The human connectome: a structural description of the human brain

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OPPORTUNITY

- **The human connectome is the key to further basic and applied neurobiological research.**

- **Sudden burst in number of neuroscience datasets!**

- **No coordinated research effort to collect, archive, and disseminate this important information.**

CHALLENGE

Challenge 1

Incomplete understanding of cognitive function

Challenge 2

Connectivity in the brain is highly heterogeneous

Challenge 3

Ease of availability of neuroscience data

Action

- MACRO vs. MESO vs. MICRO: Scale at which a first draft of the human connectome might be assembled

- 8 STEPS: Outlining potential experimental approach to create this draft

RESOLUTION

1

Understanding effects of neurodegenerative disease, developmental abnormalities etc.

2

Bettering recovery and prevention strategies
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3

Delineating human cognitive function like memory and language

FEEDBACK

- Easy read, nicely organized

- suggests the existence of an ideal brain

- Incorporating gila, hormonal regulation, synaptic plasticity information