

Students Graduating with Distinction in Biology

***Shubhangi (Nonie) Arora**, Overcoming challenges to the successful adoption of whole genome sequencing in clinical care, (Dr. Peter Ubel, Fuqua School of Business)

Gina Au, Characterizing Calcium Influx in the Innate Immune System in Zebrafish (*Danio rerio*), (Dr. David Tobin, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

†**Ethan Baruch**, Not all pavements lead to a stream: how variation in impervious surface connectivity affects urban stream ecosystems, (Dr. Emily Bernhardt, Department of Biology)

Scott Boisvert, Utilizing Local Resources for Laboratory-Based Dengue Surveillance in Galle, Sri Lanka, (Dr. Chris Woods, Global Health Institute)

Melissa Lane Chieffe, The Role of Lemurs in Reforestation: Seed germination and growth post ingestion by two lemur species (*Varecia rubra* and *Varecia variegata variegata*), (Dr. Peter Klopfer, Department of Biology)

Tiffany Uzoamaka Ejikeme, Do Neuroligins Regulate Astrocyte Morphology and Synapse Association? (Dr. Cagla Eroglu and Jeff Stogsdill, Department of Cell Biology, Duke University School of Medicine)

Samantha Emmert, Investigating form and function of biphonation in the social calls of short-finned pilot whales (*Globicephala macrorhynchus*), (Dr. Andrew Read, Nicholas School of the Environment/Duke Marine Lab)

Stefanie Maria Engert, Correlation between Induced Glial Protrusions and Synapse Morphology at the Larval Neuromuscular Junction in *Drosophila melanogaster*, (Dr. Nina Sherwood, Department of Biology)

Jordan E. Forte, The Synthesis of a Fluorescent Ribonucleoside Phosphoramidite for Identifying Small Molecule Inhibitors of TAR-Tat in HIV-1, (Dr. Amanda Hargrove, Department of Chemistry)

†**Sarah Garland**, Identification of Genetic Factors Controlling Cortex Specification and Differentiation in *A. thaliana*, (Dr. Philip Benfey, Department of Biology)

Samantha M. Hall, Effects of mitochondrial dynamics genes, *foo-1* and *drp-1*, on dopaminergic neurodegeneration induced by environmental exposure in *Caenorhabditis elegans*, as a model of Parkinson's disease, (Dr. Joel Meyer, Nicholas School of the Environment)

†**Emily Harris**, RUNX1 Mediates Platelet Aggregation in Response to Aspirin, (Dr. Deepak Voora, Department of Medicine, Duke University School of Medicine)

†**Victoria Haney**, Neuroprotection of photoreceptor neurons by the cyclophilin-like domain of Ran-binding protein 2 upon photo-oxidative stress, (Dr. Paulo Ferreira, Department of Ophthalmology, Duke University School of Medicine)

Yu Ting He, The Role of TOMM40 Gene in Lewy Body Pathology, (Dr. Ornit Chiba-Falek, Department of Neurology, Duke University School of Medicine)

Abby Hoffman, The impacts of mountaintop removal mining on subsurface structure in Central Appalachia and implications for tree recovery, (Dr. Brian McGlynn and Matthew Ross, Department of Earth and Ocean Science)

Brendan Huang, Hemoglobin variant-specific nitrosylation after sickle red cell incubation with NO donors, (Dr. Timothy J. McMahon, Department of Medicine, Duke University School of Medicine)

Wei qiao Huang, Inhibition of the notch signaling pathway leads to slower tumor growth rate kinetics in a primary mouse model of soft tissue sarcoma, (Dr. David Kirsch, Department of Medicine, Duke University School of Medicine)

Alexandra Huttler, Modulation of Notch1 Signaling by CD44 Protein May Alter Neural Stem Cell Differentiation Following Perinatal Sepsis, (Dr. Eric Benner, Department of Pediatrics, Duke University School of Medicine)

Ishaan Jalan, Classification of evolutionary patterns of substitutions in endosymbiotic bacterial proteins, (Dr. John Mercer, Department of Biology)

***Stephanie Marie Jensen**, Synthesis of Aminoarene Pharmacophores Towards Novel Antipsychotics, (Dr. Qiu Wang, Department of Chemistry)

Lillian Kang, Anti-atherogenic mechanisms of Kalirin in endothelial cells, (Dr. Neil J. Freedman, Departments of Medicine & Cell Biology, Duke University School of Medicine)

Norah Karlovich, A role for the type 1 angiotensin receptor on dendritic cells in the pathogenesis of hypertension, (Dr. Steven Crowley, Department of Nephrology, Duke University School of Medicine)

Eleanor Kenimer, Seasonal and behavioral effects on the prevalence of avian malarial haemoparasites and ectoparasites in Skukuza, Kruger National Park, South Africa, (Dr. Katia Koelle, Department of Biology)

Lauren Taylor Kerivan, Cell Signaling Consequences of the GNAQ p.R183Q mutation in Sturge Weber syndrome, (Dr. Douglas Marchuk, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

Rebecca S. Kim, Impact of Endocrine-Disrupting Plasticizers on Medaka Fish Embryogenesis, (Dr. David Hinton, Nicholas School of the Environment)

Melissa Klein, Common Genetic Polymorphisms in Inflammatory Markers Predict Affective Symptoms and Striatal-Limbic Coupling, (Dr. Ahmad Hariri, Department of Psychology and Neuroscience)

Molly Kuo, Genomic mechanisms underlying centromere assembly and chromosome stability, (Dr. Beth Sullivan, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

Andrew Luo, Effects of neural inactivation of macaque intraparietal sulcus on numerical cognition, (Dr. Michael Platt, Department of Neurobiology, Duke University School of Medicine)

Abigail Maciejewski, Mycoremediation: Heavy-Metal-Sequestering Fungi as a Bioremediation Tool, (Dr. Rytas Vilgalys, Department of Biology)

Kurren Mehta, Regulation of NOS2 activity, expression, and lifetime by B30.2/SPRY proteins in human airway epithelial cells, (Dr. Matthew W. Foster, Department of Medicine, Duke University School of Medicine)

Harold Gregory Moore IV, The effects of optogenetic control of AgRP neurons on motivational state and feeding behavior during delay discounting tasks, (Dr. Henry Yin, Department of Psychology and Neuroscience)

Neil Nagda, Deficits in attentional functioning and working memory in mouse model of schizophrenia, (*Dr. William Wetsel, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Jasmine C. Nee, Creating a drug cocktail for treating neuroblastoma: testing the cooperative effects of retinoic acid, ODSH, and MLN8237 on cancer cell differentiation and proliferation, (*Dr. Gerard Blobe, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Hannah Neville, Investigating Vernalization-Mediated Expression Changes in *Arabidopsis Thaliana*, (*Dr. Kathleen Donohue, Department of Biology*)

Taylor Novice, The Role of SNCA in Lewy Body Spectrum Disorders, (*Dr. Ornit Chiba-Falek, Department of Neurology, Duke University School of Medicine*)

†**Patrick Oh**, Optimizing cancer response to radiation therapy: The PI3KK inhibitor GSK2126458 selectively radiosensitizes a primary mouse model of soft-tissue sarcoma, (*Dr. David Kirsch, Department of Radiation Oncology, Duke University School of Medicine*)

Sally Park, Rod Photoreceptor Degeneration Upon Selective Ablation of Ranbp2 or Selective Impairment of its Ran-GTP-binding Domains, (*Dr. Paulo Ferreira, Department of Ophthalmology, Duke University School of Medicine*)

Tyler Pease, MSB3 and MSB4 are required for polarity establishment during symmetry breaking, (*Dr. Daniel Lew, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Bo Peng, The conserved chromatin remodeling protein Alhambra regulates olfactory sensory neuron differentiation in *Drosophila*, (*Dr. Pelin Volkan, Department of Biology*)

Cassidy Pomeroy-Carter, Differential habitat-use as a thermoregulatory mechanism in lemurs: the relationship between vertical and horizontal microhabitat selection and weather variables, (*Dr. Leslie Digby, Department of Evolutionary Anthropology*)

Alykhan Premji, Effects of Ankyrin 3 deletion on Integration and Survival of Granule Cells in Rodent Olfactory Bulb, (*Dr. Chay Kuo, Department of Neurobiology, Duke University School of Medicine*)

Matthew Pun, Exploring the effects of chromatin structure on centromere function in *Schizosaccharomyces pombe*, (*Dr. Kristin Scott, Department of Molecular Genetics and Microbiology, Duke University School of Medicine*)

Zoya Qureshy, Variation in Human Olfactory Receptors: Geographic distribution of polymorphisms and correlation with variation in odorant perception, (*Dr. Hiroaki Matsunami, Department of Molecular Genetics and Microbiology, Duke University School of Medicine*)

Sandy Ren, Multivariate Responses to Direct and Indirect Selection in Yeast, (*Dr. Paul Magwene, Department of Biology*)

Callie M. Roberts, Discovery of New Therapeutic Targets for Glioblastoma Expressing EGFRvIII, (*Dr. Madan Kwatra, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

†**Ben Schwartz**, Molecular Analysis of Tooth Enamel Development in Primates, (*Drs. Gregory Wray and Christine Wall, Departments of Biology and Evolutionary Anthropology*)

Nachiketha Shamaprasad, A yeast model for oncogenic IDH mutations, (*Dr. Joseph Heitman, Department of Molecular Genetics and Microbiology, Duke University School of Medicine*)

Akhil Sharma, Structural Relationship of GPCR Residues and Function in Anesthetic Interaction, (*Dr. Hiroaki Matsunami, Department of Molecular Genetics and Microbiology, Duke University School of Medicine*)

Christine Shen, Cardiac Neural Crest Cells Endocytose FGF8 Ligand in the Pharynx for Normal Cardiovascular Development, (*Dr. Mary Hutson, Department of Pediatrics, Duke University School of Medicine*)

†**Jordyn Silverstein**, Prediagnosis of Type 2 Diabetes in Adolescents, (*Dr. Frederik Nijhout, Department of Biology*)

Lillian D. Sun, Chronic Lymphocytic Leukemia (CLL) Metabolism: Bypassing the B-cell receptor via Activation of Protein Kinase C Induces Glycolysis in CLL cells, (*Dr. Jeff Rathmell, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Kelsey K. Traunero, Type 1 Angiotensin Receptors on T Cells Suppress Renal Inflammation and Fibrosis, (*Dr. Steven Crowley, Department of Medicine, Duke University School of Medicine*)

Victoria Treboschi, TGF- β signaling in pancreatic stellate cells induces chemoresistance and epithelial-to-mesenchymal transition in neighboring pancreatic cancer cells, (*Dr. Gerard Blobe, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Rebecca Vernon, Exploring the Therapeutic Potential of a Novel Antidepressant: Adverse Effects of 5-hydroxytryptophan Immediate Release, (*Dr. Marc Caron, Department of Cell Biology, Duke University School of Medicine*)

Emma Weitzner, Identifying the Factors that Influence Prey Pursuit Behavior of Hawaiian Monk Seals (*Neomonachus schauinslandi*) in the Main Hawaiian Islands using Crittercam Video Analysis, (*Dr. Andrew Read, Duke Marine Lab*)

Sonora A. Williams, A Mouse Behavioral Model System of the Adverse Early Life Environment Associated with Suicidality, (*Dr. Marc Caron, Department of Cell Biology, Duke University School of Medicine*)

Michelle Wu, Mechanisms of co-regulation of estrogen receptor and human epidermal growth factor receptors in mediating resistance to Tamoxifen in ER+ breast cancer, (*Dr. Neil Spector, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Jina Yun, Characterizing the effects of conditional deletion of the murine Rala or Ralb genes on mitochondrial morphology and cytokinesis, (*Dr. Christopher M. Counter, Department of Pharmacology and Cancer Biology, Duke University School of Medicine*)

Lloyd Zhao, Anti-alpha-actinin antibody drives structural change in the Z-bands of relaxed vertebrate muscle, forcing a small-square to basketweave transition, (*Dr. Michael Reedy, Department of Cell Biology, Duke University School of Medicine*)

Jennifer Zou, Primary dormancy level informs hydrothermal envelope and secondary dormancy induction in *A. thaliana*, (*Dr. Kathleen Donohue, Department of Biology*)

†High Distinction

*Graduation with Distinction Outside the Major