

**Mind over Matter – Cogito Ergo Motio**  
**Science and Entrepreneurship in the Interface**  
**Between the Brain and the Machine**

**SPEAKERS**

**Dr. Matt McMahon**

*Senior Principal Scientist*  
*Second Sight Medical Products*

Matt is the Senior Principal Scientist at Second Sight Medical Products. Matt is a prolific writer and sought after speaker who can present an intimate view of the eye, its operations, and its remarkable power as a sensor and image processing machine. In the past Matt has worked with Dennis Dacey at the University of Washington, Don MacLeod at UCSD, and Dave Williams and Peter Lennie at the University of Rochester Center for Visual Science. Matt has Ph.D. and Masters degrees from the University of California, San Diego and a BS in Optics from the University of Rochester. He has numerous publications and patents and is the recipient of many honors and awards.

Second Sight, located in Sylmar, California, is creating a retinal prosthesis to provide sight to patients blinded from outer retinal degenerations such as Retinitis Pigmentosa. The first device consists of a tiny camera and transmitter mounted in eyeglasses, an implanted receiver, and an electrode-studded array that is secured to the retina with a microtack the width of a human hair. A wireless microprocessor and battery pack worn on the belt powers the entire device. The camera on the glasses captures an image and sends the information to the video processor, which converts the image to an electronic signal and sends it to the transmitter on the sunglasses. The implanted receiver wirelessly receives this data and sends the signals through a tiny cable to the electrode array, stimulating it to emit electrical pulses. The pulses induce responses in the retina that travel through the optic nerve to the brain, which perceives patterns of light and dark spots corresponding to the electrodes stimulated. Patients learn to interpret the visual patterns produced into meaningful images.

**Dr. Jeremy L. Emken**

*Post Doctoral Fellow – the Andersen Lab*  
*Division of Biology*  
*California Institute of Technology*

Jeremy L. Emken received the B.Sc. degree in mechanical engineering from California Polytechnic State University, San Luis Obispo, in 1998, and the M.Sc. and Ph.D degree in biomedical engineering in 2003 and 2006, respectively, from the University of California, Irvine. He spent three years as a Research Engineer with Medtronic Vascular, Santa Rosa, CA, developing novel stent delivery systems and anti-restenosis therapies.

He is currently in the Andersen Laboratory at the California Institute of Technology where he is the Project Manager for the Caltech Neural Prosthetic and is leading the design, development, and regulatory effort for a novel neural prosthetic device intended to allow disabled subjects to control external devices using only their thoughts. His research interests include neural motor learning and control, brain-computer interfaces, robot-assisted rehabilitation, and neurophysiology.

**PANELISTS**

**Fred Farina**

*Assistant Vice President*  
*Office of Technology Transfer*  
*California Institute of Technology*

A graduate of Caltech (MS Electrical Engineering) and a registered U.S. patent agent, Mr. Farina also holds a “Diplôme d’Ingénieur” in Electrical Engineering from the Institute National des Sciences Appliquées, Lyon, France. At Caltech, he is in charge of the Office of Technology Transfer, whose responsibilities include evaluating inventions at Caltech and the Jet Propulsion Laboratory (NASA), supervising patent prosecution and portfolio management, negotiating licensing deals with industry and assisting Caltech/JPL entrepreneurs with the creation of startups.

**Marcus O. Filipovich**

*CEO*

*Ikona Medical Products Corp  
Director, Pasadena Angels*

Marcus is the CEO of Ikona Medical Corp., an early stage Pasadena-based medical device firm. Marcus has a background in general management, marketing, and operations in both entrepreneurial and large corporation environments in the medical devices and digital entertainment fields. Previously, Marcus held executive and senior management positions at Karl Storz Endoscopy America Inc., BrainMedia LLC, PhatNoise Inc., Infinite Biomedical Technologies LLC, Vitatron Medical BV and Medtronic Inc. Marcus is also a Director of the Pasadena Angels, a 100 member investment group. Marcus holds both an MSEE and BSEE from MIT and an MBA from the Carlson School (Minnesota).

Ikona is developing endoscopic digital image processing software that produces panoramic high definition image mosaics utilizing low-res inexpensive hardware and optics. The first Ikona product is an imaging probe that provides a quicker and cheaper diagnostic assessment for the three million U.S. women who annually see their gynecologist due to Abnormal Uterine Bleeding. Ikona is also researching the use of its motion tracking, feature detection, and, image de-warping and mosaicing technology to enhance the 8 million gastro-intestinal imaging studies performed annually. At Medtronic, Marcus led the Global Marketing & Sales Team that launched Activa® Therapy – a deep brain stimulation treatment for Essential Tremor and Parkinson’s Disease.

**Ahmed A. Enany**

*President & CEO*

*Southern California Medical Council*

Enany is the founder and President of the Southern California Biomedical Council (SCBC), a trade association whose mission is to promote the life-science industry in Greater Los Angeles. In addition to offering educational forums, CEO roundtables, and networking events designed to bring the Life Sciences community together, the SCBC organizes and hosts an annual investor conference to help area entrepreneurs in tapping individual and institutional sources of funding. Since its founding, the SCBC has pursued a collective action agenda that puts life-science industry promotion on the priority lists of many local governments and economic development institutions. With the support of many well-known bioscience entrepreneurs in the LA area, such as Alfred E. Mann, the SCBC has initiated programs for the creation of science parks and incubators, effective workforce development, academic-industry partnerships, and accessing sources of capital.

Enany has a BA in Political Science from Cairo University (Egypt), finished the requirements of the UCLA Political Science MA Program, and did extensive Ph.D.-related work at the UCLA School of Urban Planning (now the School of Public Policy and Social Research) on regional economic development, industrial geography, and the political economy of technological innovation. When the SCBC was incorporated in December of 1995, Enany left UCLA to focus on growing the organization and was named, in 1997, as one of the 50 most influential leaders in LA healthcare by the *Los Angeles Business Journal*.

Enany serves on the boards of the Los Angeles City WIB and the Los Angeles Economic Development Corporation. He also serves on the industry advisory boards of the UCLA NeuroEngineering Program, USC Medical Device & Diagnostic Engineering Masters Programs, and the Keck Graduate Institute’s Partnership for Innovation Program, and the DOL-funded San Diego [Biotechnology Labor Market Information](#) Project, the Economic Development Strategy Task Force of the LA City Community Development Department, and the USC Global BioBusiness Initiative.

**Alexander B. Suh**

*Founder and Managing Director*

*California Technology Ventures, J.J. Jacobs Enterprises LLC, and Jacobs Capital Group LLC*

Alex Suh is a founding Managing Director with California Technology Ventures, LLC, a Southern California venture capital firm that focuses its investments in the fields of Life Sciences and Information Technology. Alex is the managing director that invests in Life Sciences as well as Information Technology. Alex is also a founding Managing Director with J.J. Jacobs Enterprises, LLC and Jacobs Capital Group, LLC, both Pasadena-based venture capital and fund-of-fund firms where he has invested in other venture capital funds globally that offer a strategic fit with California Technology Ventures.

Before co-founding Jacobs Enterprises, Jacobs Capital Group and California Technology Ventures, Alex was an entrepreneur, helped develop the first small business incubator in the San Gabriel Valley, managed several small business lending programs, consulted with nonprofits and cities on economic development projects and taught college courses in entrepreneurship, business and management.

Alex is or has sat on the Advisory Boards for EmTek, a San Diego based community small business lending and equity program; LARTA, a technology think tank; Claremont Graduate University's Venture Financial Institute; and formerly the Life Science Steering Committee for State of California Governor's Office.

**MODERATOR & PRODUCER****Russell Frandsen**

*Attorney at Law*

*The Business Legal Group*

**Areas of Practice :**

Mr. Frandsen, an alum of the Duke University Law School, has 31 years experience in practicing business law with major international law firms and in serving as outside general counsel to middle market companies. Russell has developed a diverse range of experience, particularly in corporate finance and securities, corporate transactions, gift certificates and gift cards, technology and venture capital, real estate, and taxation.

With considerable expertise in high technology companies, entrepreneurial businesses and venture capital investing, Frandsen has handled numerous technology start-up firms, mergers and acquisitions, federal and state securities law issues, including public and private securities offerings, intellectual property licensing and technology transfers, technology joint ventures, securing and protecting trade secrets and intellectual property and related general business problems. Mr. Frandsen serves as outside general counsel to a number of clients in the high technology field.

Mr. Frandsen pioneered the way for Internet securities offering. He obtained the IPONET No Action letter, dated July 26, 1996, setting forth the guidelines for securities offerings on the Internet. Mr. Frandsen obtained the definitive opinion of the California Commissioner of Corporations interpreting Corporate Securities Act of 1968, as amended, section 25102(n), including offerings on the Internet. Mr. Frandsen has participated as speaker and panelist at a number of national and local seminars and conferences.

Clients include individuals and companies involved in such diverse technological and nontechnological activities as biotech and pharmaceutical development, various medical devices, uranium enrichment through laser diffusion technology, industrial acoustic imaging, document imaging, storage, and retrieval through systems integration and proprietary software development, electronically controlled and metered fuel injection systems for internal combustion engines, web site software, optical filters, multiplexing and demultiplexing telecommunications devices, genetic diagnostic tools, domestic and foreign technology licensing agreements, industrial equipment manufacturers, restaurants, quick-service restaurant chains, national retailers, entertainment companies, gift card companies, broker-dealers, underwriters, investment companies, and hedge funds.

Mr. Frandsen serves on the Executive Committee of the Caltech MIT Enterprise Forum (Executive Committee, Chair 1998-2000; 2003-2007). He served on the board of directors of the Rotary Club of Los

Angeles (LA 5), of the Association for Corporate Growth in Los Angeles and as Vice Chair of the Los Angeles County Private Industry Council.

In June 2007, Mr. Frandsen, like his entrepreneurial clients, founded his own law firm, the Business Legal Group. Mr. Frandsen brings all of the expertise gained in the large firm environment to his practice at the Business Legal Group.

## PRODUCER

### **Rogelio F. Nochebuena**

*President*

*Nochebuena R&D*

Nochebuena R&D is a consulting organization based in Pasadena that focus on assisting small companies as well as large enterprises to solve problems in a cost-effective way in the fields of lasers and nanotechnology.

Mr. Nochebuena has more than 20 years of experience in high technology. He has worked in Fortune 100 companies, as well as start-ups. Some of the companies that he has worked for include Agilent Technologies, Xerox Corp, and Carl Zeiss where he served in senior technical and marketing positions. His consulting practice includes clients such as Lawrence-Livermore National Labs, Intelligent Optical Systems as well as tier one universities.

He has developed an ability to spot technologies in the embryonic stages and advise entrepreneurs and venture capital clients on how best to harvest such developments. Recently he was appointed as Executive-in-Residence at Angel Strategies, where he reviews investments in the medical device and biotechnology industries.

Mr. Nochebuena combines knowledge in the physical and biological sciences and has been involved in a variety of projects with strong emphasis on lasers and opto-electronic materials and devices. While working at world famous Xerox PARC, he was tutored in nanotechnology by Professor Cal Quate, the co-inventor of the Atomic Force Microscope. Since then he has been involved in a variety of projects that include nanolaminates, organic nanotubes, OLED's (Organic Light Emitting Diodes), and avant- garde photovoltaics.

He brings expertise in the areas of technology transfer, commercialization and licensing IP, managing innovation and business strategy.

He has participated in a number of panels and local seminars and conferences, and held the position of Chapter Vice-Chair for the IEEE Laser and Opto-Electronics Society. His education includes graduate work in Electrical Engineering and Material Science from Brigham Young University and Rice University, and holds an MBA from Pepperdine University.

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The firm represents clients ranging from Fortune 100 companies to mid-market and emerging companies. Clients include financial services firms, life sciences companies, health care providers, technology companies and entrepreneurs, power generators and suppliers, manufacturers, real estate companies, universities, and non-profit organizations throughout the world. Corporate Counsel Magazine recently ranked Reed Smith as one of the top 10 law firms in terms of quality of work.