

# Students Graduating with Distinction in Biology

**James Alin**, HIV VACCINE DESIGN: Soluble Subunits vs Membrane Bound Immunogen, (Dr. Barton F. Haynes, Department of Immunology, Duke University School of Medicine)

**Katherine M. Baker**, Rapidly Seeded EPCs Adhere to Vascular Stents & Remain Functional, (Dr. Hardean E. Achneck, Department of Surgery, Duke University School of Medicine)

**Tristan Bepler**, Differential DNA-binding preferences of ETS transcription factors, (Dr. Raluca Gordan, Institute for Genome Sciences and Policy)

**Emily Bhutiani**, The effect of physical activity on tumor progression in a genetically engineered murine model for lung cancer, (Dr. Lee W. Jones, Department of Radiation Oncology, Duke University School of Medicine)

**Scott Alan Briggs**, Combination Therapies of the Neurotransmitter-Targeting Drugs Dextromethorphan, Pyrilamine and Lorcaserin in a Rat Model of Nicotine Addiction, (Dr. Ed Levin, Department of Pharmacology and Cancer Biology, Duke University School of Medicine)

†**Yilin (Linda) Cao**, Metabolic Programs Correlate with Greater Proliferation of CD8 T Cells and Resistance of CD4 T Cells to Metabolic Inhibition, (Dr. Jeffrey C. Rathmell, Department of Pharmacology and Cancer Biology, Duke University School of Medicine)

**Camille Carré**, The Effects of Mutant Optineurin Expression on Locomotion and Survival in *Drosophila melanogaster*, (Dr. Henry Tseng, Department of Ophthalmology, Duke University School of Medicine)

†**Edward Chiou**, The Effect of Erythropoietin on Sickle Red Cell Adhesion to the Endothelium and Vasooclusion in Sickle Cell Disease, (Dr. Rahima Zennadi, Department of Medicine, Duke University School of Medicine)

**Emily Crosby**, Nicotinic acetylcholine systems and neurodevelopment in zebrafish, (Dr. Ed Levin, Department of Pharmacology and Cancer Biology, Duke University School of Medicine)

**Beryl Cummings**, Development of a reporter gene based heterochromatin inheritance assay in *S. pombe*, (Dr. Kristin C. Scott, Institute for Genome Sciences and Policy)

**Prachiti H. Dalvi**, Mapping the Trajectory of MicroRNA-induced Cardiac Reprogramming, (Dr. Victor Dzau, Department of Medicine, Duke University School of Medicine)

**Melissa Day**, Expression of Tps1 in the human fungal pathogen, *Cryptococcus*, in response to stress, (Dr. John Perfect, Department of Medicine, Duke University School of Medicine)

†**Nisha Dutta**, Developmental Milestones and Early Sociability in the *Shank3*<sup>4-22</sup>: A Mouse Model of Developmental Impairment in Autism Spectrum Disorders, (Dr. William C. Wetsel, Department of Psychiatry, Duke University School of Medicine)

**Ryan Filler**, Mitochondrial DNA Variation in Interbreeding Slider Turtles (Emydidae: *Trachemys scripta* subsp.), (Dr. Bryan L Stuart, North Carolina Museum of Natural Science; Thesis Supervisor: Dr. Cliff Cunningham, Department of Biology)

**Tyler Fleming**, The Effect of Masitinib on Pediatric Glioblastoma, (Dr. Stephen Keir, Department of Surgery, Duke University School of Medicine)

**Emily Foltz**, How pasteurization affects bacterial agglutination in human and bovine milk: Evidence for healthy alternatives to infant formula, (Dr. William Parker, Department of Surgery, Duke University School of Medicine)

†**Emma Fridel**, Overexpression of the human NR2B subunit in the zebra finch LMAN song nucleus causes song structure modification, (Dr. Erich Jarvis, Department of Neurobiology, Duke University School of Medicine)

**Alexandra-Sasha Giedd**, Evolutionary Origins of Interphotoreceptor Retinoid-Binding Protein in the Vertebrate Visual Cycle, (Dr. John Mercer, Department of Biology)

**Jacob Golan**, Phylogeographical Effects of Pleistocene Glaciations: Genetic Variation in Eastern North America *Sphagnum capillifolium*, (Dr. Jonathan Shaw, Department of Biology)

**Nupur Gulati**, *Z. mays* mutants suggest a strong drive toward complexity in evolution, (Dr. Daniel McShea, Department of Biology)

\*†**Eli Hornstein**, Mate preference on color cues within a divergent, polymorphic population of aposematic poison frogs, (Dr. Manuel Leal, Department of Biology)

**Catharine Kappauf**, On the transformation of *Malassezia sympodialis*, (Dr. Joseph Heitman, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

†**Anand Kornepati**, Targeting dsDNA Tumor Viruses For Inactivation With TALENs and RNA-Guided Endonucleases, (Dr. Bryan R. Cullen, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

**Dylan Koundakjian**, Developing Methods for Access to High Quality Genome Sequences from Wild Ape Populations, (Dr. Greg Wray, Department of Biology)

**Clara Lee**, The role of imprinted gene *MEG3* in epithelial ovarian cancer, (Dr. Susan K. Murphy, Department of Obstetrics and Gynecology, Duke University School of Medicine)

**Rebecca Leylek**, In Vivo Roles for the Arp2/3 Complex, (Dr. Terry Lechler, Department of Cell Biology, Duke University School of Medicine)

**Lucy Ma**, Effect of Notochord-related Transcription Factors on Nucleus Pulposus Differentiation Potential of Mouse Induced Pluripotent Stem Cells (iPSCs), (Dr. Jun Chen, Department of Orthopaedic Surgery, Duke University Medical Center)

**\*\*Megan McSherry**, Between Science and Art: Representing Cancer in Pediatric Oncology (Dr. Mark Olson, Department of Art, Art History & Visual Studies)

**Shikha Nayar**, Modeling Congenital Scoliosis in zebrafish (*Danio rerio*) using a synthetic genetic interaction model, (Dr. Michel Bagnat, Department of Cell Biology, Duke University School of Medicine)

**Ryan Nini**, Potential Role of Abl Kinases in KRas Mutant Non-Small Cell Lung Cancers, (Dr. Ann Marie Pendergast, Department of Pharmacology and Cancer Biology, Duke University School of Medicine)

**Hilary Novatt**, A long non-coding RNA as a potential regulator of IL28B gene expression in hepatitis C virus infection, (Dr. Shelton Bradrick, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

**Cynthia Pi**, The effect of biome reconstitution on the immune systems of laboratory rats, (Dr. William Parker, Department of Surgery, Duke University School of Medicine)

**Connor Lewis Pratson**, Developing a Tethered Particle Motion Apparatus to Investigate DNA Mismatch Repair Mechanisms at a Single Molecule Level, (Dr. Piotr Marszalek, Department of Mechanical Engineering and Materials Science)

**Anish Raman**, Mechanisms of increasingly malignant phenotypes in a stepwise model of tumorigenesis, (Dr. Jack D. Keene, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

**Paula Rambarat**, The cellular and molecular mechanisms driving the species specific organization of the carbon dioxide olfactory sensory circuit in *D. melanogaster*, (Dr. Pelin Volkan, Department of Biology)

**Molly Reichert**, Seasonal and ecological effects of temperature and nutrients on chlorophyll as an indicator of planktonic biomass in the North Pacific, (Dr. Zackary Johnson, Nicholas School of the Environment, Duke University Marine Lab)

**Ani Saraswathula**, B Regulatory Lymphocytes in Immunotherapy for Glioblastoma, (Dr. John H. Sampson, Department of Surgery, Duke University School of Medicine)

**Eugene Senda**, Regulation of proteostasis of opsin and hnRNPA2B1 by distinct cyclophilin activities of Ranbp2, (Dr. Paulo Ferreira, Department of Ophthalmology, Duke University School of Medicine)

**J.P. Senter**, The evolutionary significance of color variation in North American black widow spiders, (Dr. Sönke Johnsen, Department of Biology)

**Alissa Wall**, Dysfunction of 60S ribosomal protein (RPL10) is associated with X-linked microcephaly, (Dr. Erica Davis, Department of Cell Biology, Duke University School of Medicine)

**Catherine Wang**, Driving brain tumorigenesis in a mutant IDH1 mouse model of progressive glioma, (Dr. Hai Yan, Department of Pathology, Duke University School of Medicine)

**Johnny Wei**, Investigating the Crosstalk between HER2 and the type-III TGF- $\beta$  Receptor in Breast Cancer, (Dr. Gerard Blobel, Department of Pharmacology and Cancer Biology, Duke University School of Medicine)

**Germaine Yong**, Role of Peroxisomes in Interferon-gamma Induced Antibacterial Immunity, (Dr. Jörn Coers, Department of Molecular Genetics and Microbiology, Duke University School of Medicine)

**\*\*Alexandra Young**, Prelude 'Pigs Fly!' The Early History of the Myriad Case, (Dr. Robert Cook-Deegan, IGSP)

**Chelsea Zhang**, Relationship between minimally invasive hysterectomy, pelvic cytology, and lymph vascular space invasion: A single institution study of 458 patients, (Dr. Andrew Berchuck, Division of Gynecologic Oncology, Duke University School of Medicine)

**Yuqi Zhang**, Deciphering the Role of Drosophila Beta-Spectrin and Ankyrin in the morphogenesis of *Drosophila melanogaster*, (Dr. Daniel Kiehart, Department of Biology)

†High Distinction

\*University of North Carolina Robertson Scholar

\*\*Graduation with Distinction Outside the Major