Biogen to Launch Pioneering Study to Develop Digital Biomarkers of Cognitive Health Using Apple Watch and iPhone

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- *The study aims to identify digital biomarkers to help monitor cognitive performance and health including potentially detecting mild cognitive impairment, an early indicator of certain forms of dementia such as Alzheimer's disease*
- *Cognitive health — the ability to think clearly, to learn and to remember — is an indicator of brain health and important to performing daily activities*

CAMBRIDGE, Mass., Jan. 11, 2021 (GLOBE NEWSWIRE) -- Biogen Inc. (Nasdaq: BIIB) today announced a new virtual research study, in collaboration with Apple, to investigate the role Apple Watch and iPhone could play in monitoring cognitive performance and screening for decline in cognitive health including mild cognitive impairment (MCI).

The multi-year, observational research study will be launched later in 2021 and will enroll participants including young and aging adults with a range of cognitive performance. Driven by the powerful technology in Apple Watch and iPhone and Biogen's in-depth knowledge of neuroscience, the study's primary objectives are to develop digital biomarkers to help monitor cognitive performance over time and identify early signs of MCI.

For aging adults, cognitive health is becoming increasingly recognized as an important component of overall health. However, significant delays exist in identifying declines in cognitive health including MCI, which impacts approximately 15 – 20 percent of adults over the age of 65. The onset of symptoms is often subtle, ranging from being easily distracted to memory loss, and can take months to years before cognitive decline comes to the attention of health care providers.

The virtual study allows adult users across the aging lifespan to join. The study has been designed with customer privacy, control and transparency in mind as well as data security. Participants, who can stop taking part in the study at any time, will complete a detailed consent form listing the collected data types and how each may be used and shared. Data will be stored in an encrypted manner and in systems with strong security controls designed to protect the data.

"Cognitive decline can be an early symptom of neurodegenerative diseases and dementia. The successful development of digital biomarkers in brain health would help address the significant need to accelerate patient diagnoses and empower physicians and individuals to take timely action," said Michel Vounatsos, CEO at Biogen. "For healthcare systems, such advancements in cognitive biomarkers from large-scale studies could contribute significantly to prevention and better population-based health outcomes, and lower costs to health systems. Bringing together the best of neuroscience with the best of technology creates a wonderful prospect for patients and public health."

"Working in collaboration with Biogen, we hope this study can help the medical community better understand a person's cognitive performance by simply having them engage with their Apple Watch and iPhone," said Jeff Williams, Apple's chief operating officer. "We're looking forward to learning about the impact our technology can have in delivering better health outcomes through improved detection of declining cognitive health."

"This is terrific news for all of us who are interested in our brain health," said George Vradenburg, Chairman and Cofounder of UsAgainstAlzheimer's, a patient-led non-profit pushing to prevent dementia through ongoing attention to brain health. "Just as we today use new digital and mobile tools to help us monitor and improve our cardiovascular health, this new study will help us learn how to use those same tools to monitor and improve our brain health. We have learned repeatedly that detecting disease at its earliest stage is our best bet to treat it effectively. To that end, this exciting study could enable us to learn how to get early warning signs of cognitive decline which may be addressed through lifestyle and therapeutic changes designed to slow or stop the progression of brain disease."

"Strategies that optimize brain health and improve cognitive function are the key to reducing the risk of dementia and this study has the potential to discover transformative ways to monitor and assess brain health," said Nora Super, executive director of the Milken Institute Alliance to Improve Dementia Care. "We are always eager to see technological innovation, and we are particularly interested in the user convenience of data collected through the use of everyday devices like Apple Watch and iPhone. This type of innovation may enhance our understanding of the aging brain and therefore may ultimately help us understand how to maintain and improve brain health throughout adulthood."

About Biogen

At Biogen, our mission is clear: we are pioneers in neuroscience. Biogen discovers, develops and delivers worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases as well as related therapeutic adjacencies. One of the world's first global biotechnology companies, Biogen was founded in 1978 by Charles Weissmann, Heinz Schaller, Kenneth Murray and Nobel Prize winners Walter Gilbert and Phillip Sharp. Today Biogen has the leading portfolio of medicines to treat multiple sclerosis, has introduced the first approved treatment for spinal muscular atrophy, commercializes biosimilars of advanced biologics and is focused on advancing research programs in multiple sclerosis and neuroimmunology, Alzheimer's disease and dementia, neuromuscular disorders, movement disorders, ophthalmology, neuropsychiatry, immunology, acute neurology and neuropathic pain.

We routinely post information that may be important to investors on our website at www.biogen.com. Follow us on social media – Twitter, LinkedIn, Facebook, YouTube.

Biogen Safe Harbor

This news release contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, about the planned research study of cognitive health, including the timing and enrollment of such study; the identification and treatment of Alzheimer's disease; our research and development program for the potential treatment of Alzheimer's disease; the potential benefits from early treatment of Alzheimer's disease; the potential benefits and results that may be achieved through our collaboration with Apple; the potential of our commercial business and pipeline programs; and our strategy and plans. These statements may be identified by words such as "aim,"

“anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “goal,” “intend,” “may,” “plan,” “possible,” “potential,” “will,” “would” and other words and terms of similar meaning. You should not place undue reliance on these statements or the scientific data presented.

These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including without limitation, the risk that we may not fully enroll the planned research study or enrollment will take longer than expected; risks of unexpected costs or delays; the risk of other unexpected hurdles; failure to protect and enforce our data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; regulatory authorities may require additional information or further studies; third party collaboration risks; and the direct and indirect impacts of the ongoing COVID-19 pandemic on our business, results of operations and financial condition. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from our expectations in any forward-looking statement. Investors should consider this cautionary statement as well as the risk factors identified in our most recent annual or quarterly report and in other reports we have filed with the U.S. Securities and Exchange Commission. These statements are based on our current beliefs and expectations and speak only as of the date of this news release. We do not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise.

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