



2005

annual report



Dear stockholders:

Throughout Aspect's nearly 20 year history, our confidence in the value of brain monitoring and Aspect's ability to develop practical brain monitoring technologies that improve patient care has not diminished. Our performance in 2005 reaffirms our confidence, and has strengthened our position of leadership in this burgeoning field.

Aspect's commitment to cutting-edge clinical research and product development has produced some of the most innovative, advanced and reliable brain monitoring technologies available today. We formed a strategic alliance that supports our vision of the future for our technology that we believe could yield significant improvements in the early detection, diagnosis and treatment of a variety of neurological ailments. Our BIS technology is now backed by experience in more than 15 million clinical cases and we have forged successful collaborations with medical professionals and leading manufacturers of patient monitoring systems to ensure our BIS products reach the broadest spectrum of healthcare providers. There is growing recognition throughout the healthcare community of the vital role brain monitoring can play throughout the continuum of patient care wherever anesthesia or sedation is required. Brain monitoring, once viewed with skepticism in the anesthesia community, is now widely recognized as a critical tool that can assist clinicians in improving the quality of patient care and ensure greater patient safety.

Leadership and growing clinical acceptance

Marking a significant milestone in 2005, the American Society of Anesthesiologists (ASA) issued a "Practice Advisory for Intraoperative Awareness and Brain Function Monitoring." We believe that this document, combined with the Sentinel Event Alert on anesthesia awareness issued by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in 2004, represents a turning point in our efforts to establish the value of BIS technology.

Awareness, a complication that occurs when patients do not receive enough anesthesia to remain unconscious, can be a traumatic experience with potentially severe adverse consequences affecting 20,000 to 40,000 people each year in the United States alone. The ASA advisory acknowledges awareness as an important clinical problem, encourages anesthesia providers to assess the risk of awareness for each patient, and suggests that anesthesiologists carefully consider the use of brain function monitoring, on a case-by-case

basis, as a tool to assist them in preventing awareness. The advisory also documents that BIS is the only brain monitoring technology or clinical intervention that has been shown in large scale, prospective clinical trials to assist anesthesia providers in reducing the incidence of awareness.

The ASA and JCAHO advisories continue to generate market momentum and BIS technology is now available in nearly 50 percent of all operating rooms in the United States. As a result, regional and community standards for adoption and utilization of brain monitoring are beginning to emerge.

Strategic alliance, technological advances and OEM partnerships

New products, strong OEM partnerships and a new neuroscience strategic alliance were also hallmarks of 2005. We continue to work to improve our core products and respond to customer requests to provide a range of brain monitoring options, whether stand-alone monitors, modules that are incorporated into multi-parameter modular monitoring systems, or enhanced features that make our technology simple and easy to use. The BIS VISTA™ monitor was introduced in 2005 and is a full-featured, stand-alone system that runs on the same BISx™ technology platform used by our OEM partners. These advances enable us to provide customers with greater choice about the way they implement BIS monitoring. Moreover, BIS technology remains the only consciousness monitoring solution that has been integrated into the patient monitoring systems of the world's leading manufacturers of monitoring equipment, including Datex-Ohmeda, Datascope, Dixtal, Draeger Medical, GE Healthcare, Nihon Kohden, Philips Medical and Spacelabs Medical.

Finally, while Aspect has been known primarily for our products in anesthesia and sedation, new Aspect technologies have begun to show promise as tools to assist clinicians with the early detection, diagnosis and management of a variety of neurological ailments. In May 2005, these efforts culminated in the establishment of a strategic alliance between Aspect and Boston Scientific Corporation that will focus on depression and Alzheimer's disease. As part of this alliance, Boston Scientific committed \$25 million to support our neuroscience research program over the next five years.

Market performance & growth

The growing market acceptance driven by all of these developments was reflected in Aspect's financial performance in 2005:

- Worldwide revenue increased by 39% in 2005
- The worldwide installed base of BIS systems grew to more than 32,200 by the end of the year, an increase of 34% from 2004
- Net income grew to \$0.35 per diluted share in 2005, compared with \$0.01 per diluted share in 2004

The road ahead

In the near-term – within the next one to three years – our principal goal is to capture as much of the substantial remaining operating room market as possible. We will continue to leverage the attributes of BIS monitoring which differentiate us from our competitors:

- Extensive clinical data that supports the efficacy and clinical utility of BIS monitoring
- Our unique Indication for Use related to awareness
- The JCAHO Sentinel Event Alert
- The ASA Practice Advisory
- Extensive OEM relationships
- Ongoing technical innovation and new products

The publication of ASA's practice advisory in Anesthesiology in April 2006 reinforces the society's commitment to reduce the incidence of preventable awareness. Wide dissemination of the advisory and continuing education and advocacy by the ASA, JCAHO, Aspect and others will be important determinants of the rate at which brain monitoring continues to be adopted. We believe these initiatives collectively reinforce the need for healthcare facilities to make brain monitoring available in every operating room that serves patients at risk for awareness, and will contribute to wider adoption of hospital policies governing access and utilization of brain monitoring technology.

Aspect also plans to continue to invest in studies that explore the full potential of brain monitoring technology. We are funding a multi-center collaborative study that is designed to document the incidence and risk factors for intraoperative awareness in pediatric patients. This study is expected to advance clinical understanding of the effects of anesthetics on this age group and could encourage wider adoption of BIS technology. We are also expanding on clinical research that suggests a relationship between deep anesthesia and long-term patient mortality rates. If excessively deep anesthesia is associated with higher long-term mortality rates and complications, we believe that the case for brain monitoring for all patients undergoing general anesthesia will be even more compelling.

Over the next two to four years we expect to become more focused on penetrating the critical care and procedural sedation markets by supporting the use and applicability of BIS across the continuum of care wherever anesthetics and sedatives are used. Our OEM partners have already been quite successful at placing BIS modules in the critical care setting. As the operating room market begins to demand less of our marketing and sales resources, we plan to increase our investment in market development in critical care and procedural sedation.

Over the long-term – the next three to five years – we will be focused on efforts to launch at least one major new product to address depression or Alzheimer's disease through our neuroscience research program and alliance with Boston Scientific. The Boston Scientific alliance allows us to accelerate the pace of research and development in these areas, both of which represent substantial markets if we are successful at developing effective products. Furthermore, our alliance with Boston Scientific enables us to pursue these programs with minimal impact on our bottom line.

With more than 15 million people experiencing a major depressive episode each year, and nearly 17 percent of adults experiencing major depression in their lifetime, the opportunity to help clinicians improve the care of patients suffering from depression is significant. Pharmacological treatment of depression is currently a trial-and-error process that often takes weeks to unfold during which adverse side-effects may appear before it can be determined if a treatment will be effective. The ability to predict if a particular anti-depressant therapy is likely to work could save millions of people from needless suffering. Accordingly, the BRITE (Biomarkers for Rapid Identification of Treatment Efficacy) trial is being conducted with nine leading academic centers to evaluate the use of our technology to predict if patients with major depression will respond to specific anti-depressants within one week of commencing treatment. We anticipate that these sites will be recruiting patients over the next 12 months and that results of the study will be available in the second quarter of 2007. We expect to provide an update about our progress in the study toward the end of 2006.

The opportunity to improve quality of life and care for patients suffering from dementia and 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 is currently sponsoring several clinical studies to measure changes in cognition over time using our proprietary EEG-based technology, including a longitudinal study of healthy elderly subjects on Cape Cod, and a multi-center study of elderly patients with mild cognitive impairment. We hope that our research and product development efforts will dovetail with promising new therapies for Alzheimer's that may increase in effectiveness with early diagnosis.

In closing

2005 was an important year in Aspect's ongoing evolution. I believe that Aspect is improving the quality of healthcare for millions of people around the world by bringing to market carefully developed, clinically proven, new technologies. In the process, we are also serving our shareholders. I am pleased that 2005 has brought increased profitability, disciplined management of expenses, and consistent, controlled growth. We've entered 2006 with great momentum and a commitment to sustaining this momentum. We expect that 2006 will bring continued advancement of our mission to improve people's lives by helping medical professionals deliver the best possible patient care through innovative brain monitoring technologies.

Sincerely,



Nassib G. Chamoun
President, CEO and Founder

Financial information

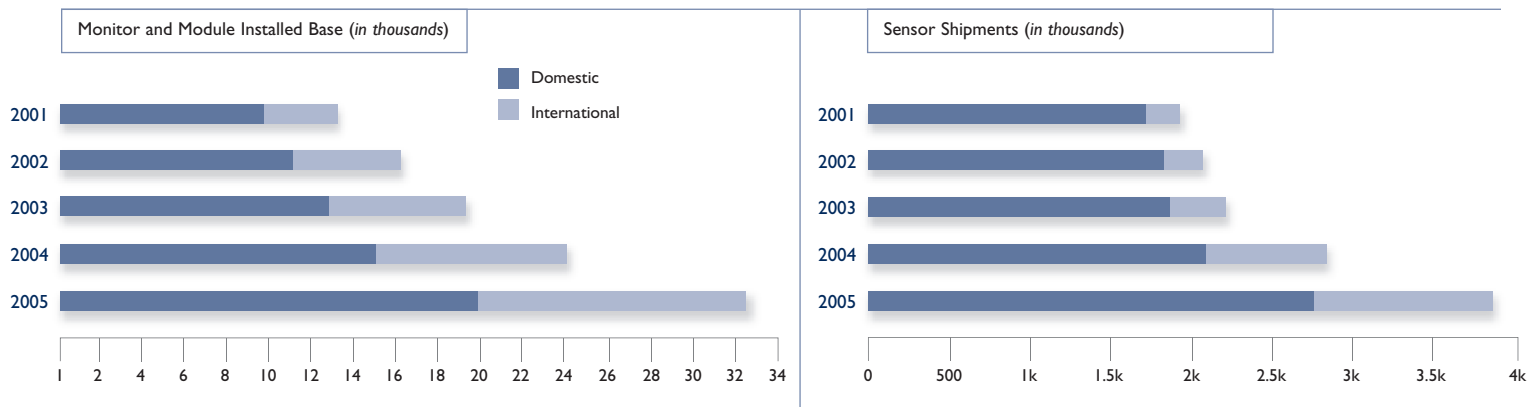
SELECTED CONSOLIDATED FINANCIAL DATA

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

YEAR ENDED DECEMBER 31,	2005	2004	2003	2002	2001
Product revenue	\$ 73,474	\$ 54,902	\$ 43,476	\$ 39,776	\$ 35,829
Strategic alliance revenue	3,521	662	615	—	—
Gross profit margin	57,692	42,572	33,193	27,961	23,383
Gross profit margin percentage	74.9%	76.6%	75.3%	70.3%	65.3%
Operating expenses:					
Research and development	10,464	7,470	7,287	7,827	7,467
Sales and marketing	30,388	26,776	25,321	28,449	28,396
General and administrative	10,291	8,946	7,833	7,942	7,803
Total operating expenses	<u>51,143</u>	<u>43,192</u>	<u>40,441</u>	<u>44,218</u>	<u>43,666</u>
Income (loss) from operations	6,549	(620)	(7,248)	(16,257)	(20,283)
Interest income, net	1,926	923	725	956	2,564
Net income (loss)	<u>\$ 8,475</u>	<u>\$ 303</u>	<u>\$ (6,523)</u>	<u>\$ (15,301)</u>	<u>\$ (17,719)</u>
Net income (loss) per share:					
Basic	\$ 0.39	\$ 0.02	\$ (0.34)	\$ (0.83)	\$ (1.01)
Diluted	\$ 0.35	\$ 0.01	\$ (0.34)	\$ (0.83)	\$ (1.01)
Weighted average shares used in computing net income (loss) per share:					
Basic	21,508	20,142	19,413	18,450	17,614
Diluted	23,921	22,286	19,413	18,450	17,614

CONSOLIDATED BALANCE SHEET DATA (in thousands):

AS OF DECEMBER 31,	2005	2004	2003	2002	2001
Cash, cash equivalents, restricted cash and marketable securities	\$ 43,773	\$ 32,295	\$ 31,162	\$ 36,865	\$ 41,458
Working capital	47,988	34,224	30,680	36,734	41,266
Total assets	87,132	61,690	47,740	54,480	63,369
Long-term debt	—	186	525	1,015	964
Total stockholders' equity	67,423	45,586	30,968	36,797	48,056



Corporate information

Annual Meeting of Stockholders

All stockholders are welcome to attend our annual meeting, which will be held at 9:00 am on Wednesday, May 24, 2006, at Aspect Medical Systems, Inc., 141 Needham Street, Newton, Massachusetts. We look forward to meeting our stockholders and answering any questions you may have at the meeting.

Forward-Looking Statements

Certain statements made in this Annual Report to stockholders are forward-looking statements that are subject to risks and uncertainties, including statements regarding the Company's near-term and long-term operating plans, strategies and goals. 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, 2005, 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 the 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
President of International Operations

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Donald R. Stanski, M.D.
Professor of Anesthesia
Stanford University

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and Founder

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J. Neal Armstrong
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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, 2005, is available free of charge upon written request to Aspect Medical Systems, Inc., Investor Relations Department, 141 Needham Street, Newton, Massachusetts 02464



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