TECHNOLOGY CONVERGENCE IN NEUROSCIENCE

Luc Truyen
Janssen R&D LLC
Disclaimer

- The opinions expressed in this presentation are those of the presenter only and do not necessarily reflect the positions or opinions of Janssen Research and Development, L.L.C. or any other individual or affiliate of Johnson & Johnson. The presenter makes no warranties with respect to the accuracy of the data or materials presented herein. All information is provided for informational purposes only and does not constitute advice regarding clinical research-related activities.
Lack of awareness and advocacy
Inadequate efficacy of existing drugs
Under diagnosis
Lack of access to care and treatment
High rates of relapse, re-hospitalization
Poor quality, fragmented care
Stigma
Low adherence

CHALLENGES in Neuroscience Are Multiple and Interlinked
Digital Technologies and Big Data Can Address Key Challenges

- Inadequate efficacy of existing drugs
- Lack of awareness and advocacy
- Under diagnosis
- Lack of access to care and treatment
- High rates of relapse, re-hospitalization
- Poor quality, fragmented care
- Stigma
- Low adherence

Disease sub-types (precision medicine)
New therapeutics with novel mechanisms
Digital diagnostics risk assessment (preemptive medicine)
Relapse prediction (preemptive medicine)
Objective, biological measures of disease and phenotypes, anti stigma campaigns

Digital mental health campaigns
telemedicine, ‘e-therapeutics’
Digital wellness solutions
Technology solutions to enable care-coordination
Objective and continuous measures of quality and outcome metrics (integrated, outcome-based care)
Medication adherence apps
Digital Health SGG: Scientific priorities 2019

- Development and validation of digital diagnostics and precision medicine tools
- Development and validation of digital solutions for predicting relapses and exacerbations in waxing/waning diseases with a dynamic course (e.g. RADAR CNS)
- Development and qualification of efficacy and Healthcare Quality of Life endpoints for use in clinical trials and real world pragmatic studies (e.g. DIAMOND, RADAR AD, DENIM)
- Development of technology platform, data standards and privacy protocols for collection, analysis and dissemination of digital biomarker data from devices and sensors (e.g. RADAR BASE open source)
- Research into regulatory, legal, ethical and privacy framework for digital data collection from individuals for clinical and medical use
- Development of digital solutions for improved drug adherence and efficacy monitoring