

Will California Lead in Nanotech?

An Evening with Congressman Mike Honda, Ex-NASA Ames Administrator Scott Hubbard, and other Thought Leaders

DISTINGUISHED SPEAKERS

Congressman Mike Honda Scott Hubbard, Ex-NASA Ames Administrator Tom Kalil, UC Berkeley Special Assistant to the Chancellor Christine Peterson, President of the Foresight Institute

MODERATOR & EVENT CHAIR

Anthony Waitz, Quantum Insight

VENUE NASA Ames Research Center, Building 943 Wednesday, March 22, 2006 6:00-9:00 pm

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AGENDA

- 7:00 PM Welcoming remarks by Anthony Waitz.
- 7:05 PM Scott Hubbard on the Blue Ribbon Task Force
- 7:30 PM Tom Kalil on the "California Competes" initiative
- 7:45 PM Christine Peterson on the Foresight/Battelle Nanotech Roadmap
- 8:00 PM Congressman Mike Honda on his new nanotech legislation
- 8:15 PM Q&A from the audience
- 8:30 PM Event concludes

ABSTRACT

California has been consistently ranked as the leading state in nanotechnology R&D in the US. However, this position is by no means assured. Other states, like Massachusetts, New Mexico, New York, Michigan, and Texas are close behind California in rankings by Small Times and other publications. They are aggressively positioning themselves as the future centers of nanotechnology innovation and commercialization in the US.

The question that we will address is: What is California doing to assure its leadership in nanotechnology over the coming years? This question is particularly poignant as Silicon Valley looks for the next wave of technologies to succeed semiconductors, biotech and software as economic drivers for the region.

Join us for an evening of insight on California's role in the future of nanotech with a distinguished panel of thought leaders including: Congressman Mike Honda, Ex-NASA Ames Administrator Scott Hubbard, UC Berkeley Special Assistant to the Chancellor, Tom Kalil, and the president of the Foresight Institute, Christine Peterson.

Congressman Mike Honda and State Controller Steve Westly commissioned the Blue Ribbon Task Force for Nanotechnology in 2005 to develop a strategy to maintain California's leadership. Ex-NASA Ames Administrator, Scott Hubbard, who led this task force, will share the results of the year-long study with us. Additionally, copies of the task force final recommendation white paper will be made available to all attendees.

Following Scott's talk we will have three speakers discussing their specific initiatives. Tom Kalil on the California Innovation Initiative. Christine Peterson on the Foresight/Battelle Nanotech Roadmap, and finally, Congressman Honda will discuss the new nanotech legislation that he is working on.

SPEAKER BACKGROUND INFORMATION

Scott Hubbard,

Scott Hubbard, an 18 year NASA veteran and Director of the NASA Ames Research Center from 2002 to 2006, has been interested in the broad question of life in the universe since he was a 12 year old lad in Elizabethtown, Kentucky. He has recently assumed the Carl Sagan Chair for the Study of Life in the Universe at the SETI Institute.

Inspired by the launch of Sputnik and the ensuing space race to conduct "Rocket Boy" experiments in his backyard, Scott grew up to attend Vanderbilt University, where he studied physics and astronomy. He helped put himself through college with a combination of scholarships, a job in the physics lab, and as a professional guitar player.

Once out of college, Scott evolved into a true out-of-the-box thinker. In 1974, he codeveloped new radiation detection technology at Lawrence Berkeley Lab. That technology is now incorporated in the Mars Odyssey mission. A few years later he sharpened his entrepreneurial skills as co-founder of a high-tech start-up company near San Francisco.

At NASA Scott quickly moved up through the ranks. By 1997 he was the NASA manager of the successful Lunar Prospector, establishing a new way of doing business at NASA. He helped spearhead the discipline of Astrobiology at NASA and was the initiator and first Director of NASA's "virtual institute", the NASA Astrobiology Institute. He became NASA's "Mars Czar", taking on the task of successfully restructuring the agency's Mars Program in the wake of two major mission failures. Scott was frequently in the papers during the Shuttle Columbia accident investigation, running the test program that demonstrated the definitive physical cause of the accident. He developed a reputation as a leader in innovative collaboration, establishing the NASA Research Park at Ames as well as being the driving force behind the Center's supercomputer initiative, Project Columbia. Very recently he initiated a high-profile, long-term cooperative agreement with Google.

Tom Kalil

Thomas Kalil is currently the Special Assistant to the Chancellor for Science and Technology at UC Berkeley. He develops major new multi-disciplinary research and education initiatives at the intersection of information technology, nanotechnology, microsystems, and biology. He also develops a broad range of partnerships between 2 of the California Institutes of Science and Innovation (Center for Information Technology Research in the Interest of Society, California Institute for Bioengineering, Biotechnology and Quantitative Biomedical Research) and potential stakeholders in industry, government, foundations, and non-profits.

Tom is also a Senior Fellow with the Center for American Progress, a member of California's Blue Ribbon Nanotechnology Task Force, and a member of the Technology

Convergence Consortium Executive Committee. He serves on the Scientific Advisory Board of Nanomix, and is a member of the Q Network. He has served on several committees of the National Academy of Sciences, including the Committee to Facilitate Interdisciplinary Research.

Previously, Thomas Kalil served as the Deputy Assistant to President Clinton for Technology and Economic Policy, and the Deputy Director of the White House National Economic Council. He was the NEC's "point person" on a wide range of technology and telecommunications issues, such as the liberalization of Cold War export controls, the allocation of spectrum for new wireless services, and investments in upgrading America's high-tech workforce. He led a number of White House technology initiatives, such as the National Nanotechnology Initiative, the Next Generation Internet, bridging the digital divide, e-learning, increasing funding for long-term information technology research, making IT more accessible to people with disabilities, and addressing the growing imbalance between support for biomedical research and for the physical sciences and engineering. He was also appointed by President Clinton to serve on the G-8 Digital Opportunity Task Force (dot force).

Prior to joining the White House, Tom was a trade specialist at the Washington offices of Dewey Ballantine, where he represented the Semiconductor Industry Association on U.S.-Japan trade issues and technology policy. He also served as the principal staffer to Gordon Moore in his capacity as Chair of the SIA Technology Committee.

Tom received a B.A. in political science and international economics from the University of Wisconsin at Madison, and completed graduate work at the Fletcher School of Law and Diplomacy. He is the author of articles and op-eds on S&T policy, nanotechnology, nuclear strategy, U.S.-Japan trade negotiations, U.S.-Japan cooperation in science and technology, the National Information Infrastructure, distributed learning, and electronic commerce.

Christine Peterson

Christine Peterson writes, lectures, and briefs the media on coming powerful technologies, especially nanotechnology. She is Founder and Vice President, Public Policy, of Foresight Nanotech Institute, the leading nanotech public interest group. Foresight educates the public, technical community, and policymakers on nanotechnology and its long-term effects.

She serves on the Advisory Board of the International Council on Nanotechnology, the Editorial Advisory Board of NASA's Nanotech Briefs, and on California's Blue Ribbon Task Force on Nanotechnology.

In 2004 she chaired the 1st Conference on Advanced Nanotechnology: Research, Applications, and Policy. For many years she directed the Foresight Conferences on Molecular Nanotechnology, organized the Foresight Institute Feynman Prizes, and chaired the Foresight Vision Weekends. She lectures on nanotechnology to a wide variety of audiences, focusing on making this complex field understandable, and on clarifying the difference between near-term commercial advances and the "Next Industrial Revolution" arriving in the next few decades.

Her work is motivated by a desire to help Earth's environment and traditional human communities avoid harm and instead benefit from expected dramatic advances in technology. This goal of spreading benefits led to an interest in new varieties of intellectual property including open source software, a term she is credited with originating.

Wearing her for-profit hat, she serves on the Advisory Board of Alameda Capital.

In 1991 she coauthored Unbounding the Future: the Nanotechnology Revolution (Morrow, full text online), which sketches nanotechnology's potential environmental and medical benefits as well as possible abuses. An interest in group process led to coauthoring Leaping the Abyss: Putting Group Genius to Work (knOwhere Press, 1997, full text online) with Gayle Pergamit.

Christine holds a bachelor's degree in chemistry from MIT.

Mike Honda

Mike Honda represents the 15th Congressional District of California in the U.S. House of Representatives. His district encompasses the area known throughout the world as Silicon Valley, the birthplace of technology innovation and the leading region for the development of the technologies of tomorrow. Mike has been a public servant for decades during which he has been lauded for his work on education, transportation, civil rights, the environment, and the high-tech community.

Mike was born in California, but spent his early childhood with his family in an internment camp in Colorado during World War II. His family returned to California in 1953, becoming strawberry sharecroppers in Blossom Valley in San Jose.

In 1965, Mike interrupted his college studies to answer President John F. Kennedy's call for volunteer service. He served in the Peace Corps for two years, where he built schools and health clinics in El Salvador. Mike returned from the Peace Corps with a passion for teaching, and fluent in Spanish.

Mike earned bachelor's degrees in Biological Sciences and Spanish, and a master's degree in Education from San Jose State University. In his career as an educator, Mike was a science teacher, served as a principal at two public schools and conducted educational research at Stanford University. In 1971, Mike was appointed by San Jose Mayor Norm Mineta to San Jose's Planning Commission. In 1981, Mike won his first election, gaining a seat on the San Jose Unified School Board.

In 1990, Mike was elected to the Santa Clara County Board of Supervisors. As a Supervisor, Mike led efforts to establish the Open Space Authority, whose mission is the preservation of open space. He also took the lead in women's health care issues such as raising awareness of breast cancer, and convening a women's health conference. He passed landmark welfare reforms that have saved millions of dollars for the county.

Mike was elected to the California Assembly in 1996 and was re-elected in 1998. As an Assembly member, Mike worked with Governor Gray Davis to draft landmark education reforms - including smaller class size and increases in teachers' benefits. As Chair of the Assembly Public Safety Committee, Mike worked to pass sensible gun safety legislation to keep guns out of the hands of juveniles and voted to ban assault weapons. Mike was awarded "High-Tech Legislator of the Year" by the American Electronics Association for his strong advocacy for the high-tech economy. He fought for legislation to augment the research and development tax credit and worked to eliminate taxes on graduate school tuition paid by employers.

In 2000, Mike was elected to the U.S. House of Representatives. Mike serves the House Committee on Science, and on the Transportation & Infrastructure Committee.

Mike is dedicated to passing a responsible budget that pays down our national debt, and revitalizes our economy, while protecting top priorities such as Social Security, Medicare, and public education. As a member of the influential Transportation & Infrastructure Committee, Mike is working hard to make sure the Silicon Valley gets its fair share of federal transportation funding to make the daily commute safer and more efficient for the residents of our fast-growing region.

As a Congressman for Silicon Valley, Mike is taking a leading role in bringing Democrats and Republicans together to better understand technology issues. In this vein, Mike has formed a bi-partisan Wireless Task Force to enable Congress to better understand and support innovative technologies for next generation wireless deployment.

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Introduction and Mission Statement

The Nanotechnology Forum is the largest nanotechnology focused organization in the Bay Area. It is dedicated to promoting the burgeoning field of nanotechnology by connecting ideas, technology and people. It is a unique organization, run entirely by unpaid volunteers under the umbrella of the alumni associations of the three universities.

The Nanotechnology Forum primarily serves the alumni communities of MIT, Stanford and the University of California, Berkeley, but events are open to anyone interested or active in the field of nanotechnology. We provide opportunities for industry experts, researchers, entrepreneurs, venture capitalists, private investors, technologists and the interested public to discuss, understand and evaluate the state-of-the art in nanotechnology.

Our events feature leading researchers, business leaders, investors, policy makers and entrepreneurs active or interested in the field of nanotechnology.

Steering Committee

Kitu Bindra, Dr. Wasiq Bokhari (Chair), Elizabeth Curran, Terry Fuqua, Peter Chou, Dr. Fred Lam, Vivek Nadkarni, Camille Olufsson, Gina Reiger, Dr. Jane Scheiber, Anthony Waitz, Qian Wu.

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totaled 8.632.4 billion ven (\$81.4 billion). The company offers a wide range of systems, products and services in market sectors including, information systems, electronic devices, power and industrial systems, consumer products, materials and financial services. For more information on Hitachi please visit the company's web-site at http://www.hitachi.com.

Quantum Insight

Quantum Insight is a pioneering business strategy services firm in the field of emerging new materials and nanotechnology. Our customers include Fortune 500 companies as well as venture and corporate funds. We provide strategic business and market development services to companies active or interested in the fields of emerging new materials and nanotechnology. We also provide investment research and targeted deal sourcing services to venture and corporate funds seeking to build new technology startups.

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We at Buchanan Ingersoll are proud to say that among our 100 plus scientists and attorneys from all the major scientific disciplines we have some of the

pioneers in the field of nanotechnology. Our attorneys have developed patent portfolios around some of the fundamental building blocks of this emerging area, including carbon nanotubes, photo-voltaics, MEMS, NEMS, and fuel cells. Our attorneys have founded some of the most successful nanotechnology networking organizations across the country and are well positioned to introduce clients to venture capitalists, industry leaders, and others who can help establish successful businesses.

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