

DAVID BAKER

Staff Writer

San Francisco Chronicle

David R. Baker covers energy for the San Francisco Chronicle, writing about oil, gasoline, electricity, alternative fuels and renewable power. He also focuses on local energy companies Chevron Corp. and Pacific Gas and Electric, Co. In addition, Baker covers Bechtel Corp. and spent August, 2003 in Iraq, writing about reconstruction and the daily lives of Iraqis after the invasion. Mr. Baker previously worked for the Los Angeles Daily News, the Los Angeles Times and the North Hills News Record in suburban Pittsburgh, PA. His beats have included education, urban planning and the San Fernando Valley secession movement. He received his bachelor's degree in English from Amherst College and his master's degree in journalism from Columbia University.

CHARLES L. BENNETT, Ph.D.

Physicist, Global Security Directorate
Lawrence Livermore National Laboratory

Charlie Bennett is a physicist in the Non-proliferation, Arms Control, and International Security directorate at Lawrence Livermore National Laboratory. He received a B.A. degree in Physics and Mathematics from the University of Minnesota, Duluth (1972) and both an M.A. (1975) and a Ph.D. (1977), in nuclear physics, from the University of Rochester. He was an assistant professor of physics at Princeton University from 1978 to 1984. From 1984 to the present, he has been at LLNL. In 1976 he was a co-inventor of ultra-sensitive accelerator mass spectroscopy. Numerous laboratories around the world have since developed this technology, including the LLNL Center for Accelerator Mass Spectroscopy. In 1993 he invented the Imaging Fourier Transform Spectrometer that provides simultaneous spectral analysis for all of the pixels in a given image (“hyperspectral imaging”) and is currently used in fields as diverse as art forgery detection, medical diagnostics, and forensic science analysis. In 1998 he was the technological lead in the development of an imaging Fourier transform spectrometer instrument concept for the James Webb Space Telescope. In 2002 he received a Meritorious Unit Citation Award from the National Imagery and Mapping Agency for work with the World Trade Center Project Team to aid in the analysis of potential hazards associated with the disaster response. In 2004 he invented an efficient solar thermal energy system that promises to make solar power a cost competitive energy source. He is currently active in applied research in the arena of efficient heat engines for solar thermal energy systems. He holds six patents directly relevant to advanced solar thermal technology, one issued and five pending.

FARID BENSEBAA, Ph.D.

Research Officer & Adjunct Professor
National Research Council/University of Ottawa, Canada

Farid Bensebaa received a PhD of Materials Science from University of Montreal (Canada).

After two years at Texas Centre for Superconductivity at University of Houston (Texas, USA), he joined the National Research Council of Canada in 1997 where he is presently project leader.

He also holds an Adjunct Professor position at University of Sherbrooke. He co-managed a multi-million dollar project funded by CRTI to create a nanobiosensor for hazardous materials.

He is a member of a CCQM and beamline coordinator at the Canadian Light Synchrotron. He organized several international workshops. He collaborated with several large companies (Nortel, IBM, Syncrude, INCO, JDS, Ballard). He has developed an industrial microwave based process for the fabrication of active and support materials with applications in catalysis and solar energy. He has developed novel fabrication approaches for photovoltaic and fuel cell devices. He is a world expert in advanced micro and nano-characterizations of material and devices. He has more than 40 peer-reviewed publications and holds several patents. He is presently leading several projects on distributed and clean power generations.

STEVEN H. BERGENS, Ph.D.
Professor, Department of Chemistry
University of Alberta, Alberta, Canada

Research in the group is focused on enantioselective homogeneous catalysis and heterogeneous catalysis of electrochemical reactions in fuel cells. Enantioselective homogeneous catalysis occurs in solution where a prochiral substrate is preferentially transformed into one enantiomer of a chiral product by a small amount (typically 0.1%) of a chiral catalyst. Enantioselective catalysis is the most efficient method to produce chiral molecules, and is of major interest to the production of pharmaceuticals. Research in the group on enantioselective catalysis includes design, synthesis, and study of new chiral transition metal catalysts; elucidation of mechanisms of enantioselective catalytic transformations using isotope substitution, kinetics, and low temperature NMR; and preparation of highly reusable polymeric catalysts by ring opening olefin metathesis polymerization (ROMP). A fuel cell is a device that converts the free energy of oxidation of a fuel directly into electrical work. Theoretical efficiencies of fuel cells routinely exceed 90%, and the development of a fuel cell that operates with methanol as fuel would have tremendous beneficial effects both on the environment and on the economy. Research on fuel cells in the group includes synthesis of nanoparticle cocatalysts for the electrochemical oxidation of hydrogen and alcohols; and use of magnetic resonance imaging to observe the distribution of water throughout operating fuel cells. Research in the group is inherently multidisciplinary. Graduate students become proficient in the techniques and principles of synthetic organic and organometallic chemistry, enantioselective catalysis, electrochemistry, and the construction and operation of prototype fuel cells.

ERIC BIBEAU, Ph.D., P.Eng.

Associate Professor

University of Manitoba

Dr. Eric Bibeau (Ph.D., P.Eng.) is an Associate Professor at the University of Manitoba and holds the Manitoba Hydro/NSERC Chair in Alternative Energy. Dr. Bibeau is a mechanical engineer involved in research, development and demonstration of cost-effective alternative energy power systems at the distributed scale. He specializes in developing power systems using biomass feedstocks and industrial waste heat working on new power cycles like the Entropic Cycle and the Brayton Hybrid Cycle that will allow distributed biomass energy CHP systems to be financially viable. Dr. Bibeau is working at developing kinetic turbine technologies for river applications and anaerobic digester systems for cold weather climates that are economically viable. His research work is depended on numerical modelling to understand, optimize and reduce capital costs of distributed energy systems. Dr. Bibeau is also involved in developing mitigation strategies to prevent icing of wind turbine blades. Recently he has begun developing expertise in PHEV as a means to increase the renewable energy ratio and to reduce greenhouse gas reductions in transportation. Dr. Bibeau is well acquainted with the various barriers to implement alternative energy systems at the distributed scale.

ODD BRES

University of Manitoba
Technology Transfer Manager

Odd Bres joined the University of Manitoba Technology Transfer Office in 2005. Dr. Bres holds a degree in biological science from the University of Alberta. He continued on to graduate studies at The University of Manitoba, where he received his PhD. He went on to post doctoral work under an NSERC fellowship at U.C. Berkeley, and UCLA. In 1995, he left academia to establish a biotechnology startup company in genetic analysis services. The company was sold to an Ontario firm, where he worked before returning to The University of Manitoba. Now in Winnipeg, Dr. Bres pursues his technology transfer career, while raising his three children and pursuing his interests in music and the outdoors.

SUE A. CARTER, Ph.D.

Associate Professor, Physics Department
University of California, Santa Cruz

Associate Professor Carter received her Ph.D. at the University of Chicago in 1993 her B.A. at Kalamazoo College, MI, 1988. Her Scholarships and Awards consist of the following: David and Lucille Packard Fellow, 1996 , NSF/IBM Young Investigator Fellow, 1995 , General Motors Fellow, 1988, Heyl Scholarship – Full Tuition for 4 years (1984-1988) at private university and elected into Top 25 Women Graduates in Michigan, 1988. Professional Positions are currently Associate Professor of Physics, University of California, Santa Cruz, CA, 1995 – present, Chief Technical Advisor, Add-vision Inc., Scotts Valley, CA, 2001- present, Young Investigator Research Fellow, IBM Almaden Research Center, San Jose, CA, 1995-1996, Postdoctoral Research Scientist and AT&T/Lucent Bell Labs, Murray Hill, NJ, 1993 – 1995. Publications consist of over 50 publications in peer reviewed journals, over 10 on polymer light emitting materials, 3 on polymer-based photovoltaics , 3 on polymer liquid crystal flat panel displays, 4 on novel transparent conductors, 3 on protein structure and aggregation, and dozens of publications on correlated electron systems.

ROBERT J. CATTOLICA, Ph.D.

Professor of Engineering Physics, Department of Mechanical & Aerospace Engineering
University of California, San Diego

Dr. Cattolica is Professor of Engineering Physics in the Department of Mechanical and Aerospace Engineering at the University of California at San Diego. He received his BS degree in Mechanical Engineering (with highest honors) at the University of California at Berkeley in 1967, his MS degree in Mechanical Engineering at University of California at Berkeley in 1968, and his Ph.D degree in Engineering (Aeronautical Sciences) at the University of California at Berkeley in 1973. After completing his Ph.D. he joined the Department of Mechanical Engineering at the University of California, Berkeley as a National Science Foundation Post-Doctoral Fellow (1973-1975). From 1975 to 1990 he was a Distinguished Member of the Technical Staff at Sandia National Laboratories, Livermore, California. In 1991 he joined the engineering faculty in the Jacobs School of Engineering at UCSD. His teaching responsibilities in the Department of Mechanical and Aerospace Engineering include: aerodynamics, propulsion, compressible flow, internal combustion engines, and applied optical spectroscopy. Dr. Cattolica leads a multi-disciplinary group of faculty across multiple UC Campuses developing systems and methods to optimize the thermo-chemical conversion of waste stream biomass into alcohol fuel and power. A specialist in the application of laser spectroscopy in combustion research and gas dynamics, Dr. Cattolica is applying new optical sensors in combination with advanced controls engineering to maximize the conversion of biomass to renewal energy. His professional affiliations include membership in AIAA (Associate Fellow), APS, ASME and the Combustion Institute.

YORAM COHEN, Ph.D.

Professor, Department of Chemical Engineering
University of California, Los Angeles

Professor Cohen received his B.A.Sc., 1975, at the University of Toronto, M.A.Sc., at the University of Toronto, 1977 and his Ph.D., at the University of Delaware, 1981. In 2003 he received the Lawrence K. Cecil Award in Environmental Chemical Engineering, Env. Div., AIChE. Chair, 1st Vice-Chair, 2nd Vice-Chair, AIChE Environmental Division (2002, 2001, 2000). 1997 Outstanding Research paper, AIChE, Separations Division. Del Amo Research Fellowship, 1994, Lady Davis Fellowship (Israel), 1987, 1994, National Research Council, Board on Environmental Studies and Toxicology (1989-1992) and Director, Center for Environmental Risk Reduction. His Research Interests are Surface nano-structuring with polymers and organosilanes, Graft polymerization, Membranes: Desalination, ultrafiltration and pervaporation. Surface crystallization, Neural Networks for quantitative-structure property estimation. Intermedia and multimedia transport in environmental systems, and environmental impact assessment.

GREGORY S. CURHAN

President
and Head of CleanTech/Next-Generation Energy

Mr. Curhan is one of the founders of Merriman Curhan Ford & Co. and currently serves as President of the firm, Head of the CleanTech/Next-Generation Energy(sm) investment banking group, and Chairman of the commitment committee. He founded MCF Asset Management in 2005 and served as CEO and portfolio manager through 2006. He has spent his entire career involved with the small-cap sector of the U.S. equity capital markets as an investment banker, research analyst, institutional salesman, director of equities, and hedge fund manager with over 20 years experience at a variety of investment banks and money management firms. Prior to Merriman Curhan Ford & Co., Mr. Curhan was chief financial officer for two years at WorldRes, where he oversaw the successful execution of two acquisitions and spearheaded private placement fundings totaling approximately \$60 million dollars. From 1983 to 1999 he worked for various investment banks, primarily in California. He was director of global technology research marketing and managing director of specialty technology institutional equity sales at Merrill Lynch & Co. Prior to Merrill Lynch, Mr. Curhan was a partner in the investment banking firm of Volpe Brown Whelan & Co., serving first as an Internet research analyst and then as director of equities responsible for managing the sales, trading and syndicate departments. Mr. Curhan was a founder and principal of the investment advisor firm Curhan, Merriman Capital Management. Mr. Curhan was a vice president of institutional equity sales for Montgomery Securities, and before that, he was a financial analyst in the investment banking group at Merrill Lynch. Mr. Curhan holds a B.A. degree from Dartmouth College, summa cum laude. Mr. Curhan enjoys skiing, scuba, and coaching youth sports. He is also a late blooming/aspiring musician.

SERGIO GARCIA, J.D.

Partner

Fenwick & West

Sergio Garcia is a partner in the Corporate Group and Intellectual Property Group of Fenwick & West LLP, a law firm specializing in technology and life sciences matters. Mr. Garcia's practice focuses on counseling companies at various stages of development – from early start-up through venture funding and entry into the public marketplace. He has advised clients in a variety of industries, including biotechnology, medical device, financial services, retail, internet and computer software. Mr. Garcia advises private and public companies on a wide range of business and legal issues, with an emphasis on structuring and negotiating complex technology transactions, including international and domestic strategic alliances, joint ventures, licensing arrangements and other transactions involving intellectual property. He also frequently advises investors with respect to intellectual property matters arising in M&A transactions, venture financings and public equity financings, including initial public offerings and follow-on stock offerings. Mr. Garcia's practice also includes corporate and securities matters, including advice concerning corporate governance, public disclosure issues and SEC reporting and compliance. Mr. Garcia is a director of the BayBio Institute, and a member of the Steering Committee of the BayBio Life Sciences Counsel Committee. He received his J.D. degree from the University of California, Berkeley (Boalt Hall School of Law), and his undergraduate degree from Stanford University. Mr. Garcia is a member of the American Intellectual Property Association, the American Bar Association and the Licensing Executives Society. He is a former director of the Bar Association of San Francisco, and a former member of the General Counsel Committee of BIO and the Silicon Valley Association of General Counsel. He received his education at the University of California, Berkeley, School of Law (Boalt Hall), J.D., 1986 and his B.A. from Stanford University, 1983. He is also a member of the State Bar of California.

DAVE GHOSH, Ph.D.

Director of Science & Technology
NRC- Institute for Fuel Cell Innovation

Dave Ghosh joined the National Research Council in September of 2002 as the Director of Science and Technology. He leads a team of over 85 researchers and engineers working in Proton Exchange Membrane (PEM) fuel cells, Solid Oxide fuel cells(SOFC) and Hydrogen technologies. Before joining the NRC IFCI, Dave Ghosh was Vice President and Chief Technology Officer (CTO) for Calgary-based Global Thermoelectric Inc.(presently Versa Power Systems) where he helped turn the company into one of the world's leading developer of Solid Oxide Fuel Cell Systems. He was previously the Head of the Manufacturing Technologies Department at the Alberta Research Council where he led a team to develop and commercialize materials technologies for industry. Dave has held industrial R&D positions in Japan, Brazil and Canada. Dave has a Ph.D. in Materials Science and Engineering from McMaster University, Hamilton, Canada and a B.Tech in Metallurgical Engineering from Indian Institute of Technology (IIT-B), Bombay. He has published over 60 technical papers and has co-authored over 11 patents granted or pending.

G. WESLEY (WES) HATFIELD, Ph.D.

Professor, Chemical Engineering and Materials Science

Institute for Genomics and Bioinformatics

University of California, Irvine

G. Wesley (Wes) Hatfield, Ph.D., is a Professor of Microbiology and Molecular Genetics in the School of Medicine and Co-Director of the Institute for Genomics and Bioinformatics at the University of California, Irvine. Dr Hatfield holds a Ph.D. degree from Purdue University, and a B.A. degree from the University of California at Santa Barbara. His primary areas of scientific expertise include molecular biology, biochemistry, microbial physiology, functional genomics, and bioinformatics. His recent interests include the development of computationally optimized DNA assembly (CODA) technologies for the manufacture of synthetic genes for pharmaceutical and industrial protein applications, and for the metabolic engineering of metabolic pathways in microorganisms. He has received national recognition for his scientific contributions including the Eli Lilly Research Award bestowed by the American Society of Microbiology. Dr Hatfield has over twenty years of experience in the development of biotechnology companies both as a founder and as a private consultant. He has served on the Scientific Advisory Boards of several California biotechnology companies and as a consultant to venture capital firms. He is a co-founder and currently serves on the Scientific Advisory Board of California's first synthetic biology company, CODA Genomics, Inc., Laguna Hills, CA, On the academic side, he serves as a consultant to private and government science funding agencies and on the editorial boards of scientific journals. He has been instrumental in forging collaborations between the University of California and the California biotechnology industry. For example, Dr Hatfield was a founder of the UC system-wide BioStar program, now the UC Discovery Program, which has provided in excess of \$300 million in research funds to UC researchers to stimulate collaborative University/Industry research programs.

DIMITRE KARAMANEV, Ph.D.

Professor, Dept. of Chemical and Biochemical Engineering
The University of Western Ontario, Ontario, Canada

Professor Karamanev is a specialist in the fields of biochemical engineering (applied to energy generation, environmental protection, bio-nanotechnology, metallurgy) and in chemical engineering (fundamentals of multiphase systems and development of novel multiphase reactors). He has published 33 refereed publications, has 5 patent applications and supervised 26 graduate students in the last 5 years alone. In 2003, he received the Ontario Premier's Research Excellence Award. His fundamental results in the field of multiphase fluid flow were used to rewrite the chapters on single particle interaction with a fluid in some of the most popular monographs in the fields of chemical engineering and fluid mechanics. He invented, patented and commercialized novel, highly effective types of bioreactors, used in the fields of fuel cells, metals bioleaching, wastewater treatment and the biotreatment of toxic contaminants. His most important discovery has been the invention of a new class of biofuel cells – the Biogenerator. The combined Government and industrial funding for the Biogenerator research, since its discovery in 2003, is greater than \$5,000,000.

BARRY KLEIN, Ph.D.

Vice Chancellor for Research
University of California, Davis

Vice Chancellor for Research and professor of physics at the University of California, Davis, received his B.S. degree in Engineering Physics in 1962 and M.S. and Ph.D. degrees in Physics in 1965 and 1969, respectively, all at New York University. Vice Chancellor Klein served at the Naval Research Laboratory (NRL) in Washington, D.C. in research and scientific leadership positions in condensed matter physics and complex systems theory from 1969-1992. He also served in a scientific leadership capacity at the National Science Foundation from 1984-1985 while on leave from NRL. He has given invited presentations at premier conferences, universities and research laboratories worldwide, and he has served on many important scientific advisory panels and boards. Vice Chancellor Klein joined the UC Davis faculty in 1992 and served as Chair of the Department of Physics from 1992 – 1998 and as Vice Provost for academic personnel from 1998-2001. He was appointed Vice Chancellor for research in July 2001, with his primary area of responsibility being advancing the research and outreach missions of UC Davis.

AMIT KUMAR, Ph.D.

Assistant Professor

Department of Mechanical Engineering

Assistant Professor Kumar received his Ph.D. in 2004 at the University of Alberta, Edmonton, Canada in Mechanical Engineering, his M.Engg., in 2000, At the Asian Institute of Technology in Bangkok, Thailand in energy Technology and his B.Tech. (Hons.), in 1997 from the Indian Institute of Technology in Kharagpur, India in Energy Engineering. His professional positions consists of currently from 2005 to present, *Assistant Professor*, Mechanical Engineering, University of Alberta, Edmonton, Alberta, Canada. 2004-2005, *Postdoctoral Fellow*, chemical and Biological Engineering, University of British Columbia, Vancouver, British Columbia, Canada. 2000-2004, *Teaching and Research Assistant*, University of Alberta, Edmonton, Alberta, Canada. 1997-1999, *Assistant Manager – Energy*, The Associated Cement Companies Limited, India. His current Research Interests include Greenhouse Gas Mitigation, Biomass Energy Systems, Energy Simulation and Modeling, Large Scale Biomass Transport and Decision Support systems Ranking of bioenergy supply and conversion system.

MICHEL LABRECQUE

Professor at Institut de recherche en Biologie Végétale
University of Montreal, Canada

Professor Michel Labrecque obtained a B.Sc. (Biological Sciences) from Université de Montréal in 1979, and a M.Sc. (Biological Sciences) from Université de Montréal in 1983. He was hired as a botanist at the Montreal Botanical Garden in 1985 and named Curator and Head of the Research and Scientific division in 1987. He is also adjunct professor at the Department of Biological Sciences at the Université de Montréal (2002). Professor Labrecque has directed or co-directed six MSc and one PhD students and one post-doctorate student. Professor Labrecque has been involved in numerous projects of applied research concerning different environmental issues but also favouring a better understanding of the functioning of plants. The assimilation of nutrients as well as trace elements by plants is one of the subjects studied. His research team is also interested in fast growing woody species, in particular willows (*Salix* sp.), which are characterised by a very high potential of growth, a great capacity to regenerate by vigorously resprouting in response to pruning or coppicing and by easy propagation by cuttings. The laboratory established the largest plantations of willows in intensive short rotation and intensive culture (SRIC) in Canada. These were set up within the framework of an experimental project aiming at studying the feasibility of the extensive production of woody biomass in SRIC for Eastern Canada.

JAMES C. LIAO, Ph.D.

Chancellor's Professor, Dept. of Chemical and Biomolecular Engineering
University of California, Los Angeles

Chancellor's professor, Chemical and Biomolecular Engineering, UCLA, received his BS degree in Chemical Engineering from National Taiwan University and PhD from University of Wisconsin-Madison. After working as a research scientist at the Life Science Research Laboratory of Eastman Kodak Company, Rochester, NY, he started his academic career at Texas A&M University in 1990 as Assistant Professor and then Associate Professor. He moved to UCLA in 1997 as Full Professor of Chemical and Biomolecular Engineering Department. Dr. Liao is a pioneer in the field of Metabolic Engineering, Synthetic Biology, and Systems Biology. He received numerous awards, including the NSF Young Investigator Award in 1992, and was elected Fellow of American Institute for Medical and Biological Engineering, 2002. He was honored with the 2006 W. N. Lacey Lectureship in California Institute of Technology, the Merck Award in Metabolic Engineering (2006), and the 2006 Food, Pharmaceutical, and Bioengineering Division award of AIChE. In addition, he was the 2007 Trotter Distinguished Lecturer at College of Engineering of the University of Tennessee, Knoxville.

STEVEN L. LISS, Ph.D.

Associate Vice-President Research
University of Guelph, Ontario, Canada

Dr. Steven N. Liss is the Associate Vice-President of Research Services at the University of Guelph and a Professor of Applied and Environmental Microbiology in the Department of Environmental Biology. Before joining Guelph in July 2007 he was the Associate Dean for Research, Development and Science Programs for the Faculty of Engineering, Architecture and Science, a position he held beginning in 2000. He served as Program Director for Chemistry & Biology from 1997 until 2000. Dr. Liss joined Ryerson in September 1988 following an OECD Fellowship at the Agricultural and Food Research Council at Cambridge, UK (1988) and post-doctoral research at the Animal Research Centre, Agriculture Canada (1987-88). He pursued his undergraduate degree in Microbiology & Immunology at the University of Western Ontario (Hons. BSc., 1980) and holds graduate degrees (M.Sc. (1983) and PhD (1987)) in Applied Microbiology from the University of Saskatchewan. Dr. Liss continues to lead research in the areas of environmental biotechnology and engineering, applied microbiology, wastewater and water microbiology, and microbial structures. His research program receives external funding support from industry, NSERC, including grants from the partnership programs (CRD and Strategic), other federal (National Centres of Excellence (Clean Water Network and Sustainable Forest Management) and the Sustainable Development Technology Corporation) and provincial programs (Ontario Centres of Excellence, OMAF and Ministry of the Environment Best of Science Program). Widely recognized for his work on wastewater microbiology, bioflocculation and microbial structures, Dr. Liss is a co-author and editor of the recently published *Flocculation Processes in Natural and Engineered Environmental Systems* (CRC Press, 2005). He sits on the Peer Review Panel for the Research Excellence program (Ontario Research Fund, Ministry of Research & Innovation) for Environment and Energy, and currently serves as Chair of this committee. Dr. Liss has served on Appraisal Committee I of the Ontario Council of Graduate Studies. Dr. Liss has been a NSERC Representative and is currently a member of the College of Reviewers (Canada Research Chair Program). He Chairs the Advisory Committee of the Biotechnology Program, Centennial College. Dr. Liss has been active in international programs, particularly in China, Brazil and India. He currently is the Chair of the Shastri Indo-Canadian Institute's Science & Technology Committee.

ARUNAVA MAJUMDAR, Ph.D.

Director, Environmental Energy Technologies Division,
Faculty Scientist, Materials Sciences Division
Lawrence Berkeley National Laboratory

Professor Arun Majumdar received a B.Tech in Mechanical Engineering from the Indian Institute of Technology, Bombay (IIT-B) in 1985, and a PhD in Mechanical Engineering from the University of California, Berkeley in 1989, for research conducted in the laboratory of Professor Chang-Lin Tien. After being on the faculty of Arizona State University (1989-92) and University of California, Santa Barbara (1992-96), he began his faculty appointment in the Department of Mechanical Engineering at the University of California, Berkeley on January 1, 1997. He currently holds the Almy and Agnes Maynard Chair Professorship in the College of Engineering. In addition to his faculty appointment, Professor Majumdar serves as the Director of the Berkeley Nanosciences and Nanoengineering Institute. He is also a member of the Nanotechnology Technical Advisory Group to the President's Council of Advisors on Science and Technology (PCAST). He served as the founding chair of the ASME Nanotechnology Institute, and is currently a member of the Council of Materials Science and Engineering at the Department of Energy. He also serves on the editorial board of the International Journal of Heat and Mass Transfer, Molecular and Cellular Biomechanics, and is the editor in chief of Micro/Nanoscale Thermophysical Engineering. Professor Majumdar is a recipient of the Institute Silver Medal (IIT-B) (1985), NSF Young Investigator Award (1992-97), ASME Melville Medal (1992), the Best Paper award of the ASME Heat Transfer Division of ASME (1993), Gustus Larson Memorial Award of the ASME (2001), and Distinguished Alumni Award from IIT-B (2002). He is a fellow of ASME and AAAS, and is a member of the US National Academy of Engineering. Professor Majumdar's research interests are in the broad area of mechanics and transport in nanostructured materials. Of particular current interest are phonon dynamics and transport in low-dimensional materials, materials and devices for thermoelectric energy conversion, transport and reactions in confined liquids (nanofluidics), chemomechanics of small and macromolecules with applications in chem/biosensing, and nanoscale imaging.

ANASTASIOS MELIS, Ph.D.

Professor, Dept. of Plant and Microbial Biology
University of California, Berkeley

Professor Anastasios Melis earned his B.S. at the University of Athens, and his Ph.D. at Florida State University. Professor Melis is a biologist at the University of Berkeley, in California, who is researching the possibility of creating hydrogen from algae. Hydrogen power is considered one of the key ways of producing electricity without continuing to use up fossil fuels. The added bonus of using algae in this way is that they could consume Carbon Dioxide (CO₂) in the atmosphere. He is currently Professor of Plant and Microbial Biology at the University of California, Berkeley and Faculty Biologist at Lawrence Berkeley National Laboratory. He has received the Hydrogen Program R& D Award from the Department of Energy in 2004, the University Research Award from DaimlerChrysler Corporation in 2003 and the CNR Teaching Award at College of Natural Resources in 1994.

DANIEL R. MUMM, Ph.D.

Assistant Professor, Dept. Of Chemical Engineering and Materials Science
University of California, Irvine

Professor Mumm received his PhD in Materials Science and Engineering from Northwestern University in 1994. His thesis research focused on interfacial effects in toughening brittle materials through fiber reinforcement. He then held post-doctoral appointments at the Rockwell Science Center (Thousand Oaks, CA) and Harvard University, and a position as a research scientist and lecturer at Princeton University, in which he performed research on a wide variety of thermo-structural materials including polymer, metal and ceramic-matrix composites, morphing structures and thermal barrier coatings. In 2003, he joined the University of California – Irvine as an assistant professor of Chemical Engineering and Materials Science and a member of the National Fuel Cell Research Center (NFCRC). His current research efforts focus on materials systems for solid oxide fuel cells and advanced coatings for combustion turbine components. At UCI, he established the Carl Zeiss Center of Excellence in advanced microscopy, and has recently been awarded an NSF Faculty Early Career (CAREER) Development Program grant to further studies in high temperature electrochemical systems.

ZUHAIR A. MUNIR, Ph.D.

Distinguished Professor
Department of Chemical Engineering and Material Science
University of California, Davis

Professor Munir received his BS in Chemical Engineering and his MS and PhD in Materials Science, all from the University of California, Berkeley. In his thirty-plus years at UC Davis, he has taught courses and carried out research in the general area of thermodynamics and kinetics of rate processes. His emphasis has been on the role of electromagnetic fields in the synthesis and processing of materials. The most recent activity in this area relates to the processing of nanostructured functional oxides for utilization in fuel cell and other hydrogen-related technologies. Professor Munir has received numerous awards and honors, including a *Gold Medal* from the Russian Academy of Sciences, for contribution to the science of self-propagating high-temperature synthesis (SHS), 2007; *UC Davis Prize*, 2007 (in recognition of extraordinary scholarship and outstanding undergraduate teaching; *Nano 50 Award*, 2007 (to recognize the top 50 technologies and innovations that have significantly impacted – or are expected to impact – the state of the art in nanotechnology); *Faculty Research Lecturer Award*, Academic Senate, UC Davis, 2006 (the highest honor by the Academic Senate for distinction in scholarly research); *the John Jeppson Medal for Distinguished Scientific Achievements*, by the American Ceramic Society, 2005; *Outstanding Senior Faculty Research Award*, College of Engineering, UC Davis, 2005; *Outstanding Educator Award*, by the American Ceramic Society, 2004; *Medal of Honor*, International Organization of Self-Propagating High-Temperature Synthesis, 1997; the *von Humboldt Award* for Senior US Scientists, 1990; and (twice) the *National Science Foundation Creativity in Research Award*. Professor Munir has published more than 430 technical papers and holds 12 US patents. He is listed as a Highly Cited Author in Materials Science by the Institute for Scientific Information (ISI), 2003.

JOSEPH M. NORBECK, Ph.D.

Director, Environmental Research Institute
University of California, Riverside

Joseph (Joe) Norbeck is the Yeager Families Professor of Engineering and the Director of the University of California Riverside's Environmental Research Institute (ERI) and the Edward J. Blakely Center for Sustainable Suburban Development (CSSD). ERI is a multi-disciplined research organization that integrates much of the environmental research and technology efforts within the UCR campus. CSSD was established to provide research and analysis with a policy focus on the wide range of issues the suburbs confront. Dr. Norbeck was elected as a Fellow of the American Association for the Advancement of Science in 1998. He received the Clean Air Award from the South Coast Air Quality Management District in 1995, the Valley Group Award for Excellence in Environmental Research, and the Riverside Regional Leader of the Year Award in 1998. He is a member of several national and international committees and has published over 100 papers on the topics of air quality, renewable fuels and vehicle emissions.

R. SEAN RANDOLPH, Ph.D.

President & CEO

Bay Area Council Economic Institute

Sean Randolph is President of the Bay Area Council Economic Institute, a public-private partnership of business, labor, government and higher education, that works to foster a competitive economy in California and the Bay Area, including San Francisco, Oakland and the Silicon Valley. The Economic Institute produces authoritative analyses on major economic policy issues, including infrastructure, globalization, energy, science & technology, and governance, and mobilizes California and Bay Area leaders around targeted policy initiatives. Dr. Randolph has previously served as President & CEO of the Bay Area Economic Forum, which merged with the Bay Area Council in January 2008, and as director of international trade for the State of California, where he developed trade strategy and directed international business programs to stimulate exports and introduce California companies to overseas markets. Before service with the state, he was Managing Director of the RSR Pacific Group, an international business consulting firm specializing in Asia and Latin America, and prior to that served as International Director General of the Pacific Basin Economic Council, a 15-nation international organization of leading U.S., Asian and Latin American corporations. His professional career includes extensive experience in the U.S. Government, including the U.S. Congress staff and the White House staff. From 1981-85 he served in the U.S. State Department on the Policy Planning Staff, as Special Adviser for Policy in the Bureau of East Asian and Pacific Affairs, and as Deputy/Ambassador-at Large for Pacific Basin affairs. From 1985-88 he served as Deputy Assistant Secretary of Energy for International Affairs, where he managed nuclear non-proliferation, energy research, and global oil and gas issues. Dr. Randolph holds a J.D. from the Georgetown University Law Center, a Ph.D. from the Fletcher School of Law and Diplomacy (Tufts and Harvard Universities), and a B.S.F.S. from Georgetown's School of Foreign Service, and he also studied at the London School of Economics. He serves as chairman of the San Francisco Bay Conservation and Development Commission (BCDC), a California state commission that regulates development in and near San Francisco Bay and works to ensure its environmental integrity and maximum public access. He is also a member of the District of Columbia Bar Association, the Council on Foreign Relations, and the Pacific Council on International Policy, and he serves on the Boards of Directors of the Bay Area World Trade Center and the University of San Francisco Center for the Pacific Rim, and on the President's Advisory Council of Excelsior College (New York). Dr. Randolph speaks frequently before business and government audiences, and writes for U.S. and international media on global, national, state and regional economic and policy issues.

MARTIN REANEY, Ph.D.

Professor, College of Agriculture and Bioresources
University of Saskatchewan, Saskatchewan, Canada

Dr. Reaney holds a research Chair (the SAF Chair of Lipid Quality and Utilization) at the University of Saskatchewan. The SAF chair is mandated to develop new technology for oilseed processing and producing commercial bioproducts with enhanced value. The ensuing commercial activity resulting from this research is intended to generate wealth for the Canadian agriculture sector. Dr. Reaney works with industry and has worked with Agriculture and Agri-Food Canada (1990-2004). He has filed 16 patents of which many are in use by Canadian and US industry. Dr. Reaney's processes are used by industry in commercial production of biodiesel, conjugated linoleic acid, ionic fluid catalysts, feed ingredients, photoprotective compounds, dust control agents, fertilizer solutions, lubricants and fatty acids. He received his B.Sc. (Hon.) University of British Columbia in Biochemistry – 1980, his M.Sc. from the University of Saskatchewan in Biochemistry and Plant Physiology – 1985 and his Ph.D. from the University of Saskatchewan in Biochemistry and Plant Physiology – 1989. He currently holds the SAF chair of Lipid Quality and Utilization in the Department of applied microbiology and Food Science at the University of Saskatchewan from December of 2004 to present. Director of Research with Feed Energy Inc., in Des Moines, Iowa from 2000-2002. Research Scientist with Agriculture and Agri-Food in Canada from August 1990 – 2005.

WILLIAM M. REICHERT, MBA

Managing Director
Garage Technology Ventures

Bill Reichert is Managing Director of Garage Technology Ventures, a leading seed-stage and early-stage venture capital fund. Garage makes small investments – generally \$500,000 to \$1 million – in promising early stage companies and works intensively with them to help them to the next step. Bill has been on the board of CaseStack, WhiteHat Security, Miasole, cFares, ThermoCeramix, Step Communications, and ClearFuels in conjunction with Garage's investments in those companies. The Firm is located in Palo Alto, California. Bill has spent most of his career as an entrepreneur and operating executive. Prior to joining Garage in 1998, Bill was a co-founder and senior executive at several early-stage, venture-backed technology companies, including Trademark Software, The Learning Company, Infa Technologies, and Academic Systems. Earlier in his career, Bill worked at McKinsey & Co. in Los Angeles, the World Bank in Washington, DC, and Brown Brothers Harriman & Co. in New York. Bill earned his BA from Harvard University and his MBA from Stanford University.

JOHN (JACK) N. SADDLER, BSc/Ph.D.

Dean and Professor
Faculty of Forestry
University of British Columbia, Canada

Jack Saddler earned a BSc/Ph.D. in Microbiology/Biochemistry from the University of Edinburgh/Glasgow in 1975/78. In 1978 he joined the National Research Council of Canada as a Research Associate, initiating their biomass-to-ethanol program. He joined the newly privatised Canadian Forest Products lab, (now the Forintek division of FPInnovations), in 1982 where he became the manager of the Biotechnology and Chemistry group. In 1981 he was appointed Adjunct Professor in the Department of Biology at the University of Ottawa. In 1989 he was invited to go on Executive Interchange with the Federal Government, assigned to the Science Directorate of the Canadian Forest Service where he had responsibility for Biotechnology and Industry partnerships. In 1990 was awarded the Endowed Chair of Forest Products Biotechnology (An NSERC-Industry Chair) at the University of British Columbia. He served as the Head of the Department of Wood Science (1998-2000) and since 2000, has served as the Dean of the Faculty of Forestry. He currently serves as Task Leader for the International Energy Agency's (IEA) network on Liquid Biofuels, and has served as a reviewer for many national (EU, US, Asia) programs on biotechnology/bioenergy. Jack has published more than 300 research papers associated primarily with biotechnology/bioenergy and has been awarded several patents and a variety of awards including the IUFRO Scientific Achievement Award, and the Charles D. Scott award from the Biotechnology for Fuels and Chemicals Symposium. In 2007, he was elected as a Fellow of the Royal Society of Canada.

RACHEL SHEINBEIN

Keiretsu Forum
Clean Tech Committee

Rachel Sheinbein is an accomplished multi-disciplined leader in the Clean Technology industry. She produces solid results in a wide range of areas, including business and strategic planning, investor relationship and business development, supply chain strategy, and material selection. With her strong technical background and keen business sense, Rachel works with clean technology entrepreneurs and early-stage investors to achieve success. In addition, as a member of the Clean Technology Committee of the Keiretsu Forum, the largest angel investor group in North America, Rachel screens, conducts due diligence and invests in early-stage companies. Recent projects include: Developing a business plan, including competitive analysis, market description and financials for a company whose product applies to biosolids and clean coal. Creating a supply chain strategy and material selection review for a consumer products bioplastics company. Executing an investor executive summary and making key connections, resulting in seed funding and strategic relationships. Mentoring a bioplastics packaging company in the California Clean Tech Competition, aiding them to win second place. Rachel worked at Intel Corporation for nine years as the lead engineer for fab wastewater and liquid waste systems, program manager for worldwide internal and industry environmental performance metrics and improvement plans, purchasing analyst for software, and the strategic manager for supply chain IT. Each role was a brand new position at Intel and Rachel defined the strategy, built the team and then executed to her plan. Her discipline, results-orientation and ability to work on a variety of issues helped Rachel to deliver outstanding results at Intel Corporation. In fact, Intel recognized Rachel with the Intel Manufacturing and Engineering award and sponsored Rachel at MIT where she earned an MBA from the Sloan School of Management and a Master in Civil and Environmental Engineering. Rachel, also, holds a BS in Chemical Engineering from the University of Pennsylvania.

BLAKE SIMMONS

Vice-president for Deconstruction
Joint BioEnergy Institute (JBEL)

Dr. Simmons was born and raised in Blair, Nebraska. After high school, he joined the U.S. Navy where he served as a Nuclear Propulsion Operator for 6 years. After leaving the Navy, he attended the University of Washington and received his B.S. in Chemical Engineering in 1997. He attended Tulane University for his graduate studies and received his Ph.D. in Chemical Engineering in 2001. He then joined Sandia National Laboratories, Livermore, California, as a Senior Member of the Technical Staff in September of 2001. He was promoted to Principal Member of the Technical Staff in 2005, and since 2006 has been the Manager of the Energy Systems Department at Sandia. He is also part of the DOE funded Joint BioEnergy Institute, where he is the Vice-President for Deconstruction. His research interests include enzyme engineering, biomass conversion, biofuel cells, nanoporous materials, microfluidics, nanofluidics, desalination, and biomineralization. He has published over 40 peer-reviewed publications, several book chapters, and holds 5 patents. Outside of his work at Sandia, he has served as a member of the Industrial Advisory Board for two NSF Centers (Keenan Center located at the University of North Carolina and the Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems [Nano-CEMMS] located at the University of Illinois), has organized several conference sessions on nanofabrication and materials science, and has been a proposal review board member for the NSF CAREER Panel and the NIST Center for Neutron Research since 2004.

DONALD L. SMITH, Ph.D.

Chair, Plant Science Department
Professor, Plant Science Department
McGill University

Professor Donald Smith received his B.Sc from Acadia University, Wolfville, Nova Scotia in 1975, his M.Sc from Acadia University, Wolfville, Nova Scotia in 1979 and his Ph.D. from the University of Guelph, Guelph, Ontario in 1984. His employment history has included NSERC Post Doctoral Fellow, Agriculture in Canada from 1984 to 1985, Assistant Professor, Plant Science Department, McGill University from 1985 to 1990, Associate Professor, Plant Science Department, McGill University, from 1990 to 1995, Professor – Plant Science Department, McGill University, 1995 to present, New Sun Professor from 2000 to 2005, James McGill Professor from 2005 to 2012 and Chair, Plant Science Department from 2004 to the present. During his 22 years at McGill 50 graduate students have worked under his direct supervision, 30 Ph.D. and 21 M.Sc. These have worked largely in production and physiology of crop plants, more recently with an emphasis on plant-microbe interactions. Throughout his research career, work on nitrogen fixation has been a consistent theme, beginning with an undergraduate research project on cyanobacteria in 1974. Current work in this area includes signaling between symbiotic partners during establishment of the legume-rhizobia symbiosis. Awards and recognition includes Head, McGill Network for Innovation on Biofuels and Bioproducts, James McGill Professor, New Sun Professor, member of NSERC Plant Biology & Food Science grant selection committee, selected as one of the top ten young researchers in Quebec, recipient of the Canadian Society of Agronomy's "Young Agronomist Award", and many others.

CHRISTOPHER SOMERVILLE, Ph.D.

Director

Energy Bioscience Institute

Chris Somerville is the Director of the new energy Biosciences Institute that was formed as a collaboration between the University of California Berkeley, Lawrence Berkeley national laboratory and the University of Illinois at Urbana-Champaign. He is a professor in the Department of Plant and Microbial Biology at UC Berkeley. He has published more than 200 scientific papers and patents in plant and microbial genetics, genomics, biochemistry, and biotechnology. His current research is focused on the characterization of proteins, such as cellulose synthase, implicated in plant cell wall synthesis and modification. He is involved in various public and private research activities associated with the development of a biofuels industry in the US. He has been a member of scientific advisory boards of numerous academic institutions and private foundations in Europe and North America. He is a member of the US National Academy of Sciences, the Royal Society of London and the Royal Society of Canada and is the recipient of numerous scientific awards. He co-founded three biotechnology companies and was chairman of the board of Mendel Biotechnology from 1997-2007.

JAN B. TALBOT, Ph.D.

Director, Chemical Engineering Program
Professor, Department of Nanoengineering
University of California, San Diego

Professor Jan Talbot received her B.S. and M.S. in Chemical Engineering from the Penn. State University. Then she was a development engineer at the Oak Ridge National Laboratory for 6 years. She received her Ph.D. from the University of Minnesota in 1986. Since then she has been at the University of California, San Diego, where she is Professor of Chemical Engineering and Materials Science. Her other current research interests are in the areas of solid state lighting materials, electrodeposition, electrophoretic deposition, and chemical mechanical planarization. She has organized many symposia; she chaired a new Gordon Research Conference on Electrodeposition in 1996. She has been the editor of The Electrochemical Society's Interface and was President of The Electrochemical Society in 2001-2002. She served as Chair of the UCSD Academic Senate in 2004-2005.

ADRIAN TSANG

Professor, Department of Biology
University of Concordia

Adrian Tsang — The global gene -

Genomics, which deals with global questions about the entire organism, is a relatively new field, related to genetics, the study of inheritance and mutations one gene at a time. Concordia's new Centre for Structural and Functional Genomics, headed by Biology Professor Adrian Tsang, will offer Montreal scientists the facilities to identify the role of each gene and where it resides in sequence on DNA, put the information together and make sense of it. The centre, which was started up by a \$1.1 million seed grant by BioChem Pharma and its head, Francesco Bellini, is expected to be part of Genome Quebec, a proposed network that includes all universities and major research institutes in Quebec. There are four similar networks being planned for the rest of Canada.

JEAN VANDERGHEYNST, Ph.D.

Associate Professor and Graduate Advisor
Department of Biological and Agricultural Engineering
University of California, Davis

Jean VanderGheynst is Associate Professor of Biological and Agricultural Engineering and serves as the Graduate Advisor for the Biological Systems Engineering Graduate Program at UC Davis. Her research focuses on biological control of plant pathogens and insects, and value-added processing of agricultural products. Specific research areas include insect and plant pathogen control systems, managing microbial communities in biological systems, and production of recombinant proteins in plants. She currently serves as principle investigator and co-principle investigator on several industry and federally funded projects related to agricultural biotechnology and bioenergy production. Professor VanderGheynst teaches courses in engineering and industrial biotechnology. Her courses utilize the fundamentals of engineering and biotechnology for the design and elucidation of biological systems such as those involved with environmental, food and agricultural processes. In 2005 she received the Young Educator Award from the Society of Agricultural and Biological Engineers for outstanding teaching. Prior to obtaining her Ph.D. degree in Agricultural and Biological Engineering from Cornell University in 1997, Professor VanderGheynst worked as an environmental consultant at Galson, Inc. in Syracuse, N.Y. and in process and manufacturing engineering at Dow Corning Corporation in Midland, M.I. She has a B.S. degree in Chemical Engineering from Syracuse University.

CHRISTOPHER O. VARGAS

Managing Director
Cleantech Circle, LLC
The Angels Forum

Christopher Vargas has been an internet entrepreneur since the late 1980s. He started his career building a secure Internet for the US Government from 1988-1991. From 1991-1999 he was a senior executive at Cisco Systems, in sales and marketing roles. Following that, he was President of F-Secure Ltd, a Helsinki-based internet security company, and CEO of Proficient Networks, a San Francisco-based networking infrastructure company. In 2003 he founded Generations Investments LLC, a private investment company. He is currently a member of The Angels Forum, an early stage venture capital group in Palo Alto, California. In 2007, he founded the Cleantech Circle LLC, an early stage Cleantech investment Partnership. Christopher was a Fulbright scholar to Finland from 1987-88 and received a M.S. Electrical Engineering ('87) and B.S. Computer Engineering ('85) from the University of Notre Dame, Notre Dame, Indiana. He lives in Los Altos Hills, California with his wife Marita and three children.

CHRISTOPHER A. VOIGT, Ph.D.

Assistant Professor, Dept. Of Pharmaceutical Chemistry
University of California, San Francisco

Assistant Professor Voigt received his BSE, Chemical Engineering, *summa cum laude* at the University of Michigan, Ann Arbor, his PhD. in Biochemistry and Molecular Biophysics at the California Institute of Technology. He is currently Assistant Professor of Biophysics, and Chemistry & Chemical Biology Programs in the Department of Pharmaceutical Chemistry at the University of California, San Francisco. From 2002-2003 he was Postdoctoral Researcher, Bioengineering, project: System Analysis of Genetic Circuits Controlling *B. subtilis* Sporulation under Adam Arkin at the University of California, Berkeley. Honors and Awards have included but not limited to, Packard Fellow – 2007-2012, MIT Technology Review 35 – 2006, Dean's Award for Excellence in Teaching – 2006, Sloan Research Fellowship – 2005, Sloan/DoE Postdoctoral Fellowship in Computational Molecular Biology – 2002-2004. Professional Activities have included but not limited to, 2007 – Chair, iGEM judging committee, 2007-present – Executive Committee, Synthetic Biology 4.0, 2007-present – Vice President, Joint BioEnergy Institute, 2006-07 – Council Member, Institute of Biological Engineering, and 2006-present – Member, American Chemical Society.

JOHN VOLTZ
Principal
Jane Capital Partners

John is a Principal at Jane Capital Partners. Prior to Jane Capital, John was a Director of Business Development at Globalgate, an e-commerce holding company, and the Senior Financial Analyst for the Surplus Lines Association of California, the self-regulatory body designated by the California Department of Insurance to assist in the oversight of the \$1.5 Billion California surplus lines insurance market. John has been an independent filmmaker with expertise in media technology. He holds a B.A. from Grinnell College and an M.B.A. from UCLA. He sits on the board of Zenergy Power PLC.

RICK WHITTAKER

Vice President, Investments
Sustainable Development Technology Canada

Rick Whittaker is Vice President Investments at SDTC. During his career in technology Investment, Mr. Whittaker has led initiatives in product development, and managed several Advanced technology investment programs. He has initiated several patents on these Technologies, which are in production today. Mr. Whittaker has personally launched, and helped to build and transition, four start-up companies. He has been consistently recognized as a motivational leader, holding executive positions in engineering, business development and venture investment for companies including BCE Capital, Everest Partners, Nortel Networks, APN, West Carleton Meeting Centre, and AirShare. Mr. Whittaker has a Bachelor's degree in Applied Sciences from the University of Waterloo with an option in Management Science.

ROLAND WINSTON, Ph.D.

Presidential Chair

Professor, Natural Sciences and Engineering

University of California, Merced

The fault, dear Brutus, is not in our stars but in our selves.

Some 50 years ago a group of brilliant astrophysicists figured out the nucleosynthesis of the elements in the interior of stars. Now, half a century later, with the benefit of advances in the structure of matter, we can ponder the consequences.

Roland Winston came to UC Merced as a founding professor in the schools of Engineering and Natural Science from The University of Chicago, where he chaired the Physics Department. At UC Merced he has built a group in Solar Energy with a 4-acre testing laboratory at the former Castle Air Force Base.

MARIANNE WU, Ph.D.

Partner

Mohr, Davidow Ventures

Marianne Wu is a Partner at MDV where she focuses on Cleantech investments. These typically involve significant technology or business model breakthroughs applied to large, evolving markets such as solar, biofuels, clean coal, energy efficiency and water treatment and management. She leverages decades of technology development and business experience to help entrepreneurs build meaningful, successful businesses. Prior to joining MDV, Marianne was VP Marketing at ONI Systems where she was responsible for product strategy and market development. Earlier in her career, Marianne was a consultant at McKinsey and Company where she advised major technology clients on strategic and operational issues. Marianne has conducted state-of-the-art research in materials, devices, and systems at Stanford University and started her career as a design engineer at Nortel Networks where she developed high-speed networking technologies. She is a member of the Hua Yuan Science and Technology Association (HYSTA) VC Group, Environmental Entrepreneurs, and is on the Advisory Committee of the Western Governors' Association. Marianne earned both her doctoral and master's degrees from the School of Engineering at Stanford University and her bachelor's in Applied Science at the University of British Columbia.