APPENDIX: PARTICIPANT BIOGRAPHIES

"The Nature of Creativity in the Brain," a Working Group Meeting Cosponsored by the National Endowment for the Arts and the Santa Fe Institute: July 9-10, 2014

Organizers

Bill O'Brien. Senior Innovation Advisor to the Chairman—National Endowment for the Arts.
O'Brien serves as the agency's lead on an interagency working group investigating coordinated investments at the intersection of art, science and humanities, and in a partnership with the Department of Defense to advance research on the impact of creative arts interventions for patients confronting war-related Post Traumatic Stress and Traumatic Brain Injuries. He was an ensemble cast member of NBC's *The West Wing* and has produced plays that have won multiple awards, including the Tony Honor for Excellence in the Theatre for the Broadway Deaf West Theatre Production of *Big River*.

Sunil Iyengar. Director, Office of Research & Analysis—National Endowment for the Arts.
During Iyengar's time at NEA, the office has created an arts system map and long-term research agenda, and has launched a research grants program. Iyengar also chairs the Interagency Task Force on the Arts and Human Development. Some of the NEA's most recent research includes *Valuing the Art of Industrial Design* (2013), *The Arts and Achievement in At-Risk Youth* (2012), *An Average Day in the Arts* (2012), and *The Arts and Human Development* (2011). Sunil and his team have partnered with organizations such as the Brookings Institution, the National Academy of Sciences, the U.S. Bureau of Economic Analysis, and the National Institutes to Health to study the arts in relation to such topics as economic development and the health and well-being of older adults.

Jennifer Dunne, PhD. Professor, Vice President for Science—Santa Fe Institute.
Dunne's research interests include analysis, modeling, and theory related to the organization, dynamics, and function of ecosystems. Much of this work focuses on ecological networks, in particular food webs, which specify the complex feeding interactions among species in a given habitat. In addition to basic research, Jennifer and her collaborators develop ecoinformatic technologies to facilitate sharing, synthesis, visualization, analysis, and modeling of data related to biocomplexity research. Among other editorial roles, she is on the advisory board of the new science and culture magazine *Nautilus*. *Nautilus* publishes about big-picture science by reporting on a single monthly topic from multiple perspectives)

Invited Participants

Doug Aitken. Multidisciplinary Artist/Technologist.
Aitken's body of work ranges from photography, print media, sculpture, and architectural interventions, to narrative films, sound, single and multi-channel video works, installations, and live performance. He recently created "The Source," a series of filmed conversations about creativity in the 21st century. The piece features four-minute interviews with dozens of artists, musicians, writers and thinkers about their creative processes.

Robert Bilder, PhD. Director, Tennenbaum Family Center for the Biology of Creativity; Professor of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine at UCLA and Professor of Psychology, UCLA College of Letters and Science.
Bilder is a clinical neuropsychologist who has been actively engaged for over 20 years in research on the neuroanatomic and neuropsychological bases of major mental illnesses. He has received many awards for his research contributions, served on diverse federal and international advisory boards, provided editorial service to many scholarly journals, and received multiple grants from the NIH, private foundations, and industry. His work has been presented in more than 100 publications and 300 scientific presentations.

Polly Carl, PhD. Director and Editor at HowlRound: A Center for the Theatre Commons—Emerson College.
Carl's work at HowlRound is focused on promoting practices for 21st Century theatre making based on the core principle that theatre is for everyone. She is also part of the ArtsEmerson programming team at Emerson College and is developing new works for the stage in that context. Over fifteen years in professional theatre, Carl has focused on developing and producing new plays, working with dozens of playwrights and theatre companies from around the country. She spent two years as Director of Artistic Development at Steppenwolf Theatre and served eleven years at the Playwrights' Center in Minneapolis seven as Producing Artistic Director. Her Ph.D. in Comparative Studies in Discourse and Society is from the University of Minnesota.

William Casebeer. PhD. Research Manager for the Human Systems Optimization Laboratory, Lockheed Martin
Many of Casebeer's research interests lie at the intersection of cognitive science and national security policy. His previous work at DARPA included the Narrative Networks and Strategic Social Interaction Modules programs. A former deputy head of the Joint Warfare Analysis Center's Technology Advancement Department, Casebeer authored the book *Natural Ethics Facts: Evolution, Connectionism, and Moral Cognition*.

Mariale Hardiman, EdD. School of Education/Director of the Neuro-Education Initiative—Johns Hopkins University.
Hardiman presents nationally and internationally on topics related to the intersection of research in the neuro- and cognitive sciences with effective teaching strategies, including meaningful integration of the arts. Her research and publications focus on enhancing educational practices through techniques that foster innovation and creative problem-solving for all students. Presentations focus on the instructional framework that she developed, The Brain-Targeted Teaching Model, described in her latest book, *Brain-Targeted Teaching for 21st Century Schools* (Corwin Press, 2012).

Charles Limb, MD. Francis A. Sooy Professor of Otolaryngology-Head and Neck Surgery and Chief of Otology/Neurotology and Skull Base Surgery, University of California San Francisco.
In early 2015, Limb joined UCSF, where he also is director of the Douglas Grant Cochlear Implant Center and holds a joint appointment in the Department of Neurosurgery. He formerly was Associate Professor of Otolaryngology – Head and Neck Surgery and a Faculty Member at the Peabody Conservatory of Music and School of Education at Johns Hopkins University. As a National Institutes of Health postdoctoral fellow, he investigated the neural mechanisms of musical improvisation and the production and perception of music through functional neuroimaging. Limb, who also plays sax, piano, and bass, gave a TED talk titled "Your Brain on Creativity."

Ivonne Chand O'Neal, PhD. Chief Research Officer—Creative Testing Services
O'Neal is a researcher who has studied creativity and the arts for over 25 years. She formerly was the director of Research and Evaluation at the John F. Kennedy Center for the Performing Arts. Her expertise centers on four main topics: artists and their creative processes, how artists conceive their art, how they are influenced, and how their work influences others on an individual, cultural and societal level. Previously, she served as Co-Investigator and Research Director at the UCLA David Geffen School of Medicine where she conducted studies of creativity, as Curator at the Museum of Creativity, and as Creativity Consultant with Disney Channel, NBC, and TNBC.

Mark A. Runco, PhD. E. Paul Torrance Professor of Creativity Studies—University of Georgia, Athens.
Runco was Director of the Torrance Creativity Center from 2008-2010. He has been Editor of the *Creativity Research Journal* since 1989 and is a Past President of Division 10 (Psychology, Art, Creativity, and Aesthetics) of the American Psychological Association. He co-edited two editions of the *Encyclopedia of Creativity* (1999, 2011). Runco's new book, *The New Science of Creativity*, is due out in 2015 along with the first issue of his new periodical, *Journal of Genius and Eminence*. He is President of Creativity Testing Services, LLC (creativitytestingservices.com), which is the publisher of the extensive "rCAB" (Runco Creativity Assessment Battery).

Justin Sanchez, PhD. Program Manager, Defense Sciences Office—U.S. Defense Advanced Research Projects Agency (DARPA).
As a program manager within the Defense Sciences Office at the U.S. Defense Advanced Research Projects Agency (DARPA), Sanchez oversees development of neurotechnologies to revolutionize prosthetics and to enable stress resistance. Formerly an associate professor of Biomedical Engineering and Neuroscience at the University of Miami, he led development of neurotechnologies for treating stroke and paralysis and for deep brain stimulation for movement disorders. His research experience includes use of in vivo electrophysiology for brain-machine interface design in animals and humans.

John Stern, MD. Professor, Department of Neurology, Geffen School of Medicine; Director, Department of Neurology, Epilepsy Clinical Program; Co-Director, Medical Center, Seizure Disorder Center— UCLA.
Stern's clinical activities include utilization of brain mapping techniques to identify seizure-generating regions. His research focus is on the brain networks responsible for the manifestations of seizures, with an emphasis on the impact of these networks on perception and awareness. This research employs functional magnetic resonance imaging (fMRI) to characterize the integration of brain activity. He has lectured and published extensively, authored the book *Atlas of EEG Patterns*, and co-edited the book *Atlas of Video-EEG Monitoring*.

Martin Storksdieck, PhD. Director of Oregon State University's Center for Research on Lifelong STEM Learning.
Storksdieck, former Director of the Board on Science Education for the National Research Council, has overseen studies addressing a wide range of issues related to science education including climate change education, science learning from games and simulations, design of a conceptual framework for new science education standards, and discipline-based education research. His prior research focused on what and how we learn when we do so voluntarily, and how learning is connected to our behaviors, identities, and beliefs.

Chris Wood, PhD. Vice President for Administration, Santa Fe Institute.
Following a faculty position in Psychology, Neurology, and Neurosurgery at Yale. Wood leads the Biophysics Group at Los Alamos National Laboratory (LANL), a position to be held until becoming the Santa Fe Institute's Vice President in 2005. At LANL, Wood's group was responsible for a wide range of biophysical and physical research, including protein crystallography, quantum information, and human brain imaging. Wood also served as interim director of the National Foundation for Functional Brain Imaging for 2000-01. His research interests include imaging and modeling the human brain, computational neuroscience, and biological computation.