

Multidisciplinary Frontier Brain and Neuroscience Discoveries (Brain/MINDS 2.0)

【Prioritized Research Topics】

Development of therapeutic methods and new drug candidates

- Identification of **biomarkers** for ultra-early diagnosis
- Identification of novel therapeutic targets other than amyloid-beta ($A\beta$) in Alzheimer's disease, e.g.

Pathophysiology of brain diseases

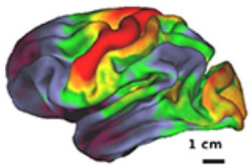
- Elucidation of the pathophysiological mechanisms of neurological and psychiatric disorders
- Development of disease model animals

Translational/Reverse Translational collaboration between basic and clinical research

Development of a "Digital Brain"※ 1

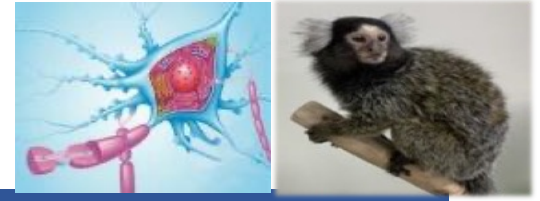
Elucidation of human brain function and dynamics

- Understanding the dynamics of neural circuits and other aspects of the human brain
- Multidimensional and multilevel data analysis, etc.



※1 Development of a "Digital Brain"

- Recreating the dynamics of higher brain functions in a digital space



Promotion of industry-academia collaboration and international partnerships

Establishment of innovative technologies and research infrastructure

- Establishment of infrastructure for human fMRI imaging and animal resources
- Development of mathematical models, brain measurement technologies, and related applications

Contributing to

Groundbreaking diagnostics, treatments, and drug discovery for diseases such as dementia, while also expanding a wide range of industrial applications