# The Florida Consortium on the Neurobiology of Cognition

## Annual Meeting 2023, Jupiter, FL

Meeting is for registrants only (not open to the public)

# Day 1 - Thursday, May 11th

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 - 11:30 am Dr. Randy Blakely, FAU,

"What's up with DAT? Modeling rare, disease associated genetic variation in the dopamine transporter reveals insights into circuit and sex-specific behavioral changes and novel therapeutics"

#### 11:30 am - 11:45 am Break

#### 11:45 am - 1:45 pm

# SESSION 1 – Integrating computational, structural, behavioral and neuroimmune model systems in cognitive neuroscience

Chair: Dr. Habibeh Khoshbouei, UF

Dr. Shreya Saxena, UF

"The computational principles of motor control provide a window into cognition"

Dr. Nikhil Urs, UF

"Novel mechanisms of cortical regulation of dopamine dynamics and cognitive flexibility"

Dr. Habibeh Khoshbouei, UF

"Neuroimmune circuitry in Parkinson's disease"

Dr. Sara Burke, UF

"Cortical-striatal interactions and strategy use in young and aged rats"

#### 1:45 pm - 2:45 pm Lunch

#### 2:45 pm - 4:45 pm

#### SESSION 2 - Human working memory and cognitive control

Chair: Dr. Chris Martin, FSU

Dr. Caterina Gratton, FSU

"Individual differences in brain networks: implications for studies of cognitive control"

Dr. Justin Riddle, UNC Chapel Hill

"Internal representations are prioritized or suppressed through distinct neural oscillatory mechanisms"

Dr. Summer Sheremata, FAU

"Alpha-band amplitude tracks updated visual working memory representations"

Dr. Derek Nee, FSU

"Cortical interactions supporting present- and future-oriented control"

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

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

Organizer: Dr. Leila Allen, FIU



# Day 2 - Friday, May 12th

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

10:00 am - 12:00 pm

SESSION 3 - Neurophsyiological and behavioral determinants of deception risk in aging

Chairs: Dr. Didem Pehlivanoglu & Dr. Marilyn Horta, UF

Dr. Nichole Lighthall, UCF

"Confidence in judgments about news veracity and fake news sharing in aging"

Dr. Tian Lin, UF

"Interoceptive accuracy enhances deception detection with greater age"

Dr. Didem Pehlivanoglu, UF

"Phishing in the lab and in the wild: The effects of older age, Alzheimer's Disease Risk, and cognitive status on susceptibility to online scams"

Dr. Neil Charness, FSU

"Aging and fraud susceptibility: Prevalence, risk factors, and interventions"

#### 12:00 pm - 1:45 pm Lunch

1:45 pm - 2:45 pm

Keynote Speaker - Dr. Betsy Murray,

"Prefrontal-amygdala interactions in social cognition and decision making"

#### 2:45 pm - 3:00 pm Break

3:00 pm - 5:00 pm

SESSION 4 - Molecular and network mechanisms of learning and memory

Chair: Dr. Hidehiko Inagaki, Max Planck

Dr. Ruolin Fan, MPFI

"Local mitochondrial mechanisms fueling synaptic plasticity"

Dr. Thomas Vaissiere, UF Scripps

"Genetic regulation of cortical sensorimotor processing required for active sensation and learning" Mr. Brandon Hindman, FAU (Stackman Lab)

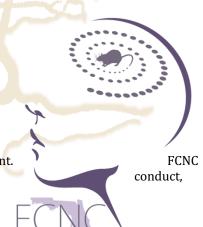
"Brief exposure to novelty enhances long-term memory for objects: Assessment of hippocampal dependence and catecholamine recruitment"

#### 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. reserves the right to discipline meeting participants who engage in any inappropriate including dismissal from the conference.



### Sarah Johnson Data Blitz

Dr. Zhe Zhao, "Leptin provides interoceptive input to the insular cortex to control feeding", MPFI (Stern)

**Katherine Gonzalez**, "Sex differences in the effects of age on PFC-mediated cognition", UF (Setlow & Bizon)

Sabrina Zequeira, "Effects of cannabis on cognition in aging", UF (Setlow & Bizon)

**Fapianey Alexandre**, "Metabolism and memory: Dietary interventions for age-related cognitive decline", UF (Burke)

**Cortney Stedman**, "Ripple activity during non-spatial sequence memory in rats", FIU (Allen & Mattfeld)

**Valentina Roldan**, "Diverse mPFC Neuronal Representations and Generalized mPFC Ensemble Patterns", FIU (Allen)

Adam Kimbler, "Loss, but not reward, improves memory performance", FIU (Mattfeld)

Dr. Maria Jose Olvera Caltzontzin, "The role of insular cortex Nos1 neurons in food intake", MPFI (Stern)

**Dr. Adithya Gopinath**, "Who knew? Dopamine transporter is critical for innate and adaptive immune responses", UF (Khoshbouei & Okun)



### Poster Session #1 (Thursday, May 11th 8:30-10:00am)

Jennifer Giordano, "TBD", FAU (Barenholtz & Hahn)

**Emely Gazarov**, "Cannabinoid Pharmacokinetics Following Exposure to Cannabis Smoke in Young Adult and Aged Mice", UF (Setlow)

**Rachel Fletcher**, "Ketogenic diet-induced alterations in neuronal signaling-related proteins are not due to differences in synaptosome protein levels", UF (Burke)

**Cristina B**esosa, "Quantifying prefrontal-hippocampal circuit engagement using LFP, scalp EEG and the paired associates learning task", UF (Burke & Maurer)

**Aleyna Ross**, "Validation of an operant-based touchscreen test of mnemonic similarity for rodent models of cognitive aging", UF (Burke)

**Dr. Surya Pandey**, "Effects of prenatal opioid exposure on brain connectivity and behavior in adult mice", UF Scripps

**Natasha Mayorga**, "Development of novel TAP-IT mouse line for exploration of neuronal NMIIB dynamics", UF Scripps (Miller)

**Johleen Seedansingh**, "Effects of vagus nerve stimulation on cognitive performance in aging", UF (Bizon & Burke)

**Beatriz Herrera**, "Error neurons in SEF drive low-frequency cortical rhythmicity with a negligible contribution to current sources", FIU (Riera)

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

**Zhang Yongxu**, "Behavioral classification of sequential neural activity using time varying recurrent neural networks", UF (Saxena)

### Poster Session #2 (Friday, May 12th 8:30-10:00am)

**Katharine Crooks**, "Interactive effects of HIV infection and chronic cannabis use on hippocampal resting state functional connectivity", FIU (Sutherland)

**Sarah Lovett**, "Comparative analysis of rodent hippocampal LFP and cortical EEG: Implications for translational cognitive aging research", UF (Maurer)

**Dr. Ben Zhao**, "The effects of medial entorhinal cortex inactivation on hippocampal cross-frequency coupling", UF (Maurer)

**Dr. Mojdeh Faraji**, "Medial prefrontal cortex makes temporally-distinct contributions to intertemporal decision making in young and aged rats", UF (Setlow)

**Vanessa Rivera Nunez**, "Episodic specificity induction: Effects on the Emotional Mnemonic Similarity Task", FIU (Mattfeld)

**Dr. Tatiana Viena**, "Optogenetic stimulation of nucleus reuniens of the thalamus elicits beta coherence in the medial prefrontal-hippocampus network", FIU (Allen)

**Tara Copper**, "The efficacy of a cyclic ketogenic diet as a therapeutic for age-related cognitive decline", UF (Burke)

**Muhammad Noman Almani**, "Deep reinforcement learning mimics neural strategies for limb movements", UF (Saxena)

**Dr. Maria Jose Olvera Caltzontzin**, "Insular cortex Nos1 neurons selectively regulate associative learning to alter food intake", MPFI (Stern)

**Dr. Darielle Lewis-Sanders**, "Parameters influencing food intake in conditioned overconsumption tas", MPFI (Stern)

**Crystal Pan**, "Relationship between valence coding and adaptive behaviors in neurodevelopmental disorders", UF Scripps (Rumbaugh)

**Wonn Pyon**, "The role of dopamine in risky decision making", UF (Bizon & Setlow)