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business report
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Industry Whitepapers from Neurotech Reports

Deep Brain Stimulation and Cortical Stimulation: Technology and Markets

This report provides an overview of deep brain stimulation technology and the markets where it is likely to be most successful. It covers the manufacturers of DBS systems, as well as the vendors of systems and devices that are used in conjunction with DBS, such as neurosurgical tools, imaging systems, and electrodes. Also included in this report is a discussion of cortical stimulation systems and the manufacturers developing this new class of brain stimulation device. The report covers the major application areas for DBS systems and examines the market growth in the years ahead. Included in the report is an extensive discussion of the key scientific studies pointing to the effectiveness of DBS therapy, as well as several major technology areas that will affect the maturation of the market. The report concludes with a look at future developments in DBS systems.

38 pages
$195.00
Updated: May 2007

Neurosensing Products and Technologies

This report provides an overview of the neurosensing market, including devices, software, and related technologies involved with recording or interpreting signals from the brain and nervous system. It includes discussion of brain state assessment systems such as consciousness monitoring and new electrophysiological markers for psychiatric disorders. The report covers the manufacturers currently on the market as well as developers of new systems expected to be on the market in the years ahead. It also looks at several new research directions that may yield commercial opportunities in the future.

31 pages
$195.00
Published: May 2007

Neurotechnology and the Stroke Market

This report provides an overview of the market opportunity for neurotechnology devices in treating and diagnosing stroke-related disorders. It covers the manufacturers of stroke rehabilitation devices and new forms of therapy. It also looks at several new research directions that may yield commercial opportunities in the years ahead.

35 pages
$195.00
Updated: May 2007

Brain-Computer Interfaces: A Technology Overview

This report provides an overview of brain-computer interfaces, one of the newest and most promising segments of the neurotechnology industry. It covers the early development of cortical control systems in animal trials and discusses the first commercial products that are now on the market. The report profiles many of the leading research institutions in the U.S. and abroad, and highlights some of the key investigators in the field. The report also discusses the market potential for brain-computer interfaces and looks at several areas of potential application.

20 pages
$195.00
Updated: May 2007

The Venture Capital Outlook for Neurotechnolgy

This report presents a useful and up-to-date analysis of the outlook for venture-capital funding for the neurotechnology industry. It is based on interviews conducted by Neurotech Reports editors with dozens of VC professionals and entrepreneurs actively involved with the neurotechnology space from 2002 to 2005. It also features insightful comments and practical advice from VC professionals participating in panel discussions at events such as the National Venture Capital Association, BIO CEO & Investor Conference, H&Q Healthcare Conference, SoCal BIO Investor Conference, and the Neurotech Leaders Forum. The report also includes profiles of several VC firms that invest in neurotechnology start-ups as well as details of recent funding activity in the neurotechnology industry.

38 pages
$195.00
Updated: May 2007

Funding Opportunities for Neurotech Startups

This report presents an overview of funding opportunities for neurotechnology startup firms. It includes discussion of federal funding sources, state government sources, foreign government sources, and private foundations and agencies that offer funding to neurotechnology firms and research organizations.

22 pages
$195.00
Updated: May 2007

2007 Neurotech Leaders Forum Will Move to Southern California

Neurotech Reports, the publisher of *Neurotech Business Report*, announced that the 2007 Neurotech Leaders Forum will be held in Southern California this year. The previous six events have been held in San Francisco. This year's conference will take place October 25-26 at the Radisson Hotel, Newport Beach.

The two-day event will feature a day of short courses devoted to neurotechnology topics on October 25, and a day of panel discussions on October 26. Neurotech Business Report editors James Cavuoto, Warren Grill, and Glenn Cornett will lead the conference faculty. Session topics, including the keynote address, will be announced later this spring.

The first day of the program will also feature an interactive program with disability leaders representing several segments of the neurological diseases and disorders communities. The Thursday afternoon program will feature a neurotechnology overview session for potential users of neurotech devices, followed by a panel discussion combining users and neurotechnology industry representatives. Jennifer French, executive director of the Neurotech Network, will moderate the panel.

For more information on attending or sponsorship opportunites, contact Neurotech Reports at 415 546 1259 or visit www.neurotechreports.com.

Scientists and Investors Converge on Los Angeles for 2006 SoCalBio Conference

by James Cavuoto, editor

Several hundred professionals from the life sciences industry in southern California attended the 2006 SoCalBio Investor Conference in Los Angeles last month. Los Angeles mayor Antonio Villaraigosa highlighted the event with a dinner presentation outlining public policy proposals to support the growth of the life sciences industry in the region.

In a keynote presentation on March 29, Nobel laureate David Baltimore from California Institute of Technology gave his impressions of future directions of biotechnology research. One of the technologies he highlighted in his talk was a new discipline of "synthetic biology," which incorporates biological engineering, molecular engineering, cellular engineering, and tissue engineering. In addition to building new organs engineered to provide effective function, this discipline would build integrated sensor/responder systems that mimic tissue behavior, Baltimore said.

In a session devoted to mergers and acquisitions, a panel of financial professionals, including founders of medical device companies that were later acquired, gave their impressions of earnout arrangements, performance metrics, and other aspects of structuring a deal. Al Mann, founder of Advanced Bioncs, Second Sight, and other firms, said that simpler metrics came into play with device companies that made earnouts a worthwhile strategy in his deals. But Mann complained that in the era of Sarbanes-Oxley, it's not as much fun to sell a public company; auditing costs increased tenfold for his recent sale of Mannkind Inc., compared to Minimed five years earlier.

Executives and Financial Professionals Discuss Issues at 2005 SoCalBio Conference

by James Cavuoto, editor

Close to 400 biomedical industry professionals from Southern California attended the 7th SoCalBio Investor Conference in Los Angeles, March 23-24. The event, produced by the nonprofit Southern California Biomedical Council, seeks to promote and grow the life sciences industry in the greater Los Angeles area.

During the conference, several neurotechnology professionals took part in a panel discussion entitled "Opportunities in Electro-Stimulation." The panel was moderated by John Onopchenko, a vice-president of Johnson & Johnson Development Corp. and Michael Partsch, Managing Director of Accuitive Medical Ventures. Participating on the panel were Alfred Mann, founder of Advanced Bionics, Second Sight, and other neurotechnology firms, Paul Stypulkowski, senior director for therapy research & development at Medtronic Neurological, Peter Staudhammer, director of the Mann Institute for Biomedical Engineering at University of Southern California, Ellen Koskinas, principal at InterWest Partners, Jagjit Gill, responsible for new business development at Boston Scientific, Robert Shannon, head of the auditory implants program at House Ear Institute, and Yitzhak Zilberman, CEO of Bioness, Inc.

The panel discussed some of the problems and opportunities confronting the industry, including reimbursement, liability, and obtaining funding. Onopchenko said that his firm's recent purchase of Guidant Inc. "opened their eyes to neurostimulation opportunities," including the market for chronic pain and migraine.

Mann downplayed the risk of device liability, claiming that his companies paid out only $300,000 from 1973 to 1992. He also called for the neurotechnology industry to have a greater awareness of political forces that can influence issues such as Medicare reimbursement. Citing cochlear implants as an example, Mann said that the added costs of educating and coping with a deaf student could be as much as $300,000 to $900,000, including reduced earning potential. By contrast, the $45,000 to $60,000 cost of a cochlear prosthesis seems well justified. Zilberman pointed out that device firms need to have quantitative measures available. "No measure, no payment," he said. Zilberman also noted that stimulation devices offer the advantage of fewer side effects than drug therapies.

In an opening session, Richard Mejia and Donald Williams from Ernst & Young reviewed the overall funding picture for health sciences firms. In the medical devices arena, venture capital funding remained relatively flat from 2002 to 2004. There were 179 deals worth $1.6 billion in 2004, with the median deal worth about $7.0 million. One figure that has changed: average pre-money valuation increased to $13.6 million in 2004 from $10.0 million in 2003. Medical device funding represented about 28 percent of the total VC investment in health science startups, with bio/pharma firms getting 60 percent, and the remainder to other types of firms. E&Y reports that health-science related IPO activity is on the rise. There were 39 IPOs that raised $2.1 billion in 2004, an increase from 8 IPOs and $500 million in proceeds in 2003.

A luncheon session on March 23 featured a panel discussion of venture capital professionals active in the health sciences. The panelists offered a review of the previous year's investment trends and their outlook for the coming year. Andrew Firlik from Sprout Group said he looks for a "value inflection point" when evaluating potential investments. David Lowe from Skyline Ventures described his firm's strategy as a "sweat stage" VC. Robert Overell from Frazier Healthcare Ventures advised entrepreneurs to look for non-equity funding opportunities such as grants and other start-up money that does not dilute the owners' equity. Eliott Parks from Ventana Capital warned startups not to scrimp on preclinical work.

Following this panel discussion, Jerry Loeb from the University of Southern California, one of the inventors of the BION microstimulator, presented a potential investment opportunity to a panel of VCs, who critiqued the plan. Loeb's team at the Mann Institute at USC has developed a percutaneous optical fiber with chemical sensing capabilities. The device, dubbed a "Sencil," as in sensory cilia, is a hair-like sensor with potential applications in glucose monitoring and other diagnostic tests.