



Advisory Board Members

March 2012



JUDY C. MINER

Judy C. Miner is president of Foothill College in Los Altos Hills, CA. She has worked as a higher education administrator since 1977 and in the California Community Colleges since 1979 where she has held numerous administrative positions in student services and instruction at City College of San Francisco, the California Community Colleges Chancellor's Office and De Anza College. At the national level, she serves on the Commission for the Advancement of Racial and Ethnic Equity of the American Council of Education, the Board of Directors for the Council of Higher Education Accreditation, the planning committee for the National Academy of Sciences 2012 invitation-only Science Summit, and the STEM Higher Education Working Group under the auspices of the President's Council of Advisors on Science and Technology. Regionally, she serves on advisory boards for: Center for the Future of Teaching and Learning; Doctorate in Education Program at San Francisco State University; Los Altos Library Endowment; San Francisco Opera Education Programs; and the Carmel Authors and Ideas Festival. She earned her B.A., *summa cum laude*, in history and French at Lone Mountain College in San Francisco; her M.A. in history at that same college; and her Ed.D. in organization and leadership (with a concentration in education law) from the University of San Francisco.



BRUCE M. ALBERTS, PH.D.

Bruce Alberts, a prominent biochemist with a strong commitment to the improvement of science and mathematics education, serves as Editor-in-Chief of *Science* and as one of President Obama's first three Science Envoys. Alberts is also Professor Emeritus in the Department of Biochemistry and Biophysics at the University of California, San Francisco, to which he returned after serving two six-year terms as the president of the National Academy of Sciences (NAS). During his tenure at the NAS, Alberts was instrumental in developing the landmark National Science Education standards that have been implemented in school systems nationwide. The type of "science as inquiry" teaching we need, says Alberts, emphasizes "logical, hands-on problem solving, and it insists on having evidence for claims that can be confirmed by others. It requires work in cooperative groups, where those with different types of talents can discover them – developing self confidence and an ability to communicate effectively with others." Alberts is also noted as one of the original authors of *The Molecular Biology of the Cell*, a preeminent textbook in the field now in its fifth edition. For the period 2000 to 2009, he served as the co-chair of the InterAcademy Council, a new organization in Amsterdam governed by the presidents of 15 national academies of sciences and established to provide scientific advice to the world. Committed in his international work to the promotion of the "creativity, openness and tolerance that are inherent to science," Alberts believes that "scientists all around the world must now band together to help create more rational, scientifically-based societies that find dogmatism intolerable." Widely recognized for his work in the fields of biochemistry and molecular biology, Alberts has earned many honors and awards, including 16 honorary degrees. He currently serves on the advisory boards of more than 25 non-profit institutions, including the Gordon and Betty Moore Foundation.



JERRY CAIN

Jerry Cain is a lecturer in computer science at Stanford University, focusing on the department's introductory programming and mathematical curricula. Jerry has been teaching at Stanford for 16 years, and in that time has taught over 7500 students. Jerry also coaches Stanford's ACM Programming teams, who compete yearly in regionals and often advance to the World Finals. When not teaching at Stanford, Jerry works as a software developer at Facebook, where he's worked on a number of web application frameworks and products, and was responsible for implementing the now ubiquitous Facebook Like Button. Jerry holds a bachelor's degree in chemistry from MIT, and a master's degree in computer science from Stanford.



WILLIAM "BILL" T. COLEMAN, III

Bill Coleman is a partner with Alsop Louie Partners, an early stage silicon valley venture capital firm. Previously Bill was Founder, Chairman & CEO of Cassatt, Inc. an enterprise cloud computing software company acquired by CA in 2009. As Founder, Chairman & CEO of BEA Systems, Inc. it became the fastest software company to reach \$1B in annual revenue under his leadership. At Sun he co-founded Sun Federal; founded Sun Professional Services; and was VP system software where he led the initially development of Solaris and related products. Before Sun, he co-founded and was VP engineering at Dest Systems. Prior to that, he was the director of product development at VisiCorp during development of the first spreadsheet, VisiCalc; the first office suite of pc applications, the VisiSeries; and the first personal computer window system, VisiOn. He began his career in the USAF as chief of satellite operations, Office of the Secretary. Coleman holds a bachelor's degree in computer science from the U. S. Air Force Academy and master's degrees in computer science and computer engineering from Stanford and an honorary doctorate from the University of Colorado where he and his wife Claudia founded the Coleman Institute for Cognitive Disabilities. He is a member of the board of directors of Framehawk, Resilient Networks and iControl Corporations, a director of Business Executives for National Security, a Commissioner of the Trilateral Commission and both Chairman of the Center for Science, Technology and Society and a Trustee of the University of the Santa Clara.



BERNADINE CHUCK FONG

Bernadine Chuck Fong is senior managing partner for the Carnegie Foundation for the Advancement of Teaching at Stanford and president emerita of Foothill College. She directs the foundation's developmental mathematics initiative for 30 community colleges and universities in eight states. Through this initiative the foundation is building a networked improvement community to increase students success through the improvement of the practice in teaching. Fong began her 36-year tenure at Foothill College in the Silicon Valley, as a psychology and child development professor, and has authored two textbooks in these fields. She served as president for 12 years, retiring in June 2006. In her last five years as president, Foothill led California's then 109 community colleges in the percent of students who are successful in transfer, as well as basic skills programs. Under her leadership, Foothill established ETUDES (Easy To Use Distance Education Software) in 1995, one of the first open source learning management systems in the country. This allowed Foothill to offer one of the first online credit courses. Fong also has been a visiting scholar at Stanford University's Institute for Higher Education Research and her research interests include academic leadership, organizational development, and community colleges as agents for educational equity. She served on the Stanford University Board of Trustees, as well as the Board of Directors for the Carnegie Foundation for the Advancement of Teaching and the American



Association of Community Colleges. She is currently on the Members Committee for the American Association of Law Schools. She is a fellow of the American Leadership Forum of Silicon Valley and the American Council on Education (ACE), and was named "Phenomenal Woman," an award given by Chicago's Harold Washington College Chapter of the American Association of Women in Community Colleges. Her B.A., M.A., and Ph.D. are all from Stanford University. Fong and her husband have two adult children and a collie who is the son of the last Lassie.



JOSEPH W. GOODMAN, PH.D.

Joseph W. Goodman received an A.B. Degree from Harvard, an M.S degree and a Ph.D. degree, both from Stanford University. He joined the faculty of the Department of Electrical Engineering at Stanford in 1967, chaired the department from 1989 to 1996, and served as Senior Associate Dean of Engineering until 1999. He retired from Stanford in January of 2001. Dr. Goodman is the author of the books *Introduction to Fourier Optics* (now in its 3rd edition), *Statistical Optics*, *Speckle Phenomena in Optics*. He has received numerous awards from the I.E.E.E., the A.S.E.E., the O.S.A., the S.P.I.E., including the highest awards given by the latter two societies.



WILLIAM (BILL) KRAUSE

Bill Krause has been President of LWK Ventures, a management consulting firm since 1991. Also, Mr. Krause served as Chairman of the Board of Caspian Networks, Inc., an IP networking systems provider, from April 2002 to September 2006 and as CEO from April 2002 until June 2004. Previously, Mr. Krause served as Chairman and Chief Executive Officer of Exodus Communications, Inc., from September 2001 until February 2002 where he guided Exodus through Chapter 11 bankruptcy to a sale of assets valued at \$750M by Cable & Wireless, PLC. Mr. Krause was President and Chief Executive Officer of 3Com Corporation from February 1981 to September 1990 and Chairman of the Board from September 1987 to September 1993 when he retired. Under his leadership 3Com grew from a venture capital funded start-up to a \$1B+ publicly traded, data networking company with operations worldwide. Also, Mr. Krause was employed at Hewlett-Packard Company for 14 years from 1967 to 1981 in various marketing and general management assignments. His last position at HP was as general manager of the General Systems Division with worldwide responsibility for the company's personal computer business. Currently Mr. Krause serves as a director of the following public companies: Brocade Communications Systems, Inc., Coherent, Inc., and Core-Mark Holding, Inc. Also Mr. Krause serves as a director of the following privately held companies: CommScope, Inc., a \$3B+ in sales infrastructure solutions provider for networks; CPU Technology, Inc., a system-on-a-chip (SOC) company; and Power Assure, a power management company. In addition, Mr. Krause was elected to serve as Chairman of the American Electronics Association in 1989. He earned a bachelor's degree in electrical engineering from The Citadel in 1963 and received an honorary doctorate of science in 2000.



WAIDY LEE

Since her retirement in 2001, Ms. Lee has been an individual contributor to resolving Global Warming. She has been an EV driver since 2000 and owns two EVs. In 2004, she de-constructed her old home and built a straw bale passive solar home with two living roofs to set an example of zero fossil fuel use and to promote healthy sustainable environmental green living. She is a member of and activist for over 60 organizations, and an advocate on Electric Vehicles. She is knowledgeable and stays up-to-date with current policies and technologies of greenhouse gas reduction and water conservation. Waidy was born in China and grew up in Hong Kong. She became an engineer the hard way, by working her way up in Silicon Valley startups. Currently,



she is an Independent Research professional and serves as a Pacific Rim Advisor at Coulomb Technology. Previously Waidy was a Startup Consultant at Exclara, Inc.; a Member of Technical Staff at Tensilica and Silicon Graphics; and a Release/QA Engineer at MIPS Technologies.



ARMAND NEUKERMANS, PH.D.

Armand Neukermans holds EE and ME Degrees from Louvain University, and a Ph.D. in Applied Physics from Stanford University. Since 1962, he has held various research and senior management positions within the organizations of KLA-Tencor, Hewlett-Packard, Xerox and General Electric. He founded Xros, an optical switch company where he served as Chairman and CTO, which was acquired by Nortel Networks in 2000. He is the author of 40 publications, and is the inventor of over 75 patents in diverse fields. He was named Silicon Valley “Inventor of the year” in 2001. He serves on the board of both public and private companies, and as a lecturer in entrepreneurship at Louvain University. Since his retirement, he has been involved in various environmental projects (including the foundation of the Big Sur Environmental Institute) and in fostering the causes of various social entrepreneurs, such as D-Rev, Jaipur Foot, and Benetech’s Landmine project. He was instrumental in setting up the Portola Valley Solar Community project, which became a landmark model for community buying of solar power. He now leads a group of scientists and engineers doing technology research for application in marine cloud whitening with seawater nuclei, an innovative climate mitigation effort.



WILLIAM J. RUTTER, PH.D.

Bill Rutter is Chairman and founder of Synergenics, LLC, which owns/controls a portfolio of biotechnology companies at various stages of development. Bill, with two colleagues, founded Chiron Corporation in 1981, a pioneering biotech firm that developed the first recombinant vaccine (for Hepatitis B), the first sequencing of the HIV genome in 1984, and the discovery, cloning, and sequencing of the Hepatitis C virus (1987). Chiron also developed quantitative diagnostic tests for determination of “viral load,” a new concept that opened the way for development of therapeutic drugs and vaccines against these viruses. In 1995, the Swiss Pharma Company Ciba-Geigy acquired 49% of Chiron in a transformative transaction. Subsequently, Sandoz merged with Ciba-Geigy to form Novartis. Rutter joined the Novartis Board of Directors, and remained with Chiron until 1998. Novartis purchased the remaining portion of Chiron in 2005. Bill played a key role in developing UCSF into a major scientific institution. He joined UCSF as head of its new department of Biochemistry and Biophysics in 1968, and helped build the science enterprise during the period of major developments in recombinant DNA technology, based on discoveries of colleague Herbert Boyer and Stanley Cohen of Stanford. After the formation of Chiron, Bill became director of Use’s Hormone Research Institute, a post retained until 1989, when he joined Chiron full time. Bill has published more than 380 scientific articles and holds over 25 patents. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and has received numerous awards for his contributions to science and the biotechnology industry.

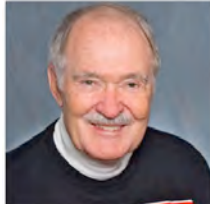


ARCHANA SATHAYE, PH.D.

Archana Sathaye has had a career spanning industry, academia, and more recently non-profits. She was a Principal Engineer at Digital Equipment Corporation in the Advanced Systems Engineering Group. She was an adjunct professor at the University of Pittsburgh, was on the faculty in Computer Science at San Jose State University, and also was an adjunct professor in the Business School at Santa Clara University. She has published several papers and contributed book-chapters in performance and availability modeling, data mining, and discrete event dynamic systems. Recently, Archana spends her time with non-profit institutions. She is a Member of the Board



of Directors of The Tech Museum, Board Member of Air Systems Foundation Scholarship Board, an Advisory Board Member of The Harker School, and an Advisory Board Member of Sunday Friends Foundation. Archana has a Ph.D. in Electrical and Computer Engineering from Carnegie Mellon University, a Masters in Applied Mathematics from Virginia Tech, and a Masters in Pure Mathematics from Bombay University.



WILLIAM J. SPENCER, PH.D.

William Spencer was named Chairman Emeritus of the International SEMATECH Board in November 2000 after serving as Chairman of SEMATECH and International SEMATECH Boards since July 1996. He came to SEMATECH in October 1990 as President and Chief Executive Officer. He continued to serve as President until January 1997 and CEO until November 1997. During this time, SEMATECH became totally privately funded and expanded to include non-US members. Many gave SEMATECH part of the credit for the US semiconductor turn around in the 90's. Spencer has held key research and management positions at Xerox Corporation, Bell Laboratories and Sandia National Laboratories. Before joining SEMATECH in October 1990, he was Group Vice President and Senior Technical Officer at Xerox Corporation in Stamford, Connecticut from 1986 to 1990. He established new research centers in Europe and developed a plan for Xerox retaining ownership in spin-out companies. Prior to joining the Xerox Palo Alto Research Center (PARC) as manager of the Integrated Circuit Laboratory in 1981 and as the Center Manager of PARC from 1982 to 1986, Spencer served as Director of Systems Development from 1978 to 1981 at Sandia National Laboratories in Livermore, and Director of Microelectronics at Sandia National Laboratories in Albuquerque from 1973 to 1978, where he developed a silicon processing facility for Department of Energy needs. He began his career in 1959 at Bell Laboratories. Spencer received the Regents Meritorious Service Medal from the University of New Mexico in 1981; the C. B. Sawyer Award for contribution to "The Theory and Development of Piezoelectric Devices" in 1972; and a Citation for Achievement from William Jewell College in 1969, where he also received an Doctor of Science degree in 1990. He is a member of the National Academy of Engineering, a Fellow of IEEE, and serves on numerous advisory groups and boards including as advisor to the Premier of Taiwan. He was the Regents Professor at the University of California in the Spring of 1998. In 2003, he received the IEEE award for engineering leadership. He has been a visiting professor at the University of California at Berkeley School of Engineering and the Haas School of Business and has taught at the University of Texas in Austin. He is a Research Professor of Medicine at the University of New Mexico. Spencer received an A.B. degree from William Jewell College an M.S. degree in mathematics and a Ph.D. in physics from Kansas State University. He is married to the former Joan Sherrill and they have two daughters.



RICHARD SWANSON, PH.D.

Richard Swanson was born in Davenport, Iowa in 1945. He received his BSEE and MSEE from Ohio State University in 1969 and the PhD in Electrical Engineering from Sanford University in 1975. After completing his PhD, he joined the Electrical Engineering faculty at Stanford. His research investigated the semiconductor properties of silicon relevant for better understanding the operation of silicon solar cells. These studies have helped pave the way for steady improvement in silicon solar cell performance. In 1991 Dr. Swanson resigned from his faculty position to devote full time to SunPower Corporation, a company he founded to develop and commercialize cost-effective photovoltaic power systems. Today, SunPower produces the highest performance photovoltaic panels available. Dr. Swanson has received widespread recognition for his work. In 2002, he was awarded the William R. Cherry award by the IEEE for outstanding contributions to the photovoltaic field, and in 2006 the Becquerel Prize in Photovoltaics from the European Communities. He was elected a Fellow of the IEEE in 2008 and a member of the National Academy of Engineering in 2009. He received the 2009 Economist Magazine Energy Innovator Award.



In 2010 he was awarded the IEEE Jin-ichi Nishizawa Medal for the conception and commercialization of high-efficiency point-contact solar cell technology, and in 2011 the Karl Boer Solar Energy Medal of Merit Award.



ART SWIFT

Art Swift has more than twenty years of executive-level history for some of the world's leading semiconductor, nanotech, and processor IP companies. He has held a range of general management and senior marketing leadership roles including CEO at low power chip-maker Transmeta, CEO of nanotech innovator Unidym, and vice president of marketing at MIPS, a leading provider of microprocessor IP. Earlier in his career Swift was COO at embedded software provider Linuxworks and vice president and general manager of several large divisions of chipmaker Cirrus Logic. He also held senior marketing, business development and engineering positions with Summit Microelectronics, Sun Microsystems, Digital Equipment, Bipolar Integrated Technology, and Fairchild Semiconductor. Swift holds a B.S. degree in Electrical Engineering from Pennsylvania State University. He is co-inventor of three U.S. patents relating to programmable logic architectures.



MARC TARPENNING

Marc Tarpenning started building and programming computers as a teenager and earned a B.A. degree in Computer Science from University of California, Berkeley. After graduating, he spent the next five years with Textron in Riyadh, Saudi Arabia. In 1997, he co-founded NuvoMedia with Martin Eberhard, which produced an innovative electronic book reader and the first secure content distribution system accepted by the publishing industry. Mr. Tarpenning was both VP of Engineering and CFO until that company's sale to Gemstar/TV Guide in 2000 for \$170M. In 2003, he reunited with Martin Eberhard and co-founded Tesla Motors, a company shaking up the automotive industry with the first production battery electric sports car, the Tesla Roadster. At Tesla Motors, Marc ran the electrical engineering group in addition to being acting CFO for the first three years. Since leaving Tesla Motors in 2008, he has been Entrepreneur in Residence at Mayfield Fund, a leading Silicon Valley venture capital firm and is a Mentor at Greenstart in San Francisco. Marc sits on several company Advisory Boards and is an elected School Board Trustee for the Woodside School District.

