

Session 1: State of the science of science of multimodal biomarkers needed for CNS disorders

Samantha Hutten



THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH

Objectives & Key Questions

Review the current state of the field for CNS biomarkers & ongoing efforts to generate multimodal biomarkers

- **Why**

Why are multimodal biomarkers needed for CNS disorders?

- **How**

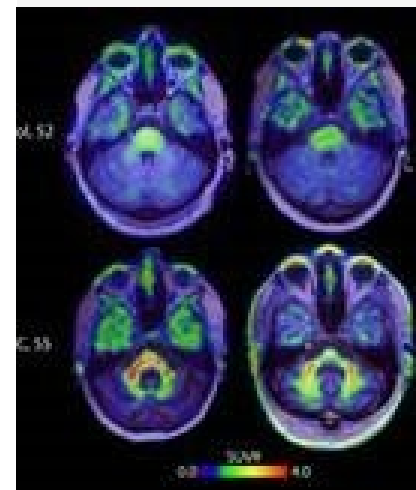
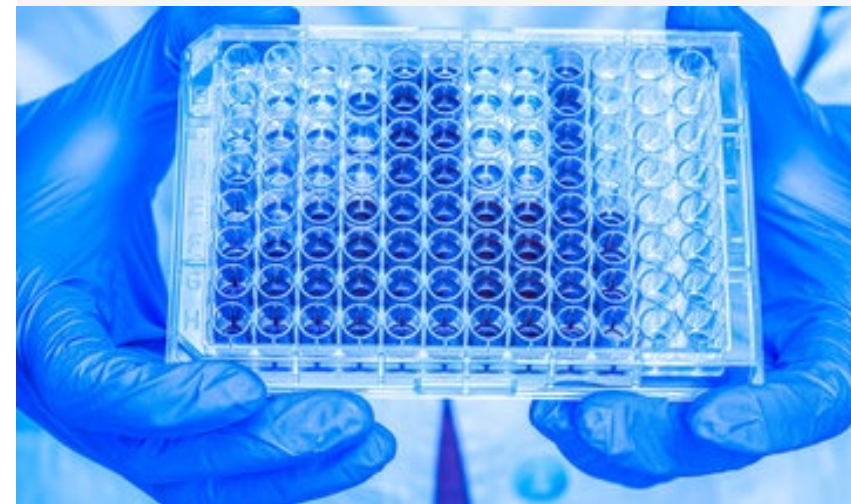
What is the process for moving from individual biomarkers to biomarker types to generate multimodal biomarkers?

- **What**

What are some of the common challenges of multimodal biomarker development across CNS disease areas & how have these been successfully overcome?

- **+ / -**

What are the advantages/disadvantages of integrative & multiplexed biomarkers?



Key challenges in [multimodal] biomarker development

- 'One size' will not 'fit all'
- No consensus around what biomarkers should be measured & 'in what'?
- Limited access to well collected/characterized clinical samples
- Lack of rigorous replication & validation of outcome measures
- Lack of data harmonization & standardization to evaluate across studies
- Encouraging collaboration between data scientists equipped to evaluate multimodal signatures & disease specific expertise
- Need for inclusion of individuals with lived experience in the research process



Agenda



Clifford Jack
Mayo Clinic



Kirsten Taylor
Roche



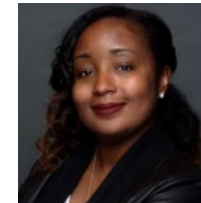
Jane Paulsen
University of Wisconsin



Alessandra Rovescalli
Rovescalli
NIA, Moderator



Mary Thanh Hai
FDA



Charisse Winston
University of Virginia,
Organizing Committee

