



# Students Graduating with Distinction in Biology

**Alexander Advani**, Fibroblast differences between humans and chimpanzees (*Dr. Gregory Wray, Department of Biology*)

**Shilpa Agrawal**, Factors Associated with Heterocellular Aggregate Formation in Sickle Cell Disease (*Dr. Marilyn Telen, Department of Medicine, Division of Hematology, Duke University School of Medicine*)

**Jawara Allen**, The Effect of SNPs in PD Associated Genes on Lewy Body Pathology (*Dr. Ornit Chiba-Falek, Duke Institute for Genome Sciences and Policy and Duke Department of Medicine, Division of Neurology, Duke University School of Medicine*)

**Victoria Arendt**, Automatic detection of crown roots in Zea mays root system models using logistic regression (*Dr. Philip Benfey, Department of Biology*)

**Monica Bhutiani**, Intestinal Expression of DMT1-IRE in Iron Deficient Mice (*Dr. Nancy C. Andrews, Department of Pharmacology and Cancer Biology, Duke University Medical Center*)

**Camila Caceres**, Trust Formation in Domestic Dogs (*Dr. Brian Hare, Department of Evolutionary Anthropology, Duke University*)

**Meredith Chase**, Analysis of Genomic DNase I Hypersensitivity and Gene Regulation (*Dr. Greg Crawford, Department of Pediatrics, Duke University School of Medicine*)

**Molly Cinderella**, Regulation of Size and Shape During Wing Development in *Manduca sexta* (*Dr. H.F. Nijhout, Department of Biology*)

**Kiki Contreras**, Effects of biotic and abiotic environments on the distribution, growth and mortality of juvenile clams in the San Juan Islands, WA. (*Dr. Megan Dethier, University of Washington Friday Harbor Laboratory and Dr. Justin Wright, Department of Biology, Duke University*)

**Rupen Desai**, Uncovering a Gene Regulatory Network in Arabidopsis Root Ground Tissue (*Dr. Philip Benfey, Department of Biology*)

**Gabriella DiMarco**, Characterization of the binding capacity of antibodies to Env expressed on HIV-1-infected cells (*Dr. Guido Ferrari, Department of Surgery, Duke University School of Medicine*)

**Yi (Peter) Dong**, In vitro and in vivo approaches for correlating odorant receptor selectivity to axon guidance in mice (*Dr. Hiroaki Matsunami, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Avi ETTYREDDY**, Isoform specific antibodies against the FGFR2 receptor have prognostic, predictive, and therapeutic applications in the treatment of human cancers (*Dr. Mariano Garcia Blanco, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Kelsey K. Finn**, Calcineurin and the 1,3- $\beta$ -glucan synthase complex of *Aspergillus fumigatus* (*Dr. William J. Steinbach, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Jazmin Garcia**, Sea Turtle Brumation: Does temperature or time of year affect dive depth and duration in loggerhead sea turtle (*Caretta caretta*)? (*Dr. Dan Rittschof, Duke University Marine Lab*)

**Molly Grace\***, Songbird communication in a noisy world: potential benefits of complex notes (*Dr. Stephen Nowicki, Department of Biology*)

**Adam Gross**, Making Scents: Olfactory Communication in Hormonally Suppressed Ring-Tailed Lemurs (*Dr. Christine Drea, Departments of Biology and Evolutionary Anthropology*)

**Lisa V Grossman**, How do cancer cells stick together? A mechanism of adhesion in an Epstein-Barr-virus-driven B cell cancer model (*Dr. Micah A Luftig, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Ben Hoover**, RNA binding dependent localization of HuR (*Dr. Jack Keene, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Alixandra J. Jacobson\***, Population Genetics of Deep-Sea Limpets from Hydrothermal Vents in the Southwestern Pacific (*Dr. Cindy L. Van Dover, Duke University Marine Laboratory*)

**Kylie Kang**, Exploring the therapeutic application of novel secreted protein cardiotrophin-1 (CT-1) on hematopoietic stem cell regeneration (*Drs. Jeffrey R. Harris and John P. Chute, Department of Medicine, Division of Cellular Therapy, Duke University School of Medicine*)

**Jason Chesler Klein\***, Alternative Splicing of ERG in Epithelial-Mesenchymal Transition (*Dr. David McClay, Department of Biology*)

**Jenny (Jing) Li**, Identification of the medulloblastoma oncogene OTX2 as a novel therapeutic target in the malignant childhood tumor retinoblastoma (*Dr. Cory Adamson, Department of Surgery (Neurosurgery), Duke University School of Medicine*)

**Temistocles Molinar Jr.**, Indirect effects of salinity on algal productivity in a restored wetland on the North Carolina coastal plain (*Dr. Emily Bernhardt, Department of Biology*)

**Allyson M. Morton**, Novel interactions between the type III TGF $\beta$  receptor and noncanonical pathways in breast cancer (*Dr. Gerard Blobel, Departments of Medicine, Pharmacology and Cancer Biology*)

**Michael Murphey**, The "Delay of Germination 1" Gene: a Dormancy Control Mechanism in *Arabidopsis thaliana* Mediated by Temperature (*Dr. Kathleen Donohue, Department of Biology*)

**Mai Nakamura**, ex vivo and in vivo Expansion of Human Umbilical Cord Blood Stem Cells with Pleiotrophin (*Dr. John P. Chute, Department of Pharmacology and Cancer Biology, Duke University Medical Center*)

**Vinayak Nikam**, SP-A attenuates the pulmonary immune response to Mycoplasma membrane (*Drs. Julie Ledford and Jo Rae Wright, Division of Pulmonary, Allergy and Critical Care Medicine, Department of Medicine, Duke University School of Medicine*)

**Jamie Peeler**, Trait plasticity of tree species in response to changing disturbance regimes in the Kruger National Park (*Karen Vickers, Organization for Tropical Studies and Dr. Justin Wright, Duke University Biology Department*)

**Ellie Prousaloglou\***, Identification of Prognostic and Predictive Biomarkers for Colorectal Cancer (*Dr. David Hsu, Division of Medical Oncology, Duke University School of Medicine; Institute for Genome Science and Policy*)

**Sunny Qiu**, Characterization of Motor Impairment in Mouse Models of Dystonia (*Dr. Nicole Calakos, Department of Neurobiology, Duke University Medical Center*)

**Amit K. Reddy**, Identification of residues involved in the dimerization of the Arabidopsis phytochrome B histidine kinase-related domain (*Dr. Meng Chen, Department of Biology*)

**Teresa Ro**, Recombinant Expression and Purification of Human Exonuclease 1 N-terminal and C-terminal Constructs (*Dr. Lorena S. Beese, Department of Biochemistry, Duke University Medical Center*)

**John Roberson**, Identification of MicroRNAs Affected by the TGF $\beta$  Pathway in Breast Cancer Metastasis (*Dr. Xiao-Fan Wang, Department of Pharmacology and Cancer Biology, Duke University Medical Center*)

**Taylor Robinson**, Blunted hypothermic response to 5-HT $1A$  receptor stimulation: A biomarker of serotonin deficiency in depression? (*Dr. Marc G Caron, Department of Cell Biology, Duke University Medical Center*)

**Brandon Ruderman**, Epigenetic Maintenance and Inheritance of Heterochromatin in Fission Yeast (*Dr. Huntington F. Willard, Duke Institute for Genome Sciences & Policy and Department of Biology*)

**Tiff Shao**, Sticking tags onto whales: adhesive properties of different materials (*Dr. Dan Rittschof, Duke University Marine Lab*)

**Arun Sharma**, A Novel Interaction between Endoglin and p38 MAPK Regulates Endothelial Cell Migration during Angiogenesis (*Dr. Gerard Blobe, Department of Pharmacology and Cancer Biology, Duke University Medical Center*)

**Nari Sohn**, Are Oysters and Blue Crabs from North Carolina Safe to Eat? (*Dr. Daniel Rittschof, Department of Biology*)

**Katharine Sourbeer**, A Model to Predict Cold-Stunning in Green Sea Turtles (*Chelonia mydas*) in North Carolina Sea Grass Beds (*Dr. Dan Rittschof, Duke University Marine Laboratory*)

**Bo Sun\***, Gene Network Regulation of Outer Membrane Vesiculation in *Escherichia coli* (*Dr. Meta Keuhn, Department of Biochemistry, Duke University Medical Center*)

**Kathie Sun\***, Analysis of the subcellular localization of GFP-tagged accessory subunit variants of DNA polymerase  $\gamma$  associated with mitochondrial disease (*Dr. William C. Copeland, Mitochondrial DNA Replication Group, National Institute of Environmental Health Sciences*)

**Tay Rong En**, Positive Feedback – A Means Of Maintaining The Robustness Of Cell-cycle Oscillations? (*Dr. Steven B. Haase, Department of Biology*)

**Allison C. Umfress**, A model for the development of Chronic Traumatic Encephalopathy following repetitive head injury (*Dr. Hana N. Dawson, Division of Neurology, Department of Medicine, Duke University School of Medicine*)

**Nikolaos A. Vallis†**, End of Life Healthcare Resource Allocation Preferences in Cohorts of Duke Students and Parents (*Dr. Donald Taylor, Sanford School of Public Policy, Duke University*)

**Faith Villanueva**, Formin inft-1 polarizes the anchor cell during invasion in *C. elegans* (*Dr. David Sherwood, Department of Biology*)

**Kristie Vu**, The Role of T $\beta$ RIII Ectodomain Shedding in Regulating TGF $\beta$  Signaling in Breast Cancer (*Dr. Gerard Blobe, Departments of Medicine, Pharmacology and Cancer Biology, Duke University Medical Center*)

**Cynthia Wang**, Elucidating Il-12 Secretion in Dendritic Cell and Tumor Fusion Cells with Implications for a New Cancer Vaccine (*Dr. Walter Lee, Department of Surgery, Duke University School of Medicine*)

**Tun Jan Young**, Fine-scale spatial density modelling of humpback whales (*Megaptera novaeangliae*) in the inshore waters of the Western Antarctic Peninsula during the late autumn. (*Dr. David W. Johnston, Duke University Marine Lab*)

**Xiaopei Lily Zeng**, The role of BMP, FGF8, and Notch signaling pathways in embryonic cardiac arterial pole development (*Dr. Mary Hutson, Department of Pediatrics, Duke University School of Medicine*)

**Aimee Zhang\***, A high-resolution genome-wide mapping of mitotic recombination events in *Saccharomyces cerevisiae* with the rad3-102 mutation (*Dr. Tom Petes, Department of Molecular Genetics and Microbiology, Duke University Medical Center*)

**Alice Zhang†**, Nutrition of Resettled Bhutanese Refugee Children in the Durham and Raleigh area (*Dr. Suzanne Shanahan, Kenan Institute for Ethics, Duke University*)

\*High Distinction

†Graduation with Distinction (not within a major)