

10 Years of BRAIN Initiative Funding – Building on a Decade of Innovation

On Wednesday, April 17, 2024, the Congressional Neuroscience Caucus (CNC), in cooperation with the American Brain Coalition (ABC), the American College of Neuropsychopharmacology, the Dana Foundation, the Simons Foundation, the Society for Neuroscience, and The Kavli Foundation held a congressional briefing entitled *10 Years of BRAIN Initiative Funding – Building on a Decade of Innovation*. Ted Abel, PhD, Director of the Iowa Neuroscience Institute at Carver College of Medicine at the University of Iowa, moderated the event. The panel featured a lineup of prominent speakers, including John Ngai, PhD, Director of the Brain Research Through Advancing Innovative Neurotechnologies (BRAIN) Initiative at the National Institutes of Health (NIH); Jon Nelson, a Mount Sinai BRAIN Study Participant and his partner and caregiver Barbara Nelson; Helen S. Mayberg, MD, BRAIN Principal Investigator and Professor of Neurotherapeutics at Mount Sinai; Christopher J. Rozell, PhD, BRAIN Initiative Principal Investigator and Chaired Professor of Electrical and Computer Engineering at Georgia Institute of Technology; and Nanthia Suthana PhD, Associate Professor-in-Residence of the Department of Neurosurgery at the University of California Los Angeles. The briefing commemorated ten years of groundbreaking advancements in neuroscience. Dr. Ngai opened with gratitude towards the event's sponsors and the CNC and set the tone for a celebration of tangible examples of progress.



From left to right: Drs. Ted Abel, Chris Rozell, Nanthia Suthana, Helen Mayberg, John Ngai, Jon & Barbara Nelson, and Dr. Mark Rasenick



Early in the briefing, Mark Rasenick, PhD, ABC's Board Chair, Distinguished Professor of Physiology & Biophysics and Psychiatry at the University of Illinois Chicago, and VA Research Career Scientist, introduced Representative Morgan Luttrell (R-TX), one of the co-chairs of the CNC. Rep. Luttrell spoke about his experience as a neuroscientist, and veteran with PTSD, and his vision for the future. Reflecting on the evolution of knowledge, he said that the ideas once garnered in undergraduate studies do not compare to the progressive concepts of the present. He highlighted the importance of allocating

funding toward new avenues of research, recognizing their potential to undo mysteries of the mind and reform our understanding of human cognition. He expressed his hope that the generations that follow will be free from concern about brain diseases and conditions. Rep. Luttrell recognized the challenges the BRAIN Initiative faces within in a tight budget climate but remains dedicated to pushing the importance of funding this research.

Jon Nelson's heartfelt account shed light on the harsh realities of living with mental illness, challenging societal stigmas, and emphasizing the critical need for support and empathy. His journey with depression, from the depths of despair to finding hope through innovative treatments, underscored the vital importance of continued funding for research. Barbara Nelson's perspective as a caregiver provided further insight into the toll of brain conditions on individuals and their families, emphasizing the transformative power of scientific advancements funded by initiatives like the BRAIN Initiative.



Dr. Helen Mayberg discussed the intersection of research and real-world impact. Progress in mapping the human brain has revealed treatment options when nothing else worked, offering new insights into treating depression by targeting specific brain circuits. The discussion emphasized the necessity of interdisciplinary collaboration and the importance of scaling up interventions to reach more individuals in need.

Dr. Rozell, an engineer who highlighted the ongoing challenges in bridging the gap between laboratory discoveries and real-world applications, stressed the importance of training future generations of researchers to tackle complex issues. He also spoke about using engineering to build data science and algorithms to provide a mapping of the brain that supports psychiatric teams to make complex conditions treatable.

Dr. Nanthia Suthana discussed pioneering the frontier of wearable technology, aimed at capturing natural behaviors in real-world settings. She shared insights into a patient's progress with PTSD, emphasizing the importance of examining triggers to prevent relapse. Dr. Suthana's trailblazing work began a decade ago, aligning with the inception of the BRAIN Initiative, showcasing her dedication to groundbreaking PTSD research over the past ten years.

The audience was invited to ask questions of the panel. The Q&A session further explored the practical implications of research and of hope gathered from individuals who had undergone successful treatments through research supported by the BRAIN Initiative. Dr. Ngai closed the event with a hopeful outlook, emphasizing the significance of the past decade's achievements in neuroscience and the promise of greater advancements to come, driven by the dedication and brilliance of scientists and the support of initiatives like BRAIN.

