



Basic Research Innovation Collaboration Center
4100 North Fairfax Drive, Suite 450 | Research Room
Arlington, VA 22203

Agenda Day 1 – Wednesday 4 Sept 2019

Time	Topic	Speaker
0800-0830	Registration/Introduction	Pat Bradshaw, AFOSR
0830-0900	Nano-Optoelectrodes Enabled Multimodal Optical-Electrical Interface inside Cells	Wei Zhou, Va Tech
0900-0930	Electrogenetics: Controlling Biological Functions Through Electrically Activated Transcription	Ian Wheeldon, UC Riverside
0930-1000	Structure-Function relationship in Cephalopod-Inspired Materials	Alon Gorodetsky, UC Irvine
1000-1015	BREAK	
1015-1045	Salivary Exosome (nsEV) Analysis to Elucidate Intercellular Signaling Events	Varghese John, UCLA
1045-1115	Bio-molecular Interactions of Nanomaterials: Toxicological Evaluation in AF Operational Environments	Saber Hussain, AFRL/RH
1115-1145	Transcranial Magnetic Stimulation	Edwin Robertson, U Glasgow
1145-1315	LUNCH	
1315-1345	Examining Mechanisms of Transcranial Direct Current Stimulation Through Neurophysiology	Andy McKinley, AFRL/RH
1345-1415	Neurobiological Effects of Direct Current Stimulation	Candice Hatcher, AFRL/RH
1415-1445	Novel In-Operando Molecular Affinity Profiling by Electronic Autonomous Research System; Towards Sensing Biomarkers	Steve Kim, AFRL/RH
1445-1500	BREAK	
1500-1530	Biological Processes for Sensory Function: Insight from Quantum-to-Mesoscale Mod	Ruth Pachter, AFRL/RX
1530-1600	Defining the Intracellular Mediators for Radiofrequency Wave Modulation of Neuro	Ibtissam Echchgadda, AFRL
1600	Meeting Adjourned for the Day	

Agenda Day 2 – Thursday 5 Sept 2019		
Time	Topic	Speaker
0800-0815	Comments/Announcements	Pat Bradshaw, AFOSR
0815-0845	Human Scent Detection and Discrimination By Mosquitoes as a Means for the Design of Bio-Inspired Volatile Detection Systems	Jeff Riffell, U Washington
0845-0915	Neural mechanisms coordinating olfactory processing with wing beating during odor guided flight	Kevin Daly, U West Virginia
0915-0945	Decision Making Underlying Successful Aerial Contact in Predatory Flights	Paloma Gonzalez Bellido, U Minnesota
0945-1015	Fundamentals and Control of Electron Transport at Cellular Electronic Interfaces	Moh El Nagggar, USC
1015-1030	BREAK	
1030-1100	Physiological, Genetic, and Synthetic Biological Studies of Extracellular Electron Transport (EET) Redox Machines	Ken Nealson, USC
1100-1130	Physiological, Genetic, and Synthetic Biological Studies of Extracellular Electron Transport (EET) Redox Machines	Steve Finkel, USC
1130-1200	Nanoelectropulse-Induced Changes in Cell Excitability - Neuromodulation	Gale Craviso, U Nevada Reno
1200-1330	LUNCH	
1330-1400	Parsing Continuous Speech: The Role of Neuronal Oscillations and Sentential Context	Oded Ghitza, Boston U
1400-1430	Spatial Hearing, Attention and Informational Masking in Speech Identification	Gerald Kidd, Boston U
1430-1500	Synthetically Tuned Gut-Brain-Axis Communication	Warren Ruder, U Pittsburg
1500-1515	BREAK	
1515-1530	Synthetically Tuned Gut-Brain-Axis Communication	Phil LeDuc, Carneige Mellon U
1530-1600	Energy, Information, and Power in Cells	Rahul Sarpeshkar, Dartmouth U
1600	Meeting Adjourned for the Day	

Agenda Day 3 – Friday 6 Sept 2019		
Time	Title	Speaker
0800-0815	Administrative Remarks	Pat Bradshaw, AFOSR
0815-0845	Polarization and Multispectral Vision in Mantis Shrimp: A Model for Information Processing and Biomimetic Imaging	Tom Cronin , U Maryland Baltimore County
0845-0915	Polarization and Multispectral Vision in Mantis Shrimp: A Model for Information Processing and Biomimetic Imaging	Viktor Gruev , U of Illinois
0915-1015	Neuromodulation through Bioelectric and Subcellular Control of Glial Cells	Bozhi Tian , U Chicago
1015-1045	Security and conduction properties of interference human body	Sheryas Sen , Perdue
1045-1115	Atomic layer Semiconductors as Biological Analog Photocells for intrinsic	Nathan Gabor , UC Riverside
1115-1145	Cryptochrome role in magnetic signal transduction	Thorsten Ritz , UC Irvine
1145-1215	Structural Biology of regulatory mechanism of biofilm formation	Andy LiWang , UC Merced
1215-1245	Fundamental Effects of light absorption on Mitochondria	Michael Denton , AFRL/RHD
	Discussion	
	MEETING ADJOURN	