Parkinson's app updated, featured by Apple

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A Parkinson's iPhone app developed by Sage Bionetworks and University of Rochester Medical Center (URMC) neurologists marks the first anniversary of its release. The app was also highlighted by Apple today during its semi-annual product launch event.

Sage Bionetworks, a Seattle-based nonprofit biomedical research organization, today released an updated version of its mPower (Mobile Parkinson's Observatory for Worldwide, Evidence-based Research) app that includes an improved user interface and functionality developed in response to feedback by users. Sage also announced that mPower would be the first app incorporated into a new Apple platform called CareKit, which will turn the app into a valuable tool to help better inform patients about their symptoms and care.

The mPower app – which was created by Sage in collaboration with URMC neurologists Ray Dorsey, M.D., M.B.A., and Karl Kieburtz, M.D., M.P.H., and with the support of the Robert Wood Johnson Foundation – was first unveiled in March 2015 during Apple's "Spring Forward" product launch event.

The mPower app gathers real time data from Parkinson's patients in an effort to more fully understand the disease and how it impacts daily life. The app also allows patients to track symptoms and how treatments are impacting the progression of the disease. For example, the app can measure the severity of the disease by analyzing the subtle changes in the voice of Parkinson's patients. In addition, the app uses other iPhone functions – such as the touch screen, motion sensors, and GPS – to measure dexterity, balance and gait, and memory multiple times per day.

"mPower allows researchers to follow day-to-day fluctuations in Parkinson's disease symptoms and allows for insights that would be impossible to achieve when a patient is only being examined every six months," said Stephen Friend, M.D., Ph.D., president of Sage Bionetworks. "This kind of data has never been tracked and captured before, and now with the help of CareKit, we can provide quantitative insights to inform the dialog a person has with a health professional about his or her own disease."

Since its launch, the app has been downloaded more than 60,000 times from Apple's App Store, and with more 12,000 registered users it represents one of the largest studies ever conducted in the disease. mPower has enrolled participants from all 50 states and user feedback has informed researchers about new and better ways to track medication use, complete tasks within the app, and convey information back to participants.

"With mPower, the patient is increasingly at the center of the study,

representing a disruptive model for conducting research that has application well beyond Parkinson's disease," said Dorsey. "mPower has been an unprecedented success, with thousands of individuals signed up to participate in a research study conducted entirely over a smartphone without having to visit a single research site. Participants can conduct assessments anytime, anywhere, receive real-time feedback, and can identify what is making their symptoms better or worse."

Earlier this month, Sage released a huge tranche of data from the more than 9,500 mPower users who consented to have their information shared. The dataset, which is comprised of millions of individual data points, will provide researchers with unprecedented insight into the daily lived experience of Parkinson's patients.

The updated app, which was released today in conjunction with Apple's "Loop You In" product launch event in California, will feature a new dashboard that provides an assessment of the participant's score on each of the activities in the study. Additionally, some participants will be given the opportunity to request a personalized report of their activity scores compared with others in the study.

The app will be part of CareKit, a new open source software platform created by Apple that will allow developers to build apps that enable people to monitor their own symptoms and care and share that information with physicians and families.

Provided by University of Rochester Medical Center