Simons Collaboration on Plasticity and the Aging Brain

Simons Collaboration on Plasticity and the Aging Brain (SCPAB), is a new program started in 2020 at the Simons Foundation. The program aims to discover mechanisms of resilience and maintenance in the aging brain and to establish a baseline for age-related changes in plasticity across many model systems, in order to identify potential interventions to minimize cognitive decline and extend healthy lifespan. As the age of the population increases, the need to understand the phenomenon and mechanisms of cognitive decline also increases. SCPAB projects specifically address changes in normal aging, to distinguish from well-funded efforts to study Alzheimer's and other neurodegenerative diseases, and to distinguish from work focusing on developmental trajectories. SCPAB funds research on human and model organisms, and areas of particular interest include the vasculature, neuronal plasticity, neural-immune interactions, and sleep. Supported work will contribute to large databases of information that can be shared and widely used, as well as identify possible mechanisms of intervention.

Schedule:

Monday, September 26

3:30pm - 5:30pm Session 1 [5-6 talks, 25 min each] 5:30pm - 6:30pm Social Hour 6:30pm - 8:00pm Buffet Dinner 8:00pm -10:00pm Poster Session

Tuesday, September 27

8:00am - 9:30am Breakfast 9:30am - 12:00pm Session 2 [5-6 talks, 25 min each] 12:00pm - 2:00pm Lunch 2:00pm - 4:30pm Session 3 [5-6 talks, 25 min each] 4:30pm End

Session 1: -<u>Conserved regulatory pathways in age-related loss of plasticity and cognitive function</u>

-Sex-specific differences in cognitive and brain aging

Session 2:

-Glial mechanisms by which sleep preserves cognitive function and plasticity in aging

-Understanding how bloodborne factors improve the function of the aging brain

Session 3:

-Discovering neural underpinnings of age-related changes in perceptual and value-based

decision-making

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-Linking molecules, circuits and behavior to promote plasticity and memory in the aging brain