

Caltech/MIT Enterprise Forum  
November 18, 2003  
**FEDERAL R&D GRANTS:  
A Practical Lab Course**

## PANELISTS

**George Abe**  
**Manager of Business Development**  
**Office of Research Administration at UCLA**

George Abe is Manager of Business Development in the Office of Research Administration at UCLA. His functions include patent review, licensing and assisting faculty and graduate students in starting companies. He is also a Lecturer in the Anderson School of Business at UCLA where he oversees field study programs and teaches a graduate course entitled "High Tech Venture Development".

Previously he was a venture partner with Palomar Ventures, a VC firm with \$300 million under management in Santa Monica, California. Before Palomar, George spent 6 years with Cisco Systems in the office of the Chief Technical Officer, supporting M&A transactions and strategic partnerships. Prior to that he spent 16 years with Infonet Services Corporation where he established Infonet's IP data service and helped spin out the company from its parent, Computer Sciences Corp.

Since 1998 he has been a member of the Board of Directors of Switchcore AB, a publicly traded fables semiconductor designer in Sweden. He is also currently a member of the Board of Directors of the National Regulatory Research Institute ([www.nrri.ohio-state.edu](http://www.nrri.ohio-state.edu)) and Board of Advisors for the Pepperdine Center for Entrepreneurship and Technology Law (CETL). Previously he was a Director of 4 startup companies and the Raytheon Commercial Ventures Advisory Board.

He is the author of **Residential Broadband**, which presents an analysis of high-speed residential networking, published by Cisco Press. The book is in its second edition and has been translated into Japanese and Mandarin.

He received a Bachelors degree in Mathematics and an MS in Business (Quantitative Methods), both from UCLA.

**Scott Broadley**  
**President**  
**Broadley-James Corporation**

Scott Broadley is the President of Broadley-James Corporation, a manufacturer of pH and dissolved oxygen sensors for bioprocess applications. He received his B.A. in Chemistry from the University of California at Davis in 1978 and for the past 25 years has designed and developed electrochemical sensors for both scientific and industrial process control applications. He has been granted patents for industrial reference electrode designs (US #5,147,524 & Canada #2,060,946) and most recently for a novel microfluidic flowing-junction reference electrode with an invariant liquid junction potential (US #6,599,409 and US#6,616,821).

He is currently Principal Investigator for a NSF SBIR Phase II Grant to commercialize the microfluidic reference electrode and for a NSF SBIR Phase I Grant to demonstrate the feasibility of a nanofluidic reference electrode

**Julie Holland**  
**Director**  
**NASA Commercialization Center**  
**California State Polytechnic University**

Julie Holland is Director of California State Polytechnic University, Pomona's business incubation program that specializes in technology commercialization. She led the feasibility team and fund raising effort as an independent consultant then joined the university full time in August 1998 to direct implementation. Cal Poly Pomona's business incubation program is housed in approximately 31,000 square feet of the new 52,000 square foot Center for Training, Technology, and Incubation, which was the first approved project in the 65-acre technology park located on campus.

Holland has 25 years of product and market development experience in industries with a technology or emerging-market focus. She has worked extensively in the software development and clinical laboratory instrumentation industries in technical, market, and management roles.

The Cal Poly Pomona incubation program is comprised of two business incubators: the NASA Commercialization Center and the Pomona Technology Center. The NASA Commercialization Center is co-sponsored by the National Aeronautical and Space Administration (NASA) and Cal Poly Pomona. The Pomona Technology Center is co-sponsored by the U.S. Economic Development Administration; California Technology, Trade and Commerce Agency; and Cal Poly Pomona.

The business incubation program provides office and some light manufacturing and R&D space and offers a strong product development service program. It supports both campus and private sector new product initiatives. The NASA Commercialization Center is currently piloting a program for NASA aimed at improving the commercialization rate of companies that have received a NASA Small Business Innovative Research (SBIR) Phase II award.

Holland holds a B.S. in Medical Technology and M.B.A. in Finance.

**John Mai, Ph.D.**  
**Founder and President**  
**Microwave Bonding Instruments, Inc. (MBI)**

Dr. Mai, is a founder and current president of Microwave Bonding Instruments, Inc (MBI). At MBI, Dr. Mai has been the principal investigator on three AF SBIR projects. MBI has also won an addition three other SBIR contracts as well as an NSF SBIR grant and a CalTIP grant. Prior to founding MBI in 2000, he worked in MEMS fabrication for three years for the In-Situ Exploration Technology Group at the Jet Propulsion Laboratory. It was at JPL where he was first introduced to microwave bonding techniques. He holds a Ph.D. in Aerospace Engineering, with a MEMS specialization, from UCLA. His thesis work involved micro convective cooling techniques and was sponsored by AFOSR and DARPA. He was a also graduate fellow at the USAF Wright Labs in the Experimental Operations (1994) and the Experimental Aeromechanics Group (1995).

**Tom Tsao**  
**President and Co-founder**  
**Umachines, Inc.**

Tom Tsao is the President and a co-founder of Umachines, a Caltech spin-off focused on commercializing MEMS technologies. During his tenure, Umachines initially developed flow sensors for aerospace, military, and commercial applications; later, he refocused attention to the optical components market for telecommunications. Umachines is currently one of a select group of companies that offers Telcordia qualified MEMS-based small port count optical switches. He received his B.S. from UC-Berkeley and his Ph.D. from Caltech.

**MODERATOR**

**Lynn E. Foster**  
**Resource Development Specialist**  
**Los Angeles**

Lynn E. Foster has extensive experience in raising capital and providing advisory services to young technology companies. Mr. Foster has advised hundreds of companies on raising capital from government grants and venture capital. He has mentored companies in many different industries by providing education, business consulting and facilitating strategic alliances.

Mr. Foster served as a federal grant manager for the US Air Force and managed the State of California's CalTIP grant program that matches federal research and development grants with commercialization funding. He is also a grant reviewer for the National Science Foundation. He has more than 10 years of experience with the federal grant process as a government manager, consultant and entrepreneur and lectures on both entrepreneurial and Nanotechnology topics at various conferences and universities.

Mr. Foster directed numerous Nanotechnology conferences and trade missions as the Director of Technology Consulting for the Los Angeles Regional Technology Alliance. While directing Larta's Nanotechnology programs, he authored the seminal Nanotechnology Yellow Pages Trade Study and directed the first Nanotechnology Commercialization Conference for the US Department of Commerce. He also founded and served as Director of the Southern California Nanotechnology Working Group.

He serves on the Executive Committee of the Caltech Enterprise Forum and the NanoEngineering Advisory Council of the International Engineering Consortium.

Mr. Foster was the chief financial officer of a startup company specializing in law enforcement robotic applications. He has experience as a software project manager and financial analyst as well as experience in the aerospace industry. He also has 18 years of active and reserve service with the US Army including service in the Gulf War and Bosnia.