15,000 annual retainer;
- a $10,000 annual retainer for service as lead director;
- a $10,000 annual retainer for service as chair of the Audit Committee;
- a $6,000 annual retainer for service as chair of the Compensation Committee;
- a $4,000 annual retainer for service as chair of the Corporate Governance and Nominating Committee;
- $1,500 for each board meeting attended in person;
- $500 for each board meeting attended by telephone;
- $1,000 for each meeting of the Audit Committee, Compensation Committee or Corporate Governance and Nominating Committee attended in person; and
- $500 for each meeting of the Audit Committee, Compensation Committee or Corporate Governance and Nominating Committee attended by telephone.

No director who also serves as an employee receives compensation for services rendered as a director. We currently have six non-employee directors on our board of directors: Mr. Esposito, Dr. Feigal, Mr. Kania, Mr. Mahoney, Mr. O'Connor and Dr. Stanski.

In addition, our non-employee directors are eligible to receive non-statutory stock options, restricted stock and other stock-based awards under our Amended and Restated 1998 Director Equity Incentive Plan, which we refer to as our 1998 restated director plan. Our 1998 restated director plan was initially adopted by our board of directors and stockholders in February 1998, was amended in December 1999 to increase the number of shares of common stock authorized under the plan from 100,000 to 200,000 shares and was amended and restated in May 2005 to (i) increase the number of shares of common stock authorized under the plan from 200,000 to 350,000 shares (ii) permit restricted stock grants, and (iii) provide for automatic awards of a fixed number of options upon initial election and subsequent re-election to our board of directors and, in lieu of such automatic awards, permit the board

discretion in determining the timing, type of award and number of shares issuable pursuant to awards granted under this plan.

Pursuant to our 1998 restated director plan, each non-employee director, on the date of his or her election to the board of directors, is eligible to receive (i) a non-statutory stock option to purchase 8,000 shares of our common stock, which we refer to as an initial option, and (ii) a restricted stock award to purchase 3,000 shares of our common stock, which we refer to as the initial restricted stock award. The initial option is exercisable as to 50% of the shares underlying such initial option immediately upon such director's initial election and the remainder becomes exercisable in equal annual installments on each of the first, second and third anniversaries of the date of grant, provided that the holder of the initial option continues to serve as a director on each such anniversary of the grant date. We have a right of repurchase with respect to the shares of common stock subject to the initial restricted stock award, which right of repurchase lapses as to one-third of the shares on each of the first, second and third anniversaries of the date of grant, provided that the holder of the initial restricted stock award continues to serve as a director on each such anniversary of the grant date.

Additionally, pursuant to our 1998 restated director plan, each non-employee director serving as a director on the date of our annual meeting of stockholders (provided that such director has served as a director for at least six months prior to such annual meeting), is eligible to receive (i) a non-statutory stock option to purchase 3,000 shares of common stock, which we refer to as an annual option, and, together with an initial option, a director option and (ii) a restricted stock award to purchase 3,500 shares of common stock, which we refer to as an annual restricted stock award, and, together with an initial restricted stock award, a director restricted stock award. The annual option is exercisable in equal annual installments on each of the first, second and third anniversaries of the date of grant, provided that the holder of the annual option continues to serve as a director on each such anniversary of the grant date. We have a right of repurchase with respect to the shares of common stock subject to the annual restricted stock award, which right of repurchase lapses as to one-third of the shares on each of the first, second and third anniversaries of the date of grant, provided that the holder of the annual restricted stock award continues to serve as a director on each such anniversary of the grant date.

The following table summarizes the compensation of each of our directors for the year ended December 31, 2007.

DIRECTOR COMPENSATION

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)(2)	Option Awards ($)(3)(4)	Non-Equity Incentive Plan Compensation($)(5)	All Other Compensation	Total ($)
Michael A. Esposito	$30,500	$25,983	$17,520	—	$—	$ 74,003
David W. Feigal, Jr., M.D. . .	$20,000	$20,180	$56,780	—	$—	$ 96,960
Edwin M. Kania, Jr.	$35,000	$20,180	$54,876	—	$—	$110,056
James J. Mahoney, Jr.	$41,500	$20,180	$54,876	—	$—	$116,556
John J. O'Connor	$37,500	$25,983	$17,520	—	$—	$ 81,003
Donald R. Stanski, M.D. . .	$30,000	$20,180	$54,876	—	$—	$105,056

(1) These amounts reflect compensation cost recognized by us in 2007 for a portion of the current and prior year restricted stock awards to directors as described in SFAS No. 123(R). For a discussion of the valuation assumptions, see Note 10 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2007.

(2) All stock awards referenced had a purchase price of $0.01 per share.

(3) These amounts reflect compensation cost recognized by us in 2007 for a portion of the current and prior year stock option awards to directors as described in SFAS No. 123(R). For a discussion of the valuation assumptions, see Note 10 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2007.

(4) All option awards referenced were granted with an exercise price equal to the closing price of our common stock on the Nasdaq Global Market on the date of grant.

(5) Represents bonus based upon 2007 Annual Bonus Plan.

(6) Represents a one-time bonus for a 2007 base market adjustment for the executive team.

The following table shows the aggregate number of outstanding stock options and unvested shares of restricted stock held by each of our directors as of December 31, 2007:

Name	Stock Options (#)	Unvested Shares of Restricted Stock (#)
Michael A. Esposito	11,000	4,000
David W. Feigal, Jr.	26,000	3,333
Edwin M. Kania, Jr.	53,500	3,333
James J. Mahoney, Jr.	25,500	3,333
John J. O'Connor	11,000	4,000
Donald R. Stanski, M.D.	43,500	3,333
J. Breckenridge Eagle(1)	181,200	20,070

(1) Mr. Eagle is an employee of the Company and also serves as Chairman of the Board of Directors.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2007 about the securities authorized for issuance under our equity compensation plans, consisting of our 2001 Stock Incentive Plan, as amended, our 1998 Stock Incentive Plan, our 1998 director plan and our 1999 Employee Stock Purchase Plan. All of our equity compensation plans were adopted with the approval of our stockholders.

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)
Equity compensation approved by stockholders	4,265,961	$17.31	1,131,584
Equity compensation plans not approved by stockholders	—	—	—
Total	4,265,961	$17.31	1,131,584

Policies and Procedures for Related Party Transactions

In accordance with the terms of the charter of our Audit Committee, our audit committee is required to review all related person transactions on an ongoing basis and all such transactions must be approved by the audit committee. A related person transaction, as defined in Item 404(a) of Regulation S-K is any transaction, arrangement or relationship in which Aspect is a participant, the amount involved exceeds $120,000, and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a "related person," has a direct or indirect material interest.

We have also adopted a policy providing that all material transactions between us and our officers, directors and other affiliates must be:

- approved by a majority of the members of our board of directors and by a majority of the disinterested members of our board of directors, and
- on terms no less favorable to us than could be obtained from unaffiliated third parties.

PROPOSAL TWO — APPROVAL OF AMENDMENT TO THE 2001 STOCK INCENTIVE PLAN

Board Recommendation

Our Board of Directors unanimously recommends that the stockholders vote "FOR" the approval of the amendment to the 2001 Stock Incentive Plan.

Overview

In the opinion of our board of directors, the future success of Aspect depends, in part, on our ability to maintain a competitive position in attracting, retaining and motivating key employees with experience and ability. Under our 2001 Stock Incentive Plan, as amended, we are currently authorized to grant options to purchase up to an aggregate of 4,700,000 shares of our common stock to our officers, directors, employees and consultants. As of April 1, 2008, there were 514,858 shares available for future grant under our 2001 Stock Incentive Plan.

On April 11, 2008, our board of directors adopted an amendment to the 2001 Stock Incentive Plan, the effectiveness of which is subject to stockholder approval, to increase from 4,700,000 to 5,400,000 the number of shares of common stock available for issuance upon exercise of options granted under the 2001 Stock Incentive Plan (subject to adjustment for certain changes in Aspect's capitalization).

We previously amended the 2001 Stock Incentive Plan in April 2007 to increase the number of shares of common stock available for issuance under the plan from 4,000,000 to 4,700,000 and to modify certain other provisions such that options cannot be granted below fair market value or be repriced. We use the 2001 Stock Incentive Plan to attract and retain talented employees in a highly competitive industry. We anticipate that the proposed increase would meet our needs through our fiscal year ending December 31, 2008.

Summary of the 2001 Plan

The following is a brief summary of our 2001 Stock Incentive Plan, as amended, which we refer to as our 2001 Stock Incentive Plan. The following summary is qualified in its entirety by reference to our 2001 Stock Incentive Plan, a copy of which is attached to the electronic copy of our proxy statement filed with the SEC on April 18, 2001, and the amendments to the 2001 Stock Incentive Plan, copies of which are attached to our Form 8-k filed on June 1, 2005 and to the electronic copy of our proxy statement filed with the SEC on April 19, 2007, April 22, 2005 and April 22, 2004, and may be accessed from the SEC's home page (www.sec.gov). In addition, a copy of our 2001 Stock Incentive Plan may be obtained upon written or oral request to Susan Callahan, Investor Relations Department, Aspect Medical Systems, Inc., One Upland Road, Norwood, Massachusetts 02062, telephone: (617) 559-7000.

Description of Awards

Our 2001 Stock Incentive Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Internal Revenue Code, nonstatutory stock options and restricted stock awards, which are collectively referred to as "awards."

Incentive Stock Options and Nonstatutory Stock Options. Optionees receive the right to purchase a specified number of shares of our common stock at a specified option price and subject to the other terms and conditions that are specified in connection with the option grant. Options may be granted at an exercise price not less than the fair market value of our common stock on the date of grant. Under present law, incentive stock options and options intended to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code may not be granted at an exercise price less than the fair market value of our common stock on the date of grant (or less than 110% of the fair market value in the case of incentive stock options granted to optionees holding more than 10% of the total combined voting power of Aspect or any future parent or subsidiary corporations). The 2001 Stock Incentive Plan permits payment of the exercise price of options through payment by cash, by check, through a broker, subject to option agreement restrictions set forth by our board of directors, by surrender to us of shares of our common stock, by delivery to us of a promissory note, or by any combination of these forms of payment.

Restricted Stock Awards. Restricted stock awards entitle recipients to acquire shares of our common stock, subject to our right to repurchase all or part of those shares from the recipient in the event that the conditions

specified in the applicable award are not satisfied prior to the end of the applicable restriction period established for that award. Our board will determine the terms and conditions of any such restricted stock awards, including the conditions for repurchase. Notwithstanding the foregoing, the 2001 Stock Incentive Plan generally provides that restricted stock awards that become free of repurchase rights, or vest, based on the passage of time will not vest prior to the first anniversary of the date of grant, with no more than one-third vested prior to the second anniversary of the date of grant and no more than two-thirds vested prior to the third anniversary of the date of grant. Restricted stock awards that do not vest solely on the passage of time will not vest prior to the first anniversary of the date of grant. Additionally, the board may only waive its repurchase rights or other restrictions set forth in any restricted stock awards in extraordinary circumstances, which include death, disability or retirement of the holder, or a merger, sale, change of control or similar transaction relating to the Company.

Eligibility to Receive Awards

Employees, officers, directors, consultants and advisors of Aspect and our subsidiaries (and any individuals who have accepted an offer of employment with us), are eligible to be granted awards under the 2001 Stock Incentive Plan. Under present law, however, incentive stock options may only be granted to employees of Aspect or our parent or subsidiary corporations. In addition, discretionary awards to non-employee directors may only be granted by a committee, the members of which are independent as defined by Section 4200(a)(15) of the Nasdaq Marketplace Rules. The maximum number of shares with respect to which an award may be granted to any participant under the plan may not exceed 250,000 shares per calendar year.

Plan Benefits

As of April 1, 2008, approximately 277 persons were eligible to receive awards under the 2001 Stock Incentive Plan, including our eleven executive officers and six non-employee directors. The granting of awards under the 2001 Stock Incentive Plan is discretionary and we cannot now determine the number or type of awards to be granted in the future to any particular person or group. During the fiscal year ended December 31, 2007, pursuant to our 2001 Stock Incentive Plan, we granted stock options to:

- our named executive officers to purchase the number of shares set forth following such named executive officer's name: Mr. Chamoun: 30,000; Mr. Bollen: 12,500; Mr. Falvey: 12,500; Mr. Floyd: 12,500 and Dr. Kelley: 12,500, and the weighted average exercise price of these options is $16.15 per share,
- executive officers to purchase an aggregate of 156,500 shares of common stock at a weighted average exercise price of $16.15 per share, and
- all employees, including all current officers who are not executive officers, to purchase an aggregate of 306,550 shares of common stock at a weighted average exercise price of $15.65 per share.

All grants to our executive officers were made under our 2001 Stock Incentive Plan. The exercise prices for all of these option grants were equal to the fair market value of our common stock on the respective grant dates.

On April 1, 2008, the closing price of our common stock on the Nasdaq Global Market was $6.04.

Administration

Our 2001 Stock Incentive Plan is administered by our board of directors. Our board of directors has the authority to adopt, amend and repeal the administrative rules, guidelines and practices relating to the 2001 Stock Incentive Plan and to interpret the provisions of the 2001 Stock Incentive Plan. Pursuant to the terms of the 2001 Stock Incentive Plan, our board of directors may delegate authority under the plan to one or more committees of our board of directors. Our board of directors has authorized our Compensation Committee to administer certain aspects of the 2001 Stock Incentive Plan, including the granting of awards to executive officers. Subject to any applicable limitations contained in the 2001 Stock Incentive Plan, our board of directors, the Compensation Committee or any

other committee or executive officer to whom the board of directors delegates authority, as the case may be, selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which these options become exercisable;
- the exercise price of options;
- the duration of options provided that no option will have a term in excess of 10 years; and
- the number of shares of our common stock subject to restricted stock awards and the terms and conditions of those awards, including conditions for repurchase, issue price and repurchase price.

Our board of directors is required to make appropriate adjustments to the number and class of securities available under our 2001 Stock Incentive Plan, the number and class of and exercise price of outstanding options and the repurchase price per share subject to outstanding restricted stock awards to reflect stock splits, stock dividends, recapitalizations, spin-offs and other similar changes in capitalization.

If any award expires or is terminated, surrendered, canceled or forfeited, the unused shares of common stock covered by that award will again be available for grant under the 2001 Stock Incentive Plan subject, however, in the case of incentive stock options, to any limitations under the Internal Revenue Code.

Acquisition Events and Change in Control Events

In the event of a merger or other acquisition event, as defined in the 2001 Stock Incentive Plan, the board of directors is authorized to provide for outstanding options to be assumed or substituted for, to accelerate the awards to make them fully exercisable prior to consummation of the acquisition event, if such options are not assumed or substituted for, or to provide for a cash-out of any outstanding options. In addition, in such an acquisition event, our repurchase and other rights under each outstanding restricted stock award shall inure to the benefit of our successor and shall apply to the cash, securities or other property into which our common stock is converted.

Upon the occurrence of a change of control event, as defined in the 2001 Stock Incentive Plan,

- options held by our chief executive officer shall fully accelerate and become exercisable 12 months following the occurrence of the change of control event, and the shares held by our chief executive officer pursuant to restricted stock awards shall fully accelerate and become free and clear of all conditions and restrictions on the date which is 12 months following the occurrence of the change in control event;
- options held by our executive officers (other than our chief executive officer), which we refer to as senior management, fully accelerate and become exercisable 15 months following the occurrence of the change in control event, and the shares held by our senior management pursuant to restricted stock awards shall fully accelerate and become free and clear of all conditions and restrictions on the date which is 15 months following the occurrence of the change in control event; and
- options held by our employees shall accelerate by one year upon the occurrence of the change of control event and the shares held by our employees pursuant to restricted stock awards shall accelerate and become free and clear of all conditions and restrictions by one year upon the occurrence of the change in control event.

Notwithstanding the foregoing, if, on or prior to the one year anniversary of a change of control event, the chief executive officer's or any non-senior management employee's employment with us or our succeeding corporation is terminated by such participant for "good reason", as defined in the 2001 Stock Incentive Plan, or is terminated by us without "cause", as defined in the 2001 Stock Incentive Plan, all options held by such participant shall become immediately exercisable and the shares held by such participant with respect to restricted stock awards shall become free from all conditions and restrictions. If on or prior to the 15 month anniversary of an acquisition event, any senior management employee's employment with us or our succeeding corporation is terminated by such participant for "good reason" or is terminated by us without "cause", all options held by such participant shall become immediately exercisable and the shares held by such participant with respect to restricted stock awards shall become free from all conditions and restrictions.

Amendment or Termination

No award may be made under the 2001 Stock Incentive Plan after March 18, 2011, but awards previously granted may extend beyond that date. Our board of directors may at any time amend, suspend or terminate the 2001 Stock Incentive Plan, provided that:

- to the extent required by Section 162(m), no award intended to comply with 162(m) after the amendment becomes exercisable, realizable or vested unless such amendment has been approved by our stockholders if required by Section 162(m);
- no amendment requiring stockholder approval under Nasdaq rules may be made effective unless it has been approved by our stockholders; and
- if Nasdaq amends its rules so that stockholder approval of material amendments to equity plans is no longer required, then no subsequent amendment to the plan that materially increases shares, expands the awards that may be granted under the plan, or materially expands eligibility under the plan shall be effective unless stockholder approval is obtained.

Our board of directors may not effect modifications or amendments without stockholder approval if such approval is required under Section 422 of the Code. Amendments to the 2001 Stock Incentive Plan govern all awards outstanding under the plan when the amendment is made, provided our board of directors determines the amendment does not materially and adversely affect the rights of participants.

Federal Income Tax Consequences

The following generally summarizes the United States federal income tax consequences that generally will arise with respect to awards granted under the 2001 Stock Incentive Plan. This summary is based on the tax laws in effect as of the date of this proxy statement. Changes to these laws could alter the tax consequences described below. In addition, this summary assumes that all awards are exempt from, or comply with, the rules under Section 409A of the Internal Revenue Code regarding nonqualified deferred compensation. The 2001 Stock Incentive Plan provides that, no award will provide for deferral of compensation that does not comply with Section 409A of the Internal Revenue Code, unless the board, at the time of grant, specifically provides that the award is not intended to comply with Section 409A. Changes to these laws could alter the tax consequences described below.

Incentive Stock Options. A participant will not have income upon the grant of an incentive stock option. Also, except as described below, a participant will not have income upon exercise of an incentive stock option if the participant has been employed by Aspect or its corporate parent or a 50% or more-owned corporate subsidiary of ours at all times beginning with the option grant date and ending three months before the date the participant exercises the option. If the participant has not been so employed during that time, then the participant will be taxed as described below under "Nonstatutory Stock Options." The exercise of an incentive stock option may subject the participant to the alternative minimum tax.

A participant will have income upon the sale of shares of common stock acquired under an incentive stock option at a profit (if sales proceeds exceed the exercise price). The type of income will depend on when the participant sells the stock. If a participant sells the stock more than two years after the option was granted and more than one year after the option was exercised, then all of the profit will be long-term capital gain. If a participant sells the stock prior to satisfying these waiting periods, then the participant will have engaged in a disqualifying disposition and a portion of the profit will be ordinary income and a portion may be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term. If a participant sells the stock at a loss (sales proceeds are less than the exercise price), then the loss will be a capital loss. This capital loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Nonstatutory Stock Options. A participant will not have income upon the grant of a nonstatutory stock option. A participant will have compensation income upon the exercise of a nonstatutory stock option equal to the value of the stock on the day the participant exercised the option less the exercise price. Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock

on the day the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Restricted Stock. A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Internal Revenue Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have compensation income equal to the value of the stock less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have compensation income equal to the value of the stock on the vesting date less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Tax Consequences to Us. There will be no tax consequences to us except that we will be entitled to a deduction when a participant has compensation income. Any such deduction will be subject to the limitations of Section 162(m) of the Internal Revenue Code.

PROPOSAL THREE — RATIFICATION OF SELECTION OF REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of our board of directors has selected the firm of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008. Although stockholder approval of the Audit Committee's selection of Ernst & Young LLP is not required by law, our board of directors believes that it is advisable to give stockholders an opportunity to ratify this selection. If this proposal is not approved at the 2008 Annual Meeting of Stockholders, our Audit Committee will reconsider its selection of Ernst & Young LLP. Representatives of Ernst & Young LLP are expected to be present at the annual meeting and will have the opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions from our stockholders.

Board Recommendation

Our board of directors unanimously recommends that the stockholders vote "FOR" the ratification of the selection of Ernst & Young LLP as Aspect's registered public accounting firm for the fiscal year ending December 31, 2008.

OTHER MATTERS

Our board of directors does not know of any other matters which may come before the annual meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy card to vote, or otherwise act, in accordance with their judgment on those matters.

SOLICITATION OF PROXIES

The cost of solicitation of proxies will be borne by Aspect. In addition to the solicitation of proxies by mail, officers and employees of Aspect may solicit proxies in person or by telephone. We may reimburse brokers or persons holding stock in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners.

REVOCATION OF PROXY

Subject to the terms and conditions set forth in this proxy statement, all proxies received by us will be effective, notwithstanding any transfer of the shares to which those proxies relate, unless prior to the closing of the polls at the annual meeting, our Secretary receives a written notice of revocation signed by the person who, as of the record date, was the registered holder of those shares, our Secretary receives a duly executed proxy card bearing a later date

than the proxy being revoked at any time before that proxy is voted or the registered holder appears at the meeting and votes in person.

STOCKHOLDER PROPOSALS

In order to be included in the proxy materials for our 2009 Annual Meeting of Stockholders, stockholders' proposed resolutions must be received by us at our principal executive offices, One Upland Road, Norwood, Massachusetts 02062 no later than December 18, 2008. We suggest that proponents submit their proposals by certified mail, return receipt requested, addressed to our Secretary.

If a stockholder wishes to present a proposal at our 2009 Annual Meeting of Stockholders, but does not wish to have the proposal considered for inclusion in the Proxy Statement and proxy card, the stockholder must also give written notice to our Secretary at the address noted above. The required notice must be given within a prescribed time frame, which is generally calculated by reference to the date of our most recent annual meeting. Assuming that our 2009 Annual Meeting of Stockholders is held on or after May 1, 2009 and on or before July 30, 2009 (as we currently anticipate), our bylaws would require notice to be provided to our Secretary at our principal executive offices no earlier than February 20, 2009 and no later than March 12, 2009. If a stockholder fails to provide timely notice of a proposal to be presented at the 2009 Annual Meeting of Stockholders, the proxies designated by our board of directors will have discretionary authority to vote on that proposal.

By Order of the Board of Directors,

MICHAEL FALVEY
Secretary

Norwood, Massachusetts
April 17, 2008

OUR BOARD OF DIRECTORS HOPES THAT STOCKHOLDERS WILL ATTEND THE ANNUAL MEETING. WHETHER OR NOT YOU PLAN TO ATTEND, YOU ARE URGED TO COMPLETE, DATE, SIGN, AND RETURN THE ENCLOSED PROXY CARD IN THE ACCOMPANYING ENVELOPE. A PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE MEETING AND YOUR COOPERATION WILL BE APPRECIATED. STOCKHOLDERS WHO ATTEND THE ANNUAL MEETING MAY VOTE THEIR STOCK PERSONALLY EVEN THOUGH THEY HAVE SENT IN THEIR PROXY CARDS.

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