Agenda Day 1 | October 13, 2020

Time	Topic	Speaker
0745-0800	**Zoom Login**	
0800-0815	**Welcome**	Col Mello, Dr. Welsh or Dr. Roach, AFOSR
0815-0830	Opening remarks	Pat Bradshaw, AFOSR
0830-0850	VOC biomarker sensing/ novel in-operando molecular affinity profiling by electronic autonomous	Steve Kim, AFRL/RH
0850-0910	Fundamental effects of light absorption on mitochondrial function	Michael Denton, AFRL/RH
0910-0930	Facets of Fly Vision	Ric Wehling, AFRL/RW
0930-0950	Agile Autonomy inspired by connecting natural flight and bio sensors	Jennifer Talley, AFRL/RW
0950-1010	**BREAK**	
1010-1030	Biological processes for sensory function	Ruth Pachter, AFRL/RX
1030-1050	Operationally relevant molecular biosignature discovery and evaluation	Saber Hussain, AFRL/711th
1050-1110	Neurobiological effects of vagus nerve stimulation	Candice Hatcher-Solis, AFRL/RH
1110-1130	Defining intracellular mediators for radiofrequency wave modulation	Ibtissam Echchgadda, AFRL/RH
1130-1150	Modulating Cellular performance w Nanoscale Biocircuits	Dan Nocera, Harvard
1150-1310	**LUNCH**	
1310-1330	Nanoelectropulse induced changes in cell excitability: a new approach	Gale Craviso, U Reno
1330-1350	The adaptive auditory mind: role of rapid plasticity and temp coherence	Shihab Shamma, U Maryland
1350-1410	Flying in Uncertain world: decoding rules of adaptive neural control	Jean Michele Mongeau, Penn State
1410-1430	Adaptive inertial sensing in a complex behavioral repertoire	Jess Fox, Case Western Reserve U
1430-1450	**BREAK**	

1450-1510	Neural Mechanisms coordinating olfactory processing with wing beating	Kevin Daly, West Va University
1510-1530	Decision Making underlying successful aerial contact in predatory flights	Paloma Gonzalez Bellido, Univ. Minnesota
1530-1550	Overcoming distractions and coping with Stress, how attention drives information	Dhruv Grover, UC San Diego
1550-1610	Human Scent detection and discrimination by mosquitoes	Jeff Riffle, U Washington
1610-1630	**Discussion and review adjourn for the day**	

Agenda Day 2 | October 14, 2020

Time	Topic	Speaker
0745-0800	**Zoom Login**	
0800-0815	Multiscale analysis of bioinspired low energy information processing	Padmini Rangamani, UC San Diego
0815-0830	De Novo Biomachines, low energy systems	David Beratan, Duke
0830-0850	Energy, information and power in cells	Rahul Sarpeshkar, Dartmouth
0850-0910	Spike Based Learning and Control for Multimodal Agile Sensory Integration	Silvia Ferrari, Cornell Univ
0910-0930	Atomic layer semiconductors as biological analog photocells	Nathan Gabor, UC Riverside
0930-0950	Neuromodulation through Bioelectric and subcellular control of glial cells	Bozhi Tian, U Chicago
0950-1010	**BREAK**	
1010-1030	Mitochondrial Biohybrid	Michele Vittadello, Medgar Evers
1030-1050	Polarization and Multispectral vision in mantis shrimp	Viktor Gruev, Purdue
1050-1110	Nano-optoelectrodes enabled multimodal optical electrical interface	Wei Zhou, Va Tech

1110-1130	Neuroplasmonics for selective control of neural activity	Srikanth Singamaneni, Washington Univ. St Louis
1130-1150	Sparse sensing with wing mechanosensory neurons for estimation of body rotation	Bigni Brunton, U Washington
1150-1310	**LUNCH**	
1310-1330	Cephalopod-Inspired adaptive invisibility in living systems	Alon Gorodetsky, UC Irvine
1330-1350	High resolution 3 Dimensional Optoelectronic Neural Interface for restoration of sight	Daniel Palanker, Stanford
1350-1410	Structural biology of the regulatory mechanism of biofilm formation	Andy LiWang, UC Merced
1410-1430	Electrogenics- controlling biological functions through electrically activated genes	Ian Wheeldon, UC Riverside
1430-1450	**BREAK**	
1450-1510	Mechanistic modeling and in-vivo validation of analyte pathways for peripheral nerve	Jason Heikenfeld, U Cincinnatti
1510-1530	Extracellular Electron Transport in Human and Env systems	Steve Finkel, U Southern Cal
1530-1550		Moh El Naggar, U Southern Cal
1550-1610	Developing a bioenergetics framework to understand stimulated electron	Annette Rowe, U Cincinnatti
1610-1630	**Discussion and review adjourn for the day**	

Agenda Day 3 | October 15, 2020

Time	Topic	Speaker
0745-0800	**Zoom Login**	
0800-0815	Behavioral Coordination in flying insects	Sanjay Sane, NCBS India
0815-0830	Target tracking in the natural world from neurons and behavior to modelling	Karin Nordstrom, Flinders U

0830-0850	Enhancing Biological Performance and protection: Occurrence, mechanisms	Ed Calabrese, U Mass
0850-0910	Synthetically tuned gut-brain axis communication	Warren Ruder, Pitt
0910-0930	Salivary Exosome (nsEV) analysis to elucidate intercellular signalling	John Varghese, UCLA
0930-0950	Long range geomagnetic navigation in sea turtles	Ken Lohmann, UNC
0950-1010	**BREAK**	
1010-1030	Biophysical approach to uncover role of cell membrane mechanics	Neha Kamat, Northwestern
1030-1050	Diversity of actinobacteria associated with Marine Sponge Aplysina Fistularis	Govind Nadathur, U Puerto Rico
1050-1110	Sigma-1 Receptor agonists as a novel therapeutic for circadian Rhythm Disruption	Kai Shen, Savannah State
1110-1130	Security and Conduction properties of interference in the human Body	Shreyas Sen, Purdue
1130-1150	Reverse Engineer Mitochondria	Michael Teitell, UCLA
1150-1310	**LUNCH**	
1310-1330	Parsing continuous speech – the role of neuronal oscillations and sentential	Oded Ghitza, Boston U
1330-1350	Impedence Spectroscopy of Neuron Excitability under Electromagnetic Stimulation	Yevgeny Berdichevsky, Lehigh
1350-1410	Transcranial Magnetic Stimulation	Edwin Robertson, Glasgow Univ.
1410-1530	**Discussions**	
1530	**Meeting adjourned**	