On May 30, 2018, the Multi-Council Working Group (MCWG) of the NIH BRAIN Initiative held its tenth meeting. The MCWG provides insights related to funding strategies, initiative planning, and progress in achieving the goals laid out in the Initiative’s strategic plan, BRAIN 2025.

Drs. Walter Koroshetz and Joshua Gordon provided an overview of the current state of BRAIN at NIH. They discussed the budget, administrative accomplishments, scientific advancements, and potential growth areas. BRAIN is focused on the structure and function of brain circuits. The long-term goal is to fully understand how the brain functions, through the active observance of neural activity during behavior, across the whole brain as well as at the single-cell level.

The investments that have been made in BRAIN since the first awards in Fiscal Year 2014 have been growing each year. BRAIN awards are spread throughout the country, and indeed throughout the world. Thus far, 345 grants have been given to 504 investigators, for a total investment of $548.3 million. Furthermore, in Fiscal Year 2018 alone, the estimated budget is $400 million.

The fourth annual BRAIN Initiative Investigators Meeting took place this past April. It was a lively meeting of BRAIN investigators from the contributing federal agencies (NIH, NSF, DARPA, IARPA, and FDA), non-federal organizations invested in the Initiative, and more. The event is growing - almost 1,000 people attended the meeting, a ~25% increase over the previous meeting.

The BRAIN Initiative continues to capture the interest of Congress. Drs. Koroshetz and Gordon, among others, represented BRAIN in a Congressional neuroscience caucus briefing in February, and Dr. Koroshetz spoke at the Senate appropriations hearing in May. The total lifetime budget for BRAIN is projected to be $4.9 billion. The Initiative is estimated to receive $400-500 million per year throughout 2026, with added support via the 21st Century Cures Act. The current emphasis is to ensure that plans are in place to support transformative and high impact/high reward research.

Additionally, NIH is hopeful that a search for a new BRAIN Director is nearing completion. The search committee has recommended a short list for leadership to review.

Neuroethics has been a strong component of BRAIN since the beginning. Co-chair Hank Greely, J.D. delivered an update regarding the Neuroethics Division of the MCWG. The Division has finished a set of Neuroethics Guiding Principles and expects the document to be published this summer in a top neuroscience journal. These are eight overarching principles intended to facilitate framing – and addressing – the neuroethical questions that BRAIN-supported research will elicit. The Neuroethics Division recently held workshops in which diverse stakeholders were brought together to discuss neuroethical considerations associated with human neuroscience research with novel neurotechnologies, and research with human neural tissue. These interdisciplinary dialogues help ensure that the cutting-edge tools and neurotechnologies supported by the NIH BRAIN Initiative, and their application, are continually assessed for their neuroethical implications.

Dr. Greg Farber presented a new funding opportunity concept, BRAIN-Initiative: Secondary Data Analysis and Data Mining. BRAIN has begun to make significant investments into funding for informatics infrastructure. These data infrastructure awards are in the areas of data standards, integration and analysis software, and data archives. In Fiscal Year 2017, the data archive awards included a comprehensive data portal for the BRAIN Initiative Cell Census Network, as well as two data archives (for -omics and confocal microscopy data). Further data archives are expected to be funded in Fiscal Year 2018. The purpose of the Secondary Data Analysis and Data Mining concept is to support the use of the data that quickly accumulates in BRAIN-supported data archives, as well as in other relevant data archives. This funding opportunity announcement will enhance data integration and analysis capabilities by supporting the development and use of innovative computational methods and statistical approaches to analyze BRAIN-relevant data. The MCWG voted to approve the concept, which will evolve into a Request for Applications.

Lastly, Dr. John Maunsell updated the MCWG on the new working group of the advisory committee to the NIH Director. Dr. Maunsell, co-chair of the new working group alongside Dr. Catherine Dulac, explained that NIH has invited an external group of experts to look ahead to the second half of the Initiative’s lifespan, what has been dubbed “BRAIN 2.0.” This working group will work intensively over the course of the next year, with the following goals: (1) review BRAIN progress to date, (2) identify valuable areas of new and continued
technology development, and (3) considering the unique contributions that BRAIN can make to neuroscience, suggest updates to BRAIN 2025. The group convened for the first time in April 2018, and they expect that much insight will come through focused workshops to gather scientific expertise and public input, as well as a Request for Information to be published this summer. They will hold three workshops across the country, in late summer and in the fall, ending with a Town Hall meeting at the annual meeting of the Society for Neuroscience in November. Continuous input is welcome at BRAINfeedback@nih.gov.