FOR IMMEDIATE RELEASE

Contact: Ellen Weiss
eweiss@biophysics.org

December 14, 2015

Biophysical Society Announces Winners of 2016 Education Committee Travel Awards

Rockville, MD— The Biophysical Society has announced the winners of its Education Committee Travel Awards to attend the Biophysical Society’s 60th Annual Meeting in Los Angeles, California, February 27-March 2, 2016. The recipients of this competitive award, all of whom are students and postdoctoral fellows, are selected based on scientific merit. Each awardee will be presenting their research during the meeting, will receive a travel grant, and will be recognized at a reception on Saturday, February 27, at the Los Angeles Convention Center.

The recipients of the 2016 Education Committee Travel Award, along with their institutional affiliation and abstract title, are:

Martina Audagnotto, École Polytechnique Fédérale, Lausanne, NEW INSIGHT INTO THE CATALYTIC AND INHIBITION MECHANISM OF THE HUMAN ACYL PROTEIN THIOESTERASE.

David Baggett, University of Washington, RATIONAL METHODS TO PHARMACOLOGICALLY TARGET IDPS: DEVELOPING MODULATORS OF TAU AGGREGATION.

Emily Bilyk, Saint Joseph's University, DETERMINING THE CQC-MEDIATED INTERACTIONS IN THE MUCIN 1 HOMODIMER.

Mohammad Bonakdar, Virginia Tech, MONITORING LESION DEVELOPMENT DURING IRREVERSIBLE ELECTROPORATION TREATMENT USING ELECTRICAL IMPEDANCE SPECTROSCOPY.

Sinan Can, University of California, Berkeley, KINESIN’S FRONT HEAD IS GATED BY THE BACKWARD ORIENTATION OF ITS NECK LINKER.

Irem Celen, University of Delaware, MULTI-SCALE SPATIO-TEMPORAL DYNAMICS OF HISTONE MODIFICATIONS.

Shelby Chastain, University of South Carolina, MULTI-TRGET THERAPEUTIC POTENTIAL OF GREEN TEA CATECHINS AND BLACK TEA THEAFLAVINS TOWARD Aβ-INDUCED SIGNAL PATHWAYS INVOLVED IN ALZHEIMER’S DISEASE.
Shawn Costello, Johns Hopkins University, A COMPUTATIONAL MODEL FOR MEMBRANE PROTEIN FLUX ACROSS THE BACTERIAL PERIPLASM.

Robert del Carlo, University of Nevada School of Medicine, POINT-MUTATIONS IN SKELETAL MUSCLE VOLTAGE-GATED SODIUM CHANNELS CONFER RESISTANCE TO TETRODOTOXIN: BUT AT A COST?

Krishna Kanti Dey, Pennsylvania State University, IMPULSIVE ENZYMES: A NEW FORCE IN MECHANOBIOLOGY.

Benjamin Drum, University of Washington, OXIDATIVE STRESS IN MYOCARDIAL INFARCTION DISRUPTS MICROTUBULE TRAFFICKING, REDUCING TRANSIENT OUTWARD CURRENT DENSITY.

Divya Duggal, University of North Texas Health Science Center, CONTRACTILE DIFFERENCES IN LEFT AND RIGHT VENTRICLES OF HEALTHY HUMAN HEARTS.

Xiao Fu, National Institute of Biomedical Imaging and Bioengineering, NIH, BIO-AFM OF CANCER CELLS AND MULTIFUNCTIONAL THERANOSTICS.

Andrew Fuchs, University of Wisconsin, Madison, NASCENT PROTEINS INTERACT WITH KEY REGIONS OF THE OUTER SURFACE OF THE RIBOSOME.

Jeevan Gc, Florida International University, INTERDOMAIN INTERACTIONS AND THE MECHANISM OF STRUCTURAL TRANSFORMATION IN RFAH.

Leland Gee, University of California, Davis, A GATED SUBSTRATE CHANNEL REVEALED IN NITROGENASE THROUGH A COMBINED IR AND MOLECULAR DYNAMICS STUDY.

Maryam Hashemi Shabestari, VU University, Amsterdam, THE ROLE OF PHOSPHORYLATION AND ACETYLATION OF TFAM IN DNA BINDING REGULATION USING SINGLE-MOLECULE MANIPULATION AND FLUORESCENCE MICROSCOPY.

Margaret Hauser, University of California, Berkeley, GRAPHENE-ENABLED ELECTRON MICROSCOPY AND CORRELATED SUPER-RESOLUTION MICROSCOPY OF WET CELLS.

Bence Hegyi, University of California, Davis, CAMKII INHIBITOR KN-93 DIRECTLY BLOCKS IKR IN CARDIAC MYOCYTES.

Marilyn Holt, Vanderbilt University, CRACKING OPEN A MOLECULAR CALCULATOR: DNA CHARGE TRANSPORT AND PRIMASE.

Zachary Imam, University of Texas, Austin, STERIC PRESSURE AMONG MEMBRANE-BOUND POLYMERS OPPOSES LIPID PHASE SEPARATION.

Stephania Irwin, University of Alberta, INFLUENCE OF FAMILIAL PARKINSON'S DISEASE MUTATIONS ON MITOCHONDRIAL LOCALIZATION AND SECONDARY STRUCTURE OF PINK1.
Zeinab Jahed, University of California, Berkeley, MOLECULAR MECHANISMS OF MECHANOTRANSDUCTION THROUGH LINC COMPLEXES.

Nnanya Kalu, The Catholic University of America, DOES LIPID COMPOSITION REGULATE ANTHRAX TOXIN UPTAKE?

Agnieszka Kendrick, University of Colorado, Denver, CD147 REGULATES CELL METABOLISM IN PANCREATIC CANCER VIA TARGETING OF MULTIPLE SMALL MOLECULE TRANSPORTERS TO THE CELL MEMBRANE.

Ji Hoon Kim, Johns Hopkins University, MECHANOBIOLOGY IN CELL-CELL FUSION: ROLES OF MYOSIN II AND SPECTRIN IN MECHANOSENSING AND FORCE GENERATION DURING CELL-CELL FUSION.

Agata Krenc, University of Chicago, FLUORESCENCE INTERFERENCE CONTRAST MICROSCOPY (FLIC) - A NEW TOOL TO STUDY THE COLLECTIVE MOTOR DYNAMICS.

Pei-I Ku, University of Utah, REGULATION OF ALIX DURING EXOCYTIC VESICLE RELEASE AND ASSEMBLY OF ESCRT PROTEINS ON THE PLASMA MEMBRANE.

Iga Kucharska, University of Virginia School of Medicine, NMR SOLUTION STRUCTURE AND EXTRACELLULAR LOOP DYNAMICS OF THE OUTER MEMBRANE PROTEIN OPRG OF PSEUDOMONAS AERUGINOSA EXPLAIN TRANSPORT OF SMALL AMINO ACIDS.

Yilai Li, University of Michigan, SUPER-RESOLUTION IMAGING OF DNA REPLISOME DYNAMICS IN LIVE BACILLUS SUBTILIS.

Xubo Lin, University of Texas Medical School, Houston, ORDER DIFFERENCES BETWEEN COEXISTING LIQUID PHASES DRIVEN BY LIPID UNSATURATION DETERMINE PHASE SEPARATION IN BIOMIMETIC MEMBRANES.

Jayson Lingan, University of Rochester Medical Center, PERMEABILITY TRANSITION PORE CLOSURE INCREASES MITOCHONDRIAL MATURATION AND MYOCYTE DIFFERENTIATION IN THE NEONATAL HEART.

Yen-Liang Liu, University of Texas, Austin, DYNAMICS OF EGFR TRAFFICKING FROM MEMBRANE INTO DEEP CYTOPLASM REVEALED BY A SPATIOTEMPORALLY MULTIPLEXED 3D TRACKING MICROSCOPE.

Minmin Luo, Louisiana State University School of Medicine and Health Sciences Center, TRAPPING THE TRANSITION STATE OF KINESIN-5 PRODUCES A DIFFERENT MULTIMOTOR FORCE OUTCOME THAN INHIBITING PRODUCT RELEASE.

Katarina Mackova, Slovak Academy of Sciences, Slovakia, POSTNATAL DEVELOPMENT OF CALCIUM SIGNALING IN RAT CARDIOMYOCYTES.

Abhishek Mandal, University of Pittsburgh, TO UNFOLD OR NOT TO UNFOLD? STRUCTURAL INSIGHTS OF PEROXIDASE-ACTIVE CARDIOLIPIN-BOUND CYTOCHROME C BY SOLID-STATE NMR.

Drew Marquardt, University of Graz, Austria, A DEMONSTRATION OF LIPID FLIP-FLIP IN FREE-FLOATING LIPOSOMES.
William Marsiglia, New York University, NMR EXPERIMENTS ON WILD-TYPE AND MUTANT FIBROBLAST GROWTH FACTOR RECEPTOR KINASES REVEAL CONFORMATIONAL DYNAMICS ASSOCIATED WITH ENZYME ACTIVATION.

Favinn Maynard, University of Colorado, Denver, MECHANISM OF STRONG MEMBRANE BINDING BY SYNAPTOTAGMIN 7 C2A DOMAIN: INSIGHT FROM MUTATION AND LIPID COMPOSITION DEPENDENCE.

Joshua Mayourian, Icahn School of Medicine at Mount Sinai, MODELING ELECTROPHYSIOLOGICAL INTERACTIONS BETWEEN MESENCHYMAL STEM CELLS AND CARDIOMYOCYTOPHAGES FOR IMPROVED CELL DELIVERY CARDIOTHERAPEUTICS.

Aidan McKenzie, James Madison University, ULTRAFAST LIMITS OF PHOTO-INDUCED ELECTRON TRANSFER RATES IN PPCA, A MULTI-HEME C-TYPE CYTOCHROME.

Keith Mickolajczyk, Pennsylvania State University, KINETICS OF NUCLEOTIDE-DEPENDENT STRUCTURAL TRANSITIONS IN THE KINESIN-1 HYDROLYSIS CYCLE.

Eshan Mitra, Cornell University, INVESTIGATING MOLECULAR MECHANISMS OF IGE-MEDIATED SIGNALING AT SUPER RESOLUTION.

Kelly Njine Mouapi, University of Louisville, TRANSGLUTAMINASE FACTOR XIII CROSS-LINKS REACTIVE GLUTAMINES IN DISORDERED REGIONS OF FIBRINOGEN &ldquo;C &rdquo;.

Rami Musharrafieh, University of Arizona, COMPUTATIONAL AND EXPERIMENTAL STUDIES OF LIPID-PROTEIN INTERACTIONS IN BIOMEMBRANE FUNCTION.

Sachin Natesh, University of Chicago, Aβ FIBRILS ACT AS AQUEOUS PORES: A MOLECULAR DYNAMICS STUDY.

Bhavik Nathwani, Dana-Farber Cancer Institute, MULTIPLEXED MECHANOCHMISTRY ASSAY - A TOOL FOR MULTIPLEXED SINGLE MOLECULE BOND RUPTURE FORCE STUDIES.

Kelly, O’Connor, The College of New Jersey, MAPPING NEURONAL CONNECTIVITY USING LASER PHOTOSTIMULATION AND CALCIUM IMAGING.

Jyotsana Parmar, Indian Institute of Technology, Bombay, NUCLEOSOME KINETICS REGULATES THE BINDING TIMESCALES OF NON-HISTONE PROTEINS TO DNA SITES.

Mohan Pradhan, Bioinformatics Institute, A*STAR, Singapore, DYNAMICS OF AGGREGATING MUTANTS OF THE P53 DNA BINDING DOMAIN REVEAL A NOVEL “DRUGGABLE” POCKET.

Manmeet Raval, Pennsylvania State University College of Medicine, CHARACTERIZATION OF A UNIQUE MYOSIN IIIA DEAFNESS MUTATION WHICH ENHANCES ACTIN-SLIDING VELOCITY BUT ABOLISHES FILOPODIA TIP LOCALIZATION.

Scott Rayermann, University of Washington, INVESTIGATING LARGE SCALE LIQUID-LIQUID PHASE SEPARATION IN A BIOLOGICAL MEMBRANE.

Piere Rodriguez-Aliaga, University of California, Berkeley, KEY ROLES OF TRANSLOCATING LOOPS IN THE MECHANOCHMICAL COUPLING AND POWER PRODUCTION OF A AAA+
PROTEASE MACHINE.

Premila Samuel, Rice University, AN IN VITRO INVESTIGATION OF GLOBIN FOLDING AND EXPRESSION.

Zackary Scholl, Duke University, DIRECT OBSERVATION OF MULTIMER STABILIZATION IN THE MECHANICAL UNFOLDING PATHWAY OF A PROTEIN UNDERGOING OLIGOMERIZATION.

Caitlin Scott, University of Kentucky, MOLECULAR DYNAMICS STUDY OF DIAVALENT ION COORDINATION IN EF HAND PROTEINS.

Sean Seyler, Arizona State University, QUANTIFYING MACROMOLECULAR TRANSITION PATHS WITH PATH SIMILARITY ANALYSIS.

Orrin Shindell, University of Texas, Austin, DYNAMICS AND STATICS IN PHASE SEPARATING, ADHERING LIPID MEMBRANES.

Wilton Snead, University of Texas, Austin, MEMBRANE FISSION BY PROTEIN CROWDING.

M. de la Encarnacion Solesio Torregrosa, New York University College of Dentistry, CONTRIBUTION OF INORGANIC POLYPHOSPHATE TOWARDS REGULATION OF MITOCHONDRIAL FREE CALCIUM.

Agila Somasundaram, NIH, INVESTIGATING PROTEIN DYNAMICS AT SITES OF EXOCYTOSIS IN LIVE CELLS.

Matthew Stone, University of Michigan, DIRECT OBSERVATION OF ORDERED AND DISORDERED MEMBRANE DOMAINS IN B CELL PLASMA MEMBRANES USING MULTI-COLOR SUPER-RESOLUTION FLUORESCENCE MICROSCOPY AND APPLICATION TO B CELL RECEPTOR SIGNALING.

Cholpon Tilegenova, Texas Tech University Health Sciences Center, ELUCIDATION OF MOLECULAR MECHANISM UNDERLYING KCSA'S HYSTERETIC GATING BEHAVIOR.

Stefjord Todolli, Rutgers University, LINKER HISTONES AND THE DYNAMIC CHROMATIN FIBER.

Hannah Tuson, University of Michigan, SINGLE-MOLECULE FLUORESCENCE IMAGING REVEALS THE DYNAMICS OF STARCH CATABOLISM PROTEINS IN THE HUMAN MICROBIOME BACTERIUM BACTERIOIDES THETAIOXOMICRON.

Michael Vigers, Montana State University, CHARACTERIZING BIOFILM EXTRACELLULAR MATRICES WITH MECHANICAL MEASUREMENT TECHNIQUES.

Benjamin Walker, Indiana University, CHROMOKINESINS NOD AND KID USE ALTERNATIVE NUCLEOTIDE MECHANISMS AND ONE-DIMENSIONAL DIFFUSION TO TARGET MICROTUBULE PLUS ENDS.

Yan Yan, Emory University, HU PROTEIN AND DNA SUPERCOILING DRAMATICALLY ENHANCE LAC-REPRESSOR-MEDIATED DNA LOOPING.
Osman Yogurtcu, Johns Hopkins University, GOVERNING PRINCIPLES OF MULTIPROTEIN COMPLEX FORMATION ON THE CELL MEMBRANES: AN INVESTIGATION USING SINGLE-MOLECULE RESOLUTION SPATIO-TEMPORAL STOCHASTIC COMPUTER SIMULATIONS AND ANALYTICAL CALCULATIONS.

Fabio Zegarra, University of Houston, THE COMBINED EFFECT OF MACROMOLECULAR CROWDING AND CHEMICAL INTERFERENCE ON THE DYNAMICS OF APOAZURIN FOLDING.

Gül Zerze, Lehigh University, DYNAMICS OF CONTACT FORMATION IN DISORDERED POLYPEPTIDES.

Qiangjun Zhou, Stanford University, MOLECULAR MECHANISM OF THE SYNAPTOTAGMIN-SNARE COMPLEX THAT IS ESSENTIAL FOR SYNCHRONOUS SYNAPTIC NEUROTRANSMITTER RELEASE.

The Biophysical Society, founded in 1958, is a professional, scientific Society established to encourage development and dissemination of knowledge in biophysics. The Society promotes growth in this expanding field through its annual meeting, monthly journal, and committee and outreach activities. Its 9000 members are located throughout the U.S. and the world, where they teach and conduct research in colleges, universities, laboratories, government agencies, and industry. For more information on these awards, the Society, or the 2016 Annual Meeting, visit www.biophysics.org.