

**JOE ADAMS**

*President*

*Discovery Science Center*

*Address: 2500 North Main Street*

*Santa Ana, CA 92705*

*Phone: (714) 542-2823*

*Email: [jadams@discoverycube.org](mailto:jadams@discoverycube.org)*



## **2010 STEM Summit Speaker**

Joe Adams is President of the Discovery Science Center in Santa Ana, California, a position he has held since 2002. He received his M.B.A. from the University of California, Irvine in 2002, and a B.A. in Nuclear Engineering from Notre Dame University.

Prior to joining the Discovery Science Center, he served as an imagineer at Disney, where he contributed to the design and engineering of the California Adventure theme park. During his time at the DSC, the nonprofit center has enjoyed significant growth. Annual attendance has jumped from 180,000 to 270,000, and the budget has doubled from \$3 million to \$6 million. Also, he has expanded outreach programs to local schools — fulfilling the center’s mission to “encourage more kids to become future scientists.” He has added many new exhibits that align with the state science standards for grade-school children.

Mr. Adams recently led the development and design of the \$2 million *Science of Hockey* exhibit at the DSC, which is the first sport-centric science learning game environment in a science center or museum that integrates physical hands-on learning activities with a complementary online science and math learning game environment.

**DR. SYBILLA BECKMANN**

*Professor*

*University of Georgia*

*Department of Mathematic*

*Address: 501 Boyd Graduate Studies Building*

*Athens, GA 30602*

*Phone: (706) 542-2548*

*Email: [sybilla@math.uga.edu](mailto:sybilla@math.uga.edu)*



## **2010 STEM Summit Speaker**

Dr. Beckmann is a Professor of Mathematics at the University of Georgia. Her research interests are in the Mathematical Education of Teachers, Arithmetic Geometry/Algebraic Number Theory, and Mathematics Education from Pre-K to the graduate level.

Dr. Beckmann has done research in Arithmetic Geometry, but her current main interests are the mathematical education of teachers and mathematics content for students, especially for Pre-K through the middle grades. She developed three mathematics content courses for prospective elementary school teachers at the University of Georgia and wrote a book for such courses, *Mathematics for Elementary Teachers*, (2<sup>nd</sup> Ed., Addison Wesley).

Dr. Beckmann was a member of the writing team of NCTM's Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics. She was also a member of Committee on Early Childhood Mathematics of the National Research Council and co-author of its report, *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*. Beckmann has won several teaching awards, including the General Sandy Beaver Teaching Professorship awarded by the College of Arts and Sciences at the University of Georgia.

Dr. Beckmann earned her Ph.D. in mathematics from the University of Pennsylvania and taught at Yale University as a J. W. Gibbs Instructor of Mathematics.

***DR. PHILLIP BELL***

*Associate Professor of Learning Sciences*

*University of Washington*

*Educational Psychology*

*Office: 322J Miller Hall*

*Seattle, WA 98195-3600*

*Phone (206) 221-5360*

*Email: [pbell@u.washington.edu](mailto:pbell@u.washington.edu)*



**2010 STEM Summit Speaker**

Dr. Philip Bell is an associate professor of the Learning Sciences at the University of Washington and the Geda and Phil Condit Professor of Science and Mathematics Education. He pursues a cognitive and cultural program of research across diverse environments focused on how people learn in ways that are personally consequential to them.

Dr. Bell directs the ethnographic and design-based research of the Everyday Science and Technology Group (<http://everydaycognition.org>) as well as directs the University of Washington Institute for Science and Mathematics Education focused on coordinating P-20 education efforts across the university. Bell has studied everyday expertise and cognition in science and health, the design and use of novel learning technologies in science classrooms, children's argumentation, culturally responsive science instruction, the use of emerging digital technologies within youth culture, and new approaches to inquiry instruction in science.

Dr. Bell is a Co-Lead of the Learning in Informal and Formal Environments (LIFE) Center (<http://life-slc.org/>) and is a Co-PI of COSEE-Ocean Learning Communities (<http://coseeolc.org/>). Bell serves as a member of the Board on Science Education with the National Academy of Sciences and co-chaired the National Research Council consensus report effort on Learning Science in Informal Environments.

He earned his Ph.D. (Education-Human Cognition & Development) and M.A. (Mathematics, Science, and Technology) degrees at the University of California, Berkeley. His B.S. was in Electrical Engineering and Computer Science from the University of Colorado at Boulder.

***DR. ROBERT J. BIRGENEAU***

*UC Berkeley*

*Chancellor*

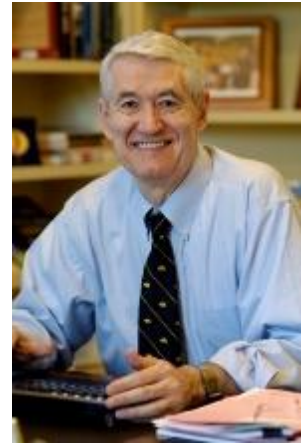
*Address: 200 California Hall #1500*

*University of California, Berkeley*

*Berkeley, CA 94720*

*Phone: (510) 642-7464*

*Email: [chancellor@berkeley.edu](mailto:chancellor@berkeley.edu)*



## **2010 STEM Summit Speaker**

Robert J. Birgeneau became the ninth chancellor of the University of California, Berkeley, on September 22, 2004. An internationally distinguished physicist, he is a leader in higher education and is well known for his commitment to diversity and equity in the academic community.

Before coming to Berkeley, Birgeneau served four years as president of the University of Toronto. He previously was Dean of the School of Science at the Massachusetts Institute of Technology, where he spent 25 years on the faculty. He is a fellow of the U.S. National Academy of Sciences, the Royal Society of London, the American Philosophical Society and other scholarly societies. He has received many awards for teaching and for his research on the fundamental properties of materials.

In 2006, Birgeneau received a special Founders Award from the American Academy of Arts and Sciences along with President John Hennessy of Stanford University and filmmaker George Lucas. Established in the 225th anniversary year of the Academy, this award honors men, women and institutions that have advanced the ideals and embody the spirit of the Academy founders — a commitment to intellectual inquiry, leadership and active engagement. In 2008, Birgeneau and President Nancy Kantor of Syracuse University received the 2008 Carnegie Corporation Academic Leadership Award as “Champions of Excellence and Equity in Education.” Most recently, Birgeneau was a recipient, along with California’s First Lady, Maria Shriver, of the Shinnyo-en Foundation’s 2009 Pathfinders to Peace Prize for contributions to bringing about a more peaceful world. The foundation singled out Birgeneau for his “commitment to diversity, equity and inclusion and to the integration of public service as an essential component of the academic experience.”

Birgeneau has long been engaged with gender and diversity challenges in the STEM field. As Dean of Science at MIT, he was responsible for commissioning the now famous study that brought to light the systemic inequities in the treatment of senior women faculty at MIT. This study raised consciousness across academe of the need for policies and measures to pro-actively recruit and advance the careers of women in STEM fields.

Birgeneau was the only male invited to join the National Academies Committee on Maximizing the Potential of Women in Academic Science and Engineering. In 2006, the Committee published its report Beyond Bias and Barriers: Fulfilling the Potential of Women In Academic Science and Engineering. In 2007, he and Jo Handelsman published “Women Advancing Science” in DNA and Cell Biology, arguing that a few significant changes in the academic system could attract highly skilled women scientists and engineers whose talents were being underused, thereby fortifying the country’s scientific leadership.

A Toronto native, Birgeneau received his B.Sc. in mathematics from the University of Toronto in 1963 and his Ph.D. in physics from Yale University in 1966. He served on the faculty of Yale for one year, spent one year at Oxford University, and was a member of the technical staff at Bell Laboratories from 1968 to 1975. He joined the physics faculty at MIT in 1975 and was named Chair of the Physics Department in 1988 and Dean of Science in 1991. He became the 14th president of the University of Toronto on July 1, 2000.

At Berkeley, Birgeneau holds faculty appointments in the Departments of Physics and Materials Science and Engineering in addition to serving as Chancellor.

He and his wife, Mary Catherine, have four grown children and nine grandchildren.

***DR. RAFAEL L. BRAS***

*Distinguished Professor and Dean  
University California, Irvine  
The Henry Samueli School of Engineering  
Address: 305 Rockwell Engineering Center  
Irvine, CA 92697-2700*

*Phone: (949) 824-6002*

*Email: [rlbras@uci.edu](mailto:rlbras@uci.edu)*



## **2010 STEM Summit Speaker**

Dr. Rafael L. Bras, Sc.D., a prominent hydrologist and hydro climatologist from MIT, joined The Henry Samueli School of Engineering at the University of California, Irvine as Distinguished Professor and Dean on September 1, 2008.

Dr. Bras is well known for his contributions to soil-vegetation-atmosphere system modeling, and has been recognized for his innovative work describing and forecasting floods and precipitation. Bras also has pioneered ideas about how the deforestation of the Amazon will impact regional and continental climates.

Bras chairs an international panel of experts overseeing a multi-billion dollar project to develop and construct a system of barriers that will protect Venice, Italy, from flooding during unusually high tides. The project is scheduled for completion in 2014.

Prior to UC Irvine, Bras was the Edward A. Abdun-Nur Professor of Civil and Environmental Engineering at MIT, and also held an appointment in the university's Department of Earth, Atmospheric and Planetary Sciences.

His dedication to issues of diversity in the faculty and student body earned him MIT's Martin Luther King Leadership Award in 2000. His many awards include his election into the U.S. National Academy of Engineering in 2001. He is a corresponding member of the National Academy of Engineering of Mexico and a fellow of the American Association for the Advancement of Science. In 1992, he received an honorary degree from the University of Perugia, Italy.

A native of Puerto Rico, Bras holds three degrees from MIT: B.S. and M.S. in Civil Engineering, and a science doctorate in water resources and hydrology.

***DR. MARGARET R. BURCHINAL***

*Professor*

*Department of Education*

*University California, Irvine*

*Address: Education 2048*

*Irvine, CA 92697-5500*

*phone: (949) 824-9192*

*Email: [mburchin@uci.edu](mailto:mburchin@uci.edu)*



## **2010 STEM Summit Speaker**

Dr. Margaret Burchinal is a Professor in the Department of Education, University California, Irvine. Prior to joining the faculty at UC Irvine in 2008, Dr. Margaret R. Burchinal was a Senior Scientist and Director of the Design and Statistical Computing Unit at the Frank Porter Graham (FPG) Child Development Institute and Research Professor in Psychology at the University of North Carolina.

Dr. Burchinal has served as the primary statistician for many educational studies of early childhood, including the 11-state Pre-Kindergarten Evaluation for the National Center for Early Learning and Development. Dr. Burchinal has pursued her substantive interest in early education as a means to improve school readiness for at-risk children.

Prof. Burchinal is a member of the National Academy of Science's Committee on Developmental Outcomes and Assessments for Young Children. She has served on numerous advisory committees including the Advisory Board for the National Center for Educational Statistics and the Advisory Council for Head Start Research, Advisory Board for Research Bureau of the Maternal and Child Health, Technical Work Group for Early Reading First Evaluation, Advisory Board for the Los Angeles Universal Pre-Kindergarten Program, and Technical Work Group for Early Reading First Evaluation. She currently serves on the Editorial Board for the Child Development and Early Childhood Research Quarterly.

Dr. Burchinal earned her B.S. in Psychology at Iowa State University, M.A. in Special Education at the University of North Carolina, and Ph.D. in Quantitative Psychology at the University of North Carolina.

***DR. MILTON CHEN***

*Executive Director*

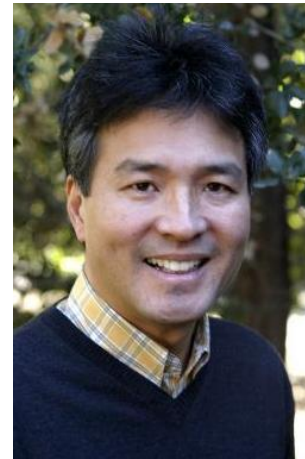
*Edutopia-The George Lucas Educational Foundation*

*Address: P. O. Box 3494*

*San Rafael, CA 94912*

*Phone: (415) 662-1600*

*Email: [milton.chen@edutopia.org](mailto:milton.chen@edutopia.org)*



## **2010 STEM Summit Speaker**

Dr. Milton Chen is Executive Director of The George Lucas Educational Foundation (GLEF), which documents and disseminates success stories of 21<sup>st</sup> Century learning via its Edutopia.org website and documentaries. Prior to joining GLEF in 1998, Chen was the founding director of PBS's KQED Center for Education, in San Francisco, managing the channel's TV programming, Web content, and outreach services for schools and families.

He has been a director of research at Sesame Workshop in New York and helped develop the 3-2-1 Contact science series. He has also been an assistant professor at the Harvard Graduate School of Education. Chen chairs the advisory council for St. Vincent College's Fred Rogers Center for Early Learning and Children's Media, in Latrobe, Pennsylvania, and has served on the National Parks Second Century Commission. His work has been honored by the Congressional Black Caucus, Sesame Workshop's Elmo Award, and the Corporation for Public Broadcasting's Fred Rogers Award.

During 2007-08, he joined a group of 35 Fulbright New Century Scholars working on access, and diversity issues in education, spending three months at the University of Edinburgh.

Dr. Chen received an A.B. in social studies from Harvard College and his Ph.D. in communication research from Stanford University. He is the author of the upcoming Education Nation on educational innovation (Jossey-Bass, 2010).



***DR. MICHAEL V. DRAKE, M.D.***

*Chancellor*

*University of California-Irvine*

*The Chancellor's Office*

*Address: 510 Aldrich Hall*

*Irvine, CA 92697*

*Phone: (949) 824-5111*

*E-mail: chancellor@uci.edu*



## **2010 STEM Summit Speaker**

Michael V. Drake, M.D., was appointed chancellor of the University of California, Irvine in July 2005. Prior to Chancellor Drake's arrival at UCI, he served for five years as vice president for health affairs at the University of California's Office of the President, overseeing academic program policy at UC's 15 health sciences schools located on seven campuses.

Chancellor Drake spent more than two decades on the faculty of the University of California, San Francisco's School of Medicine, becoming the Steven P. Shearing Professor of Ophthalmology and senior associate dean. He has served as an administrative leader, physician-scientist and teacher, conducting clinical research on glaucoma and maintaining an active referral practice. Chancellor Drake has written dozens of scholarly articles and chapters, and co-authored five textbooks.

Chancellor Drake has received numerous honors and awards for teaching, public service and research, including the Burbridge Award for Public Service, Asbury Award (clinical science), Michael J. Hogan Award (laboratory science), UCSF School of Medicine Clinical Teaching Award, S.J. Kimura Teaching Award, UCSF School of Medicine Alumnus of the Year Award, and the Gold-Headed Cane Society Speaker's Cane.

Dr. Drake earned his A.B. at Stanford University and his M.D. from UC San Francisco.

**DR. THEODORE W. DUCAS**

*Professor*

*Wellesley College*

*Department of Physics*

*Address: 386 Science Center*

*Wellesley, MA 02481*

*Phone: (781) 283-3047*

*Email: [tducas@wellesley.edu](mailto:tducas@wellesley.edu)*



## **2010 STEM Summit Speaker**

Dr. Theodore Ducas has designed and taught a wide variety of courses from the introductory level to advanced seminars for majors. A significant number of these courses are interdisciplinary including: Medical Physics, The Physics of Marine Mammals, and Critical Decisions and Medical Technology. The latter course was developed with colleagues under a grant from the Alfred P. Sloan Foundation's New Liberal Arts Program.

He, along with Prof. Daniel Kleppner at MIT, developed and directs TOPS (Teaching Opportunities in Physical Science), a summer program associated with the MIT-Harvard Center for Ultracold Atoms. This program, entering its eighth year, is aimed at encouraging students with a strong background in physics to consider careers as pre-college physical science teachers.

A recent major initiative of Dr. Ducas is the implementation, with colleagues from Wellesley and Olin College, of an introductory engineering course and associated seminars and advising. The goal is to provide an exciting and effective experience designed to motivate and prepare students to pursue further studies in engineering.

Dr. Ducas has served on the advisory boards of two PBS science education series: "3-2-1 Contact" and "The Voyage of the Mimi." These series were both designed to excite eight to twelve year olds about science and technology with a focus on female and minority children who are often socialized away from science at the critical target ages. Connecting to even younger learners, Dr. Ducas consulted with "Sesame Street" on the development of a science curriculum.

His research in Physics has been largely in the area of laser spectroscopy of atoms and molecules. Recently he has been working with optical and magnetic tweezers to study biological systems.

***DR. GREG J. DUNCAN***

*Distinguished Professor  
University California, Irvine*

*Department of Education*

*Address: Education 2062*

*Irvine, CA 92697-5500*

*Phone: (949)824-7831*

*Email: [gduncan@uci.edu](mailto:gduncan@uci.edu)*



## **2010 STEM Summit Speaker**

Dr. Greg Duncan is Distinguished Professor in the Department of Education at UCI. Dr. Duncan comes to the University of California, Irvine from Northwestern University, where he served as the Edwina S. Tarry Professor in the School of Education and Social Policy and Faculty Affiliate in the Institute for Policy Research. He was principal investigator of the Panel Study of Income Dynamics project at Michigan, professor of economics, and Distinguished Research Scientist at Michigan's Survey Research Center for 13 years prior to going to Northwestern in 1995.

Dr. Duncan has published extensively on issues of child poverty and child and adolescent development. He is co-author of “Higher Ground: New Hope for the Working Poor and Their Children” (2007) and co-editor with Lindsay Chase Lansdale of “For Better and For Worse: Welfare Reform and the Well-Being of Children and Families” (2001). He co-edited two books on neighborhood poverty and child development: “Consequences of Growing up Poor” (Russell Sage, 1997) and the two-volume “Neighborhood Poverty” (Russell Sage, 1997).

Dr. Duncan continues to study skill development across childhood and the impacts of poverty and other environmental conditions on children and adolescents.

Dr. Duncan was elected to the American Academy of Arts and Sciences in 2001 and the National Academy of Education in 2009. He was president of the Population Association of America for 2008 and was elected president of the Society for Research in Child Development for 2009-2011.

***ARI W. EPSTEIN***

*Lecturer, CEE and Terrascope Program*

*Terrascope*

*Massachusetts Institute of Technology*

*Department of Civil & Environmental Engineering*

*Address: Room 16-177*

*77 Massachusetts Avenue*

*Cambridge, MA 02139*

*Phone: (617) 253-3666*

*Email: [awe@mit.edu](mailto:awe@mit.edu)*



## **2010 STEM Summit Speaker**

Dr. Ari W. Epstein is a Lecturer in the Department of Civil & Environmental Engineering. As a scientist and educator, Dr. Epstein has broad experience communicating science to the public in a variety of media. From 1999 to 2001, he was Editor of *Scientific American Explorations*, a science magazine for families. Dr. Epstein has been a Visiting Scholar at the New England Aquarium where he assisted in the development of a variety of programs and exhibits and brought together teams of scientists, designers, educators and others as an example of his broad experience in working with interdisciplinary, project-oriented teams. He served as a content consultant and on-camera guest for the "High Seas" and "World of Water" television series, broadcast live to elementary schools across the U.S.

Dr. Epstein earned his A.B. at Harvard and his Ph.D. in Physical Oceanography from the MIT/Woods Hole Joint Program. His thesis work had a strong emphasis on interdisciplinary research in physical/biological interactions, so he is comfortable helping students to analyze problems related to fluid flows and their environmental effects

***DR. MICHAEL J. FEUER***

*Executive Director*

*National Academies*

*Address: 5126 Chevy Chase Pkwy NW*

*Washington, D. C. 20008*

*Phone: (202) 363-2472*

*Email: [MFeuer@nas.edu](mailto:MFeuer@nas.edu)*



## **2010 STEM Summit Speaker**

Dr. Michael J. Feuer is the Executive Director of the Division of Behavioral and Social Sciences and Education in the National Research Council (NRC) of the National Academies, where he is responsible for a broad portfolio of studies and other activities aimed at improved economic, social, and education policymaking.

He was the first director of the NRC's Center for Education and the founding director of the Board on Testing and Assessment. Before joining the NRC in 1993, Dr. Feuer was a senior analyst and project director at the Congressional Office of Technology Assessment.

Upon earning his doctorate at the University of Pennsylvania, Dr. Feuer remained at Penn teaching graduate seminars in education and working at the Higher Education Finance Research Institute. He then joined the faculty of the business school at Drexel University, teaching courses in public policy and management and continuing his research on the economics of human capital.

Dr. Feuer was the Burton and Inglis Lecturer at Harvard University in 2004–05. The book based on these lectures, "Moderating the Debate: Rationality and the Promise of American Education", was published by Harvard in 2006. His articles and reviews have been published in economics and policy journals, as well as in the New York Times, the Philadelphia Inquirer, and other newspapers. He was elected to the National Academy of Education in 2003 and as fellow of the American Association for the Advancement of Science in 2006.

Dr. Feuer graduated from Queens College (CUNY) with a major in English literature and journalism. He holds a Ph.D. in Public Policy from the University of Pennsylvania and an MA from the Wharton School, and studied public administration at the Hebrew University of Jerusalem and political science at the Sorbonne.

***DR. ROCHEL GELMAN***

*Rutgers University*

*Professor II*

*Cognitive Psychology*

*Address: Busch Campus*

*152 Frelinghuysen Road*

*Piscataway, NJ 08854-8020*

*Phone: (732) 445-6154*

*Email: [rgelman@rucss.rutgers.edu](mailto:rgelman@rucss.rutgers.edu)*



## **2010 STEM Summit Speaker**

Dr. Rochel Gelman is Professor of Cognitive Psychology at Rutgers University. Before coming to Rutgers in 2000, she was at the University of Pennsylvania for 21 years and University of California, Los Angeles for 11 years. Dr. Gelman has been Co-Director of the Rutgers Center for Cognitive Science (RuCCS) since 2002.

Dr. Gelman has developed ways to uncover and study the ease with which young children acquire intuitive understandings of natural number and arithmetic, that different sources of energy support the movement and change over time about moveable animate and inanimate objects, that outcomes have causes, learn words and conversationally appropriate ways of talking. On the theoretical side, Dr. Gelman's efforts are dedicated to the task of developing the kind of theory of learning that accommodates both the early learning that occurs on the fly and the later learning that requires effort.

Ongoing research in her lab includes studies of both verbal and nonverbal representations of number and arithmetic. They are now involved in studying the effect of embedding a preschool science program into classrooms in the New Brunswick area.

Dr. Gelman also has students and collaborators studying the development course of learning about quantifiers and numerals, counting systems in different culture, and the nature of inputs for learning verbs. Dr. Gelman is now working with a group of researchers to study dyscalculia.

Dr. Gelman earned her Ph.D. from University of California, Los Angeles with specializations in Developmental Psychology and Learning.

***DR. HERBERT GINSBURG***

*Professor of Psychology and Education  
Columbia University*

*Address: 525 W. 120th St.*

*New York, NY 10027*

*Phone: (212) 678-3443*

*Email: [hpg4@columbia.edu](mailto:hpg4@columbia.edu)*



## **2010 STEM Summit Speaker**

Dr. Herbert Ginsburg is Jacob Schiff Professor of Psychology and Education at Teachers College Columbia University. Dr. Ginsburg's scholarly interests include intellectual development, mathematics education, and testing and assessment.

Dr. Ginsburg's writing includes "Entering the Child's Mind: The Clinical Interview in Psychological Research and Practice" (Cambridge University Press) and "Piaget's Theory of Intellectual Development" (Prentice-Hall).

Dr. Ginsburg developed "Big Math for Little Kids" (Pearson Pub.) with Carole Greenes at Boston University and Robert Balfanz at Johns Hopkins. The program was created as a comprehensive math curriculum for four and five-year-old children. It covers a range of topics in mathematics – numbers, shapes, operations on number, pattern, measurement, and space, and offers an activity for children to do at least once a day throughout the whole school year. The activities are intended to be enjoyable and to engage children in challenging mathematical thinking and learning.. Topics and activities are designed to be presented in a sequence based on research concerning developmental trajectories, "Big Math for Little Kids" is a curriculum in the sense of a planned, organized set of activities that requires intentional teaching., After helping to develop the curriculum, Dr. Ginsburg has been involved in extensive work on in-service programs of professional development. The goal was—and is—to help teachers understand the mathematics, the children, and the curriculum.

Dr. Ginsburg earned his B.A. at Harvard University, and he received his M.S. and Ph.D. from the University of North Carolina.

***DR. MICHAEL GOTTFREDSON***

*Executive Vice Chancellor*

*University California, Irvine*

*Address: 509 Aldrich Hall,*

*Irvine, CA 92697- 1000*

*Phone: (949) 824-6296*

*Email: [gottfred@uci.edu](mailto:gottfred@uci.edu)*



## **2010 STEM Summit Speaker**

Dr. Michael Gottfredson became the Executive Vice Chancellor at University California, Irvine in July, 2000. As Executive Vice Chancellor, he is the chief academic and budget officer for the campus. Prior to joining the University of California, Gottfredson was Vice President for Undergraduate Education and Professor of Management and Policy, Law, Sociology, and Psychology at the University of Arizona. He joined the University of Arizona in 1985, after teaching at the Claremont Graduate School, the University of Illinois at Urbana, and the State University of New York at Albany.

Dr. Gottfredson's research and teaching specialties are theories of crime and delinquency and the criminal justice system. Gottfredson has served as the Director of the Criminal Justice Research Center, a private not-for-profit corporation in New York, and on the board of directors for The Parent Connection, the Crime and Justice Research Center, and Orange County United Way.

He is a Fellow of the American Society of Criminology and in 1996 was selected as the Andersen Consulting Professor of the Year in the College of Business and Public Administration. In 2001, he was given the Paul Tappan Award by the Western Society of Criminology for "outstanding contributions to criminology" and, in 2003 he received the Richard McGee Award by the American Justice Institute for "outstanding contributions to crime and delinquency theory."

Dr. Gottfredson earned his A.B. from the University of California, Davis and his Ph.D. from the State University of New York at Albany.



**DR. RAY J. HAYNES**

*Director of Strategic Alliances  
Northrop Grumman Space Technology  
Address: One Space Park E1/5024  
Redondo Beach, CA 90278  
Phone: (310) 812-5572  
Email: [ray.haynes@ngc.com](mailto:ray.haynes@ngc.com)*



**2010 STEM Summit Speaker**

Dr. Ray Haynes is Director of the University Strategic Alliances, Office of Technology Development at Northrop Grumman Space Technology.

Dr. Haynes has a 40+ year professional career spanning both industry and academia. Dr. Haynes is active with several colleges of engineering advisory boards and works closely with two California charter high schools and his alma mater, Nogales High School in Arizona.

Dr. Haynes has presented and published over 100 articles, studies, and cases on engineering management and technical leadership. He has been a lecturer at the University of Arizona, Arizona State University, Cal Poly San Luis Obispo, Cal Tech, MIT, Purdue, Stanford, University of California, Riverside and other schools.

He has been an advisor for MESA Minority Engineering, Native American student groups, and an elder for NGC Native American Caucus.

Dr. Haynes has also served as Faculty Fellow in Project Management Initiative for Hewlett-Packard and Professor and Director of EMP (Graduate Engineering Management Program) for Cal Poly University. Dr. Haynes holds a Ph.D. in Operations Logistics from Arizona State University.

***DR. NANCY H. HOPKINS***

*Professor of Biology*

*Massachusetts Institute of Technology*

*Biology Department and Koch Institute*

*for Integrative Cancer Research*

*Address: 40 Ames Street,*

*Room E17-341*

*Cambridge, MA 02139*

*Phone: (617) 253-6414*

*Email: [nhopkins@mit.edu](mailto:nhopkins@mit.edu)*



## **2010 STEM Summit Speaker**

Dr. Nancy Hopkins is the Amgen, Inc. Professor of Biology at the Massachusetts Institute of Technology.

Geneticist Nancy Hopkins achieved unprecedented success in cloning genes essential for early vertebrate development by exploiting the zebrafish as a model organism. Using insertional mutagenesis, a technique pioneered in invertebrate animals such as *Drosophila* but long considered impossible to apply efficiently in vertebrates, Hopkins's laboratory cloned hundreds of genes that play a role in creating a viable fish embryo.

This research has earned her several accolades, including her 1998 election to the American Academy of Arts and Sciences and 1999 election to the Institute of Medicine. Hopkins has gained additional recognition for her revolutionary work on gender equity issues in science, including many awards and many hundreds of requests to speak on the topic.

In 2004, Hopkins became a member of the National Academy of Sciences.

Dr. Hopkins earned her bachelors degree from Radcliffe and her doctorate from Harvard University.

***DR. JANET HYDE***

*Professor*

*University of Wisconsin*

*Psychology and Women's Studies*

*Address: 1202 W. Johnson St.*

*410 Psychology*

*Madison, WI 53706-1611*

*Phone: (608) 262-9522*

*Email: [jshyde@wisc.edu](mailto:jshyde@wisc.edu)*



## **2010 STEM Summit Speaker**

Dr. Janet Hyde is a Professor of Psychology and Women's Studies at the University of Wisconsin in Madison.

Her research falls in the areas of psychology of women and gender-role development. One current research project focuses on the emergence of gender differences in depression in adolescence, using data from our longitudinal project, The Wisconsin Study of Families and Work. Another current project, funded by the National Science Foundation, uses the technique of meta-analysis to synthesize available data on gender differences and similarities in mathematics performance.

Dr. Hyde co-authored articles in 2006 (*Journal of Mathematical Behavior*, volume 25) and 2008 (*Merrill-Palmer Quarterly*, volume 54) which focused on mother-child interactions during math homework as well as a 2008 article (*Science*) on gender differences and similarities in mathematics performance.

Dr. Hyde earned her Ph.D. from the University of California, Berkeley.

**CHANCELLOR LINDA P. B. KATEHI**

*Chancellor and Provost*

*University of California, Davis*

*Address: One Shields Avenue*

*Fifth floor, Mark Hall*

*Davis, CA 95616*

*Phone: (530) 752-2065*

*Email: [katehi@ucdavis.edu](mailto:katehi@ucdavis.edu)*



## **2010 STEM Summit Speaker**

Dr. Linda Katehi became the sixth chancellor of the University of California, Davis, on August 17, 2009. As chief executive officer, she oversees all aspects of the university's teaching, research and public service mission.

Chancellor Katehi also holds University California, Davis faculty appointments in electrical and computer engineering and in women and gender studies. A member of the National Academy of Engineering, she chairs the President's Committee for the National Medal of Science and is chair of the Secretary of Commerce's committee for the National Medal of Technology and Innovation. She is a fellow and board member of the American Association for the Advancement of Science and a member of many other national boards and committees.

Previously, Chancellor Katehi served as provost and vice chancellor for academic affairs at the University of Illinois at Urbana Champaign; the John A. Edwardson Dean of Engineering and professor of electrical and computer engineering at Purdue University; and associate dean for academic affairs and graduate education in the College of Engineering and professor of electrical engineering and computer science at the University of Michigan.

She earned her bachelor's degree in electrical engineering from the National Technical University of Athens, Greece and her master's and doctoral degrees in electrical engineering from University California, Los Angeles.

***DR. MARIA KLAWE***

*President*

*Harvey Mudd College*

*Address: 301 Platt Boulevard  
Claremont, CA 92711*

*Phone: (909) 621-8120*

*Email: [klawe@hmc.edu](mailto:klawe@hmc.edu)*



## **2010 STEM Summit Speaker**

Dr. Maria Klawe became the fifth president at Harvey Mudd College in 2006. A renowned computer scientist and scholar, President Klawe is the first woman to lead the college since its founding in 1955. Prior to joining HMC, she served as dean of engineering and professor of computer science at Princeton University. During her time at Princeton, Maria led the School of Engineering and Applied Science through a strategic planning exercise that created an exciting and widely embraced vision for the school.

Dr. Klawe joined Princeton from the University of British Columbia where she served as dean of science from 1998 to 2002, vice president of student and academic services from 1995 to 1998 and head of the Department of Computer Science from 1988 to 1995. Prior to UBC, President Klawe spent eight years with IBM Research in California, and two years at the University of Toronto.

Dr. Klawe has held leadership positions with the American Mathematical Society, the Computing Research Association, the Society for Industrial and Applied Mathematics, and the Canadian Mathematical Society. She is one of the nine members of the board of Microsoft Corporation, a board member of the nonprofit Math for America, a fellow of the American Academy of Arts & Sciences, and past chair of the board for the Anita Borg Institute for Women and Technology in Palo Alto, Calif.

She received her Ph.D. and B.S. in Mathematics from the University of Alberta.

***DR. J. MICHAEL MC CARTHY***  
*Professor, Mechanical & Aerospace  
Engineering  
University of California, Irvine  
The Henry Samueli School of Engineering  
Address: S4203 EG  
Irvine, CA 92697-3975  
Phone: (949) 824-6893  
Email: jmmccart@uci.edu*



## **2010 STEM Summit Speaker**

Dr. J. Michael McCarthy is Professor of Mechanical and Aerospace Engineering in The Henry Samueli School of Engineering at the University of California, Irvine. His research interests include kinematic theory of spatial motion, design of mechanical systems, and robotics.

Professor McCarthy is Technical Editor of the ASME Journal of Mechanical Design. He has been a visiting Professor in the Department of Mechanical Engineering, Massachusetts Institute of Technology, Assistant Professor in the Department of Mechanical Engineering and Applied Mechanics at the University of Pennsylvania, Philadelphia, PA. and Assistant Professor in the Department of Mechanical Engineering at Loyola Marymount University, Los Angeles, CA.

In 1997, Dr. McCarthy was voted UCI MAE Professor of the Year by students. He received the UC Irvine School of Engineering, Outstanding University Service Award in 1990.

Professor McCarthy is currently a Fellow in the American Society of Mechanical Engineers (ASME), a Senior Member in the Institute of Electrical and Electronic Engineers (IEEE), Computer Society, Associate Editor Journal of Robotics Systems.

Dr. McCarthy earned his B.S. in Mechanical Engineering from Loyola Marymount University, Los Angeles, and he received his M.S. and and Ph.D. in Mechanical Engineering from Stanford University.

***DR. KATHLEEN E. METZ***

*Associate Professor*

*University of California, Berkeley*

*Cognition and Development*

*Address: 4313 Tolman*

*Berkeley, CA 94720*

*Phone: (510) 642-7977*

*Email: [kmetz@berkeley.edu](mailto:kmetz@berkeley.edu)*



## **2010 STEM Summit Speaker**

Dr. Kathleen E. Metz is Associate Professor in Cognition and Development at the University of California, Berkeley. Dr. Metz is interested in young children's scientific cognition, from both developmental and instructional viewpoints. She was an Alfred P. Sloan Fellow in Cognitive Science at Carnegie Mellon University and a member of Barbel Inhelder's research team at the University of Geneva in Switzerland.

She recently completed a National Science Foundation sponsored project investigating the power and limitations of elementary school children's scientific inquiry. Building on this work, she and her research team are now engaged in a new NSF-funded project, investigating the extent to which second and third graders can develop an understanding of the conceptual underpinnings of evolution.

Dr. Metz earned her B.S. in Psychology at Earlham College in Richmond, Indiana. She earned her M.S. at the University of Pennsylvania in Education and her Ed.D. at the University of Massachusetts in Human Development, Teacher Education with postdoctoral studies at Carnegie Mellon in Cognitive Science and the University of Geneva (Switzerland) in Cognitive Development.

***RICHARD MILLER***

*President*

*Olin College of Engineering*

*Address: Olin Way*

*Needham, MA 02492*

*Phone: (781) 292-2300*

*Email: [Richard.Miller@olin.edu](mailto:Richard.Miller@olin.edu)*



***2010 STEM Summit Speaker***

Richard K. Miller was appointed the President the Franklin W. Olin College of Engineering in 1999. Previously he served as Dean of the College of Engineering at the University of Iowa from 1992-1999, and spent the previous 17 years on the engineering faculties at the University of Southern California (where he held the position of Associate Dean for Academic Affairs) and the University of California, Santa Barbara.

Dr. Miller's research interests are in structural dynamics and nonlinear mechanics with application to earthquake engineering and spacecraft structural design. He is the author or co-author of nearly 100 reviewed journal articles and other technical publications. His research interests are in nonlinear dynamic phenomena such as vibroimpact of adjacent structures during earthquakes, elastic wave propagation in frictionally bonded solids, stability and deformation in wrinkling membranes, active control of large civil structures, and dynamic identification of hysteretic structures. His work in spacecraft structures includes the design of large precision deployable truss antenna structures, the design of large inflatable reflectors, and the accurate analysis of the large deformation of articulated trusses during deployment. He has been a consultant to several companies including The Aerospace Corporation, NASA's Jet Propulsion Laboratory, Hughes Aircraft Company (now Raytheon Company), and Astro Aerospace Corporation (now Northrop Grumman Corporation), where he made contributions to the Heliogyro, Solares, Mast Flight Experiment, Milstar, Mobile Transporter, and other projects

Dr. Miller has received numerous awards including the Legacy award from the College of Engineering at the University of Iowa, and was recognized in 2006 by the Mass High Tech journal as an All Star for his work in leading the establishment of Olin College. He serves on the Board of Trustees of Babson and Olin Colleges. He has also served as the chair of the National Science Foundation's Engineering Advisory Committee and on several advisory committees for the National Academy of Engineering, Harvard University, and other institutions. In addition, he has served as a consultant to the World Bank in the establishment of new academic institutions. He is a member of AIAA, ASME, ASCE, ASEE, Tau Beta Pi, Phi Kappa Phi, and Sigma Xi. A native Californian, Dr. Miller earned his B.S. degree in Aerospace Engineering from the University of California, Davis. In 1972, he earned his M.S. degree in Mechanical Engineering from the Massachusetts Institute of Technology.



***DR. RAY E. MORRISON***

*President*

*Associates for Continuing Education in  
Technology and Science, LLC*

*Marietta, GA 30062*

*Phone: (770) 565-4704*

*Email: [ray.morrison@comcast.net](mailto:ray.morrison@comcast.net)*



## **2010 STEM Summit Speaker**

Dr. Ray Morrison is President and Principal Consultant of the Marietta, GA. based consulting firm, ACETS (Associates for Continuing Education in Technology and Science). He has served as Engineering Manager for University Relations, Engineering Training, Manager for the Software Engineering Retraining Program (SERP), Deputy Manager for the Software Engineering Process Department, Manager of the Lockheed Technical Institute, the Lockheed Manufacturing Institute, and Master's Degree liaison to Georgia Tech at Lockheed Martin Aeronautics Co. He is the recipient of two Lockheed Martin Aeronautical Systems "Eagle Awards".

He served in manager positions at the University of California's Los Alamos National Laboratory and was first Director of the University of New Mexico's Instrumentation Engineering Technology Program. He is the recipient of the EPDA National Fellowship, awarded by the U.S. Department of Education, the State of New Mexico and the University of Missouri, for excellence and scholarship in Technical Education. He was elected to Fellow status in the American Society for Engineering Education (ASEE).

Dr. Morrison has many publications, the most recent being a text book for engineering leadership programs, "Developing Effective Engineering Leadership" published by the IEE, London, England, and a 13 volume compendium entitled "The Evolution of Engineering Technology in the Field of Engineering Education," published by the ASEE.

Dr. Morrison has a Ph.D. from the University of Missouri in Technical Education, his Master's from Syracuse University in Communications Technology, his B.S. from the State University of New York, and an A.A.S. in Mechanical Engineering Technology, from Hudson Valley Community College, Troy, NY.

***MICHAEL M. RUANE***

*Executive Director*

*Children and Families Commission of Orange County*

*Address: 17320 Redhill Ave, Suite 200*

*Irvine, CA 92614*

*Phone: (714) 834-6074*

*Email: Michael.Ruane@cfcoc.ocgov.com*



## **2010 STEM Summit Speaker**

Michael Ruane serves as Executive Director of the Children and Families Commission of Orange County. The Commission is responsible for the allocation of tobacco tax revenue to health and education programs for young children and their families, established by the Proposition 10 voter initiative. He served as President of the First 5 Association of California for two years, is an officer of the California Children and Families Foundation, and Chair of the Orange County Health Needs Assessment and the Health Funders Partnership.

Mr. Ruane held the position of Assistant County Executive Officer for Strategic and Intergovernmental Affairs between 1996 and 2000. Prior to this appointment, Mr. Ruane was Director of the Orange County Environmental Management Agency for the County of Orange since 1989.

Mr. Ruane received his Masters Degree in Architecture and Urban Planning from University California, Los Angeles, and is also an Adjunct Lecturer in the Graduate Program in Urban and Regional Planning at University California, Irvine.

***DR. HENRY SAMUELI***

*Founder, Broadcom*

*Chairman of the Board, Samueli Foundation*

*Address: 2101 E. Coast Hwy.*

*Third Floor*

*Corona del Mar, CA 92625*

*Email: [info@samueli.org](mailto:info@samueli.org)*



## **2010 STEM Summit Speaker**

Dr. Henry Samueli is co-founder and Chief Technology Officer at Broadcom Corporation. He co-founded the firm in 1991. He was the Chief Scientist and one of the founders of PairGain Technologies, Inc. and he consulted for PairGain from 1988 to 1994. From 1980 to 1985, he was employed in various engineering management positions in the Electronics and Technology Division of TRW, Inc.

From 1985 to 1995, he was a Professor in the Electrical Engineering Department at University California, Los Angeles, where he supervised advanced research programs in broadband communications circuit. He has been on leave of absence from UCLA since 1995. He also serves as a Distinguished Adjunct Professor in the Electrical Engineering and Computer Science Department at University California, Irvine. In 2000, Dr. Samueli received the UCLA School of Engineering and Applied Science Alumnus of the Year Award as well as the UC Irvine Medal and the University of California Presidential Medal. In 2003, Dr. Samueli was elected to the National Academy of Engineering. Dr. Samueli received a B.S., M.S., and a Ph.D. in Electrical Engineering from the University of California, Los Angeles.

Dr. Samueli is on the UC President's Board on Science and Innovation and he is the Chairman of the University California, Los Angeles Chancellor's Competitiveness Council. He is also on the Dean's Advisory Boards of the Henry Samueli School of Engineering and Applied Science at UCLA and the Henry Samueli School of Engineering at University California, Irvine. In 1999, Dr. Samueli and his wife Susan established the Samueli Foundation. Since its inception the Foundation has provided gifts and grants in excess of \$200 million dollars with a significant portion of the funding going to STEM (Science, Technology, Engineering, Math) projects.

**DR. HEIDI SCHWEINGRUBER**

Deputy Director

The National Academies

Address: 500 Fifth Street, NW – 11th Floor

Washington, D.C. 20001

Phone: (202) 334-2164

Email: [hschweingruber@nas.edu](mailto:hschweingruber@nas.edu)



## **2010 STEM Summit Speaker**

Dr. Heidi Schweingruber is the Deputy Director of the Board on Science Education at the National Research Council. As deputy director, she coordinates and oversees all of the work of the board and has presented widely in its behalf. She served as study director for a congressionally mandated review of NASA's pre-college education programs which was completed and released in the Fall of 2007. She co-directed the study that produced the 2007 report *Taking Science to School: Learning and Teaching Science in Grades K-8*. She was a primary author on the practitioner's version of this report titled, *Ready, Set, Science! Putting Research to Work in K-8 Science Classrooms (2008)* which won a 2008 distinguished achievement award from the Association of Educational Publishers for resources in professional development. She also served as a research associate on *America's Lab Report: Investigations in High School Science (2005)*.

Prior to joining the NRC, Dr. Schweingruber worked as a senior research associate at the Institute of Education Sciences in the U.S. Department of Education. In that role, she served as a program officer for the preschool curriculum evaluation program and for a grant program in mathematics education. She was also a liaison to the Department of Education's Mathematics and Science Initiative and an adviser to the Early Reading First program.

Previously, she was the director of research for the Rice University School Mathematics Project, an outreach program in K-12 mathematics education which serves schools and districts in the greater Houston area. During that time, she taught in the psychology and education departments and worked as an evaluation consultant to two NSF funded education projects in the university. Prior to that, she was a post-doctoral researcher with the Center for Academic and Readings Skills at the University of Texas, Houston Health Science Center. Where, she worked on a longitudinal study of early reading skills and instruction for low-income, minority students. She holds a Ph.D. in psychology (developmental) and anthropology, and a certificate in culture and cognition from the University of Michigan.

***DR. WALTER G. SECADA***

*Senior Associate Dean, School of Education*

*University of Miami*

*Address: 5202 University Drive*

*222-A Merrick Bldg.*

*Coral Gables, FL 33146*

*Phone: (305) 284-4961*

*Email: [wsecada@miami.edu](mailto:wsecada@miami.edu)*

## **2010 STEM Summit Speaker**

Dr. Walter Secada is Senior Associate Dean and Chair of the Department of Teaching and Learning in the School of Education at the University of Miami.

Professor Secada's research interests have included equity in education, mathematics education, bilingual education, school restructuring, professional development of teachers, student engagement, and reform.

Since joining the University of Miami faculty in fall 2003, Professor Secada has been associate director and Co-PI of Promoting Science among English Language Learners (P-SELL). Dr Secada has worked on the development of a secondary-school mathematics and science academy that will be built on the University of Miami South Campus property.

Prior to coming to University of Miami, Dr. Secada was professor of curriculum and instruction at the University of Wisconsin—Madison; director of Diversity in Mathematics Education , a fellowship training Center on Learning and Teaching funded by the National Science Foundation. Secada was editor of the Review of Research in Education published by the American Educational Research Association (AERA) and series editor for “Changing the Faces of Mathematics” published by the National Council of Teachers of Mathematics (NCTM).

A fluent speaker of Spanish, Dr. Secada has presented at major conferences in Chile and Peru; as well as throughout the United States, and in Thailand, Taiwan, Greece, Norway, England, Germany, and South Africa.

Dr. Secada earned a BA in philosophy from the University of Notre Dame, an MS in mathematics and Ph.D. in education from Northwestern University.

**ROBERT SIEGLER**

*Professor*

*Carnegie Mellon University*

*Cognitive Psychology*

*Pittsburgh, PA 15213*

*Phone: (412) 268-2809*

*Email: [rs7k@andrew.cmu.edu](mailto:rs7k@andrew.cmu.edu)*



**2010 STEM Summit Speaker**

Robert Siegler is the Teresa Heinz Professor of Cognitive Psychology at Carnegie Mellon. His research focuses on children's thinking, particularly their mathematical and scientific thinking. He has published more than 200 articles and chapters, written 8 books, and edited 5 others.

Dr. Siegler's recent research focuses on how theoretical understanding of mathematical development can be applied to improving the knowledge of preschoolers from low-income backgrounds. This research indicates that playing certain types of numerical board games yields large, rapid, and enduring gains in the mathematical understanding of preschoolers and young elementary school children from impoverished families.

The contribution of Dr. Siegler's research has been recognized in numerous ways. For 2009-2010, he was chosen to be the Tisch Distinguished Visiting Professor at Teachers College, Columbia University. From 2006-2008, he served on the National Mathematics Advisory Panel, a group asked to recommend ways of improving mathematics education in the U. S. In 2005, he was awarded the American Psychological Association's Distinguished Scientific Contribution Award. In 2004, he received an honorary doctorate from the University of Liege in Belgium. Dr. Siegler also has been invited to give keynote addresses at more than 50 conferences, including ones in England, Scotland, France, Germany, Italy, Belgium, Switzerland, Japan, China, Chile, Brazil, Australia, and Iceland.

***TED SMITH***

*CEO & Chairman*

*MIND Research Institute*

*Address: 3631 S. Harbor Blvd. -Suite 200*

*Santa Ana, CA 92704*

*Phone: (714) 751-5443*

*Email: [tsmith@mindresearch.net](mailto:tsmith@mindresearch.net)*



## **2010 STEM Summit Speaker**

Mr. Ted Smith is Chairman of the Board of Directors and CEO of the MIND Research Institute, a neuroscience and education non-profit corporation dedicated to education program excellence and cutting edge scientific research.

Mr. Smith has been in the computer industry since 1960. After founding FileNet Corporation in 1982, Mr. Smith led the company as chairman and CEO until 1998 and continued as a director until the company was acquired by IBM in 2006. FileNet is the worldwide leader in software for document image processing, electronic document management, Enterprise Content Management and Internet Workflow applications.

Prior to founding FileNet, Mr. Smith was president and chief executive officer of Basic Four Corporation, a small business computer manufacturer. Mr. Smith was the executive vice president and a director of Sycor, Inc. before joining Basic Four.

The Institute of American Entrepreneurs named Mr. Smith Entrepreneur of the Year for Southern California in 1987.

Mr. Smith has a BS in engineering from the University of Maryland and did graduate work in computer science and business at University California, Los Angeles.

**GERALD R. SOLOMON**

*Executive Director*

*Samueli Foundation*

*Address: 2101 East Coast Hwy. Third Floor  
Corona del Mar, CA 92625*

*Phone: (949) 760-4400*

*Email: [gsolomon@samueli.org](mailto:gsolomon@samueli.org)*



## **2010 STEM Summit Speaker**

Gerald Solomon joined the Samueli Foundation in 2008 as Executive Director. Before coming to The Samueli Foundation, Mr. Solomon served as CEO of Public Health Foundation Enterprises (PHFE) for 7 years where he transformed the organization from an LA-centric provider of funding and services into national prominence. Mr. Solomon offers a diverse executive leadership background, having served as President and CEO of several highly successful and nationally-recognized nonprofit, as well as for-profit, organizations.

Mr. Solomon's nonprofit experience includes serving as President of a Child Abuse Prevention Foundation, CEO of a multi-state residential and outpatient drug and alcohol treatment program, and as Executive Director of the North Coast Chamber of Commerce in San Diego County. His career also includes a distinguished 18-years as a civil trial attorney in San Diego, including four years as a Judge Pro Tem in the El Cajon Superior Court.

Mr. Solomon's board engagements have included the NACCHO-CDC national accreditation committee developing standards for public health departments; OCHNA – Orange County Health Needs Assessment; Chair of CMPHL – the California Medical and Public Health Leadership Group; the Nonprofit Congress as a delegate representing California; the Executive Steering Committee for the National Network of Fiscal Sponsors; Alliance for Nonprofit Management headquartered in Washington DC; and Board member of the Orange County Roundtable, a collaborative at the Orange County foundation.

Mr. Solomon received his B.A from Boston University and his doctorate of Law from California Western School of Law.



***Paul Tough***

*Editor and Author*

*New York Times Magazine*

*Houghton Mifflin Harcourt Publishing Co.*

*Address: 215 Park Avenue South*

*New York, New York 10003*



**2010 STEM Summit Speaker**

Paul Tough is an editor at the New York Times Magazine and one of America's foremost writers on poverty, education, and the achievement gap.

Mr. Tough is the author of "Whatever It Takes: Geoffrey Canada's Quest to Change Harlem and America." His reporting on Geoffrey Canada and the Harlem Children's Zone originally appeared as a Times Magazine cover story.

He is an editor at the New York Times Magazine, where he has written extensively about education, poverty and politics, including cover stories on the Harlem Children's Zone, the post-Katrina school system in New Orleans, and No Child Left Behind and charter schools.

He has worked as an editor at Harper's Magazine and as the founding editor of Open Letters, an online magazine of first-person correspondence, and as a reporter and producer for the public-radio program "This American Life," where he reported, most recently, on the parents enrolled in the Harlem Children Zone's Baby College. His writing has appeared in Slate, Esquire, GQ, and the New Yorker. He lives with his wife and son in New York City.

***DR. DEBORAH LOWE VANDELL***

*Chair/Professor*

*University of California, Irvine*

*Department of Education*

*Address: 3231 Education*

*Irvine, CA 92697-5500*

*Phone: (949) 824-7840*

*Email: [dvandell@uci.edu](mailto:dvandell@uci.edu)*



***2010 STEM Summit Speaker***

Deborah Lowe Vandell is the Chair of the Department of Education at the University of California, Irvine. She holds a joint appointment in the Department of Psychology and Social Behavior. Prior to these appointments, Professor Vandell was the Sears Bascom Professor of Education at the University of Wisconsin, Madison where she held appointments in Educational Psychology, Human Development and Family Studies, and Psychology.

The author of more than 140 articles, Professor Vandell's research has focused on the effects of developmental contexts (early child care, schools, after-school programs, families, neighborhoods) on children's social, behavioral, and academic functioning. For the last 20 years, Professor Vandell has studied the effects of after-school programs, extracurricular activities and self-care with a particular focus on low-income children of color. This body of work is widely cited as evidence of the benefits after-school programs and activities.

Professor Vandell has served on advisory boards and panels for the National Academy of Science, the National Institutes of Health, the U.S. Department of Education, the Charles Stewart Mott Foundation, W. T Grant Foundation, and the National Institute for Early Education Research. Her testimony before the U.S. Congress and other federal, state, and local governmental bodies has been used to inform policy decisions in early childhood, after-school programming, and K-12 education. Her professional service has included terms as an Associate Editor of the journal *Child Development* and on the Editorial Boards of the *Journal of Educational Psychology*, *Developmental Psychology*, *Journal of Family Issues*, and *Contemporary Psychology*.

Professor Vandell received the faculty distinguished achievement award in the School of Education at the University of Wisconsin and a distinguished teaching award at the University of Texas at Dallas. She is a fellow of the American Psychological Association and the American Psychological Society, and the American Educational Research Association.