

Opening Statement
Ranking Member Eddie Bernice Johnson
House Committee on Science, Space, and Technology
Research and Technology Subcommittee Hearing

Exploring the Frontiers of Neuroscience Research

July 31, 2013

Thank you Chairman Bucshon. I'm really delighted to be here this morning. In my hometown of Dallas, the Center for Brain Health at the University of Texas at Dallas is doing important research on brain disorders and injuries and contributing to the Administration's BRAIN Initiative. I have taken a number of people to the Brain Health facility so we could talk to the researchers and learn more about their work.

Before I entered public service, I was a psychiatric nurse at the VA Hospital in Dallas. This was at a time when many of our young men were returning from Vietnam seemingly whole on the outside, but suffering from acute and long-term mental health challenges that we only recently came to understand as post-traumatic stress disorder. Today, because of the life-saving measures that we have been able to implement in the field, thousands of young men and women have survived serious injuries in Afghanistan and Iraq and returned to their families. But many of them, and many more without any visible scars, suffer terribly from traumatic brain disorder and PTSD.

The research supported by federal agencies such as NSF, NIH, and DARPA is essential to increasing our understanding of the human brain. We need to better understand when things go wrong, such as in PTSD and drug addiction, so that we may develop more effective treatments. But it's hard to determine when things have gone wrong if we don't fully understand the normal functioning of a healthy brain. Because the National Science Foundation is not limited by examining specific pathologies or applications, it is particularly well suited to asking and answering fundamental questions about normal brain function. With this freedom, NSF can support research such as Dr. Robinson's work on understanding the social behavior of honey bees. As Dr. Robinson's work evolved from his basic questions about honey bee behavior, the applications to human neuroscience became evident and NIH also began to fund him. This is the way it should work. As we put neuroscience in context at today's hearing by focusing on applications, we should not forget the foundation of basic research on which these advances are built or the agency that is the leader in supporting such basic research.

Dr. Robinson, I'm sorry for putting you on the spot, but your work in particular illustrates another important point. Five years ago you published an NIH funded study on the *Effects of Cocaine on Honey Bee Dance Behavior*. If I were to look just at that title in order to judge the merits of your research, I might dismiss it as unworthy of taxpayer support. But I have confidence in NSF's and NIH's merit review process, a process that has become recognized worldwide as the "gold standard" for merit review. As a result, I have no doubt this is a serious study with real implications for understanding human addiction, an important issue in neuroscience. I also wonder about the significance of this work to better understanding honey bee colony collapse disorder that threatens agricultural production worldwide. I hope you will have the opportunity during Q&A to enlighten us on this fascinating research.

Thank you all for being here this morning and I look forward to your testimony.