



Basic Research Innovation Collaboration Center (BRICC)
4100 N Fairfax Drive, Suite 450 | Arlington, VA 22203

Agenda Day 1 | Tuesday, October 24, 2023

Time	Topic	Speaker
0800-0830	In-person Check in/ Zoom Login	
0830-0900	VOC Biomarker Sensing: Understanding Ultrasensitive Bio Olfactory System	Steve Kim/Elisabeth Steel, AFRL/RH
0900-0930	Optically Controlled, Genetically targeted Chemical Assembly of Electric neuromodulation	Jia Liu, Harvard
0930-1000	BREAK	
1000-1030	Neural and Behavioral Basis of Sensory Integration in the Mosquito	Jeffrey Riffell, U Washington
1030-1045	Molecular pathways underlying homeostatic interactions between metabolism and circadian Rhythms	Jen-Yung Chen, UC San Diego
1045-1130	Adaptive inertial Sensing in a complex behavioral repertoire	Jess Fox, Case Western Univ
1130-1300	LUNCH	
1300-1330	Universal Theory of Multi-Sensory integration	Floris Van Breugel, U Nevada Reno
1330-1400	Decision making underlying successful aerial contact in predatory flights: take-off, steering and thrust control	Paloma Bellido Gonzalez, U of Minnesota
1400-1430	Flying in an Uncertain World: Decoding Rules of Neural Control in Insect Flight	Jean-Michel Mongeau, Penn State
1430-1500	The Adaptive Auditory Mind: Plasticity and Temporal Coherence in Scene Analysis	Shihab Shamma, U Maryland
1500-1530	Discussion	
1530	MEETING ADJOURN FOR THE DAY	

Agenda Day 2 Wednesday, October 25, 2023		
Time	Topic	Speaker
0800-0815	In-person Check in/ Zoom Login	
0830-0900	Technology Transfer and Transition Capabilities (T3)	Sunny Shahhaidar, VT-ARC
0900-0930	Bioelectric Atlas of Organelle	Bozhi Tian, Univ Chicago
0930-1000	Magnetoreception in Marine Animals, Bio-inspired algorithms for long range GPS free Navigation	Ken Lohmann, Univ North Carolina
1000-1030	BREAK	
1030-1100	Operationally Relevant Molecular Biosignature Discovery and Evaluation for Sensing Platforms: Identification of operational stress signatures in in vitro ocular surface	Saber Hussain, AFRL/RH
1100-1130	Modeling in-vivo Validation of Analyte Pathway for Biochem Monitoring,	Jason Heikenfeld, U Cincinnati
1130-1200	Modulating Cellular Performance with Nanoscale Biocircuits	Dan Nocera, Harvard
1200-1330	LUNCH	
1330-1400	Nanoelectropulse-induced Changes in Cell Excitability – a new approach for neuromodulation	Gale Craviso/Josette Zaklit, U Nevada Reno
1400-1430	Interferometric Imaging of the Intrinsic Neural Signaling, Photovoltaic Restoration of Sight to the Blind	Daniel Palanker, Stanford
1430-1500	Implications of CISS in Bio systems	Moh El-Naggar, U Southern California
1500-1530	Molecular Alignment at functional Biotic/Abiotic interfaces for biosensing	Nicholas Bedford, U New South Wales
1530-1600	Microfluidic Photobiology Microscopy of Light Harvesting Bacteria at the Single Cell Limit	Nathan Gabor, UC Riverside
1600	MEETING ADJOURN FOR THE DAY	

Agenda Day 3 Thursday, October 26, 2023		
Time	Topic	Speaker
0800-0830	In-person Check in/ Zoom Login	
0830-0900	EET in Human and Environmental Systems	Steve Finkel, U Southern California
0900-0930	Directed Energy Evoked Fast Thermal Gradient Impacts Synaptic mechanisms at Dendrite Spine	Bryan Gamboa, AFRL
0930-1000	Target Tracking in the Natural World: Nueurons and Behavior to Modeling	Karin Nordstrom (remote), Flinders Univ
1000-1030	BREAK	
1030-1100	Neuroplasmonics for Selective and Remote Control of Neural Activity	Singameni Srikanth, Washington University St Louis
1100-1130	Sigma-1 Receptor Agonist as a Novel Therapeutic for Circadian Rhythm Disruption-Induced Fatigue	Kai Shen, Savannah State
1130-1200	Non-invasive Cell-type-specific Magnetic Neural Modulation	Siyuan Rao, U Mass Amherst
1200-1230	Precision Nanosurgery and Multimodal Intracellular Monitoring of Cellular Networks by Biomimic Nano-optoelectrode Arrays	Wei Zhou, Va Tech Univ
1230-1330	LUNCH	
1330-1400	Exploiting Radiofrequency Electromagnetic Field Hormesis to Provide Resilience to Neurons	Ibtissam Echchgadda, AFRL/RH
1400-1430	Exploring the Role of Circadian Transcriptional Machinery in Cellular Response to Air Force Relevant Extreme Environments	Saber Hussain, AFRL/RH
1430-1500	Controlled Manipulation of Cell Function via Infrared Light	Alexandra Walsh, Texas A&M Univ
1500-1530	Cephalopod Inspired Adaptive Invisibility in Living Systems	Alon Gorodesky, UC Irvine
1530-1600	Discussion	
1600	MEETING ADJOURN	