

## Planning Meeting on Interdisciplinary Science Teams

Board on Behavioral, Cognitive, and Sensory Sciences  
Division of Behavioral and Social Sciences and Education  
National Research Council

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### SPEAKER BIOS

**DANIEL ILGEN** (*Meeting Chair*) is the John A. Hannah distinguished professor of psychology and management at Michigan State University. He is a fellow of the Association for Psychological Science, the American Psychological Association, the Academy of Management, the International Association of Applied Psychology, and the Society for Industrial and Organizational Psychology. His work is in the general areas of work motivation, team behavior, performance evaluation, and leadership. In recognition of this work, he received the Distinguished Scientific Contributions Award from the Society of Industrial and Organizational Psychology and the Herbert A. Henneman, Jr. Lifetime Career Achievement Award given by the human resources division of the Academy of Management. He has served in numerous roles for the National Research Council including ten years as a member of the Committee on Human Factors and as a member of study panels that led to reports on pay for performance, human protection in social and behavioral research, and future human behavior needs in soldier systems. He is currently a member of the NRC Board on Behavioral, Cognitive, and Sensory Sciences. He received his Ph.D. in psychology from the University of Illinois.

**NANCY J. COOKE** is a professor of applied psychology at Arizona State University and is science director and on the board of directors of the Cognitive Engineering Research Institute in Mesa, AZ. Dr. Cooke is also a section editor of *Human Factors* and serves on the Air Force Scientific Advisory Board. Currently, she supervises post doctoral, graduate and undergraduate research on team cognition with applications in design and training for military command-and-control systems, emergency response, medical systems, and uninhabited aerial systems. In particular, Dr. Cooke specializes in the development, application, and evaluation of methodologies to elicit and assess individual and team cognition. Her most recent work includes the development and validation of methods to measure team coordination, team communication, and team situation awareness and research on the impact of cross training, distributed mission environments, intact vs. mixed teams and workload stress on attention and memory, as well as team knowledge, process, and performance more generally. Dr. Cooke is the 2006 recipient of the Human Factors and Ergonomics Society's O. Keith Hansen Outreach Award. Dr. Cooke has served as member of Board of Human-Systems Integration since 2007 and is currently chair of the board. She is also a member of the Soldier Systems Panel in the Division of Engineering and Physical Sciences. Previously, she served as a member of the National Research Council panels on Human-System Design Support for Changing Technology (2005-7) and the Safety and Security of Spent Nuclear Fuel Storage (2004-5). Dr. Cooke received a B.A. in psychology from George Mason University and received her M.A. and Ph.D. in cognitive psychology in 1983 and 1987, respectively, from New Mexico State University.

**MICHAEL M. CROW** became the sixteenth president of Arizona State University (ASU) on July 1, 2002. He is guiding the transformation of ASU into one of the nation's leading public

metropolitan research universities, an institution that combines the highest levels of academic excellence, inclusiveness to a broad demographic, and maximum societal impact—a model he terms the “New American University.” Under his leadership ASU has established major interdisciplinary research initiatives such as the Biodesign Institute, Global Institute of Sustainability (GIOS), more than a dozen new trans-disciplinary schools, and witnessed an unprecedented academic infrastructure expansion, near tripling of research expenditures, and attainment of record levels of diversity in the student body. Dr. Crow was previously professor of science policy and executive vice provost of Columbia University, where he served as chief strategist of Columbia’s research enterprise and technology transfer operations. A fellow of the American Association for the Advancement of Science (AAAS) and National Academy of Public Administration, and member of the Council on Foreign Relations and U.S. Department of Commerce National Advisory Council on Innovation and Entrepreneurship, he is the author of books and articles analyzing science and technology policy and the design of knowledge enterprises. Crow received his PhD. in public administration (science and technology policy) from the Maxwell School of Citizenship and Public Affairs, Syracuse University, in 1985.

**ROBERT CROYLE** was appointed director of the National Cancer Institute’s Division of Cancer Control and Population Sciences (DCCPS) in July 2003. In this role, he is responsible for overseeing a research portfolio and operating budget of nearly a half billion dollars and serves on NCI’s Executive Committee. As a division, DCCPS covers a wide range of scientific domains and disciplines, including epidemiology, behavioral science, surveillance, cancer survivorship, and health services research. He previously served as the division’s associate director for the Behavioral Research Program, leading its development and expansion. Before coming to NCI in 1998, he was professor of psychology and a member of the Huntsman Cancer Institute at the University of Utah in Salt Lake City. Prior to that, he was a visiting investigator at the Fred Hutchinson Cancer Research Center in Seattle, visiting assistant professor of psychology at the University of Washington, and assistant professor of psychology at Williams College in Massachusetts. Dr. Croyle is a member of the Academy of Behavioral Medicine Research, a Fellow of the Society of Behavioral Medicine, a Fellow of the American Psychological Association, and a recipient of several awards for his research and professional service. His efforts on journal editorial boards include being associate editor for *Cancer Epidemiology, Biomarkers and Prevention*, and consulting editor for *Health Psychology* and the *British Journal of Health Psychology*. Dr. Croyle received his PhD in social psychology from Princeton University in 1985, and graduated Phi Beta Kappa with a BA in psychology from the University of Washington in 1978.

**JONATHON CUMMINGS** is an associate professor of management at the Fuqua School of Business, Duke University. After completing his dissertation and post-doc at Carnegie Mellon University, he spent three years at the MIT Sloan School of Management as an assistant professor, where he received an NSF Early Career Award for his research on innovation in geographically dispersed teams and networks. His subsequent research has focused on virtual teams in corporations as well as collaboration in science, and his publications have appeared in outlets across a number of fields, including organizational behavior (e.g., *Management Science*, *Academy of Management Journal*, *Academy of Management Review*), information systems (e.g., *MIS Quarterly*, *Information Systems Research*), human-computer interaction (e.g., CHI, CSCW, CACM), and science policy (e.g., *Social Studies of Science*, *Research Policy*).

**STEPHEN M. FIORE** is an associate professor of cognitive sciences at the University of Central Florida's Department of Philosophy and director of the Cognitive Sciences Laboratory at UCF's Institute for Simulation and Training. He also serves as president of the Interdisciplinary

Network for Group Research and a founding program committee member for the annual Science of Team Science conference. Dr. Fiore's primary area of research is the interdisciplinary study of complex collaborative problem solving. He has taken a leadership role in the development of the field of team cognition, a melding of cognition with understanding how humans interact socially and with technology. He maintains a multidisciplinary research interest that incorporates aspects of the cognitive, social, and computational sciences in the investigation of learning and performance in individuals and teams. He is co-editor of recent volumes on *Macro-cognition in Teams* (2008), *Distributed Learning* (2007), *Team Cognition* (2004), and he has co-authored over 100 scholarly publications in the area of learning, memory, and problem solving at the individual and the group level. He presented a paper on "Assessment of Interpersonal Skills" for the NRC Board on Testing and Assessment's workshop on "Assessment of 21st Century Skills". He has a Ph.D. in cognitive psychology from the University of Pittsburgh, Learning Research and Development Center.

**KARA HALL** is a health scientist, the director of the Science of Team Science (SciTS) Team, and co-director of the Theories Project in the Science of Research and Technology Branch (SRTB), Behavioral Research Program (BRP), Division of Cancer Control and Population Sciences (DCCPS), at the National Cancer Institute (NCI). During her career, Dr. Hall has participated in a variety of interdisciplinary clinical and research endeavors. Her research has focused on the development of behavioral science methodologies such as the design of survey protocols, meta-analytic techniques for health behavior theory testing, as well as on applications of health behavior theory to multiple content areas and the development of computerized tailored interventions to foster health promotion and disease prevention behaviors. Since arriving at NCI, Dr. Hall has focused on advancing dissemination and implementation research and the science of team science as well as promoting the use, testing, and development of health behavior theory in cancer control research. Furthermore, Dr. Hall works to champion areas including systems science approaches and teams/groups in health and healthcare. Notably, Dr. Hall helped launch the field of the Science of Team Science by serving as a co-chair for the 2006 conference "The Science of Team Science: Assessing the Value of Trans-disciplinary Research" and co-editor for the recent American Journal of Preventive Medicine Special Supplement on the Science of Team Science. Dr. Hall earned her Master's and Doctoral degrees at the University of Rhode Island (URI) in psychology with specializations in clinical psychology, neuropsychology, and behavioral science.

**ROBERT HAUSER** is executive director of the Division of Behavioral and Social Sciences and Education at the National Research Council and Vilas Research professor of sociology, emeritus, at the University of Wisconsin-Madison. While at the UW-Madison, he directed the Center for Demography of Health and Aging, the Institute for Research on Poverty, and the Center for Demography and Ecology. He has been an investigator on the Wisconsin Longitudinal Study (WLS) since 1969 and led the study from 1980 to 2012. The WLS has followed the lives of more than 10,000 Wisconsin High School graduates of 1957 for more than half a century. His current research interests include statistical methodology, trends in educational progression and achievement among American racial and ethnic groups, the uses of educational assessment as a policy tool, and changes in socioeconomic standing, cognition, health, and well-being across the life course. Recent publications include reports of the National Research Council, *Measuring Literacy: Performance Levels for Adults*; *Conducting Biosocial Surveys: Collecting, Storing, Accessing, and Protecting Biospecimens and Biodata*; *High School Dropout, Graduation, and Completion Rates: Better Data, Better Measures, Better Decisions*, and *A Plan for Evaluating the District of Columbia's Public Schools: From Impressions to Evidence* and journal publications about grade retention, educational expectations, social mobility, obesity, cognitive

functioning, end-of-life planning, and mortality. He is a member of the National Academy of Sciences, American Academy of Arts and Sciences, the National Academy of Education, and the American Philosophical Society. He received his Ph.D. in Sociology from the University of Michigan.

**JAMES JACKSON** is the Daniel Katz distinguished university professor of psychology, professor of health behavior and health education, School of Public Health, and director and research professor of the Institute for Social Research. He is the past chair, Social Psychology Training Program and director of the Research Center for Group Dynamics, the Program for Research on Black Americans, and the Center for Afroamerican and African Studies, all at the University of Michigan. He is past-chair of the section on Social, Economic, and Political Sciences (K) of the American Association for the Advancement of Science (AAAS). He is a former chair of the section on Social and Behavioral Sciences, and the task force on Minority Issues of the Gerontological Society of America, and the Committee on International Relations and the Association for the Advancement of Psychology of the American Psychological Association. He is a former national president of the Black Students Psychological Association and the Association of Black Psychologists. He is the recipient of the Distinguished Career Contributions to Research Award, Society for the Psychological Study of Ethnic Minority Issues, American Psychological Association, the James McKeen Cattell Fellow Award for Distinguished Career Contributions in applied psychology, the Association for Psychological Sciences, Presidential Citation, American Psychological Association, and the Medal for Distinguished Contributions in Biomedical Sciences, New York Academy of Medicine. He is an elected member of the Institute of Medicine of the National Academies of Sciences, and a Fellow of the American Academy of Arts and Sciences.

**ANNE HEBERGER MARINO** is a professional evaluator specializing in making evaluation accessible, relevant and useful for decision-makers. She is a senior program associate with the National Academies Keck Futures Initiative, a position she has held since 2006. Anne has applied her enthusiastic approach to evaluation in government, corporate and academic settings. She encourages others to embrace evaluation as a vehicle to engage in learning, reflection and discussion about how we create and measure change in a complex world. Anne has a Masters degree in social work from the University of Pennsylvania and certificate of advanced study in evaluation from Claremont Graduate University. She has published papers in the *American Journal of Evaluation* and *Research Evaluation* and is a member of the American Evaluation Association the American Society of Association Executives, and the Maine Association of Nonprofits. When not evaluating, Anne can be found reading, enjoying the outdoors and looking for something to evaluate.

**LYNN RIDDIFORD** is a senior fellow, Janelia Farm Research Campus, Howard Hughes Medical Institute and professor of biology Emerita, University of Washington. After her Ph.D. in zoology and physical chemistry at Cornell University (1961), she earned postdocs in protein physical chemistry and insect endocrinology at Harvard University, and was instructor of zoology, Wellesley College (1963-65). From 1966-73, she was assistant, then associate professor of biology, Harvard University; then professor of zoology (biology after 2003), University of Washington (1973- 2007). She is a member of the National Academy of Sciences; a fellow of the American Academy of Arts and Sciences, AAAS, the Entomological Society of America (ESA), and the Royal Entomological Society. Honors include the Recognition Award in Insect Physiology, Biochemistry, and Toxicology (ESA), the Mendel Honorary Medal for Merit in the Biological Sciences (Czech Republic Academy of Sciences), and the Vollum Award for Distinguished Accomplishment in Science and Technology (Reed College). She has served on

the Governing Boards of the International Center of Insect Physiology and Ecology (Nairobi), the Whitney Marine Laboratory, and the Entomological Foundation; review and advisory panels for NSF, NIH and USDA; and numerous editorial boards. She was President of the American Society of Zoologists, the International Congress of Entomology, and the International Comparative Endocrinological Societies.

**JEREMY SABLOFF** is the president of the Santa Fe Institute. Before coming to the Santa Fe Institute, he taught at Harvard University, the University of Utah, the University of New Mexico (where he was chair of the department), the University of Pittsburgh (where he also was chair), and the University of Pennsylvania (where he was the Williams Director of the University of Pennsylvania Museum from 1994-2004 and Christopher H. Browne Distinguished Professor of Anthropology). He also was an overseas visiting fellow at St. John's College, Cambridge, England. He is a past president of the Society for American Archaeology and past editor of *American Antiquity*. He is a member of the National Academy of Sciences (elected in 1994) and the American Philosophical Society (elected in 1996), and a fellow of the American Academy of Arts and Sciences (elected in 1999). He was the American Anthropological Association's Distinguished Lecturer in 2010 and received the Society for American Archaeology's inaugural Award for Excellence in Latin American and Caribbean Archeology in 2011. He is the author or co-author of 9 books, has edited or co-edited 12 books, and has published more than 130 articles, book chapters, and reviews. His principal scholarly interests include: ancient Mayan civilization, pre-industrial urbanism, settlement pattern studies, archaeological theory and method, the history of archaeology, and the relevance of archaeology in the modern world. Dr. Sabloff earned a B.A. from the University of Pennsylvania and his Ph.D. from Harvard University.

**DANIEL STOKOLS** is research professor and chancellor's professor emeritus in psychology and social behavior and planning, policy, and design at the University of California, Irvine. He holds courtesy appointments in public health, epidemiology, and nursing sciences at UCI. Dr. Stokols served as director and founding dean of the School of Social Ecology at UC Irvine from 1988-1998. He is co-author of *Behavior, Health, and Environmental Stress* (1986) and co-editor of the *Handbook of Environmental Psychology* (1987), *Environmental Simulation* (1993) and *Promoting Human Wellness* (2002). Dr. Stokols is recipient of the Career Award from the Environmental Design Research Association and UCI's Lauds & Laurels Faculty Achievement Award. Stokols served as scientific consultant to the National Cancer Institute, Division of Cancer Control and Population Sciences and as a member of NCI's Science of Team Science (SciTS) team from 2005-2011. He is currently a team science consultant for the National Academies Keck Futures Initiative (NAKFI). Stokols' research interests include: (1) the science of team science (SciTS) and factors that influence the success of transdisciplinary research and training programs; (2) the environmental psychology of the internet, especially the ways in which qualities of virtual life affect people's behavior and well-being; (3) the health and behavioral impacts of environmental stressors such as traffic congestion, crowding, and information overload; (4) the application of environmental design research to urban planning and facilities design; and (5) the design and evaluation of community health promotion programs.

**HANNAH VALANTINE** is the senior associate dean for diversity and leadership at the Stanford University School of Medicine and a former Clayman Research Fellow. Dr. Valantine is a graduate of St. George's Hospital, London University and completed her residency at St. George's Hospital, Brompton Hospital and Guys Hospital London. Her cardiology fellowship training was at Royal Postgraduate Medical School in Hammersmith London. For her post-doctoral research fellowship training she went to Stanford University, and undertook research focused on Echocardiography for the diagnosis of acute reaction. During this time she also

conducted clinical research to determine the role of conventional risk factors in transplant coronary artery disease (CAD) and the application of intravascular ultrasound for detection and monitoring of the disease process. Currently, Dr. Valentine is a professor of cardiovascular medicine at Stanford University. She is also the director of clinical transplant research. Her current research interests include pathophysiology of transplant related atherosclerosis, with a focus on the role of infection and lipids; heart disease in women; and conduct of clinical trials. She has been the recipient of several research grants from the AHA and NIH, for which she was Co-Principal Investigator for an NIH - funded Program Project Grant in transplant arteriosclerosis. In November 2004 Dr. Valentine was appointed as senior associate dean for diversity and leadership in the Stanford University School of Medicine. In this role, Dr. Valentine is responsible for development and implementation of new strategies to expand faculty diversity, and provide opportunities for leadership development. Dr. Valentine is author of 160 peer-reviewed publications, 10 book chapters, and has been invited to be a presenter at over 200 lectures.

**WANDA WARD** is office head, Office of International and Integrative Activities at the National Science Foundation (NSF). Ward has served in a number of science and engineering policy, planning, and program capacities at NSF, including senior advisor to the NSF director; deputy assistant director for social, behavioral, and economic sciences; and deputy assistant director, education and human resources. Ward has also served on the President's National Science and Technology Council subcommittees and interagency working groups in the areas of social, behavioural and economic sciences and in science education and workforce development. In addition, she served on the International Social Science Council (ISSC) Committee for Developing and Transition Economies (CoDATE). Ward took the B.A. in psychology from Princeton University and the Ph.D. in psychology from Stanford University. She was awarded the Ford Foundation Fellowship, the 2005 American Psychological Association Presidential Citation, the 2006 Federation of Behavioral, Psychological and Cognitive Sciences Richard T. Louttit Award for Excellence in Government, and the 2006 U.S. Presidential Rank Award for Distinguished Executive.

**SUSAN WINTER** is science advisor in the Directorate for Social, Behavioral and Economic Sciences at the National Science Foundation, supporting distributed, interdisciplinary scientific collaborations. She has been responsible for programs funding research on virtual organizations as sociotechnical systems, cyber-enabled discovery and innovation, cyberinfrastructure education, and enabling resources for complex data-driven and computational science including high performance computers, large-scale databases, and advanced software tools. Her research on the impact of information and communications technology on the organization of work has appeared in important journals, she has extensive international managerial and consulting experience, and she currently serves on the editorial boards of the *Journal of Information Technology*, *Information and Organization*, and *Group and Organization Management*. She received her PhD in business administration from the University of Arizona, her MA in organizational research methods from the Claremont Graduate University, and her BA in organizational psychology from the University of California, Berkeley. She will be joining the faculty at the University of Maryland, College Park.