Summer Undergraduate Research Forum

Friday, August 1, 2014
### 2014 Summer Undergraduate Research Forum

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#### Schedule of Events

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<td>SURF Speakers</td>
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2014 Summer Undergraduate Research Forum

The Development of an Academic Career and Research Highlights

Synaptic Transmission in the Retina
Vernon Dunn did his undergraduate studies at Xavier University of Louisiana, completing his bachelor’s degree in 2010. He is currently working towards a Ph. D. in Biological Sciences at Louisiana State University. His research involves understanding the synaptic transmission between retinal amacrine cells. This project involves using electrophysiology and live cell imaging to investigate a source of Nitric Oxide releasable chloride in these cells in culture. He has just completed a LS-LAMP Bridge to Doctorate Fellowship. He spent June 2014 working at the Suzhou Institute of Nanobiomedicine (SINANO), Suzhou, China.

“Research Scientists, My Development as a Molecular Biologist”
Dr. Raphyel Rosby was born in Landstuhl, Germany, but grew up in rural Louisiana. He moved to Baton Rouge, Louisiana in seventh grade. He subsequently graduated from Baton Rouge High school. Upon graduation, he started studies at Louisiana State University and completed his bachelor’s degree in 2005. As an undergraduate Raphyel did undergraduate research under the supervision of Dr. Patrick J. DiMario. This undergraduate experience left him with a thirst for knowledge and a desire for a deeper understanding of the basics of nucleolar structure and function and thus he immediately started graduate school. After Earning his PhD in 2010, Dr. Rosby went to Brown University to start his postdoc working on ribosome biogenesis and ribosomal RNA in the lab of Dr. Susan Gerbi. After three and a half years at Brown University, Dr. Rosby was recruited back to LSU as a faculty, and has since started up an exciting new project to determine how nucleolar stress responses are modulated. Dr. Rosby was a recipient of the Bridge to the Doctorate fellowship (BDP), and has studied yeast genetics at Cold Spring Harbor Laboratories.
2014 Summer Undergraduate Research Forum

The 21st Annual Summer Undergraduate Research Forum (SURF) is pleased to showcase the numerous undergraduate students who have engaged in summer research projects this year at institutions throughout the LSU System.

SURF participants represent programs including:

Center for Computation & Technology Research Experiences for Undergraduates (CCT REU)

HHMI Professor’s Program

Initiative for Maximizing Student Diversity Program (IMSD)

LSU/BRCC Bridges to the Baccalaureate Program (Bridges)

LSU-Howard Hughes Medical Institute (HHMI) Program

Louisiana Alliance for Simulation-Guided Materials Applications (LASiGMA)

Louisiana Biomedical Research Network (LBRN)

Louisiana Science, Technology, Engineering, and Mathematics Research Scholars Program (LA-STEM)

Robert Noyce Scholarship Program (Geaux Teach NOYCE)

Office of Strategic Initiatives Research Experiences for Undergraduate (OSI REU)

Ronald E. McNair Research Scholars

Physics & Astronomy Research Experiences for Undergraduates (P&A REU)

Supervised Undergraduate Research Experience (SURE)

Individual student researchers in various laboratories across LSU

SURF is sponsored by the programs listed above. Additional support was provided by LSU through Innovation through Institutional Integration (I3), the College of Science, and the Office of Research and Economic Development.

2. Olivia Anne Angele (LSU, NOYCE), Sarah Zahraeilfard, LSU Biological Sciences, “The Varying Arsenic Absorption Levels in Different Genotypes of Rice.”

3. Frances Arinze (LSU, IMSD), Soheila J. Maleki, USDA Food Allergy Research, “The Molecular and Immunological Effects of Food Processing Enzymes on Allergenicity of Peanut Allergens.”

4. Emily Babl (LSU, SURE), William Pla, Claire LaBarbera, and Jene’ Noto, LSU Biological Sciences, “The Effects of Fire and Herbicide on Woody Shrubs and Vines in Longleaf Pine Savannas.”

5. Kristen Barre (LSU, CCT), Chris Branton, Ben Guittreau, and Brygg Ullmer, LSU Center for Computation & Technology and School of Electrical Engineering and Computer Science, “Mobile Visualization and Interactivity with Melete.”

6. Clay Barton (DSU, P&A), Thomas Kutter and Jonathan Insler, LSU Neutrino Physics, “Simulations of Cosmic Muons for the LBNE Near Detector.”

7. Regina Battista (USF, P&A), LSU Physics & Astronomy, “Phase and Frequency Stabilization in LIGO LASERs Using a Phase/Frequency Discriminator in a Phase- Locked Loop.”

8. Josef Baylis (DUC, LASIGMA), Frank Löffler, Xiaoyao Ma, Juana Moreno, Mark Jarrell, and Randall Hall, LSU Physics & Astronomy and Center for Computation & Technology, “Kink-Based Path Integral Calculations on H2O, NZ, and F2.”


10. Laura Bertrand (LSU), Jonathon Bramsippe,arp Schnittger, L. Alice Simons and John Larkin, LSU Biological Sciences, “Genetic Test of Inhibition of CYCD3-Containing Cyclin Dependant Kinase Complexes by SIAMESE.”


16. Daniel Burelo Kemboi (Claflin, HHMI), John C. Larkin, L. Alice Simmons, and Narender Kumar, LSU Biological Sciences, “Identification of Nuclear Localization Sequences In The Cell Cycle Regulator SIAMESE.”

17. Brad Burkman (LSMSA, LASIGMA), Michal Brylinski and Wei Feinstein, LSU Biology & Center for Computation and Technology, “Parallelizing Protein Docking Code: Accelerating Drug Discovery.”

18. Bridget Cadigan (LSU, Warner), Chelsea Maeilli, Nicholas Speller, and Isiah Warner, LSU
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20. Julio Carrizales (UTPA, HHMI), Homero Cantu and Daniel Plas, University of Texas Pan American Biological Sciences, “Mitochondrial changes induced by Rotenone in neurons of Lymnaea stagnates.”


22. Davon Carter (Xavier, LBRN), Rebecca Buckley and Sunyoung Kim, LSUHSC-NO Biochemistry, “Kinesin-1 Motility is AllostERICally Regulated by Loop-5 Residues.”


25. Caylin Colson (LATECH, P&A), Jayun Pan, Amar Karki, and Rongying Jin, LSU Physics, “Superconducting Properties of ((La, Gd)xCa1-x)10Pt3As8(Fe2As2),”

26. Sabine A. Connors (Clemson, HHMI), Patrick DiMario, LSU Biological Sciences, “Microscopic Examination of Knopp140 Knockout.”


29. Viet Dao (LSU), Bill Platt, Nabin Timilsina, Similoluwa Ogundare, James Hebert, Jene Noto, Emily Babi, and Claire LaBarbera, LSU Biological Sciences, “Effects of Herbicides and Prescribed Fire on Woody Plants in Upland and Seepage Pine Savannas.”

30. Jeremiah A. Davis (Xavier, LBRN), Anand R. Nair, Philip J. Ebenezer and Joseph Francis, LSU Comparative Biomedical Sciences, School of Veterinary Medicine, “HMGB1 and TLR4 as potential mediators in Angiotensin II induced kidney injury.”


32. Siddhartha H Dhakal (ULM, LBRN), Aaron P. Landry and Huangen Ding, LSU Biological Sciences, “Reduction of mitochondrial protein MitoNEET [2Fe-2S] clusters by human glutathione reductase.”

33. Tristan M Doyle (BRCC, Bridges), Mandi J. Lopez and Margaret A. McNulty, LSU Comparative Biomedical Sciences, School of Veterinary Medicine, “Morphological Analysis of the Saphenous Nerve in the Dog.”

34. Megan Duhon (NSU, LBRN), Manikandan Panchatcharam and Sumitra Miriyala, LSUHSC-S Cellular Biology and Anatomy, “Lyposphatidic Acid Increases Blood Brain Barrier Permeability.”

35. Rania El-Desoky (Xavier, LBRN), Srinivas Sriramula, Alberto Mendoza, Jeremy Shrophshire, and Eric Lazartigues, LSUHSC-NO Pharmacology and Experimental Therapeutics, “Effects of Anti-Hypertensive Medications on ACE2 Activity in DOCA-Salt Hypertensive Mice.”

36. Justina Eneche (SUSLA, LBRN), Eric Lazartigues and Srinivas Sriramula, LSUHSC-NO Pharmacology, “Microglia Activation in Wild Type mice and Transgenic mice.”

37. Taylor M. Ferguson (LSU, IMSD), Pankaj Baral and Samithamby Jeyaseelan, LSU Pathobiological Sciences, School of Veterinary Medicine; School of Medicine, New Orleans, Section of Pulmonary and Critical Care Medicine, “CXCL1 is Essential for Host-defense against Gram-positive pneumonia in mice.”


39. Stanley Capulong Fuentes (LSU, HHMI), Anne Grove and Ashish Gupta, LSU Biological Sciences, “Characterization of MarR family transcriptional regulator from
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Burkholderia thailandensis.”

40. Christopher Gallien (BRCC, HHMI Professors), Michele Barbato, Maria Teresa Gutierrez Wing, and Yasser Bigdeli, LSU Civil Engineering, “Fluorgypsum Project.”

41. Katie Gamble (SIT, LASiGMA), Dorel Moldovan, Dimitris Nikitopoulos, and Brian Novak, LSU Mechanical & Industrial Engineering and Center for Computation & Technology, “Identifying DNA Mononucleotides Based Upon Flight times Using Molecular Dynamics Simulations.”

42. Fortino Garcia (Rice, CCT), Seyed Amin, Mirsaedie Farahani, Mayank Tyagi, and Krishnaswamy Nandakumar, LSU Mechanical Engineering, Chemical Engineering, and Center for Computation & Technology, “Benchmarking Pore Scale Simulation Performance of OpenFOAM on SuperMike II.”

43. Lohany Garcia (UTPA, HHMI Professors), Sunena Chandra, Ram N. Yadav, and Bismal K. Banik, University of Texas Pan American Chemistry, “Cycloaddition of Carbohydrate Ketenes with Imines: Diastereoselectivity and Enantioselectivity.”

44. René A. Girard (LSU, IMSD), Zachary L. Highland and Jayne C. Garno, LSU Chemistry, “Self-Assembly Study of Octadecyltrichlorosilane on Glass Using Particle Lithography.”


46. Macy Guthrie (BRCC, HHMI Professors), Julie Butler and Karen Maruska, LSU Biological Sciences, “The role of the mechanosensory lateral line as a method of communication during aggressive interactions in the African cichlid fish Astatotilapia burtoni.”

47. Melena Hagstrom (Wells, HHMI), Lisa Brown and Kevin Macaluso, LSU Pathobiological Sciences, School of Veterinary Medicine, “Transmission between co-feeding cat fleas (Ctenocephalides felis) of a rickettsial pathogen isolated from a non-hematophagous arthropod.”


49. Ryan Hanson (UNO, LBRN), Eric Knott and Nicolas Bazan, LSUHSC-NO Neuroscience Center of Excellence, “Neuroprotectin D1 is increased in the retina of an Intraocular Pressure Preconditioning model.”


52. James Hebert (LSU), Bill Platt, Nabin Timilsina, Similoluwa Ogundare, Viet Dao, Jene Noto, Emily Babl, and Claire LaBarbera, LSU Biological Sciences, “Effects of Herbicides and Prescribed Fire on Woody Plants in Upland and Seepage Pine Savannas.”

53. Jessica Hebert (LSU), LSU Physics & Astronomy, “Characterization of the magnetic properties of Fe2P crystal structures.”

54. Kristina Hickey (LSU, IMSD), Zhujun Pan, Bryce Simon, Katelyn Thibodeaux, and Arend Van Gemmert, LSU Kinesiology, “The Control of Direction and Amplitude are Interdependent in Bimanual Coordination.”


57. Andrea Howells (LSU, HHMI), Jeff Davis and Claudia Husseneder, LSU Entomology, “Analyzing bacteria that are transmitted during stinkbug feeding for pathogenic nature.”

58. Ibrahim Ibrahim (UNO, LBRN), Pranab K. Mukherjee and Nicholas G. Bazan, LSUHSC-NO Neuroscience, “Importance of Neuroprotective Proteins in Rescuing Brain Samples of Ischemic Stroke Models.”

59. Dante’ Johnson (LSU, McNair), Anne Grove and Smitha Sivapragasam, LSU Biological Sciences, “Characterization of Xanthine Dehydrogenase Regulator protein of Ralstonia solanacearum, a tomato infecting bacterium.”

60. Rochelle Carla Joseph (Grambling, LBRN),
Craig Hart and Ying Xiao, LSU Biological Sciences, “Visualizing Protein-DNA interaction By Transmission Electron Microscopy.”


4. Claire LaBarbera (LSU, SURE), Jene Noto and Emily Babi, LSU Biological Sciences, “The Effects of Fire and Herbicide on Woody Shrubs and Vines in Longleaf Pine Savannas.”

63. Michelle Laskowski (LSU, NOYCE), Stephen Shipman, LSU Mathematics, “Effects of Structure on Spectra of Quantum Graphs.”

64. Daniel Lauriola (RHIT, LASiGMA), John DiTusa, LSU Physics & Astronomy, “Controlling Carrier Concentration and Magnetic Properties of an FeSi Semiconductor by Means of Cobalt and Aluminum Doping.”

65. Brooke Lawrence (LSU, HHMI Professors), Dominique G. Homberger and Amanda Cozic, LSU Biological Sciences, “3D Visualization of the Skull of a Sulphur Crested Cockatoo: A Case of Osteoporosis in a Captive Parrot.”

66. Ryan LeBlanc (BRCC, HHMI Professors), Ryoichi Teruyama and Katie Huang, LSU Biological Sciences, “Voyage into the brain of the alligator: a stereotaxic coordinate.”


69. James Liman (LATECH, HHMI), Cong Chen, Anoosha Forghani, Leah Garber, and Daniel Hayes, LSU Biological and Agricultural Engineering, “In situ polymerization of Thiol-acrylate nanocomposite foam for bone defects.”

70. Simón Lorenzo (LSU, CCT), Christopher Granier, Georgios Veronis, and Jonathan Dowling, LSU Center for Computation & Technology and School of Electrical Engineering and Computer Science, “Generation of Efficient Incandescent Filaments with Stochastic and Deterministic Optimization Algorithms.”

71. Lauren A Lorio (BRCC, LASiGMA), Francisco Hung and Xiaoxia He, LSU Chemical Engineering and Center for Computation & Technology, “Molecular simulations of Ionic Liquids confined inside nanoporous rods of CMK-3.”


75. Thomas Martin (LSU, HHMI), Thomas Martin, Chinmay Tikhe, and Claudia Husseneder, LSU Entomology, “Bacteriophages from the Gut of the Formosan Subterranean Termite.”

76. Hunter McDaniel (LSU, HHMI Professors), Phillip Sprunger and Mathew Patterson, LSU Physics & Astronomy, “Growth and morphology of Au/Ru(0001).”


78. Meredith McDonald (LSU, HHMI), John R Battista and Kelley G Nunez, LSU Biological Sciences, “Retrieval of Short Tandem Repeats (STRs) from Highly Irradiated Human DNA.”

79. Shannon McDuff (LSU, NSF), Gary M. King, LSU Biological Sciences, “Isolation and Characterization of Novel Aerobic CO-Oxidizing Extremely Halophilic Euryarchaeota.”

80. Grant Mercer (UNLV, Ste|AR), Hartmut Kaiser,
LSU Center for Computation & Technology, “C++ Standards Proposal N3960: Adding Parallel Functionality to the STL in HPX.”

81. Logan Metz (McNeese, LBRN), Chaowei Shang, Mansoureh Barzegar, and Shile Huang, LSUHC-S Biochemistry and Molecular Biology, “Iron chelators induce cancer cell apoptosis by inhibition of mTOR.”

82. Caitlin E. Mitchell (LSU, HHMI), Sue G. Bartlett, Matthew J. Kobe, and Marcia E. Newcomer, LSU Biological Sciences, “Substrate Specificity of 15LOX2.”


84. Meagan K. Moore (BRCC, Bridges), Thomas C. Giarla, Jake A. Esselstyn, and Kevin Rowe, LSU Biological Sciences, “Hide and Squeak: Multiple Cryptic Species within Maxomys musschenbroekii from the Indonesian island, Sulawesi?”

85. Zackari Murphy (LSU, IMSD), Nick Tortaro and Daniel Hayes, LSU Biological & Agricultural Engineering, “Bone Scaffolds Utilizing Frontal Polymerization.”


87. David Van Nguyen (BRCC, HHMI Professors), Shengmin Guo and Manish Patil, LSU Mechanical Engineering, “Experimentation via Nucleate Boiling analyzing Heat Transfer on Hybrid Surfaces (Brass and epoxy en-coated Brass).”

88. Joonwoo Nho (LSU, HHMI), Joomyeong Kim and Arundhati Bakshi, LSU Biological Sciences, “Hypomethylation of Retrotransposons driven by oncogenic KRAS & Genomic Analysis with Bioinformatics.”

89. Nouriath Ningbinnin (LSU, IMSD), Allison J. Richard and Jacqueline M. Stephens, PBRC Biochemistry, “Biphasic Phosphorylation of STAT5 and STAT3 in Adipocytes.”

4. Jené L. Noto (LSU, LBRN), Bill Platt, Emily Babl, Claire LaBarbera, Nabin Timilsina, James Herbert, Simi Ogundare, and Viet Dao, LSU Biological Sciences, “The Effects of Fire and Herbicide on Woody Shrubs and Vines in Longleaf Pine Savannas.”

90. Glynn O’Neill (LSU, HHMI), Valerie Derouen, Mike Stegall, and Prosanta Chakrabarty, LSU Museum of Natural Science, Biological Sciences, “One Fish? Two Fish? Three Fish? How many species compose the Longear Sunfish (Lepomis megalotis)?”

91. Kelly O’Quinn (LSU, SURE), Adam Melvin, LSU Chemical Engineering, “Development of a flow-free microfluidic gradient generator.”


93. Erin Oliver (LSU), Brent Christner, LSU Biological Sciences, “Evidence for microbial life in the Matanuska glacier: an analog for habitats on icy worlds.”


94. Alexis Joy Payne (LSU, IMSD), Matthew Gilbert, Jeff Cary, and Deepak Bhatnagar, USDA Food and Feed Safety, “Altered metabolite-related gene expression profiles in an nsdC knockout mutant of Aspergillus flavus.”

95. Christopher Peck (LSU, HHMI), Joomyeong Kim and Corey Bretz, LSU Biological Sciences, “Oncogenic K-ras Promotes Changes in DNA Methylation of Imprinting Control Regions.”

96. Ariel Pereira (BRCC, Bridges), Javier Garza and James E. Miller, LSU Pathobiological Sciences, School of Veterinary Medicine, “Evaluation of BioWash and Three Novel Ketones in Gastrointestinal Nematodes.”

97. Meghan Perrone (BRCC, Bridges), Mark C. Benfield, LSU Oceanography & Coastal Sciences, “Mapping vertical distributions of copepods and other particles with ZOOVIS: an underwater microscope.”

98. Cadron Pickett (LSU, P&A), Li Zuo, Guang Jia, Vinai Gondi, Ranjini Tolakanahalli, Minesh P Mehta, Dinesh Tewa, Howard Rowley, John S Kuo, Deepak Khuntia, and Wolfgang A
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Tome, LSU Medical Physics, “Evaluating 3 Hippocampal-Avoidance Whole Brain Radiation Therapy Modalities; step-and-shoot IMRT, helical tomotherapy, and volumetric modulated arc therapy with simultaneous integrated boost.”


101. Jordan Renschler (LSU, HHMI), Wesley Maddox and Evanna Gleason, LSU Biological Sciences, “Comparison of Anatomy and Neuropeptide Y Localization in the Chicken (Gallus gallus) and Alligator (Alligator mississippiensis Retinas.”

102. Michael Robertson (LSU, HHMI Professors), Uttam Pokharel and Andrew Maverick, LSU Chemistry, “Synthesis of Benzyl-1,2,3-Triazole Oxime and its Complexation With Copper(II).”

103. Arianna Robichaux (NSU, LBRN), Miriam K. Konkel, Jerilyn A. Walker, and Mark A. Batzer, LSU Biological Sciences, “Alu-Based Population Structure of Olive and Yellow Baboons.”

104. Leonie Robinson (SUNO, LBRN), Kim Pederson and Eric Lazartigues, LSUHSC-NO Pharmacology, “Determination of the Dynamics of ACE2 in Response to ADAM17 level.”

105. Alexandra L. Ross (Centenary, LBRN), George M. Smith, Shaoxiao Wang, and Stephan N. Witt, LSUHSC-S Biochemistry & Molecular Biology, “Drugs that Protect Cells From Lipid Stress in the ER- Implications for Parkinson’s Disease.”

106. Carrie Roux (McNeese, LBRN), Anand Nair, Philip Ebenezer, Micah Doyle, and Joseph Francis*, LSU Comparative Biomedical Sciences, “Role of HMGB-1/TLR4 in Angiotensin II induced inflammatory injury: an in vitro study using murine neuronal cell line.”

107. Jonathan San Miguel (UMD, CCT), Steven Brandt, Qin Chen, and Frank Löffler, LSU Civil and Environmental Engineering and Center for Computation & Technology, “Numerical Modelling of the Boussinesq Equations in the Cactus Framework.”

108. Sreeja Sanampudi (LSU, HHMI), Mark Batzer, Miriam Konkel, and Jerilyn Walker, LSU Biological Sciences, “Characterization of a novel retrotransposon in New World monkeys.”


111. Blake Schouest (NSU, LBRN), Farhana Musarrat and Donna M. Neumann, LSUHSC-NO Pharmacology, “CTCF Binding Motifs as Enhancer Blockers in Herpes Simplex Virus- Type 1.”

112. Jackie Searcy (NSUOK, CCT), Robert Kooima, LSU School of Electrical Engineering and Computer Science and Center for Computation & Technology, “High-Resolution 3D Virtual Tour of Mars.”


114. Titilayo Shobayo (NSU, LBRN), Katherine Langdon and Carol Chin, Other Materials Conservation, “Byproducts of the Microbial Degradation of Crude Oil and the Deterioration of Historic Masonry.”


116. Rahim Sindhwani (LSUS, LBRN), Shuai Yuan, Arif Yurdagul Jr., A. Wayne Orr, and Christopher Kevil, LSUHSC-S Pathology, “Effects of Hydrogen Sulfide on Proliferation and Migration in Endothelial Cells.”

117. George M. Smith (LSUS, LBRN), George M. Smith, Alexandra L. Ross, Shaoxiao Wang, and Stephan N. Witt, LSUHSC-S Biochemistry and Molecular Biology, “Drugs that protect cells from lipid stress in ER- implications for Parkinson’s Disease.”

118. Ronald Smith (Morehouse, HHMI), Javier Garza and James E. Miller, LSU Pathobiological Sciences, School of Veterinary Medicine, “The Connection
between ELISAs and Helminths.”


120. **Helen Stanley** (Truman, P&A), Thomas Kutter and Jonathan Insler, LSU Physics & Astronomy, “Analysis of electron neutrino events from core-collapse supernovae in a 35 kton liquid argon detector.”

121. **Zachary F. Stielper** (Centenary, LBRN), Zachary F. Stielper, Pranan K. Mukherjee, and Nicolas G. Bazan, LSUHSC-NO Neuroscience Center of Excellence, “Is PAR-Binding Necessary for Oxidative Stress-Induced Iduna Upregulation in ARPE-19 cells?”

122. **Martin Stumpf** (FAU Erlangen-Nuremberg, CCT), Hartmut Kaiser and Thomas Keller, LSU Center for Computation & Technology, “Implementing an interactive Mandelbrot Visualization on a distributed GPGPU cluster using HPXCL.”

123. **Oluwaseyi Sule** (LSU, LBRN), LSUHSC-NO Neuroscience Center of Excellence, “Fatty Acid, Amide Hydrolase (FAAH) - URB937 down regulates pro-inflammatory gene COX-2 under stress in Retinal Pigment Epithelial (ARPE-19) cells.”

124. **Grace Talbot** (OleMiss, HHMI), Catherine M. Champagne and H. Raymond Allen, PBRC Dietary Assessment and Nutrition Counseling Laboratory, “Improving the Nutrient Density of a Special Dining Facility Interventions.”

125. **Namra Tanveer** (Centenary, LBRN), Namra Tanveer, Ines Batinic Habele, Daret St Clair, Manikandan Panchatcharam, and Sumitra Miriyala, LSUHSC-S Cellular Biology & Anatomy, “Regulation of Smooth Muscle Cells and the Arterial Response to Injury by MnTnBuOE-2-PyP5+.”


127. **Byanjana Thapa** (FDU, HHMI), Dr. Morgan Kelly, LSU Biological Sciences, “Heat Stress Adaptation in a Marine Copepod.”

128. **Dominique S. Thompson** (NSU, LBRN), Joshua J. Black, Dhaval Patel, and Stephan N. Witt, LSUHSC-S Biochemistry & Molecular Biology, “Screening for genes that rescue toxic stress induced by lipid disequilibrium in the endoplasmic reticulum -implications for Parkinson’s disease.”

129. **Hao Luo** (LSU Biological Sciences, “Rearranging the domains of an ice-binding protein to relate structure to function.”

130. **Luan Tran** (BRCC, HHMI Professors), James Bruno, Lexus Hector, and Kerry Dooley, LSU Chemical Engineering, “Composites from used Nafion / SiO2 Catalysts.”

131. **Kyle Vance** (UMD, P&A), Zhihao Xiao, Nick Lanning, and John P. Dowling, LSU Physics & Astronomy, “Effects of LG Laser Modes on Squeezed Light.”

132. **Irene Vargas-Salazar** (LSU, P&A), Bradley E. Schaefer, LSU Physics & Astronomy, “The Variation of the Accretion Rate of Dwarf Nova U Gem.”

133. **Chelsey P. Walker** (Xavier, SURE), Chelsey Walker, Alberto Musto, and Nicolas Bazan, LSUHSC-NO Neuroscience Center of Excellence, “PAF Antagonism Recovers Dendritic Spines Affected by Epileptogenesis.”

134. **Evan H. Wall** (LSU, NOYCE), Chen Wang, and Bing-Hao Luo, LSU Biological Sciences, “Rearranging the domains of an ice-binding protein to relate structure to function.”

135. **Courtney Wright** (LSU, NOYCE), Courtney Peterson, Corby Martin, and John Apolzan, PBRC Skeletal Muscle Physiology, “Feasibility of Using Webcams to Participate in Clinical Studies.”


137. **Rachel Zeringue** (LSU, HHMI), LSU Biological Engineering, “Photocaging Nucleotides and Oligonucleotides.”
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