

# The Florida Consortium on the Neurobiology of Cognition

*Annual Meeting 2024, Miami, FL*

## Day 1 - Thursday, May 2<sup>nd</sup>

**8:30 am - 10:00 am** Poster Session #1 and Light Breakfast

**10:00 am - 10:30 am** Introduction & Welcome – Dr. Aaron Wilber, FSU

**10:30 am - 12:30 pm**

### **SESSION 1- Role of physical activity in promoting cognitive and brain health in late adulthood.**

Chair: Drs. Shivangi Jain, Dr. Lauren Oberlin

Dr. Henrietta van Praag, Florida Atlantic University

*"The role of exercise in hippocampus-dependent memory"*

Dr. Lauren Oberlin, AdventHealth Research Institute, Neuroscience, Orlando; Department of Psychiatry, Weill Cornell Medicine, New York, NY

*"Cardiorespiratory fitness is associated with cognitive function in late adulthood: Baseline findings from the IGNITE study"*

Dr. Kelsey Sewell, AdventHealth Research Institute, Neuroscience, Orlando; Centre for Healthy Ageing, Health Futures Institute, Murdoch University, Murdoch, Western Australia, Australia

*"How lifestyle shapes the brain: Associations between physical activity, sleep, and cognitive function in older adults"*

Dr. Shivangi Jain, AdventHealth Research Institute, Neuroscience, Orlando

*"Cognitive aging and brain health: Role of white matter lesions, systemic inflammation, and cardiorespiratory fitness"*

**12:30 pm - 1:30 pm** Lunch

**1:30 pm – 2:30 pm** **Featured FCNC Member Speaker**, Dr. Natalie Ebner FCNC Member talk

*"A translational neuroscience approach to social-cognitive and affective aging"*

**2:30 pm - 2:45 pm** Break

**2:45 pm - 4:45 pm**

### **SESSION 2 – Pathogenic mechanisms and potential protective strategies for aging and age-related neurodegenerative disorders**

Chair: Dr. Kim Tieu, Florida International University

Dr. Christiaan Leeuwenburgh, University of Florida

*"Hallmarks of aging: Focus on autophagy and mitochondria"*

Dr. Kim Tieu, Florida International University

*"Targeting mitochondrial dynamics and autophagy as potential therapeutic strategies for Parkinson's disease"*

Dr. Tomas Guilarte, Florida International University

*"The mitochondrial translocator protein 18kDa (TSPO) is an early biomarker of neuroinflammation and disease progression in Alzheimer's disease"*

**4:45 pm - 5:00 pm** Break

**5:00 pm - 6:00 pm** **Sarah Johnson Data Blitz & Award Announcement**

Organizer: Shamim Golafshan, FIU



## Day 2 - Friday, May 3<sup>rd</sup>

8:30 am - 10:00 am Poster Session #2 and Light Breakfast

10:00 am - 12:00 pm

### SESSION 3 – From the bench to the bedside: Experimental therapy development for Huntington disease

Chairs: Dr. Amber Southwell, University of Central Florida

Dr. Jianning Wei, Florida Atlantic University

*"Implication of environmental factors in the progression of Huntington's disease"*

Dr. Amber Southwell, University of Central Florida

*"On the hunt for Huntington disease therapy"*

Dr. Ines Bras, University of Central Florida

*"Leveraging extracellular vesicles for Huntington disease biomarkers"*

12:00 pm - 1:45 pm Lunch

1:45 pm - 2:45 pm

### Keynote Speaker – Dr. Randy Buckner, Sosland Family Professor of Psychology and Neuroscience, Harvard University

*"Precision estimation of large-scale network organization in the human brain"*

2:45 pm - 3:00 pm Break

3:00 pm – 5:00 pm

### SESSION 4 – Neural oscillations underlie cognitive control and are altered with psychiatric illness

Chair: Dr. George Buzzell, Florida International University

Dr. Mingzhou Ding, University of Florida

*"Stimulating neural oscillations to enhance cognitive functions"*

Kianoosh Hosseini, Florida International University

*"The potential role of error-related theta oscillations and memory in social anxiety"*

Dr. Justin Riddle, Florida State University

*"Causal role of delta-beta coupling for goal-directed behavior in anhedonic depression"*

5:00 pm - 5:30 pm

Closing Remarks

#### Meeting Code of Conduct

The FCNC has a "zero tolerance" policy toward discrimination and all forms of harassment. FCNC reserves the right to discipline meeting participants who engage in any inappropriate conduct, including dismissal from the conference.



# Sarah Johnson Data Blitz

**Julio Peraza**, *“Gradec: Meta-analytic decoder of connectivity gradients”*

**Taylor Jancetic-Bidelman**, *“Ethnic identity profiles among adolescents in the ABCD Study: Associations with resting state functional connectivity”*

**Chloe Hampson**, *“Habenular alterations in resting state functional connectivity in autism spectrum disorder”*

**Dr. Samantha Saland**, *“Sex differences and ketamine in isolation-induced cognitive dysfunction”*

**Dr. Leila Allen**, *“Delayed spatial alternation in the pig”*

**William Villano**, *“Hippocampal recurrence moderates the reinstatement of cortical events during emotional anticipation”*

**Gianna Cannestro**, *“Electrophysiological characterization of Huntington’s Disease”*

**Florian Duclot**, *“Assessing motivation for reward in a socially monogamous species”*



## Poster Session #1 (Thursday, May 2<sup>nd</sup> 8:30-10:00am)

**Isabella D'Ottone**, "*Feeling Moody: Emotional reactions to real-world events predict changes in positive and negative mood*", UM (Heller)

**Jialong Zhen**, "*Is this real? Deepfake detection in humans vs. machines*", UF (Ebner)

**Sydney Ragsdale**, "*Longitudinal characterization of resting state fMRI, DTI, and action-place spatial learning in the TgF344-AD rat reveals impaired action-place learning emerging at 5-months*", FSU (Wilber)

**Dr. Marilyn Horta**, "*Introducing an open dataset to examine single-dose intranasal oxytocin effects in healthy younger and older adults*", UF (Ebner)

**Medha Mahindra & Dr. Sunayana Dagar**, "*Rhes-SLC4A7 association mediates cell to cell mHTT transmission*", UF (Subramaniam)

**Chloe Hampson**, "*Habenular alterations in resting state functional connectivity in autism spectrum disorder*", FIU (Laird)

**Leslie Alday**, "*Resting after learning facilitated memory consolidation and reversed impairments of spatial reorientation in 3xTG-AD mice*", FSU (Wilber)

**Dr. Samantha Saland**, "*Molecular mechanisms associated with behavioral sensitization to intermittent ketamine in male and female rats*", FSU (Kabbaj)

**Dr. Mingbo Cai**, "*Decoding spontaneous thoughts from brain activity*", UM (Cai)

**Dr. Yanhao Lai**, "*Drp1 inhibition reduces neuroinflammation in vivo*", FIU (Tieu)

**Rebecca Fan**, "*A partial Drp1 knockout improves autophagy flux independent of mitochondrial function*", FIU (Tieu)

**Stephen Suss**, "*Investigation of activation patterns within proposed affective circuits in adolescent development and anxiety*", FIU (Mattfeld/McMakin)

**Deirdre Murphy**, "*Characterization of mutant pig model lacking functional PSEN1*", FIU (Allen)

**Justin Barolette & Lake Miller**, "*Visualizing the effect of adverse childhood experiences and socioeconomic status on uncertain decision making using fNIRS*", UCF (Lighthall)

**Yanhao Lai**, "*Drp1 inhibition reduces neuroinflammation in vivo*", FIU (Tieu)

**Marilyn Curtis**, "*Structural brain development of speech networks in young children at-risk for speech disorders*", FIU (Dick)

**Gianna Cannestro**, "*Electrophysiological characterization of Huntington's Disease*", FAU (Wei)

**Daniel Perez**, "*Microglia translocator protein 18 kDa (TSPO) and Alzheimer's Disease pathophysiology in the 5xFAD murine model*", FIU (Guilarte)

**Anthony Navarro**, "*Using machine learning and mixed effect models to predict undergraduate STEM dropout*", UM (Heller)



## Poster Session #2 (Friday, May 3<sup>rd</sup> 8:30-10:00am)

**Claire Landon**, *"Individual differences in naturalistic emotional memory"*, UM (Heller)

**Julio Peraza**, *"Gradec: Meta-analytic decoder of connectivity gradients"*, FIU (Laird)

**Abenna Yamoah & Sofia Fraile**, *"The impact of episodic and semantic recall during ESI on memory generalization"*, FIU (Mattfeld)

**Kate Crooks**, *"Sleep disruption alters activity in brain regions linked with socio-emotional processing: An fMRI meta-analysis"*, FIU (Sutherland)

**Patricio Viera Perez**, *"Reward and loss related neurobiological associations predictive of future adolescent substance use"*, FIU (Sutherland)

**Said Salehe**, *"Impacts of partial Drp1 deficiency in aging"*, FIU (Tieu)

**Harry Brown**, *"Small molecule library screening identifies a novel Drp1 inhibitor as a potential therapeutic for Parkinson's Disease"*, FIU (Tieu)

**Carlos Otero**, *"Developing an algorithm for in-vivo detection and feature analysis of sharp wave ripples in the common marmoset hippocampus"*, FIU (Riera)

**Ian Gaudet**, *"Elevated SLC7A2 expression is associated with an abnormal neuroinflammatory response and nitrosative stress in Huntington's disease"*, FAU (Wei)

**William Villano**, *"Hippocampal recurrence moderates the reinstatement of cortical events during emotional anticipation"*, UM (Heller)

**Taylor Jancetic-Bidelman**, *"Ethnic identity profiles among adolescents in the ABCD Study: Associations with resting state functional connectivity"*, FIU (Laird)

**Ian Gaudet**, *"Elevated SLC7A2 expression is associated with an abnormal neuroinflammatory response and nitrosative stress in Huntington's disease"*, FAU (Wei)

**Sarah Hardin**, *"Effects of early life lead exposure on the cardiovascular system in a transgenic mouse model of Alzheimer's Disease"*, FIU (Guilarte)

**Milena Giler**, *"Differences in prefrontal cortex activation during risk and ambiguity aversion"*, UCF (Lighthall)

**Donisha Smith**, *"Longitudinal changes in dynamic functional connectivity associated with physics learning"*, FIU (Laird)

**Dr. Alexander Rodichkin**, *"TBD"*, FIU (Guilarte)

**Vanesa Smielak**, *"Latency and its impact on memory performance"*, FIU (Mattfeld)

**Dana Arnold**, *"Is this real? Age-related differences in deep-fake detection"*, UF (Ebner)

