CEREBBRAL

CENTER FOR RESEARCH ON BRAIN, BEHAVIOR, AND NEUROREHABILITATION

Jessica Huber and Sébastien Hélie
Co-directors of CEREBBRAL
Developed by a core group of faculty in response to a request for focused areas of research across HHS

- Launched formally in Nov 2016

Affiliated with Purdue Institute for Integrative Neuroscience and the Purdue Women’s Global Health Initiative
Mission is to understand aging and age-related diseases and to use that knowledge to improve quality of life

Website: [http://www.purdue.edu/hhs/cerebral/](http://www.purdue.edu/hhs/cerebral/)

- Information about research meetings
- Call for pilot grant mechanism is posted in each semester
- Information about joining the center

Email: [cerebbralcenter@purdue.edu](mailto:cerebbralcenter@purdue.edu)

Co-directors: Jessica Huber and Sébastien Hélie
AIMS

Characterize aging and neurological diseases
• Computational Models: Ambike, Haddad, Hélie
• Imaging: Dydak, Hélie, Liu, Malandraki
• Animal Models: Cannon, Chester, Ellis, Fekete, Sangha, Teegarden
• Behavioral: Most of the group

Develop optimal interventions and technologies
• Behavioral Treatment: Dydak, Haddad, Huber, Lee, Malandraki, Munguia, Running, Zelaznik
• Psychosocial: Amireault, Richards, Shields, Foti
• Technology Treatment: Duerstock, Huber, Nauman, Rietdyk

Efficacy testing and translation to market
• Behavioral: Gutmann, Huber, Haddad, Lee, Malandraki, Munguia, Newell, Richards, Rietdyk
• Psychosocial: Amireault, Richards, Shields, Tonnsen
• Entrepreneurship: Gutmann, Huber, Rietdyk

Understand cognition and behavior in complex biological systems
• Computational Models: Hélie
• Imaging: Hélie, Liu
• Behavioral: Foti, Francis, Gutmann, Huber, Lee, Redick, Tonnsen
MEMBER FACULTY

CEREBBRAL

HK:
Ambike, Amireault, Haddad, Rietdyk, Zelaznik

HS:
Cannon, Dydak

PSY:
Chester, Foti, Hélie, Redick, Sangha, Tonnsen

SLHS:
Gutmann, Francis, Huber, Lee, Malandraki, Munguia, Newell

NUTR SCI:
Ellis, Running, Teegarden

HDFS:
Shields

NURS:
Richards

Outside HHS:
Duerstock, Fekete, Liu, Nauman

IU School of Medicine
• Parkinson’s disease
  • Understanding risk factors in Parkinson’s disease
    • Manganese exposure
    • Environmental contaminants
    • Neurocomputational models of cognitive symptoms
  • Balance problems
    • COBALT
    • SmartGait
  • Improving communication
    • SpeechVive

• Fragile X syndrome
  • Large scale examination of ataxia
SUMMARY

Characterize aging and neurological diseases

Develop optimal interventions and technologies

Efficacy testing and translation to market