

# NIH SUMMER RESEARCH PROGRAM POSTER DAY - **AUGUST 9, 2018**

<b>MORNING SESSION</b>	<b>AM</b>	<b>9:00 AM-11:00 AM</b>
<b>LUNCH SESSION</b>	<b>LCH</b>	<b>11:00 AM-1:00 PM</b>
<b>AFTERNOON SESSION</b>	<b>PM</b>	<b>1:00 PM-3:00 PM</b>
<b>HISTEP SESSION</b>	<b>HS</b>	<b>3:00 PM-4:00 PM (Room A/B)</b>

## SESSION INSTITUTE OR CENTER POSTER NUMBER

AM	Center for Information Technology (CIT) . . . . .	1-7
AM	National Center for Advancing Translational Sciences (NCATS) . . . . .	8-25
AM	National Human Genome Research Institute (NHGRI) . . . . .	26-71
AM	National Institute on Alcohol Abuse and Alcoholism (NIAAA) . . . . .	72-87
AM	National Institute of Allergy and Infectious Diseases (NIAID) . . . . .	88-142
AM	National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) . . . . .	143-155
AM	National Institute of Biomedical Imaging and Bioengineering (NIBIB) . . . . .	156-170
AM	<i>Eunice Kennedy Shriver</i> National Institute of Child Health and Human Development (NICHD) . .	171-221
AM	National Institute on Deafness and Other Communication Disorders (NIDCD) . . . . .	222-231
AM	National Institute of Dental and Craniofacial Research (NIDCR) . . . . .	232-244
AM	National Institute on Minority Health and Health Disparities (NIMHD) . . . . .	245-250
AM	National Institute of Neurological Disorders and Stroke (NINDS) . . . . .	251-334
LCH	National Eye Institute (NEI) . . . . .	1-31
LCH	National Heart, Lung, and Blood Institute (NHLBI) . . . . .	32-92
LCH	National Institute on Aging (NIA) . . . . .	93-143
LCH	National Institute on Drug Abuse (NIDA) . . . . .	144-183
LCH	National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) . . . . .	184-253
LCH	National Institute of Environmental Health Sciences (NIEHS) . . . . .	254-262
LCH	National Institute of Mental Health (NIMH) . . . . .	263-303
LCH	National Institute of Nursing Research (NINR) . . . . .	304-311
LCH	National Library of Medicine (NLM) . . . . .	312-332
LCH	Office of the Director (OD) . . . . .	333-334
PM	Clinical Center (CC) . . . . .	1-47
PM	National Center for Complementary and Integrative Health (NCCIH) . . . . .	48-51
PM	National Cancer Institute (NCI) . . . . .	52-309
PM	National Cancer Institute – Division of Cancer Epidemiology and Genetics (NCI – DCEG) . . . .	310-336
HS	OD High School Scientific Training and Enrichment Program (HiSTEP) . . . . .	177-201

### NOTES

1. The HiSTEP posters are downstairs in Room A/B
2. The complete program for Summer Poster Day 2018, including poster titles, can be found at [https://www.training.nih.gov/assets/2018\\_Summer\\_Poster\\_Day\\_Program.pdf](https://www.training.nih.gov/assets/2018_Summer_Poster_Day_Program.pdf).

## SUMMER INTERNSHIP PROGRAM - POSTER DAY 2018

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### Center for Information Technology (CIT)

#### **AM-1. Cody Bastian**

*Automated Process to Generate Patient-specific 3D Printed Molds for Prostate Dissection and Guided Needle Biopsy for Lesions*

University of Maryland, College Park (Maryland)

Preceptors: Mr. Marcial Garmendia-Cedillos, Mr. Tom Pohida

#### **AM-2. Biobele Davies, Mariko Gardiner**

*MIOS Cage Cam – A Cloud-based Homecage-integrated Waste Monitoring Device to Improve Animal Care*

Academy of Health Sciences at PG (Maryland), Thomas Jefferson High School (Virginia)

Preceptors: Mr. Jonathan Krynitsky, Mr. Marcial Garmendia, Mr. Tom Pohida, Dr. Alexxai Kravitz

#### **AM-3. Ajith Kanuri**

*Adaptive Optics Retinal Imaging with Eye Tracking*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Mr. Jonathan Krynitsky, Mr. Randy Pursley, Mr. Tom Pohida, Dr. Johnny Tam

#### **AM-4. Manish Kondapolu**

*Mixed Reality for Prostate Fresh Tissue Procurement*

University of California, Berkeley (California)

Preceptors: Mrs. Raisa Freidlin, Mr. Marcial Garmendia-Cedillos, Dr. Baris Turkbey, Mr. Thomas Pohida

#### **AM-5. Yoni Pedersen, Alex Pu**

*Compact Video Monitoring Systems for Large-scale Mouse Ethology*

University of Maryland, College Park (Maryland), University of Maryland, College Park (Maryland)

Preceptors: Dr. Ghadi Salem, Dr. Alexxai Kravitz, Dr. John Dennis, Mr. Tom Pohida

#### **AM-6. Christopher Roque**

*MIOS System to Monitor Activity and Environmental Conditions inside Rodent Home-cages*

University of Maryland, College Park (Maryland)

Preceptors: Mr. Thomas Pohida, Mr. Marcial Garmendia, Mr. Lex Kravitz, Mr. Mohamed Ali

#### **AM-7. Brandon Wang**

*Developing a Solid-state Circulator to Provide Receiver Isolation at 300 MHz for in vivo Electron Paramagnetic Resonance*

University of Wisconsin - Madison (Wisconsin)

Preceptors: Mr. Randall Pursley, Mr. Tom Pohida, Dr. Murali Krishna, Mr. Nallathamby Devasahayam

## **National Center for Advancing Translational Sciences (NCATS)**

### **AM-8. Draven Aquino**

*High-throughput Screen to Identify Compounds Which target Tumor Associated Macrophages Derived from Human Donor Monocytes.*

Kapiolani Community College (Hawaii)

Preceptors: Dr. Mica Dashnyam, Dr. Anju Singh, Dr. Marc Ferrer

### **AM-9. Felicia Attor, Malaika Bhayana**

*Synthesis and Biological Evaluation of ULK1 Inhibitors for Autophagy-dependent Cancers*

Washington College (Maryland), Bethesda - Chevy Chase High School (Maryland)

Preceptors: Dr. Kanny Wan, Dr. Samarjit Patnaik

### **AM-10. Prasanthi Bonagiri**

*Real Time Measurement of Apoptosis Induction in Pancreatic Cancer Cells*

Poolesville High School (Maryland)

Preceptors: Dr. Marc Ferrer, Dr. Kelli Wilson, Dr. Lu Chen

### **AM-11. Ata Chitsaz**

*Profiling Drug Interactions for the Histone Deacetylase Family Using High-throughput Cellular Thermal Shift Assay*

Montgomery College (Maryland)

Preceptors: Ms. Rosita Asawa, Dr. Natalia Martinez

### **AM-12. Bogdan Domrachev**

*Design of Rete Ridges in 3-D Bioprinted Skin Tissue Constructs*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Paige Derr, Ms. Kristy Derr, Mr. Samuel Michael, Dr. Mark Ferrer

### **AM-13. Deeya Garg**

*High-throughput Screening of Drug Libraries to Identify Novel Inhibitors of Cytosine Methylation*

Montgomery Blair High School (Maryland)

Preceptors: Mr. Michael Ronzetti, Dr. Bolormaa Baljinnyam

### **AM-14. Emmett George**

*Discovery of the First Selective Small Molecule Agonists of the Insulin-Like3 (INSL3) Peptide Receptor RFXP2: A New Therapeutic Target for the Treatment of Osteoporosis*

Duke University (North Carolina)

Preceptors: Dr. Kenneth Wilson, Dr. Juan Marugan

**AM-15. Nicholas Kibbey**

*Using Word2Vec for Temporal Based Analysis of Published Research*

University Of Maryland, College Park (Maryland)

Preceptors: Mr. Tyler Peryea, Mr. Dac-Trung Nguyen, Dr. Alexey Zakharov

**AM-16. Devin Lewis**

*Improving Metabolic Stability of YC-1 for Potential Use in Treating Intrahepatic Cholangiocarcinoma*

Case Western Reserve University (Ohio)

Preceptor: Dr. Ke Kong

**AM-17. Amanda Liu**

*Discovery of First-in-Class Trpm1 Agonist for the Treatment of Muscular Dystrophy*

Montgomery Blair High School (Maryland)

Preceptors: Mr. Raul Calvo, Dr. Juan Marugan

**AM-18. Arush Naidu**

*Identification of Modulators of the DNA Damage Response (DDR) following Chemotherapy and Radiation Using an RNAi Library Targeting the Kinome*

Delbarton School (New Jersey)

Preceptors: Dr. Madhu Lal, Dr. Jiaqi Fu, Mr. Colin Todd

**AM-19. Jake Niebler**

*Pre-validation of an in vitro Cell-based Assay for Dermal Toxicity*

Juniata College (Pennsylvania)

Preceptors: Dr. Menghang Xia, Dr. Zhengxi Wei, Ms. Li Zhang, Dr. Ruili Huang

**AM-20. Taylor Niehoff**

*Implementation of a NanoLuciferase Complementation Assay for Profiling Drug-Target Interactions*

Georgia Institute of Technology (Georgia)

Preceptors: Dr. Natalia Martinez, Ms. Rosita Asawa

**AM-21. Bryan Queme**

*Characterization of Ipglyceramide: Discerning Affinity for Parasitic Targets*

Biola University (California)

Preceptors: Dr. Laurence Lamy, Dr. Patricia Dranchak, Dr. Mahesh Aitha, Dr. James Inglese

**AM-22. Karun Salvady**

*A High-Throughput Screening Platform for the Identification of Novel Pharmacoperones for SOD1-linked Familial ALS*

University of Texas at Austin (Texas)

Preceptors: Dr. Mark Henderson, Ms. Carina Danchik

**AM-23. Janani Sundaesan**

*High-throughput Screening to Identify Small Molecules That Enhance Cancer Immunotherapy to Treat Melanoma*

Boston College (Massachusetts)

Preceptors: Dr. Anju Singh, Dr. Marc Ferrer

**AM-24. Justin Szajek**

*High-throughput Cell Compartment Classification with Deep Learning*

Virginia Polytechnic Institute and State University (Virginia)

Preceptors: Dr. Alexey Zakharov, Mr. Dac-Trung Nguyen

**AM-25. Mason Zhang**

*QSAR Modeling to Predict Inhibitors of Aldehyde Oxidase*

Winston Churchill High School (Maryland)

Preceptors: Mr. Dac-Trung Nguyen, Mr. Alexey Zakharov

**National Human Genome Research Institute (NHGRI)**

**AM-26. Omena Aboagye**

*Niemann-Pick Type C1 Candidate Gene Therapy Plasmids Rescue NPC1 Phenotype in NPC1-/- Mouse Embryonic Fibroblasts*

Western School of Technology & Environmental Science (Maryland)

Preceptor: Ms. Denise Larson

**AM-27. Jeriel Ake**

*Do Mexican-Americans Share Family Health History with Healthcare Providers?*

James Hubert Blake High School/ Montgomery College (Maryland)

Preceptors: Dr. Jieliu Lin, Dr. Laura Koehly

**AM-28. Yoseph Boku**

*Optimization of an Antisense Oligonucleotide Treatment Strategy to Block Cryptic Splice Usage and Progerin Production in Hutchinson-Gilford Progeria Syndrome*

Harvard College (Massachusetts)

Preceptors: Dr. Wayne Cabral, Dr. Michael Erdos

**AM-29. Ian Brown**

*Identification of a Candidate Gene Associated with Brain Malformations, Micrognathia, and Camptodactyly*

Walt Whitman High School (Maryland)

Preceptors: Dr. Joshi Stephen, Dr. May Christine Malicdan, Dr. William Gahl

**AM-30. Alexander Burgess**

*DNA Methylation Patterns in Diamond Blackfan Anemia Patients*

Bullis School (Maryland)

Preceptors: Dr. David Bodine, Mrs. Nancy Seidel

**AM-31. Alexander Chang**

*Using Machine Learning to Improve Diploid Genome Assembly*

Johns Hopkins University (Maryland)

Preceptors: Dr. Sergey Koren, Dr. Adam Phillippy

**AM-32. David Chang**

*Computer Analysis of Adeno-associated Virus Integration Data after Gene Therapy in Mice*

Cornell University (New York)

Preceptors: Ms. Stephanie Smith, Dr. Charles Venditti, Dr. Mark Sands, Dr. Tyra Wolfsberg

**AM-33. Megha Chitturi**

*Social Factors Related to Health Communication among Families Affected by Sickle Cell Disease or Trait*

Ravenwood High School (Tennessee)

Preceptors: Ms. Jennifer Cleary, Ms. Lena Eskin, Dr. Chris Marcum, Dr. Laura Koehly

**AM-34. Carter Clinton**

*Bioinformatic Candidate Gene Approach to Identify Etiology for Ectopia Cordis/ Pentalogy of Cantrell*

Howard University (District of Columbia)

Preceptors: Dr. Paul Kruszka, Dr. Maximilian Muenke

**AM-35. Nadine Dogbe**

*Development of an International Survey Assessing the Perception of Genome Editing in Individuals with Sickle Cell Disease*

Saint Olaf (Minnesota)

Preceptor: Mr. Vence Bonham

**AM-36. Natalie Filipowicz**

*Investigating the Use of Genetic Risk Information in Clinical Interactions in a Virtual Setting*

Hope College (Michigan)

Preceptors: Dr. Brittany Hollister, Dr. Susan Persky, Dr. Vence Bonham

**AM-37. Sarah Flaherty**

*Effects of Corynebacterium spp. on Staphylococcus aureus: Potential to Reduce Pathogenesis*

Smith College (Massachusetts)

Preceptors: Dr. Clayton Deming, Dr. Julia Segre

**AM-38. Karen Funderburk**

*Exploring Combinations of Pan-cancer Epigenetic Markers for Cancer Screening*

Arizona State University (Arizona)

Preceptor: Dr. Laura Elnitski

**AM-39. Tess Gabert**

*Neutrophil Extracellular Traps in Hermansky-Pudlak Syndrome*

Rice University (Texas)

Preceptors: Dr. May Malicdan, Mr. Chen Han, Dr. Heidi Doward, Dr. William Gahl

**AM-40. Eric Joshua Garcia**

*Using Epigenetics Analysis to Identify Novel Modifiers in Gaucher Disease-associated alpha-Synucleinopathies*

University of Maryland, Baltimore County (Maryland)

Preceptors: Mr. Shahzeb Hassan, Dr. Ellen Sidransky, Dr. Nahid Tayebi

**AM-41. Macred Gbenro Jr**

*The Relationship between Weight Satisfaction, Self-blame, and Self-care among Individuals with Type 1 and Type 2 Diabetes*

Towson University (Maryland)

Preceptors: Dr. Susan Persky, Ms. Sarah Boland

**AM-42. Alicia Giannetti**

*Facilitating Understanding and Emotional Processing: The Role of a Support Person during Alzheimer's Disease Risk Disclosure Sessions*

Boston University (Massachusetts)

Preceptor: Dr. Lori Erby

**AM-43. Amber Golden**

*Identifying the Genetic Cause of a Novel Neutrophil Disorder*

Walter Johnson High School (Maryland)

Preceptors: Ms. Jennifer Guo, Dr. May Malicdan

**AM-44. Duber Gomez-Fonseca**

*Performance of Machine Learning Methods for Identifying SNPs Involved in Gene-Gene Interactions*

Jackson State University (Mississippi)

Preceptors: Dr. Joan Bailey-Wilson, Dr. Emily Holzinger

**AM-45. Sunny Greene**

*Evaluating the Neuropathology of the Chediak-Higashi Disease Mouse Model*

Hollins University (Virginia)

Preceptors: Dr. Raluca Nicoli, Dr. May Malicdan, Dr. William Gahl

**AM-46. Charlotte Hagerman**

*The Role of Parental Guilt and Body Mass Index in Eating and Child Feeding*

George Washington University (District of Columbia)

Preceptor: Dr. Susan Persky

**AM-47. Gopal Jayakar**

*Differential Methylation and Ovarian Endometrioid Cancer: A Comparison between GE Mice and Human*

Pennsylvania State University (Pennsylvania)

Preceptor: Dr. Laura Elnitski

**AM-48. Daniel Kiser**

*Using Random Forests to Detect Model-free Interactions*

University of Arkansas (Arkansas)

Preceptors: Dr. Joan Bailey-Wilson, Dr. James Malley

**AM-49. Aleksandra Kostic**

*Searching the NCBI Sequence Read Archive for Novel Viruses*

Princeton University (New Jersey)

Preceptors: Dr. Adam Phillippy, Mr. Brian Ondov

**AM-50. Stefanos Koutsoukos**

*Biomarker Exploration in Organic Acidemia*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Irimi Manoli, Dr. Charles Venditti, Dr. Oleg Shchelochkov

**AM-51. Zhiyuan Li**

*Identifying Predictive Gene Expression and Splicing Signatures of Treatment-resistant Hypertension Using Machine Learning Analytics*

Freedom High School (Virginia)

Preceptors: Dr. Cihan Oguz, Dr. Gary Gibbons

**AM-52. Taylor Lindstrom**

*Non-motor Symptoms and Risk Assessment for Parkinson's Disease in GBA1 Homozygous and Heterozygous Mutation Carriers*

University of Miami (Florida)

Preceptors: Dr. Grisel Lopez, Dr. Ellen Sidransky, Ms. Alta Steward

**AM-53. Ezana Lulseged**

*Turner Syndrome in Diverse Populations*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Paul Kruszka, Dr. Maximilian Muenke



**AM-54. Maya Moore**

*Assessing Perceptions of Pharmacogenetic Testing in Native Hawaiian Populations: A Community-based Participatory Research Approach*

University of Pennsylvania (Pennsylvania)

Preceptor: Mr. Vence Bonham

**AM-55. Sangho Myung**

*Characterization of a Cellular Model of Methylmalonic Acidemia*

Brown University (Rhode Island)

Preceptors: Dr. Charles Venditti, Ms. Jessica Schneller

**AM-56. Andrea Otero Rios**

*Motor Scores and Sleep Survey in GBA1 Mutation Carriers at Risk for Parkinson's Disease*

Universidad Central del Caribe School of Medicine (Puerto Rico)

Preceptors: Dr. Grisel Lopez, Dr. Ellen Sidransky

**AM-57. Kenzhane Pantin**

*Do BRCA1 Mutations Increase Risk for Cancers Other than Breast, Ovarian and Melanoma?*

University of Urbana-Champaign (Illinois)

Preceptors: Dr. Joan Bailey-Wilson, Dr. Candace Middlebrooks

**AM-58. Nishka Patel**

*Cognitive Profile of Patients with Gaucher Disease and Heterozygous Mutation Carriers at Risk for Parkinson's Disease*

University of Maryland, Baltimore County (Maryland)

Preceptors: Ms. Alta Steward, Dr. Grisel Lopez

**AM-59. Robert Rizzo**

*Development of the NIH Organic Acidemia Database for the Natural History Studies*

Winston Churchill High School (Maryland)

Preceptors: Dr. Oleg Shchelochkov, Dr. Charles Venditti

**AM-60. Sofia Rosenzweig**

*Heterozygous Loss-of-Function Mutations in Proteasomal Genes Cause Type 1 Interferonopathies*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Hirotsugu Oda, Dr. Oskar Schnappauf, Dr. Ivona Aksentijevich, Dr. Dan Kastner

**AM-61. Raya Seid**

*Evaluation of Mood and Fatigue in GBA1 Homozygous and Heterozygous Mutation Carriers at Risk for Parkinson's Disease*

Walter Johnson High School (Maryland)

Preceptors: Dr. Grisel Lopez, Dr. Ellen Sidransky, Ms. Alta Steward

**AM-62. Wynton Sims**

*A Systematic Review of Splenic Infarction in Individuals with Sickle Cell Trait*

University of Alabama at Birmingham (Alabama)

Preceptor: Mr. Vence Bonham

**AM-63. Lily Smith**

*Unraveling the Genetic Basis of Oculocutaneous Albinism and Bleeding Diathesis in an Undiagnosed Patient*

Walter Johnson High School (Maryland)

Preceptors: Mr. Chen Han, Dr. Bernadette Gochuico, Dr. May Malicdan

**AM-64. Benjamin Steger**

*Functional Analysis of an Autophagy and ER Stress-regulating Protein in a Patient with an Undiagnosed, Multisystem Disorder*

Oberlin College (Ohio)

Preceptors: Dr. Marie Morimoto, Dr. May Malicdan

**AM-65. Simon Talusan**

*A Database-driven Website to Display Long Read Sequencing Data for Human Endogenous Retrovirus Insertions*

Benjamin Banneker Academic High School (District of Columbia)

Preceptors: Dr. Nancy Hansen, Dr. Zhi Liu, Dr. Hyejin Cho, Dr. Jim Mullikin

**AM-66. Joey Toker**

*Kinetics of Hemozoin Deposition in HRG1-deficient Mice*

Harvard University (Massachusetts)

Preceptors: Dr. David Bodine, Ms. Nancy Seidel, Ms. Jaya Jagadeesh

**AM-67. Kwaniyah Tuffour**

*Replicating Results While Minimizing Scanning Time for Children with ADHD*

Eleanor Roosevelt High School (Maryland)

Preceptors: Dr. Gustavo Sudre, Dr. Philip Shaw

**AM-68. Calandra Whitted**

*Development of a Health Education Tool to Improve Community-based Implementation of the Families SHARE Family Health History Tool*

Florida A&M University (Florida)

Preceptor: Dr. Laura Koehly

**AM-69. Vanessa Wong**

*Recessive Mutations in URB1 Likely Associated with Adult-onset Leukoencephalopathy and Basal Ganglia Calcification*

James Hubert Blake High School (Maryland)

Preceptor: Dr. Joshi Stephen

**AM-70. Alice Zhu**

*Quantification of Cell-free mtDNA by ddPCR in the Serum of Patients with Mitochondrial Disease*

Winston Churchill High School (Maryland)

Preceptors: Dr. Peter McGuire, Mr. Ivan Yang

**AM-71. Oreet Zimand**

*Block of Unfolded Protein Response (UPR) in Zebrafish Model of Reticular Dysgenesis*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Alberto Rissone, Dr. Wuhong Pei, Dr. Shawn Burgess

**National Institute on Alcohol Abuse and Alcolism (NIAAA)**

**AM-72. Beatrice Acha**

*Objective and Subjective Measures of Physical Activity and Their Link to Psychological Traits*

University of Maryland, College Park (Maryland)

Preceptors: Ms. Veronica Ramirez, Dr. Peter Manza, Dr. Gene-Jack Wang, Dr. Nora Volkow

**AM-73. Shalicyana Burrell**

*Association of Dopaminergic Gene Variation with Risky Alcohol Self-administration*

Saint Olaf College (Minnesota)

Preceptors: Dr. Bethany Stangl, Dr. Vijay Ramchandani

**AM-74. Kate Cowie**

*Using Functional Near-infrared Spectroscopy to Measure Cue Reactivity in the Bar Lab*

Wake Forest University (North Carolina)

Preceptor: Mrs. Mary Lee

**AM-75. Meron Haile**

*Anxiety-related Behavior in Mice Lacking Astroglial Cannabinoid Receptors*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Olena Bukalo, Dr. Ozge Gunduz Cinar, Mr. Tanner Rigg, Dr. Andrew Holmes

**AM-76. Elaine Han**

*Tissue-specific Alcohol Metabolism in Mice*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Adrien Guillot, Dr. Bin Gao

**AM-77. Cameron Javdan**

*Radioligand Binding Assays*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Sunny Kim, Dr. Min Guo

**AM-78. Tawnjerae Joe**

*Analysis of Dendrites and Axons in the Striatum Using DiOlistics*

Fort Lewis College (Colorado)

Preceptors: Mr. Dennis Burke, Mr. Roland Bock, Dr. Veronica Alvarez

**AM-79. Alana Keller**

*Exploring the Role of Cannabinoid Receptor 1 (CB1R) in Alveolar Type 2 (AT2) Epithelial Cell Injury and Lung Fibrosis*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Resat Cinar, Dr. George Kunos

**AM-80. Ivy Liu**

*Brain Region Specific Changes in Microglia Transcriptome Induced by Cocaine Self-administration*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Kornel Schuebel, Dr. David Goldman

**AM-81. Vikrant Mahajan**

*Behavioral and Anatomical Characterization of the Mitopark Model for Dopaminergic Neuron Degeneration in Parkinson's Disease*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. David Lovinger, Dr. Margaret Davis, Dr. Karina Abrahao, Dr. Armando Salinas

**AM-82. Jeffrey Onyeador**

*Role of 2-AG Endocannabinoid Signaling in "Breaking" Habits*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Shana Augustin, Dr. David lovinger

**AM-83. Olivia Rivellini**

*Investigating the Effect of Acute and Chronic Alcohol Consumption on Lung Function and Inflammation*

Largo High School (Florida)

Preceptors: Dr. Resat Cinar, Dr. George Kunos

**AM-84. Elizabeth Sapiro**

*Whole Transcriptome on Cell Types Purified by a Newly Developed Technique for High-throughput Microdissection*

Georgetown Day School (District of Columbia)

Preceptors: Dr. Lucia Guerri, Dr. David Goldman

**AM-85. Puja Terse**

*Design and Synthesis of Neurotensin Modulators*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Malliga Iyer, Dr. George Kunos

**AM-86. Arthi Thyagarajan**

*Synthesis of the Peripherally Restricted Cannabinoid CB1 Antagonist JD5037 to Study Ethanol Preference in Mice Deficient in CB1 Receptors in Afferent Sensory Neurons*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Malliga Iyer, Dr. Grzegorz Godlewski

**AM-87. Mei Xing Zuo**

*Investigating Bleomycin-induced Pulmonary Fibrosis in Obese and Lean Mice*

Winston Churchill High School (Maryland)

Preceptors: Mr. Joshua Park, Dr. George Kunos, Dr. Resat Cinar

**AM-88. Larissa Ault**

*Gene-specific Profiles for Characterizing Mutational Biases in Antibody Somatic Hypermutation*

University of Hawaii at Manoa (Hawaii)

Preceptors: Dr. Chaim Schramm, Dr. Daniel Douek

**National Institute of Allergy and Infectious Diseases (NIAID)**

**AM-89. Ashley Bailey**

*Rescuing B Cells from Mitochondrial Dysfunction with Secondary Signals*

Morgan State University (Maryland)

Preceptors: Dr. Munir Akkaya, Mr. Brandon Theall, Dr. Susan Pierce

**AM-90. Daniella Bloch**

*STAT3 Regulation of TRAF6 Expression*

Melvin J Berman Hebrew Academy (Maryland)

Preceptors: Dr. Michael O'Connell, Dr. Joshua Milner

**AM-91. Michael Briones**

*Chlamydia trachomatis Lipopolysaccharide Fails to Activate the Canonical and Non-canonical Inflammasome Pathways: A Pathogen Strategy for Silencing Innate Immunity*

University of Nevada Las Vegas School of Medicine (Nevada)

Preceptor: Dr. Harlan Caldwell

**AM-92. Danielle Castro**

*Improving Fe<sup>3+</sup> -IMAC Phosphopeptide Enrichment*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Nathan Manes, Dr. Aleksandra Nita Lazar

**AM-93. Anna Chen**

*The Design and Expression of an Oligomeric Form of Mucosal Addressin Cell Adhesion Molecule 1 (MAdCAM-1): A Receptor Involved in the Homing of Lymphocytes to the GI Tract*

Richard Montgomery High School (Maryland)

Preceptor: Dr. James Arthos

**AM-94. Debby Cheng**

*Genome-wide Analysis of Sites Regulating Gene Expression in Human Mucosal-associated Invariant T (MAIT) Cells*

Princeton University (New Jersey)

Preceptors: Dr. Joshua Farber, Dr. Satya Singh

**AM-95. Sally Choi**

*Optimizing Detection and Transcriptome Sequencing of HIV Infected CD4 T Cells Using PCR Activated Cell Sorting (PACS)*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Eli Boritz, Dr. Sung Hee Ko

**AM-96. Bridget D. Olson**

*Characterization of a Human Monoclonal Antibody against Plasmodium falciparum Protein Pfs230 and Development of a Flow Cytometry Panel to Isolate IgG1 and IgG3 Pfs230 Memory B Cells*

Delaware Technical Community College (Delaware)

Preceptors: Dr. Camila Coelho, Dr. Patrick E. Duffy

**AM-97. Travis Dias**

*Function of CD151 in Human T cell Immunology*

University of South Carolina (South Carolina)

Preceptors: Dr. Nannan Zhang, Dr. Peter Williamson

**AM-98. Nathaniel Dwyer**

*STAT1 GOF with Normal STAT1 Phosphorylation*

Cornell University (New York)

Preceptors: Dr. Elizabeth Sampaio, Ms. Lindsey Rosen, Dr. Steven Holland

**AM-99. Jonah Eisenberg**

*Long Term Outcomes of Anakinra Usage in Patients with Neonatal-onset Multisystem Inflammatory Disease (NOMID): A Ten Year Study*

University of Michigan (Michigan)

Preceptors: Dr. Adriana Almeida de Jesus, Dr. Raphaela Goldbach-Mansky, Ms. Kim Johnson, Dr. Sara Alehashemi

**AM-100. Olivia Fan**

*Smartphone Level Test Measures Neurological Disability in Several Domains*

Montgomery Blair High School (Maryland)  
Preceptors: Mrs. Ann Marie Weideman, Dr. Bibiana Bielekova

**AM-101. Ryan Geib**

*Why Does the Min System Oscillate?*  
University of Rhode Island (Rhode Island)  
Preceptors: Dr. Martin Meier-Schellersheim, Dr. Thorsten Prustel

**AM-102. Emily Gliniewicz**

*Detection of the Emerging CGD Pathogen Granulibacter bethesdensis in Archival Pathology Specimens*  
Mount Holyoke College (Massachusetts)  
Preceptors: Mr. John Audley, Dr. Kol Zarembler, Dr. John Gallin

**AM-103. Michala Goode-Arthur**

*Developing Educational Resources for Universal Influenza Vaccines*  
James Hubert Blake High School (Maryland)  
Preceptors: Dr. Michelle Crank, Dr. Barney Graham

**AM-104. Natalia Grube**

*Genetic Hybridization and Population Genetic structure of Trypanosoma species*  
Hunter College CUNY (New York)  
Preceptors: Dr. Asis Khan, Dr. Michael Grigg

**AM-105. Brooke Horowitch, Naol Mekonnen**

*Evaluating the Capacity of Anti-gp120 V2 Loop Antibodies and V2 Loop Peptides to Inhibit the Interaction between the HIV Envelope and Integrin alpha4beta7*  
Williams College (Massachusetts), University of Maryland, College Park (Maryland)  
Preceptor: Dr. James Arthos

**AM-106. Arjun Jain**

*Application of Multimodal Protein and mRNA Analysis in Developing Immune Cells*  
Catlin Gabel School (Oregon)  
Preceptors: Dr. Andrew Martins, Dr. John Tsang

**AM-107. Anish Karpurapu**

*Deep Learning Based Confocal Microscopy Image Segmentation*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Nishant Thakur, Dr. Ronald Germain

**AM-108. Caroline Kim**

*Determination of dNTP (Deoxynucleoside Triphosphate) Cellular Concentrations in PBMC from Patients with Autoinflammatory Diseases*  
University of Chicago (Illinois)

Preceptors: Dr. Raphaela Goldbach-Mansky, Dr. Adriana Almeida de Jesus, Dr. Farzana Bhuyan

**AM-109. Mahima Krishnamoorthi**

*Delineating Interactions between Different Classes of Immunoglobulins in Health and HIV Infection*

Stanford University (California)

Preceptors: Dr. Susan Moir, Dr. Lela Kardava, Dr. Clarisa Buckner, Ms. Valerie Melson

**AM-110. Tooba Malik**

*Identification and Characterization of Mast Cell-derived Extracellular Vesicles Imprinted on Dermatan Sulfate*

Eleanor Roosevelt High School (Maryland)

Preceptors: Dr. Andrea Naranjo-Erazo, Dr. Ana Olivera, Dr. Dean Metcalfe

**AM-111. Olivia Marcantonio**

*Using Site-directed Mutagenesis to Define Domains in HIV-1 Vif Important for Cellular Localization and Viral Incorporation*

University of Virginia (Virginia)

Preceptors: Dr. Klaus Strebler, Dr. Eri Miyagi

**AM-112. Clare Martin**

*De-Orphanizing Atypical Mouse Chemokine Receptor Ccr11*

Princeton University (New Jersey)

Preceptors: Dr. Philip Murphy, Dr. Sergio Pontejo, Ms. Lauren Heusinkveld, Ms. Jaclyn Kline

**AM-113. Dhalia Metenou**

*Application of Multiplex Assay to Quantify the Levels of Serum Eosinophil Granule Proteins in Helminth Infected Patients*

George Mason University (Virginia)

Preceptors: Dr. Alessandra Ricciardi, Dr. Thomas Nutman

**AM-114. Denise Morris**

*JAK-STAT Pathway Role on IL-6 Production in Oncogenic Mast Cells*

Howard University (District of Columbia)

Preceptors: Dr. Araceli Tobio, Dr. Ana Olivera, Dr. Dean Metcalfe

**AM-115. Sofia Nakuchima**

*Biological Role of Plasmodium falciparum 230 kDa Sexual Stage Protein Pfs230*

Johns Hopkins University (Maryland)

Preceptors: Dr. David Narum, Dr. Nicholas MacDonald

**AM-116. Jordany Nelson**

*Determining How GM-CSF's Regulation of Autophagy in Monocytes Enhances the Immune Response to Cryptococcus gattii*



Montgomery College (Maryland)  
Preceptors: Dr. Peter Williamsom, Dr. Waleed Elsegeiny

**AM-117. Linh Pham**

*Identifying and Quantifying Neurological Disability via a Smartphone Spiral Test*  
Humboldt State University (California)  
Preceptors: Mrs. Ann Marie Weideman, Dr. Bibi Bielekova

**AM-118. Ethan Pickerill**

*Development of mitoTurboID to Unveil Components of the Mitochondrial Signaling Hub following Innate Immune Activation*  
Ball State University (Indiana)  
Preceptors: Dr. Clinton Bradfield, Dr. Iain Fraser

**AM-119. Katherine Polk**

*Process Optimization of Ebola Monoclonal Antibody Vaccine Candidate mAb114*  
George Mason University (Virginia)  
Preceptors: Mr. Bobby Boonyaratanakornkit, Ms. Stephanie Barclay, Mr. Joe Horwitz, Mr. Frank Arnold

**AM-120. Rachel Prucnal**

*Impact of Excipient Degradation on an HIV Vaccine Candidate*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Frank Arnold, Dr. William Shadrick, Mr. Aakash Patel

**AM-121. Jessica Randazzo**

*Do PET/CT Scan Readers Agree on Severity of Tuberculosis?*  
Tulane University School of Public Health and Tropical Medicine (Louisiana)  
Preceptor: Dr. Lori Dodd

**AM-122. Graham Redweik**

*Simultaneous-imaging Technique for Microbiota and Immune Cells in Gut via Fluorescence in situ Hybridization and Immunofluorescence*  
Iowa State University (Iowa)  
Preceptors: Dr. Weizhe Li, Dr. Zhao Chen, Dr. Ronald Germain

**AM-123. Keith Rogers**

*The Role of Staphylococcus aureus Toxins in Immune Evasion*  
Oakwood University (Alabama)  
Preceptors: Mr. Thuan Nguyen, Dr. Michael Otto

**AM-124. Aidan Sandman-Long**

*Environmental Allergen-specific Antibodies Recognize Helminth Larval Surface Antigens: New Insights into Allergy-Helminth Interaction*

University of Maryland, College Park (Maryland)  
Preceptors: Dr. Pedro H Gazzinelli Guimaraes, Dr. Thomas Nutman

**AM-125. Theo Schmidt**

*Predicting Protein Binding Affinity Upon Mutations Using Gradient Boosting Machine*  
Georgetown Day School (District of Columbia)  
Preceptor: Dr. Reda Rawi

**AM-126. Elana Shaw**

*Using Lymphocyte Levels to Predict and Prevent Symptoms in Malaria CVac*  
Emory University (Georgia)  
Preceptors: Dr. Agnes Mwakingwe, Dr. Patrick Duffy

**AM-127. Janis Shin**

*Purification of Antigen-specific Antibodies from Plasma Samples*  
University of Washington (Washington)  
Preceptors: Dr. Rui Kong, Ms. Ariana Rowshan, Dr. John Mascola

**AM-128. Niharika Shukla**

*Expression of Candidate Placental Malaria Vaccine Antigens in Mammalian Cells*  
Vassar College (New York)  
Preceptors: Mrs. Holly Torano, Dr. Jonathan Renn, Dr. Patrick Duffy

**AM-129. Delaney Sullivan**

*Immunogenicity of Influenza Group 2 Hemagglutinin-stem Nanoparticles*  
Georgetown University (District of Columbia)  
Preceptors: Dr. Barney Graham, Dr. Syed Moin

**AM-130. Carol Sun**

*Using Expression Quantitative Trait Loci (eQTL) to Improve the Accuracy of Predictive Models of Multiple Sclerosis Severity*  
Oak Park High School (California)  
Preceptors: Ms. Kayla Jackson, Dr. Bibiana Bielekova

**AM-131. Ziann Traore**

*Modulators of the Innate Immune Response*  
Howard University (District of Columbia)  
Preceptors: Dr. Sinu John, Dr. Iain Fraser

**AM-132. Triniti Turner**

*Analysis of Type I Interferon and Chemokine Levels in Plasma of Children and Adults Exposed to Intense Seasonal Plasmodium falciparum Malaria Transmission in Mali*  
Northern Virginia Community College (Virginia)  
Preceptors: Dr. Anton Goetz, Dr. Peter Crompton

**AM-133. Anja Ueberla**

*Development of an ELISA Avidity Assay to Evaluate Antibody Quality after ChAd3 Ebola Vaccination*

Universitaet Leipzig (Non-U.S.)

Preceptor: Dr. Hadar Marcus

**AM-134. John Vaile**

*High-throughput Enzyme-linked Immunosorbent Assay (ELISA) Development to Assess the Immunogenicity Profile of Universal Influenza Vaccine Candidates*

University of Delaware (Delaware)

Preceptors: Dr. Seyhan Boyoglu-Barnum, Dr. Masaru Kanekiyo, Dr. Barney Graham

**AM-135. Cyndy Vasquez**

*Atypical VAR2CSA Expressed by Plasmodium falciparum Isolate from a Malaria-infected Pregnant Woman*

Johns Hopkins University (Maryland)

Preceptors: Dr. Justin Doritchamou, Dr. Patrick Duffy

**AM-136. Madhu Vemulakonda**

*Identification of Plasmodium falciparum Proteins in Plasma Microvesicles by Proteomic Analysis*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Chris Spencer, Dr. Michal Fried

**AM-137. Pavan Vemulakonda**

*Rapid Screening of Malaria Vaccine Candidates through Nickel/His-tag Complexation with ExoProtein A Carrier*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Puthuppampal Scaria, Dr. Patrick Duffy

**AM-138. Isabella Whitworth**

*Computational and Experimental Methods to Explore Kinase Activation in Cellular Signaling*

Santa Clara University (California)

Preceptors: Dr. Martin Meier-Schellersheim, Dr. Tara Capece, Mr. Steve Gierlack

**AM-139. Leah Wolfish**

*Characterizing the Structural Features and Stability of MHC-I Molecules with Engineered Disulfide Bonds at the Peptide Binding Groove*

Bnos Yisroel of Baltimore (Maryland)

Preceptors: Dr. Nathan May, Dr. David Margulies

**AM-140. Kelly Wucherer**

*Alpha4Beta7 Signaling and HIV-1 Envelope Interaction*

Whitworth University (Washington)

Preceptors: Dr. Hana Schmeisser, Dr. Paolo Lusso

**AM-141. Lily Xu**

*Characterization of Zika Virus Monoclonal Antibody Neutralization*

Washington University in St. Louis (Missouri)

Preceptors: Dr. Kim Dowd, Dr. Theodore Pierson, Dr. Haiyan Zhao, Dr. Daved Fremont

**AM-142. Ambika Yavatkar**

*Analysis of Brain Volumes in HIV+ and HIV- Individuals Using MRI*

Northwest High School (Maryland)

Preceptors: Dr. Govind Bhagavatheeshwaran, Mr. Ulisses Santamaria, Dr. Avindra Nath

**National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)**

**AM-143. Rachel Alexander**

*Bone Sialoprotein Is a Key Modulator of Tooth Root Development*

Columbia University (New York)

Preceptors: Dr. Karin Nagasaki, Dr. Martha Somerman

**AM-144. Blake Archer**

*What Are the Most Important Genomic Determinants of Gene Expression Levels?*

Howard University (District of Columbia)

Preceptors: Dr. Fred Davis, Dr. John O'Shea

**AM-145. Navid Chowdhury**

*Integration of 4C-Seq Analysis Pipelines to Observe Interchromosomal Interaction between a Muscle-Specific Enhancer and the Myogenin Gene*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Vittorio Sartorelli, Dr. Kyung Dae Ko

**AM-146. Eileen Chu**

*[18F]-2-fluoro-2-deoxy-D-glucose Positron Emission Tomography / Computed Tomography Incidental Pulmonary Findings in SLE Patients*

Drexel University College of Medicine (Pennsylvania)

Preceptors: Dr. Sarfaraz Hasni, Mr. Michael Davis, Mrs. Jun Chu, Dr. Mariana Kaplan

**AM-147. Lilah Fones**

*The Role of CHOP on IL-23 Expression in HLA-B27 Positive Macrophages*

University of Connecticut School of Medicine (Connecticut)

Preceptors: Dr. Robert Colbert, Dr. Fatemeh Navid

**AM-148. Victoria Fonseca**

*Combining Bbarcoding with Phospho-specific Flow Cytometry Enables Rapid, Robust, and Reliable Functional Analysis of Patients' Samples*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Massimo Gadina, Dr. Laura Vian

**AM-149. Dorian Frazier**

*The Comparison of sgRNAs in crisperCas9 for Genomic Editing*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Andrea Conte, Dr. Rafael Casellas

**AM-150. Tyler Kellenberger**

*Disulfiram and Copper as a Novel Combinational Therapy for Merkel Cell Carcinoma*

University of Florida (Florida)

Preceptors: Dr. Isaac Brownell, Dr. Natasha Hill

**AM-151. Erica Matich**

*Establishing a Function for the Predominantly Nuclear CUGBP-1 at Cell-Cell Interface*

University of Tampa (Florida)

Preceptors: Dr. Markus Hafner, Dr. Daniel Benhalevy

**AM-152. Cameron Miller**

*Whole Genome Sequencing Analysis in a Family with a Rare Early-onset Auto-inflammatory Disease*

Winston Churchill High School (Maryland)

Preceptor: Dr. Zuoming Deng

**AM-153. Manolya Osman**

*Structural Studies of HIV-1 Rev Mediated Export of Viral RNA*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Elif Eren

**AM-154. Mollie Schwartz**

*Utility of the Brief Illness Perception Questionnaire to Monitor Psychological Burden of Illness in Systemic Vasculitis*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Peter Grayson

**AM-155. Talia Solomon**

*Reevaluation of YB-1 Function under Stress*

Carnegie Mellon University (Pennsylvania)

Preceptors: Dr. Markus Hafner, Dr. Daniel Benhalevy

## **National Institute of Biomedical Imaging and Bioengineering (NIBIB)**

### **AM-156. Toren Arginteanu**

*Investigating Adaptive Noise Cancellation of MRI Interference on Electrocardiography Signals Acquired with PRiME System*

University of Pennsylvania (Pennsylvania)

Preceptors: Mr. John Kakareka, Mr. Randall Pursley, Mr. Thomas Pohida, Dr. Robert Lederman

### **AM-157. Swati Chandra**

*Repurposing Cyanine NIR-I Dyes for Combined NIR-II Fluorescence Imaging and Nanomedicine*

University of Arizona (Arizona)

Preceptors: Dr. Xiaoyuan Chen, Dr. Shoujun Zhu, Dr. Rui Tian

### **AM-158. Aya Cloyd**

*Drug Sensitivity of 3D Cancer Cultures in Bioreactor with Micropillar Oxygen Delivery*

University of Texas at Dallas (Texas)

Preceptors: Dr. Michael Gottesman, Dr. Nicole Morgan, Dr. Tom Pohida, Dr. Rob Robey

### **AM-159. Charlotte DeVol**

*A Comprehensive Evaluation of Osseointegration in Service Members with Transfemoral Limb Loss*

North Carolina State University (North Carolina)

Preceptor: Dr. Bradford Hendershot

### **AM-160. Eric Dubofsky**

*Evaluation of the Effect of COX2 on Acellular Bioscaffold-Mediated Tissue Remodeling*

California Polytechnic State University San Luis Obispo (California)

Preceptors: Dr. Michael Valerio, Dr. Stephen Goldman, Dr. Christopher Dearth

### **AM-161. Luis Estrada**

*Structure-Guided Engineering and Spectroscopic Characterization of Biliverin-binding Near-infrared Fluorescent Proteins*

Benjamin Banneker Academic High School (District of Columbia)

Preceptors: Dr. Kimberly J. Jacoby Morris, Dr. George H. Patterson

### **AM-162. Ashley Holt**

*Expression of the Notch Ligand Jagged 2 in the Intestinal Crypt*

Texas A&M University (Texas)

Preceptors: Dr. Brittney Harrington, Dr. Giovanna Tosato

### **AM-163. Sushruta Iruvanti**

*AFM Analysis of Circumsporozoite Protein and Engineered Malaria Vaccine Candidates*

Cornell University (New York)

Preceptors: Dr. Albert Jin, Dr. David Narum

**AM-164. Cheyenne Kalfsbeek**

*The Effect of Perfusion-related Ischemia on Neurite Beading and Diffusion MRI*

Alma College (Michigan)

Preceptors: Dr. Elizabeth Hutchinson, Dr. Carlo Pierpaoli, Dr. Laura Reyes

**AM-165. Emily Shao**

Acidity-driven Self-assembled Hollow Mesoporous Organosilica Nanoparticles for Cancer Detection

Thomas S. Wootton High School (Maryland)

Preceptor: Dr. Wei Tang

**AM-166. Justin Song**

*Hydroxyl Radical Generation by pH-responsive Copper Peroxide Nanoparticles for Cancer Therapy*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Lisen Lin, Dr. Shawn Chen

**AM-167. Brandon Williams**

*Near-infrared Oximetry System to Monitor Anterior Positioned Placentas*

University of Rhode Island (Rhode Island)

Preceptors: Dr. Amir Gandjbakhche, Mr. Randall Pursely, Mr. Thomas Pohida, Dr. Siddharth Khare

**AM-168. Anna Wolfe**

*Adaptive Control of an Exoskeleton to Alleviate Crouch Gait*

Vanderbilt University (Tennessee)

Preceptors: Dr. Diane Damiano, Dr. Ji Chen, Mr. Jon Hochstein, Dr. Thomas Bulea

**AM-169. Danny Xie**

*Analysis of EEG Activity in Children With and Without Cerebral Palsy during a Visually Cued Drumming Task*

University of Florida (Florida)

Preceptors: Dr. Thomas Bulea, Dr. Diane Damiano

**AM-170. Julia Zhou, Sophia Wu**

*Detailed Atomic Force Microscopy Analyses of Microtubules Stabilized with Anti-cancer Drugs*

Thomas Jefferson High School for Science & Technology (Virginia), Walter Johnson High School (Maryland)

**Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)**

**AM-171. Stephen Agyepong**

*Characterizing the Interactions among Meningeal Cell Populations in the Zebrafish Brain*

Morehouse College (Georgia)

Preceptor: Dr. Marina Venero-Galanternik, Dr. Brant Weinstein

**AM-172. Keith Barnes**

*Assessing the Role of Rhoa/Rock Signaling in Regulating Cranial Vascular Integrity*

University of Delaware (Delaware)

Preceptor: Dr. Laura Pillay

**AM-173. Bess Bloomer**

*Examining the Interaction between Reported Weight Stigma and Food Intake Among Youth*

Montgomery College (Maryland)

Preceptors: Dr. Jack Yanovski, Ms. Lisa Shank

**AM-174. Leah Bregman**

*In vitro Analysis of Two ARMC5 Variants Identified in Hypertensive patients*

Walter Johnson High School (Maryland) P

Preceptors: Dr. Annabel Berthon, Dr. Constantine Stratakis

**AM-175. Sonia Bustos Barocio**

*Role of FlgO: Novel Small RNA Regulated by Flagella Sigma Factor*

University of California, Los Angeles (California)

Preceptors: Dr. Gisela Storz, Dr. Sahar Melamed, Mr. Joshua M. Mills

**AM-176. William Carter**

*Characterizing Adaptation in Olfactory Receptor Neurons*

Winston Churchill High School (Maryland)

Preceptors: Mr. Brian Kim, Dr. Mark Stopfer

**AM-177. Allison Chang**

*Developing the First Transgenic Moth to Identify Sensory Circuits*

Irvington High School (California)

Preceptors: Dr. Alejandra Boronat-Garcia, Dr. Bo-Mi Song, Dr. Mark Stopfer

**AM-178. Bryan D'Ostroph**

*Modeling Niemann-Pick Disease, Type C1, Using Neurons Derived from Human Induced Pluripotent Stem Cells*

Washington and Lee University (Virginia)

Preceptors: Dr. Anika Prabhu, Dr. Forbes Porter



**AM-179. Melanie Danso**

*The Design of a Database for the Genetic Properties of Plasmids Used in the Study of Eukaryotic Transposable Elements*

Eleanor Roosevelt High School (Maryland)

Preceptors: Ms. Angela Atwood-Moore, Dr. Henry Levin

**AM-180. Delyar Delavari**

*Examining the Practice Effect during the Go/No-go Task through Functional Near-infrared Spectroscopy*

Thomas Wootton high school (Maryland)

Preceptors: Dr. Amir Gandjbakhche, Ms. Emma Condy

**AM-181. Sanyukta Deshmukh**

*Investigating Placental Oxygenation Using Biophotonics Methods: From in vitro to in vivo*

University of Maryland, College Park (Maryland)

Preceptors: Mrs. Hye Soo Chun, Dr. Afrouz Anderson, Dr. Siddharth Khare, Dr. Amir Gandjbakhche

**AM-182. Samantha Edgar**

*Relationship between Quality of Life Measures and Disease Severity in Children with Cushing Disease*

Cascadia Community College (Washington)

Preceptors: Dr. Margaret Keil, Dr. Constantine Stratakis

**AM-183. Ben Eisler, Cameron Paranzino**

*Investigation of Hippocampal Inhibitory Interneurons Through Immunohistochemistry and Transgenic Labeling*

Winston Churchill High School (Maryland), Walter Johnson High School (Maryland)

Preceptors: Dr. Ramesh Chittajallu, Mr. Tyler Ekins, Dr. Kenneth Pelkey, Dr. Chris McBain

**AM-184. Noha Elzarea**

*Tyrosine Phosphatase IA-2 and IA-2beta Affects Mice Fertility through Pituitary Signature Gene*

Eleanor Roosevelt High school (Maryland)

Preceptors: Dr. Aloa Lamarca Dams, Dr. Stanko Stojilkovic

**AM-185. Ayia Evans**

*Examining the Mirror Neuron Network Using EEG and fNIRS*

Simmons College (Massachusetts)

Preceptors: Ms. Aisling Casey, Dr. Helga De Oliveira Miguel, Dr. Amir Gandjbakhche

**AM-186. Olufisola Famuyiwa**

*Effects of MC3R Activation by D-[Trp8]- $\gamma$ MSH in Diet-induced Obesity*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Jack Yanovski, Dr. Joo Yun Jun, Mr. Noah Levi

**AM-187. Fadilah Farrin**

*ciA Mutation in CCDC53 in Disproportionate Short Stature with Noonan-Like Facies*  
Sherwood High School (Maryland)

Preceptors: Ms. Audrey Lee, Dr. Julian Lui, Dr. Youn Hee Jee

**AM-188. Joshua Freeman**

*Sleep and Risk of Adverse Pregnancy Outcomes*  
University of Massachusetts, Amherst (Massachusetts)

Preceptor: Dr. Sunni Mumford

**AM-189. Francesca Galli**

*Genetic Analysis of ARMC5 in 22 Different Nodules from a Patient with Macronodular Adrenal Hyperplasia*

Georgetown Day School (District of Columbia)

Preceptors: Dr. Andrea Gutierrez Maria, Dr. Ludivine Drougat, Dr. Constantine A. Stratakis

**AM-190. Stuti Ganatra**

*Characterization of Calbindin Expressing CA1 Pyramidal Cells in Lissencephaly*  
University of Maryland, College Park (Maryland)

Preceptors: Dr. James D'Amour, Dr. Chris McBain

**AM-191. Mabel Gbenro**

*The Interaction Between DNA Polymerase Iota and Rad23A*

Towson University (Maryland)

Preceptor: Dr. Nicholas Ashton

**AM-192. Ashley Greenlee**

*An RNAi Screen to Find New Regulators of the GATOR Complex*  
Virginia Commonwealth University (Virginia)

Preceptors: Dr. Mary Lilly, Mr. Kuikwon Kim, Dr. Chun-Yuan Ting

**AM-193. Daniel Gulko**

*Expression of PD-1, PD-L1, and CTLA-4 in Sporadic and Hereditary Pheochromocytomas (PHEOs) and Paragangliomas (PGLs)*

Stevens Institute of Technology (New Jersey)

Preceptors: Dr. Karel Pacak, Dr. Veronika Caisova

**AM-194. Elizabeth Holland**

*Are You What Your Mother Eats? Dietary Patterns during Pregnancy and Offspring Growth from Birth through Childhood*

Colby College (Maine)

Preceptors: Dr. Cuilin Zhang, Dr. Stefanie Hinkle

**AM-195. Clarice Hu**

*Screening for Genetic Causes of Central Precocious Puberty*

Duke University (North Carolina)

Preceptors: Dr. Angela Delaney, Ms. Brooke Meader

**AM-196. Christopher Hurt**

*A Zebrafish Brain Atlas in a Lightweight Web Browser Environment*

Virginia Tech (Virginia)

Preceptor: Dr. Harold Burgess

**AM-197. Joo Young Kang**

*Prospective Study of Cognitive Function in Children Before and After cure of Cushing Disease*

College of William and Mary (Virginia)

Preceptors: Dr. Margaret Keil, Dr. Constantine Stratakis

**AM-198. Ruchita Kothari, Gudrun Thorkelsdottir**

*Algorithms for Simulating and Modeling the Dynamics of Complex Vesicles*

Johns Hopkins University (Maryland), Quince Orchard High School (Maryland)

Preceptors: Dr. Alexander Sodt, Dr. Kayla Sapp

**AM-199. Jamil Lane**

*The Association of Motivation and Perceived Social Norms with Eating Behaviors in Emerging Adults*

University of Rochester (New York)

Preceptors: Dr. Leah Lipsky, Dr. Tonja Nansel

**AM-200. Katherine Lei**

*Genome-wide miRNA Analysis Identifies miRNA 483-3p as an Apoptotic Factor in Pheochromocytomas and Paragangliomas*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Ying Pang, Dr. Karel Pacak

**AM-201. Adrian Lin**

*Investigating the Association of Sleep Efficiency and Glucose Trends in Healthy Children*

Yale University (Connecticut)

Preceptors: Dr. Miranda Broadney, Ms. Nejla Ghane, Dr. Jack Yanovski

**AM-202. Erica Lopez-Haz**

*Determination of the Localization of Two Putative Legionella pneumophila Secreted Effectors Important for Virulence in the Environmental Host Acanthamoeba castellanii*

Eleanor Roosevelt High School (Maryland)

Preceptors: Dr. Katherine Bonnington, Dr. Matthias Machner

**AM-203. Naveen Natesh**

*Developing an in vitro System for the Study of Zebrafish Posterior Lateral Line Primordium Migration*

University of California, Berkeley (California)

Preceptors: Dr. Damian Dalle Nogare, Dr. Ajay Chitnis

**AM-204. Tuyet Nguyen**

*Optimization of Meningeal Tissue RNA Extraction by Ribosomal Tagging in the Zebrafish Brain*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Marina Venero Galanternik, Dr. Mayumi Miller, Dr. Amber Stratman, Dr. Brant Weinstein

**AM-205. Brigdet Njeri**

*Exploring the Connectivity of Chandelier Cells Using Expansion Microscopy in Rainbow Mice*

Carnegie Mellon University (Pennsylvania)

Preceptors: Dr. Timothy Petros, Ms. Maria Isaac, Dr. Yajun Zhang

**AM-206. Jacob Olondo Kuba**

*Investigating the Interaction between the Small Protein AcrZ and the Membrane Protein AcrB*

Montgomery College (Maryland)

Preceptors: Ms. Leana Ramos, Dr. Mona Orr, Dr. Gisela Storz

**AM-207. Maureen Onyebuchukwu**

*The Effects of Interrupting Sedentary Behavior on Glucose Metabolism (Boys Verses Girls)*

High Point High School (Maryland)

Preceptor: Dr. Miranda Broadney

**AM-208. Jennifer Osborne**

*Evaluating FreeWalkScan Software for Detection of Gait Abnormalities in a Mouse Model of ALS*

Brown University (Rhode Island)

Preceptors: Ms. Claire Le Pichon, Mr. Jacob Gluski

**AM-209. Elizabeth Pogrebniak**

*Associations between Changes in Inflammation and Changes in Markers of Metabolic Health in Adults with Obesity*

Eastern Virginia Medical School (Virginia)

Preceptors: Dr. Jack Yanovski, Dr. Andrew Demidowich, Mr. Jordan Levine

**AM-210. Eliana Ramirez**

*Identifying Amino Acid Changes in Drosophila Mutants*

Mount Holyoke College (Massachusetts)

Preceptors: Dr. Judith Kassis, Dr. Yuzhong Cheng

**AM-211. Chunghwan Ro**

*Finding a SpoT Partner Protein: Screening for Interactions That May Alter SpoT Synthetase/Hydrolase Balance Using a Conjugable Library*

Northern Virginia Community College (Virginia)

Preceptors: Dr. Llorenç Fernàndez Coll, Dr. Mike Cashel, Dr. Krishma Tailor

**AM-212. Maya Robnett**

*Effect of an Enriched Environment on Mouse Oligodendrocytes*

University of Pennsylvania (Pennsylvania)

Preceptor: Dr. R Douglas Fields

**AM-213. William Rosencrans**

*Investigating the Effect of Steroid and Cholesterol-like Compounds on Mitochondrial Membrane Properties*

Colgate University (New York)

Preceptors: Dr. Maria Queralt-Martin, Dr. Tatiana Rostovseva, Dr. Sergey Bezrukov

**AM-214. Anika Schipma**

*Analysis of Oligodendrocyte Proliferation and Survival in an in vitro Model of Gulf War Illness*

Sidwell Friends School (District of Columbia)

Preceptor: Dr. Douglas Fields

**AM-215. Carúmey Stevens**

*Examining Race as a Moderator of the Relationship between Psychological Stress and Disordered Eating in Youth*

Cornell University (New York)

Preceptors: Dr. Jack Yanovski, Ms. Lisa Shank

**AM-216. Madison Stevens**

*Developing a Standardized Brain Atlas for an Insect Model System, the Locust*

Cornell University (New York)

Preceptors: Mr. Brian Kim, Dr. Alejandra Boronat-Garcia, Dr. Mark Stopfer

**AM-217. Samuel Teshome**

*Probing the Role of Yeast eIF1 N-terminal Tail in Start Codon Recognition*

Montgomery Blair High School (Maryland)

Preceptor: Dr. Jagpreet Nanda

**AM-218. Andrew Tong**

*Multiple TREs Participate in Thyroid Hormone Regulation of FOXO3 Expression during Frog Metamorphosis*

Thomas Sprigg Wootton High School (Maryland)

Preceptor: Dr. Liezhen Fu

**AM-219. Harini Venkataganesh**

*Investigating the Lsd1 Phenotype by Flow Cytometry*

University High School (California)

Preceptors: Dr. Paul Love, Dr. Liqi Li, Mr. Daniel Stamos

**AM-220. Matthew Wyble**

*Screening for HTATSF1 Variants in Patients with Acromegaly and Gigantism*

Georgetown Preparatory School (Maryland)

Preceptors: Dr. Giampaolo Trivellin, Dr. Constantine Stratakis

**AM-221. Stefan Zukin**

*The Significance of Upstream Translation Initiation in S. cerevisiae*

University of California, Berkeley (California)

Preceptors: Dr. Shardul Kulkarni, Dr. Jon Lorsch

**National Institute on Deafness and Other Communication Disorders (NIDCD)**

**AM-222. Claire Cheng**

*The Effect of Whirlin Isoforms on the Efficacy of Inner Ear Gene Therapy in Whirlin Mutant Mice*

Thomas S. Wootton High School (Maryland)

Preceptors: Dr. Wade Chien, Mr. Kevin Isgrig, Dr. Jianliang Zhu

**AM-223. Isabel Dame**

*Immunohistochemical Analysis of Inputs to Medial Olivocochlear Neurons*

Wheaton High School (Maryland)

Preceptors: Dr. Matt Fischl, Dr. Catherine Weisz

**AM-224. Hannah Famili**

*Is Dizziness in Patients with Chiari Malformation Type I Caused by Vestibular Dysfunction?*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Carmen Brewer, Dr. Chris Zalewski

**AM-225. Daniel Fong**

*The Effects of Epigenetic Modification on the Efficacy of Inner Ear Gene Therapy*

Poolesville High School (Maryland)

Preceptors: Dr. Wade Chien, Mr. Kevin Isgrig

**AM-226. Carla Griffiths**

*Quantification of DNA and mRNA in Single Molecule Fluorescent in situ Hybridization (smFISH)*

*Image Processing*

University College London (Non-U.S.)

Preceptor: Dr. Michael Hoa

**AM-227. Osama Hamdi**

*In vivo Spontaneous Calcium Activity Imaging of Zebrafish Hair Cells*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Qiuxiang Zhang, Dr. Katie Kindt

**AM-228. YeonSoo (Kelly) Kim**

*Characterization of Pou4f1-positive Neurons in the Cochlear Spiral Ganglion*

Colgate University (New York)

Preceptors: Dr. Matthew Kelley, Dr. Tessa Sanders

**AM-229. Quynh-Van Nguyen**

*A Literature Review Exploring the Link Between Perceived Unfairness and Health Disparities*

Virginia Polytechnic Institute and State University, (Virginia)

Preceptor: Dr. Jing Yu

**AM-230. Alia Pederson**

*Serotonergic Modulation of Auditory Efferent Neurons*

University of Texas at Austin (Texas)

Preceptor: Dr. Catherine Weisz

**AM-231. Christina Takla**

*Utilization of Next Generation Sequencing to Identify Novel Genetic Variants in Families*

*Segregating Non-syndromic Hearing Loss*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Thomas Friedman, Ms. Rabia Faridi

**National Institute of Dental and Craniofacial Research (NIDCR)**

**AM-232. Alia Alhomsy**

*Characterization of Bacterial Strains in the Murine Oral Microbiome in Health and Inflammatory Disease*

George Mason University (Virginia)

Preceptor: Dr. Loreto Abusleme

**AM-233. Sara Cadavid**

*Morphological Studies of Lymphatics in the Craniofacial Region*

Columbia University College of Dental Medicine (New York)

Preceptor: Dr. Christopher Hogden

**AM-234. Jamil Cherry**

*Dental Phenotyping of Biglycan and Fibromodulin Double Knockout Mice*

Howard University College of Dentistry (District of Columbia)

Preceptors: Dr. Marian Young, Dr. Priyam Jani

**AM-235. Noah DeNegre**

*Role of Neurotrophin 3 (NT3) in Matrix Production by Salivary Gland Myoepithelial Cells*

Gateway Community College (Connecticut)

Preceptors: Dr. Alex Chibly, Dr. Matthew Hoffman

**AM-236. Astoria DeTuncq**

*Exocrine Secretion Controls the Oral and Intestinal Microbiome in a Mouse Model of Sjögren's Syndrome: A Bioinformatic approach*

Roseville Area High School/University of Minnesota Twin Cities (Minnesota)

Preceptors: Dr. Shmuel Muallem, Dr. Malini Ahuja, Mr. Ahmed Kabrah

**AM-237. David Hacker**

*Identification and Mutagenesis of BAAV Transcytosis Domain*

Sidwell Friends School (District of Columbia)

Preceptors: Dr. John Chiorini, Dr. Malini Ahuja, Ms. Ida Shinder, Dr. Maryam Khalaj

**AM-238. Kervin Hyppolite**

*The STIM1 Regulator SARAF, Ca<sup>2+</sup> Influx, and Acute Pancreatitis*

Howard University College of Dentistry (District of Columbia)

Preceptors: Dr. Aran Son, Dr. Malini Ahuja, Dr. Woo Young Chung, Dr. Shmuel Muallem

**AM-239. Sheaneela Kabir**

*Modulating Iodine Transport to Prevent Radioactive Iodine-induced Salivary Gland Dysfunction*

Marriotts Ridge High School (Maryland)

Preceptors: Dr. Drew Michael, Dr. Jay Chiorini, Dr. Blake Warner

**AM-240. Katherine D. Le**

*Characterization of Krt14;Krt5+ Progenitor Cell Function of Adult Female Salivary Gland Using Non-adherent Culture*

University of California, San Francisco School of Dentistry (California)

Preceptors: Dr. Belinda R. Hauser, Dr. Matthew P. Hoffman

**AM-241. Brian Rhim**

*Immortalization of Primary Cells to Understand Salivary Gland Physiology*

Springbrook High School (Maryland)

Preceptors: Dr. John Chiorini, Dr. Youngmi Ji

**AM-242. Hulya Taner**

*Understanding the Role of Fibrin in Inducing Inflammation through Activation of Leukocytes*

University of North Carolina Wilmington (North Carolina)



Preceptors: Dr. Lakmali Silva, Dr. Thomas Bugge

**AM-243. Matteo Torquati**

*Molecular Understanding of Oral Manifestations in Loeys-Dietz Syndrome*

University of Chicago Laboratory Schools (Illinois)

Preceptors: Dr. Janice Lee, Mr. Olivier Duverger, Mrs. Natasha Curry

**AM-244. Nancy Trang**

*DAMP Signaling in Oral Chronic GVHD*

Howard University College of Dentistry (District of Columbia)

Preceptors: Dr. Jacqueline Mays, Dr. Ana Costa de Silva

**National Institute on Minority Health and Health Disparities (NIMHD)**

**AM-245. Abel Amare**

*Using Inflammatory Correlates to Predict Type 2 Diabetes Mellitus in US Adults*

George Washington University (District of Columbia)

Preceptor: Dr. Sharon Jackson

**AM-246. Kathleen Dang**

*Meanings Associated with Smoking and Smoking Cessation: A Focus Group Study on Young Adult Smokers*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Kelvin Choi, Dr. Julia Chen

**AM-247. Danielle Duarte**

*Side Effects, Quitting Efficacy, and Everything In Between: A Focus Group Study on Young Adult Smokers' Beliefs About Cessation Treatments*

University of New Mexico (New Mexico)

Preceptor: Dr. Kelvin Choi

**AM-248. Leah Orozco**

*Are Smoking Cessation Public Service Announcements Helping Young Adults Quit Smoking? A Focus Group Analysis among Young Adult Smokers*

College of the Holy Cross (Massachusetts)

Preceptors: Dr. Julia Chen, Dr. Kelvin Choi

**AM-249. Maria S. Ortiz**

*Satisfaction with Breast Cancer Care and Information among Urban and Rural Spanish-speaking Latinas*

University of Washington (Washington)

Preceptor: Dr. Anna Nápoles

**AM-250. Alyssa Watson**

*Testing a Community-based Stress Management Program to Prevent Depression among Latinos:*

*Mentes Positivas en Acción*

Cornell University (New York)

Preceptors: Dr. Anna Nápoles, Dr. Rosa maria Sternberg

**National Institute of Neurological Disorders and Stroke (NINDS)**

**AM-251. Mary Alice Allnutt**

*Chromosomally Integrated Human Herpesvirus-6 (ciHHV-6): Reactivation in Peripheral Blood*

*Lymphocytes*

Elon University (North Carolina)

Preceptors: Dr. Steve Jacobson, Dr. Emily Leibovitch, Mr. Cheng-Te (Major) Lin

**AM-252. Rucha Alur**

*Effects of Methodological Decisions on TMS Data Analysis in Clinical Trials*

Princeton University (New Jersey)

Preceptors: Dr. William Theodore, Ms. Rachel Rolinski

**AM-253. Jefferson Ascencio**

*Imaging GABA-A Receptors on Dopamine Cell Axons*

Gonzaga College High School (District of Columbia)

Preceptors: Dr. Paul Kramer, Dr. Zayd Khaliq

**AM-254. Anna Bagnell**

*Generating 3D Organoids from Human iPSCs*

University of South Carolina (South Carolina)

Preceptors: Dr. David Wang, Ms. Marie Medynets

**AM-255. Jamal Bailey**

*Longitudinal Study of Pain and Functional Abilities in Chiari 1 Malformation and Syringomyelia*

Bowie State University (Maryland)

Preceptors: Ms. Jessica Mack, Dr. Fredric Cantor, Dr. John Heiss

**AM-256. Natalia Batchenkova**

*Regulation of Neurofilament H Phosphorylation by the Endoplasmic Reticulum Proteins Atlastin-1 and REEP1*

University of Arkansas (Arkansas)

Preceptors: Dr. Peng-Peng Zhu, Dr. Craig Blackstone

**AM-257. Tzipporah Bergman**

*The Minor Isoform of Camk2a*

Lander College for Women (New York)

Preceptors: Dr. Ariel Levine, Ms. Li Li, Dr. anupama sathyamurthy, Ms. Courtney Dobrott

**AM-258. Alexander Billups**

*Understanding the Role of TP53 in Conversion of Activated to Resting state microglia*

Gonzaga College High School (District of Columbia)

M

Preceptors: Dr. Sharda Yadav, Dr. Manju Bhaskar

**AM-259. Stacey Bloom, Carmen-Maria Garcia**

*The Receptivity of Different Drugs through Medigel Delivery in Mice*

Universtiy of Marlyand, College Park (Maryland), Florida Atlantic University (Florida)

Preceptor: Dr. Brian Wilgenburg

**AM-260. Skyler Bordeaux**

*Analysis of NINDS Clinical Neurology Consult Services*

Fort Lewis College (Colorado)

Preceptors: Dr. Omar Khan, Mr. Wyatt Bensken

**AM-261. Farrell Brown**

*Using Apparent Diffusion Coefficient Images to Quantify Core Lesion Evolution in Acute Stroke Patients*

University of Connecticut (Connecticut)

Preceptors: Dr. Marie Luby, Dr. Lawrence Latour

**AM-262. Ethan Cheng**

*Characterization of Isoform-specific Cellular Distribution in Drosophila Lipophorin Receptors*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Quan Yuan, Dr. Jun Yin, Dr. Chengyu Sheng

**AM-263. Varuna Chopra**

*Mapping Circuit Connections of Pre-Bötzing Complex Neurons in Adult Transgenic Rats*

Northern Virginia Community College- Loudoun (Virginia)

Preceptors: Dr. Shahriar Sheikhabaehi, Dr. Jeffrey Smith

**AM-264. Caleb Colbert**

*The Role of Demographics in Post-traumatic Headaches after Sustaining a Traumatic Brain Injury*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Lawrence Latour

**AM-265. JoAnne Compo**

*Identification of Genetic Factors That Modify the Onset of Spinal and Bulbar Muscular Atrophy*

University of Washington (Washington)

Preceptors: Mrs. Angela Kokkinis, Dr. Christopher Grunseich, Dr. Kenneth Fischbeck

**AM-266. Frances Dean**

*Ways of Protecting Research Subjects with Culture-related Vulnerabilities*

University of Georgia (Georgia)

Preceptor: Dr. Barbara Karp

**AM-267. Melanie Delgado**

*Immune Response to Epstein-Barr virus (EBV) in Healthy Volunteers and Multiple Sclerosis Patients*

American University (District of Columbia)

Preceptors: Dr. Steven Jacobson, Dr. Emily Leibovitch, Dr. Maria Chiara Monaco

**AM-268. Gifty Dominah**

*Defining the Expression of Programmed Death-Ligand 2 in High Grade Glioma Tumor Microenvironment*

George Washington School of Medicine and Health Sciences (District of Columbia)

Preceptor: Dr. Edjah Nduom

**AM-269. Tsemacha Dubuche**

*Measure of Spinal Cord Atrophy in Chronic Progressive Neurological Diseases*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Steven Jacobson, Dr. Shila Azodi, Dr. Govind Bhagavatheeshwaran

**AM-270. David Espinoza**

*Efficient Generation of Human Touch Receptors by Transcriptional Programming in Neural Crest Cells*

Johns Hopkins University (Maryland)

Preceptors: Mr. Alec Nickolls, Ms. Michelle Lee, Dr. Carsten Bönnemann

**AM-271. Anah Esquerio**

*Epilepsy*

University of California, San Diego (California)

Preceptors: Dr. William Theodore, Dr. Edythe Wiggs

**AM-272. Zekiel Factor**

*Modeling the Fronto-Parietal Network: How Prism Adaptation Shapes Intra-hemispheric Functional Connectivity*

State University of New York at Binghamton (New York)

Preceptors: Dr. Selene Schintu, Dr. Eric Wassermann

**AM-273. Francia Fang**

*Development of an Inducible IDH1 R132H Mutation Cell Model for the Study of Glioma Pathogenesis*

Duke University (North Carolina)

Preceptors: Dr. Herui Wang, Dr. Zhengping Zhuang, Dr. John Heiss, Dr. Mark Gilbert

**AM-274. Cynthia Fioriti**

*Examining the Effects of Targeted Hippocampal Stimulation on Memory System Interactions: A Structural Equation Modeling Approach*

Catholic University of America (District of Columbia)

Preceptors: Dr. Michael Freedberg, Mr. Jack Reeves, Dr. Eric Wassermann

**AM-275. Saul Flores**

*Ouabain Treatment Results in Reduced Expression of HERV-K Transcripts Due to an Increase in Methylation*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Avindra Nath, Dr. Tara Doucet-O'Hare

**AM-276. R'ay Fodor**

*Exploring the Impact of Upregulated cAMP Signaling on Spinal Plasticity*

McGill University (Non-U.S.)

Preceptors: Dr. Ariel Levine, Ms. Courtney Dobrott, Ms. Li Li, Ms. Kaya Matson

**AM-277. Divya Ganesan**

*Assessing the Relationship between Trauma and Amygdala and Hippocampus Volumes in Patients with Functional Movement Disorder*

Brandeis University (Massachusetts)

Preceptors: Dr. Sanaz Attaripour, Dr. Mark Hallett

**AM-278. Arjun Ganga**

*Comparison of MRI Markers of Demyelination with Histopathology in Multiple Sclerosis*

Brown University (Rhode Island)

Preceptors: Dr. Erin Beck, Dr. Hadar Kolb

**AM-279. Carmen-María García, Stacey Bloom**

*Regulation of Chlorine Concentration in Water of Lab Rodents*

Florida Atlantic University (Florida), University of Maryland, College Park (Maryland)

Preceptors: Dr. LaTesa Hughes, Mr. Terrence Fultz

**AM-280. Catriona Geddes**

*Are Clinicians Classifying Traumatic Brain Injuries Accurately?*

University of Georgia (Georgia)

Preceptors: Mrs. Mimi Hayward, Dr. Leonardo Cohen

**AM-281. Matt Greco**

*Optimizing Conditions in the Biochemical Study of Trio to Better Understand its Role in Synaptic Dysfunction in Disease*

University of Delaware (Delaware)

Preceptors: Mr. Jeremiah Paskus, Dr. Katherine Roche

**AM-282. Camille Hanes**

*Using Live Imaging to Study the Role of the Abl Pathway in Axon Growth*  
College of Wooster (Ohio)

Preceptors: Dr. Hsiao Yu Fang, Dr. Edward Giniger

**AM-283. Mahin Hossain**

*The Role of Iron in Inflammatory Demyelination: Combined Studies Using MRI and Histopathology*

Ohio State University (Ohio)

Preceptors: Mr. Nathanael Lee, Dr. Daniel Reich

**AM-284. Eric Hsu**

*Developing Molecular Contrast Agents Targeting Cleaved Caspase GFAP for MRI*  
Washington University in St. Louis (Missouri)

Preceptors: Dr. David Brody, Mr. Thomas Esparza, Dr. Simone Mastrogiacomio

**AM-285. Randall Hughes**

*Identifying EBV and HHV-6 in Multiple Sclerosis Patients' and Non-Disease Donors' Peripheral Blood Mononuclear Cells (PBMC) and Lymphocyte Subtypes*

Fort Lewis College (Colorado)

Preceptors: Dr. Maria Monaco, Dr. Steven Jacobson

**AM-286. Rebecca Hutman**

*Multiple Catechols in Human Plasma after Coffee Drinking*  
Bnos Yisroel of Baltimore (Maryland)

Preceptors: Mrs. Patricia Sullivan, Dr. David Goldstein

**AM-287. Laura Inbody**

*Investigating the Role of GRK2 in Dopamine Receptor Signaling Using Selective GRK2 Inhibitors*  
University of Findlay (Ohio)

Preceptors: Dr. David Sibley, Dr. Benjamin Free, Dr. Marta Sanchez Soto

**AM-288. Sanjna Iyengar**

*Relating White Matter Integrity to Motor Skill Acquisition in Healthy Adults*  
University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Sara Hussain, Dr. Leonardo Cohen

**AM-289. Amrita Iyer**

*Alpha-Synuclein Deposition in Sympathetic Nerves Identifies Lewy Body Forms of Neurogenic Orthostatic Hypotension*

Yale University (Connecticut)

Preceptors: Dr. Risa Isonaka, Dr. David Goldstein

**AM-290. Catherine Jean**

*Neuroprotective Properties of Statins*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Joseph Steiner

**AM-291. Matthew Jiang, Thomas Osterholt, Brice Calco, Ashley Williams**

*Development of Electrophysiological Methods to Explore Fatigue*

Geisel School of Medicine at Dartmouth (New Hampshire), Truman State University (Missouri), Kalamazoo College (Michigan), Howard University (District of Columbia)

Preceptors: Dr. Traian Popa, Dr. Felipe Agustin Vial Undurraga, Dr. Mark Hallett

**AM-292. Rachel Keith**

*Effects of Three NMDAR C-termini Rare Variants on Neuronal Spine Density and Protein-Protein Interactions*

George Mason University (Virginia)

Preceptors: Dr. Katherine Roche, Dr. Marta Vieira

**AM-293. Asha Krishnakumar**

*Thyroxin Beta 2 Receptor Knockout Causes for Red Blindness in Zebrafish*

University of Virginia (Virginia)

Preceptor: Dr. Ralph Nelson

**AM-294. Daniel Lee**

*Development of a Dynamic SILAC Approach to Study Protein Turnover in Human iPSC-Neurons*

Cornell University (New York)

Preceptors: Dr. Ling Hao, Dr. Michael Ward

**AM-295. Alexander Lehr**

*Rescuing Neuroligin 4Y Surface Expression through Single Amino Acid Swaps from Neuroligin 4X*

Ursinus College (Pennsylvania)

Preceptors: Mr. Thien Nguyen, Dr. Katherine Roche

**AM-296. Liam Lehr**

*Functional Genomics Screening Tool Kit*

University of Maryland, College Park (Maryland)

Preceptor: Mr. Gil Kanfer

**AM-297. Ryan Li**

*Parkinson's Disease: Predicting the Outcome of Deep Brain Stimulation with Genomics*

Walton High School (Georgia)

Preceptors: Dr. Debra Ehrlich, Mr. Connor Edsall, Dr. Michael Nalls, Ms. Sarah Ahmed

**AM-298. Tianming Li**

*A Novel Molecule Controls the Synaptic Redistribution of Homer1 in Hippocampal Neurons*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Wenyan Han, Dr. Wei Lu

**AM-299. Taha Lodhi**

*Inflammatory Cytokines and CTL Engagement Drive Cerebrovascular Calcium Flux and Dysfunction in Experimental Cerebral Malaria*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Ms. Monica Manglani, Dr. Dorian McGavern

**AM-300. Anthony Maddox**

*Interactive Game to Screen for Neurological Disorders Using JCreator*

Gonzaga College High School (District of Columbia)

Preceptors: Dr. Amarendra Yavatkar, Dr. Kory Johnson

**AM-301. Melika Marani**

*Assessing the Localization of C19orf12 and Its Role in Lipid Metabolism*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Derek Narendra, Dr. Xiaoping Huang

**AM-302. ReLiza McGinnis**

*Longitudinal Follow Up of Cardiac Sympathetic Neuro-immaging in Patients with Synucleinopathies*

University of North Carolina at Chapel Hill (North Carolina)

Preceptor: Dr. David Goldstein

**AM-303. Summer Montileaux**

*Functional Association of ITRIP (DANGER) with DAPK1 in Cultured Rrat Cortical Neurons*

Susquehanna University (Pennsylvania)

Preceptors: Dr. Manju Bhaskar, Dr. Sharda Yadav

**AM-304. Rachel Movsas**

*Effects of Selective Androgen Receptor Modulators in an Induced Motor Neuron Model of Spinal and Bulbar Muscular Atrophy (SBMA)*

University of Rhode Island College of Pharmacy (Rhode Island)

Preceptors: Mr. Ryan Prestil, Dr. Kenneth Fischbeck

**AM-305. Matthew Nalls**

*Allele Specific Knockdown of a Novel Heterozygous Mutation Causing Childhood ALS as a Feasible Therapeutic Approach*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Payam Mohassel, Mr. Alec Nickolls, Dr. Carsten Bonnemann



**AM-306. Ndeye Marieme Ndiaye**

*Diffusion Tensor Imaging for Optic Radiation Visualization in Patients with Temporal Lobe Epilepsy*

Johns Hopkins University (Maryland)

Preceptors: Dr. Sara Inati, Ms. Kathryn Snyder

**AM-307. Charlie Nelson**

*Post-operative Outcomes following Resection of Atypical Neurofibromas in Neurofibromatosis Type 1*

Northeast Ohio Medical University (Ohio)

Preceptor: Dr. Prashant Chittiboina

**AM-308. Matthew Nelson**

*Structural Modeling of the Newly Discovered FTD-ALS Protein, Annexin A11*

University of Michigan (Michigan)

Preceptors: Dr. Michael Ward, Dr. Lucy Forrest

**AM-309. Diana Nwokoye**

*The Characterization and Genetic Engineering of HypaCas9 and hNIL Factors to Promote Efficient Gene Editing and Motor Neuron Differentiation in an Induced Pluripotent Stem Cell Line*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Kurt Fischbeck, Dr. Christopher Grunseich, Dr. Michael Ward, Ms. Ester Masti

**AM-310. Parvathy Panakal**

*Neuroprotective Effects of Resveratrol Analogs*

University of Maryland, Baltimore County (Maryland)

Preceptor: Dr. Joe Steiner

**AM-311. Aaron Park**

*Characterizing PSD-95 at the Postsynaptic Density Using Recombinant Protein Synthesis and Electron Microscopy*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Xiaobing Chen, Dr. Thomas Reese

**AM-312. Nicholas Pasternack**

*Comparison of the in vivo Electrophysiological Characteristics of the Awake and Behaving Hemiparkinsonian Mouse and Hemiparkinsonian Rat Models*

Virginia Commonwealth University School of Medicine (Virginia)

Preceptors: Dr. Alexander Weiss, Mr. Michael Preston, Dr. Judith Walters

**AM-313. Anusha Patgiri**

*Development of a Marmoset Colony Database Based on Pedigree Analysis*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Jung Eun Park, Dr. Afonso Silva

**AM-314. Kara Quaid**

*Predicting Disability Post Stroke via Clinical Factors*

Case Western Reserve University (Ohio)

Preceptors: Mr. Amarendra Yavatkar, Dr. Kory Johnson, Dr. Yang Fann

**AM-315. Cyrus Rastegar**

*Silencing of Overlapping Genes Mediated by HERV-K Causes Neurodegeneration: Implications for Amyotrophic Lateral Sclerosis.*

Johns Hopkins University (Maryland)

Preceptors: Dr. Marta Garcia Montojo, Dr. Avindra Nath

**AM-316. Kaushik Ravipati**

*A Phase I Study of the Intrathecal Administration of Resiniferatoxin for Treating Severe Refractory Pain Associated with Advanced Cancer*

Florida International University Herbert Wertheim College of Medicine (Florida)

Preceptors: Dr. John Heiss, Ms. Averie Kuek, Mrs. Caroline Webb, Dr. Michael Iadarola

**AM-317. Maria Jose Rios**

*Missed Diagnosis: Symptomatic and Asymptomatic Carriers*

Eastern Washington University (Washington)

Preceptors: Dr. Wendy Henderson, Ms. Shavonne Pocock, Ms. Meghan Murray

**AM-318. Lillian Rios-Brady**

*Detection of Newly Synthesized Membrane Proteins in Isolated Squid Axoplasm*

Coastal Carolina University (South Carolina)

Preceptors: Dr. Pablo Miranda Fernandez, Dr. Miguel Holmgren

**AM-319. Evan Rubinovitz**

*Convolutional Neural Network Based Model for Stroke Recovery Prediction*

Stony Brook University (New York)

Preceptors: Mr. Amar Yavatkar, Dr. Kory Johnson, Dr. Yang Fann

**AM-320. Gabriel Sarch, Pavan Ravindra**

*Computational Modeling of Respiratory Neural Circuits*

University of Rochester (New York), University of Maryland, College Park (Maryland)

Preceptor: Dr. Jeffrey Smith

**AM-321. Devin Scott**

*The Neuroprotective Qualities of Flavonoids*

Spelman College (Georgia)

Preceptor: Dr. Joe Steiner

**AM-322. Natasha Scott**

*Transient Elastography: A Health Promotion Tool*

Heritage University (Washington)

Preceptors: Dr. Wendy Henderson, Ms. Shavonne Pocock

**AM-323. Christopher Semancik, Ethan Smith-Cohen**

*Investigations into the Development of D2 Dopamine Receptor Antagonists as Cancer Therapeutics*

Georgetown Preparatory School (Maryland), Richard Montgomery High School (Maryland)

Preceptors: Dr. David Sibley, Dr. Benjamin Free, Mrs. Megan Donegan

**AM-324. Jeremy Shapiro**

*Network Properties of Neural Connections on the Micro Scale*

Washington University in St. Louis (Missouri)

Preceptors: Dr. Julio Chapeton, Dr. Kareem Zaghloul

**AM-325. Christine Shen**

*The Influence of SynGAP on the Structural Integrity of the Postsynaptic Density*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Xiaobing Chen, Ms. Christine Winters, Ms. Virginia Crocker, Dr. Thomas Reese

**AM-326. Emily Shorb**

*A Case of Atypical Parkinsonian Syndrome-like Disorder with Ataxia*

Virginia Tech (Virginia)

Preceptor: Dr. Marsha Merrill

**AM-327. Alexander Silva**

*Inflammatory Aging Impairs the Myeloid Sentinels at the CNS Borders*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Rejane Rua, Dr. Dorian McGavern

**AM-328. Catherine Squirewell**

*The Effects of Anti-epileptic Drugs on Sleep Spindles*

Howard University (District of Columbia)

Preceptors: Mr. Wyatt Bensken, Dr. Omar Khan

**AM-329. Tejas Srinivasan**

*Assessing Neuroscience Lab Training Environments for Physician-Scientists*

Rancho Bernardo High School (California)

Preceptors: Dr. Omar Khan, Mr. Wyatt Bensken

**AM-330. Mitchell Sun**

*Characteristics of Compound 36 in Modulating Hypoxia Response in Cancer Cells*

University of Illinois at Chicago (Illinois)

Preceptors: Dr. Qi Song, Dr. Mark Gilbert, Dr. Zhengping Zhuang, Dr. John Heiss

**AM-331. Parisorn Thepmankorn**

*Modeling Spinal and Bulbar Muscular Atrophy Using iPSC-derived Motor Neurons*

College of New Jersey (New Jersey)

Preceptors: Mrs. Naemeh Pourshafie, Dr. Kenneth Fischbeck

**AM-332. Alice Turnham**

*Computational Analysis of Propagating Action Potential in Branched Dopaminergic Cell Axons*

Montgomery Blair Highschool (Maryland)

Preceptors: Dr. Zayd Khaliq, Dr. Paul Kramer, Dr. Rebekah Evans

**AM-333. Deionna Vigil**

*Approaches to Increasing Native American Enrollment in Clinical Studies at the NIH*

Fort Lewis College (Colorado)

Preceptors: Dr. Barbara Karp, Dr. Pamela Kearney

**AM-334. Anjali Vyas**

*TP5, a Peptide Inhibitor of Aberrant and Hyperactive CDK5/p25: A Novel Therapeutic Approach Targeting Glioblastoma*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Emeline Tabouret, Dr. Niranjana Amin

**National Eye Institute (NEI)**

**LCH-1. Chris Acha**

*The Role of NOX4 in RPE Cell Migration*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Kapil Bharti, Dr. Karla Barbosa, Mr. Justin Chang

**LCH-2. Priya Agrawal**

*Expression of the Atypical Chemokine Receptor 1 (Ackr1) in the Retina*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Laura Campello, Dr. Samantha Papal, Dr. Anand Swaroop

**LCH-3. Mariya Ahmed**

*CSDE1: A Critical Determinant in Eye and Brain Development*

Marriotts Ridge High School (Maryland)

Preceptors: Dr. Robert Hufnagel, Mr. Jimmy Liu

**LCH-4. Enat Ayele**

*Characterization of Extracellular Vesicles Generated by ARPE-19 Cells during Differentiation*

Montgomery Blair High School (Maryland)

Preceptors: Mr. Todd Duncan, Dr. William Samuel, Dr. R. Krishnan Kutty, Dr. T. Michael Redmond

**LCH-5. Kavya Bhattiprolu**

*Clinical and Genetic Characteristics of Patients with Albinism at the National Eye Institute*

Winston Churchill High School (Maryland)

Preceptors: Ms. Amy Turriff, Dr. Robert Hufnagel, Ms. Keyla Bordonada

**LCH-6. Hannah Bush**

*Improving a Neural Network's Accuracy and Precision for High Content Shape Metrics Based Drug Screen on Retinal Pigment Epithelium*

Winston Churchill High School (Maryland)

Preceptors: Mr. Nathan Hotaling, Dr. Laryssa Huryn

**LCH-7. Justin Chang**

*NOX4 Mediates Mechanical Injury-induced Epithelial-to-Mesenchymal Transition in Retinal Pigment Epithelium*

Virginia Commonwealth University School of Medicine (Virginia)

Preceptors: Dr. Kapil Bharti, Dr. Karla Barbosa

**LCH-8. Erin Cullather**

*In vivo and in vitro Evaluation of Virally-delivered miRNA on the Neuroprotection of Retinal Ganglion Cells and the Regeneration of Their Axons*

University of New Hampshire (New Hampshire)

Preceptors: Dr. Ben Mead, Dr. Stanislav Tomarev

**LCH-9. Natalia Diaz Torres**

*Mutations in PMSD5, a Proteasomal non-ATPase Subunit, Result in Coloboma and Vertebral Defects*

University of Puerto Rico School of Medicine (Puerto Rico)

Preceptors: Dr. Vijay Kalaskar, Dr. Tiziana Cogliati, Dr. Brian Brooks

**LCH-10. Michelle Du**

*Investigating Polarization of Cone Connecting Cilia in the Ground Squirrel*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Wei Li, Dr. John Ball, Dr. Chen Shan, Dr. Juan Angueyra-Aristizabal

**LCH-11. Dmitry Gasnikov**

*Docking of Tyrosinase Related Proteins*

University of Maryland, Baltimore County (Maryland)

Preceptor: Dr. Yuri Sergeev

**LCH-12. Fatima Gomez**

*Role of aa108-125 Amphipathic Helix Residues in C112 Palmitoylation of RPE65 Retinol Isomerase*

White Swan High School (Washington)

Preceptors: Dr. Sheetal Uppal, Dr. Michael Redmond

**LCH-13. Takerra Johnson**

*Intercellular Communication via Extracellular Vesicles Derived from Retinal Pigment Epithelial Cells*

Morehouse School of Medicine (Georgia)

Preceptor: Dr. Robert Hufnagel

**LCH-14. Andrew Kalra**

*Evaluating Phosphorylation Levels of p38 Kinase in CD8 T Cells in Uveitis by Flow Cytometry in Whole Blood*

University of California, Los Angeles (California)

Preceptor: Dr. Benjamin Chaigne-Delalande

**LCH-15. Hima Konduru**

*Metabolic Changes Associated with Overactive Inflammasome Function*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Kumarkrishna Raychaudhuri, Dr. Rachel Caspi

**LCH-16. Jennifer Liao**

*Analysis of Morphological and Distributional Alterations in Aging Microglia*

Penn State College of Medicine (Pennsylvania)

Preceptors: Dr. Wai Wong, Dr. Lian Zhao, Dr. Jorge Cueva-Vargas

**LCH-17. Nyusha Lin**

*Molecular and Morphological Characterization of iPS Cell-derived Retinal Pigment Epithelium Used for 3D Organellar Mapping of Cells*

Sidwell Friends School (District of Columbia)

Preceptors: Dr. Kapil Bharti, Mr. Davide Ortolan

**LCH-18. Nidhi Mathew**

*The Role of IL-34 in the Pathogenesis of Autoimmune Uveitis*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Mary Mattapallil

**LCH-19. Adriana Mendez**

*Lygodactylus picturatus as a Model Organism for Foveal Development*

University of Medicine and Health Sciences (Non-U.S.)

Preceptors: Dr. Temesgen Fufa, Dr. Robert Hufnagel

**LCH-20. Luke Nelson**

*ABCA4 Subcellular Localization in iPSC-derived RPE Cells*

Columbia University (New York)

Preceptors: Dr. Kapil Bharti, Dr. Mitra Farnoodian

**LCH-21. Tamir Odzorig**

*Development of a Robust, Transferable, and Reproducible Protocol for the Bioprinting of Vascularized Tissue*

Walter Johnson High School (Maryland)

Preceptors: Dr. Minjae Song, Dr. Kapil Bharti, Mr. Chris Hampton, Mr. Russell Quinn

**LCH-22. Oluchi Ogbonna**

*Retinal s100b Regulates Ocular Autoimmune Inflammation*

Bryn Mawr School (Maryland)

Preceptors: Dr. Charles Ekwuagu, Dr. Cheng-Rong Yu

**LCH-23. Nicole Pannullo**

*Investigating the Mechanism of RPE65*

Rochester Institute of Technology (New York)

Preceptors: Dr. Eugenia Poliakov, Dr. Michael Redmond

**LCH-24. Kavya Parekh, Anne Warburton**

*ATAC-Seq as a Research Tool to Understand Chromosomal Architecture in Disease Models*

Thomas Jefferson High School for Science and Technology (Virginia), Stone Ridge School (Maryland)

Preceptors: Dr. Ramakrishna Alur, Dr. Tiziana Cogliati, Dr. Brian Brooks

**LCH-25. Brian Peng**

*Quantitative and Topographical Relationship between ipRGs and S-Cones*

Farmington High School (Connecticut)

Preceptors: Dr. Wei Li, Dr. Francisco Manuel Nadal-Nicolas

**LCH-26. Nia Rudolph**

*A Quantification of Horizontal Cell Connections in Zebrafish*

Tulane University (Louisiana)

Preceptors: Dr. Juan Angueyra-Aristizabal, Dr. Wei Li

**LCH-27. Tishina Tittley**

*Optimization of Liposome-binding Assays to Assess Specificity and Activity of RPE65-Membrane Interaction*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Sheetal Uppal, Dr. T. Michael Redmond

**LCH-28. Shenandoa Tote**

*Analysis Of AMPA-induced Retinal Cell Death In Wild-type And VWC2L Knockout Zebrafish*

University of Miami (Florida)

Preceptors: Dr. Naoki Nakaya, Dr. Stanislav Tomarev

**LCH-29. Elizabeth Geena Woo**

*Visualization of Genetic Variants from Large Patient Cohorts toward Pathogenicity Assessment and Clinical Interpretation*

Brown University (Rhode Island)

Preceptors: Dr. Robert Hufnagel, Dr. Bin Guan, Dr. David McGaughey

**LCH-30. Neo Zhao**

*Zebularine as a Possible Enhancer for CRISPRa Gene Regulation Effects*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Lijin Dong, Dr. Guangpu Shi

**LCH-31. Jennifer Zhu**

*Postnatal Development of the Cone-dominated Ground Squirrel Retina*

Winston Churchill High School (Maryland)

Preceptors: Dr. Vincent Kunze, Dr. Wei Li

**National Heart, Lung, and Blood Institute (NHLBI)**

**LCH-32. Malhaar Agrawal**

*Through Her Lens: Environmental Views' Impact on African-American Women's Physical Activity AND Obesity*

Horace Mann (New York)

Preceptors: Dr. Tiffany Powell-Wiley, Dr. Nicole Redmond

**LCH-33. Elise Ahn**

*Regulation of AMPK by Hsp90alpha through AXIN*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Sung Jun Park, Dr. Shutong Yang, Dr. Alexandra Brown, Dr. Jay Chung

**LCH-34. Carolina Alvarez**

*Correlation between Local Electric Field and RF-induced Heating on Guidewires under MRI*

Northwestern University (Illinois)

Preceptors: Dr. Ozgur Kocaturk, Ms. Burcu Basar

**LCH-35. Kenneth Aviles Fernandez**

*Role of Four and a Half LIM Domain Proteins FHL2 and FHL3 in Myotube Differentiation and Mechanosensing*



Universidad Central del Caribe School of Medicine (Puerto Rico)  
Preceptor: Dr. Ana Pasapera-Limon

**LCH-36. Charles Bond**

*Investigating Unconventional Myosin Mechanics via Single-molecule Fluorescence Studies*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. James Sellers, Dr. Yasuharu Takagi, Dr. Neil Billington

**LCH-37. Paul Boyd**

*Free Viruses or Vesicles: What Is the Optimal Mode of Transmission?*  
Saint Bonaventure University (New York)  
Preceptors: Dr. Sourish Ghosh, Dr. Marianita Santiana, Mr. Brian Ho, Dr. Nihal Altan-Bonnet

**LCH-38. Ikia Celestine**

*Correlation between Lung Water Measurement by MRI and Pulmonary Wedge Pressure*  
University of Mississippi Medical Center (Mississippi)  
Preceptors: Dr. Robert Lederman, Dr. Daniel Herzka, Ms. Delaney McGuirt, Dr. Toby Rogers

**LCH-39. Monica Choi**

*Mobile Health Interventions for Child and Adolescent Obesity*  
Columbia University (New York)  
Preceptor: Dr. Dong-Yun Kim

**LCH-40. Michael Corrado**

*Synthesis of a Novel Inulin-based Fiber for Binding Bile Salts*  
American University (District of Columbia)  
Preceptors: Dr. Alan Remaley, Dr. Denis Sviridov, Dr. Anna Wolska

**LCH-41. Gauri Dandi, Nashwan Farooque**

*Predictors of Hard Outcomes in the TOPCAT Trial Identified by Machine Learning*  
Walt Whitman High School (Maryland), Virginia Commonwealth University (Virginia)  
Preceptor: Dr. Ahmed Hasan

**LCH-42. Jessica DeJesus**

*Protein Profiling and Machine Learning to Discover Biomarkers for Premature Coronary Heart Disease in Hematopoietic Cell Transplant Survivors*  
Georgetown University (District of Columbia)  
Preceptors: Dr. Xin Tian, Dr. Mino Battiwalla

**LCH-43. Alisha Desai**

*Development and Validation of a Digital Immunoassay for Ultra-sensitive Detection of Corticotropin-releasing Factor (CRF) for Studies in Stress-related Vascular Inflammation*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Ankit Saxena, Dr. J. Philip McCoy

**LCH-44. Vinay Durbhakula**

*Cell-free Assay to Measure Mouse Lipoprotein Lipid Efflux*

Winston Churchill High School (Maryland)

Preceptors: Dr. Alan Remaley, Dr. Edward Neufeld

**LCH-45. Nashwan Farooque, Gauri Dandi**

*Predictors of Hard Outcomes in ACCORDION Identified by Random Survival Forest Based Machine Learning*

Virginia Commonwealth University (Virginia), Walt Whitman High School (Maryland)

Preceptor: Dr. Ahmed Hasan

**LCH-46. Nimit Gandhi**

*Generating Elastin-deficient Human Induced Pluripotent Stem Cells (hiPSCs) Using CRISPR/Cas9*

University of Arkansas, Fayetteville (Arkansas)

Preceptors: Dr. Beth Kozel, Dr. Kitman Tsang

**LCH-47. Anahit Gevorgyan**

*The Relationship Between NADH Metabolic Co-Factor and Intracellular Oxygenation Level*

Los Angeles Valley College (California)

Preceptors: Dr. Jay Knutson, Dr. Rozhin Penjweini, Dr. Alessio Andreoni

**LCH-48. Anne Gormaley**

*Optimizing Outgrowth of Primary Dorsal Root Ganglion (DRG) Neurons on Polydimethylsiloxane (PDMS) Substrates*

University of Florida (Florida)

Preceptors: Dr. Caitlin Mencio, Dr. Herbert Geller

**LCH-49. Adriana Grewe**

*Effects of Variations in Osmium Staining on Membrane Visibility*

Walter Johnson High School (Maryland)

Preceptors: Dr. Christopher Bleck, Ms. Erin Stempinski, Dr. Eric Lindberg

**LCH-50. Catherine Gui**

*Distribution of NM 2A and 2B Paralogs following Ablation of NM 2C in the Developing Mouse Lung*

Thomas S Wootton High School (Maryland)

Preceptors: Dr. Xuefei Ma, Dr. Robert Adelstein

**LCH-51. Mitchell Harling**

*Implementation and Testing of a Global Analysis Software (gDAI) for Lifetime Images with Multiple Components*

University of Maine (Maine)

Preceptors: Dr. Jay Knutson, Dr. Aleksandr Smirnov, Dr. Alessio Andreoni

**LCH-52. Laboni Hoque**

*Predictors of Hard Outcomes in the AIM-HIGH Trial Identified by Machine Learning*

Amherst College (Massachusetts)

Preceptor: Dr. Ahmed Hasan

**LCH-53. Promotto Islam**

*Screening for Pathways Involved in Low-density Lipoprotein Uptake Using CRISPR/Cas9 HepG2 Cells*

Eastside High School (Florida)

Preceptors: Dr. Diego Lucero, Dr. Lita Freeman, Dr. Alan Remaley

**LCH-54. Zahin Islam**

*Innate Immune Response to Viral Populations*

Severna Park High School (Maryland)

Preceptors: Dr. Banu Bayyurt-Kocabas, Dr. Nihal Altan-Bonnet

**LCH-55. Isabel Jabara**

*Assessing the Predictive Value of CircleSeq, an in vitro Gene Editing Off-target Site Identification Method*

University of California, Los Angeles (California)

Preceptors: Dr. Cynthia Dunbar, Ms. Aisha Aljanahi, Ms. Shirley Chen

**LCH-56. Arad Jain**

*Longitudinal Analysis of Serum Apolipoprotein E Levels from Asthmatic Subjects*

University of Virginia (Virginia)

Preceptors: Dr. Amisha Barochia, Dr. Stewart Levine, Dr. Xianglan Yao

**LCH-57. Roja Kambhampati**

*Promoting Cardiovascular Health in Early Childhood (0-5 years) and Transitions in Childhood through Adolescence*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Charlotte Pratt

**LCH-58. Andrew Kelleher**

*Is H-89 a PKA Specific Inhibitor?*

Duke University (North Carolina)

Preceptors: Dr. Mark Knepper, Dr. Viswanathan Raghuram, Dr. Kavee Limbutara, Dr. Chin-Rang Yang

**LCH-59. Edward Kim**

*Allostatic Load: Biomarkers, Physical Measures, and Determining a Score*

Oakton High School (Virginia)

Preceptors: Dr. Eliseo Perez-Stable, Dr. Erik Rodriguez

**LCH-60. Alex Kirkpatrick**

*Shedding Light on Rotavirus Non-lytic Vesicular Egress*

UT Health San Antonio (Texas)

Preceptor: Dr. Marianita Santiana

**LCH-61. Annie Lee**

*Muscle Typing in Drosophila melanogaster*

Cornell University (New York)

Preceptors: Dr. Brian Glancy, Dr. Prasanna Katti

**LCH-62. Rao Li**

*Designing and Implementing a Graphical User Interface for Managing Tracks on the WashU Genome Browser*

Poolesville High School (Maryland)

Preceptors: Dr. Gangqing Hu, Dr. Keji Zhao

**LCH-63. Ashley Lin**

*Heterocellular Communication between Endothelial and Smooth Muscle Cells in Direct Co-culture*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Manfred Boehm, Dr. Cornelia Cudrici, Dr. Elisa Ferrante

**LCH-64. Catherine Liu**

*The Role of Myh9 Mutations in Mouse Squamous Cell Carcinoma Cell Line*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Robert Adelstein, Dr. Tingyi Wei

**LCH-65. Hanley Ma**

*A Knock-In Mutation at a Site of S-Nitrosylation on TRIM72 (TRIM72 C144S) is Cardioprotective and Improves Insulin Sensitivity*

Brown University (Rhode Island)

Preceptors: Dr. Natasha Fillmore, Dr. Elizabeth Murphy

**LCH-66. Ken Malave-Ramos**

*Association of Lab Measures and Demographic Factors with Lifetime Bleeding History in The Framingham Heart Study*

San Juan Bautista School of Medicine (Puerto Rico)

Preceptors: Dr. Andrew Johnson, Dr. Ming-Huei Chen

**LCH-67. Zyannah Mallick**

*Predictors of Hard Outcomes in the BARI 2D Trial Identified by Machine Learning*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptor: Dr. Ahmed Hasan

**LCH-68. Jacob Mannes**

*Dissecting the Rows of Actin Retrograde Flow in Focal Adhesion Formation*

Charles E. Smith Jewish Day School (Maryland)

Preceptors: Dr. Jian Liu, Dr. Kazue Matsumoto

**LCH-69. Shane McGinty**

*Post-translational Modifications of Cysteine 202 of Cyclophilin D Are Critical for the Activation of the Mitochondrial Permeability Transition Pore*

West Chester University (Pennsylvania)

Preceptors: Dr. George Amanakis, Dr. Junhui Sun, Dr. Elizabeth Murphy

**LCH-70. Daya Mena**

*Total Thrombus Analysis System (T-TAS) and Association with Other Platelet Function Tests and Factors in the Framingham Heart Study*

Hampshire College (Massachusetts)

Preceptor: Dr. Andrew Johnson

**LCH-71. Madalyn News**

*Portfolio Analysis of Social Determinants of Health in NHLBI*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Rebecca Campo

**LCH-72. Eoin O'Connell**

*PlateletHub: A Database Merging Megakaryocyte and Platelet Gene, Variant, and Proteomic Information*

Worcester Polytechnic Institute (Massachusetts)

Preceptors: Dr. Andrew Johnson, Dr. Benjamin Rodriguez

**LCH-73. Gloria Onuoha**

*Observation of A-syn Aggregation in Live Cells by FRET*

McKinley Technology High School (District of Columbia)

Preceptor: Dr. Matthew Watson

**LCH-74. Halyn Orellana**

*Treating Mutations and Genetic Diseases with a Nonsense Mediated Decay Inhibitor*

Academy of Health Sciences at Prince George's Community College (Maryland)

Preceptors: Dr. J. Robert Hogg, Dr. Sarah Fritz

**LCH-75. Eowyn Pak**

*A Novel Pathway for Coronavirus Exit*

Dartmouth College (New Hampshire)

Preceptor: Dr. Nihal Altan-Bonnet

**LCH-76. Matthew Pryor**

*Establishment of an Elov14-knockout Cell Model Using CRISPR-Cas9 Method*

Northwestern University (Illinois)

Preceptors: Dr. Alan Remaley, Dr. Zhihong Yang

**LCH-77. Ishwarya Sivakumar**

*Mitochondria in Red Blood Cells in the Context of Sickle Cell Disease*

Johns Hopkins University (Maryland)

Preceptors: Dr. Swee Lay Thein, Dr. Laxminath Tumburu

**LCH-78. Joseph Sukinik**

*Anatomical Differences in Arterial Beds Due to Elastin Insufficiency*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Beth Kozel, Mr. Russell Knutsen

**LCH-79. Maryia Svirydava**

*The Effect of IL-17 on Neutrophil Differentiation from Human Bone Marrow*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Nehal Mehta, Dr. Heather Teague, Dr. Martin Playford

**LCH-80. Evan Teng**

*An Introduction to Molecular Dynamics Simulation Using CHARMM*

Cornell University (New York)

Preceptor: Dr. Xiongwu Wu

**LCH-81. Michal Tyrlik**

*Applicability of the Ink Paw Print Test for the Assessment Of Gait in a Mouse Model of GM1 Gangliosidosis*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Danielle Springer, Dr. Cynthia Tifft, Mr. Morteza Peiravi, Mr. Robin Yoon

**LCH-82. Lauren Vaughn**

*Changes in Signaling and Mutation Status across Treatment and Progression on BTK Inhibitors in Lymph Node Resident CLL cells*

University of Florida (Florida)

Preceptors: Dr. Sarah Herman, Dr. Adrian Wiestner, Dr. Chingiz Underbayev

**LCH-83. Sara Verschleisser**

*The Impact of Thyroid Function on Stroke Risk in Atrial Fibrillation*

Yeshiva University (New York)

Preceptor: Dr. Lawton Cooper

**LCH-84. Eric Wang**

*Pore Formation Induced by the Hemagglutinin Fusion Peptide*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Richard Pastor, Dr. Joshua Zimmerberg, Dr. Sourav Halder

**LCH-85. Bronte Wen**

*Integration of Multiple NGS Data Tracks Using Minimum Bayes' Factor*

Johns Hopkins University (Maryland)

Preceptors: Dr. Hyun Jun Jung, Dr. Mark A. Knepper

**LCH-86. Sierra Wilson**

*Decreasing Plasma Triglycerides with an ApoC-II Mimetic Peptide*

Willamette University (Oregon)

Preceptors: Dr. Alan Remaley, Dr. Anna Wolska

**LCH-87. Andrea Wisniewski**

*Program Evaluation of the Trans-Omics for Precision Medicine (TOPMed) Program*

University of Dayton (Ohio)

Preceptors: Ms. Julie Mikulla, Dr. Pothur Srinivas

**LCH-88. Sheavonnie Wright**

*Influences of the Microbiome on Vascular Disease in Elastin Insufficiency*

Lehman College (New York)

Preceptors: Dr. Beth Kozel, Ms. Amanda Wardlaw, Dr. Charles Billington, Dr. Delong Liu

**LCH-89. Victoria Xin**

*Predictors of Hard Outcomes in the ALLHAT Trial Identified by Machine Learning*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Ahmed Hasan, Dr. Yves Rosenberg

**LCH-90. Samantha Xu**

*Step It Up: Development of a Mobile Health Technology-enabled Physical Activity and*

*Cardiovascular Health Intervention with Community Member Engagement*

Case Western Reserve University (Ohio)

Preceptor: Dr. Tiffany Powell-Wiley

**LCH-91. Harsh Yadav**

*Network Biology-based Approach to Decode Complex Diseases*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Vijender Chaitankar, Dr. Mehdi Pirooznia

**LCH-92. Daniel Yang**

*Regulation of Mitochondrial Network Dynamics during Postnatal Muscle Development in Mice*

Brown University (Rhode Island)

Preceptors: Dr. Yuho Kim, Dr. Brian Glancy

## **National Institute on Aging (NIA)**

### **LCH-93. Nicole Arnold**

*The Influence of Poverty on Gene Expression in African Americans in HANDLs*

Morgan State University (Maryland)

Preceptors: Dr. Michele Evans, Dr. Nicole Noreen Hooten

### **LCH-94. Adore Corina Bagasao**

*Assessment of Mitochondrial DNA Export via Extracellular Vesicles in Apoptosis*

Howard University (District of Columbia)

Preceptor: Dr. Paritosh Ghosh

### **LCH-95. Morgan Biggs**

*5-2 Caloric Restriction Impacts Mood, Cognition, and Brain Glucose Levels*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Roger Mullins, Dr. Dimitrios Kapogiannis, Dr. Josephine Egan, Dr. Chee

### **LCH-96. Jaquantey Bowens**

*The Effect of Adenylyl Cyclase 8 Overexpression on cAMP-PKA Signaling in the Left Ventricle of the Heart*

Georgetown University (District of Columbia)

Preceptors: Dr. Khalid Chakir, Dr. Edward Lakatta

### **LCH-97. Natalie Brosh**

*Intracranial Volume and Age: Multi-atlas Segmentation Compared to the Ground Truth*

Immaculata University (Pennsylvania)

Preceptors: Dr. Andrea Shafer, Dr. Susan Resnick

### **LCH-98. Nelson Castillo Rivera**

*New Insights in Health and Cancer Strategies: Is It All about Diet Composition or Fasting Time?*

San Juan Bautista School of Medicine (Puerto Rico)

Preceptors: Dr. Alberto Diaz Ruiz, Mr. Jorge Martinez Romero, Mr. Tyler Rhinesmith, Dr. Rafael de Cabo

### **LCH-99. Shane Chambers**

*Involvement of Cardiac miRNA's in the Coherent Signaling of the Adenylate Cyclase 8 Transgenic Mouse*

James Madison University (Virginia)

Preceptors: Dr. Kirill Tarasov, Dr. Yelena Tarasova, Dr. Edward Lakatta



**LCH-100. Andrew Chan**

*LRRK2 Regulates Nuclear Morphology by Moderating Neuron Activity*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Xi Chen, Mr. Justin Kung, Dr. Huaibin Cai

**LCH-101. William Chan**

*The Role of Striosomes in Anxiety-related Behavior*

Winston Churchill High School (Maryland)

Preceptors: Dr. Sarah Hawes, Mr. Justin Kung, Dr. Junbing Wu, Dr. Huaibin Cai

**LCH-102. Shaquille Charles**

*Rates of Age-associated Change in Heart Rate Variability as a Predictor of Mortality among Mice*

University of Oxford (Non-U.S.)

Preceptors: Dr. Edward Lakatta, Dr. Christopher Morrell

**LCH-103. Vivian Chen**

*LMO3 and ALDH1A1: Linking Substantia Nigra Molecular Markers to Motor Impairment and Neurodegeneration in Parkinson's Disease*

Duke University (North Carolina)

Preceptors: Dr. Huaibin Cai, Dr. Sara Saez-Atienzar, Dr. Junbing Wu

**LCH-104. Ellie Clawson**

*Sonic Hedgehog and Hippocampal Neurons*

Johns Hopkins University (Maryland)

Preceptors: Ms. Aileen Rivell, Dr. Pamela Yao, Dr. Mark Mattson

**LCH-105. Marisa DeLuca**

*Previously Unknown Link between B cells and Alzheimer's Disease in a Transgenic Mouse Model*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Monica Bodogai, Dr. Chen Chen, Dr. Ross McDevitt, Dr. Arya Biragyn

**LCH-106. Carlos Dohse**

*Mitochondrial Survival Curves as a Measure of Age-, Phenotype- and Drug-induced Changes in Mitochondrial Fitness and Resistance to Oxidative Stress*

Universidad Central del Caribe School of Medicine (Puerto Rico)

Preceptors: Dr. Steve Sollott, Mrs. Magda Juhaszova, Mr. Dimitry Zorov

**LCH-107. Jack Donahue**

*NQO1 Bioactivatable Drugs' Role in Apoptosis and Protein Synthesis*

McDonogh School (Maryland)

Preceptors: Dr. Rafael de Cabo, Dr. Andrea di Francesco, Dr. Yingchun Zhang, Dr. Clara de Germanio

**LCH-108. Ryan Dougherty**

*Socioeconomic Status and Brain Health: The CARDIA Study*

University of Wisconsin - Madison (Wisconsin)

Preceptors: Dr. Justine Moonen, Dr. Osorio Meirelles, Dr. Lenore Launer

**LCH-109. Riley Driscoll**

*Analysis of Skeletal Muscle Tissue in Aging Mice*

Brigham Young University (Utah)

Preceptors: Dr. Chang-Yi Cui, Dr. Myriam Gorospe

**LCH-110. William Fang**

*Preclinical Evaluation of a Mitochondrial Decoupling Agent as a Potential Treatment for Parkinson's Disease*

University of Nevada, Las Vegas School of Medicine (Nevada)

Preceptors: Dr. Yuki Kishimoto, Dr. Mark Mattson

**LCH-111. Hannah Frederick**

*Identification of Novel RNA Markers of Cellular Senescence*

University of Maryland, College Park (Maryland)

Preceptors: Mrs. Rachel Munk, Dr. Kotb Abdelmohsen, Dr. Myriam Gorospe

**LCH-112. Takiel Gibson**

*What Do Potassium Channels have to Do with the Calcium Dynamics of Cardiac Pacemaker Cells?*

McDaniel College (Maryland)

Preceptors: Ms. Ashley Wirth, Mr. Kenta Tsutsui, Dr. Edward Lakatta

**LCH-113. Jamie Hartnett**

*Molecular Changes in GRSF1-depleted Human Neuroblastoma.*

Towson University (Maryland)

Preceptors: Dr. Ji Heon Noh, Dr. Kyoung Mi Kim, Dr. Myriam Gorospe

**LCH-114. Matthew Hentschel**

*Characterization of the Neurotoxic Mechanisms of Peripheral Extracellular Vesicles in Alzheimer's Disease*

Oxford College of Emory University (Georgia)

Preceptors: Dr. Carlos Noguerras-Ortiz, Dr. Dimitrios Kapoggianis

**LCH-115. Lauren Johnson**

*Untangling the Basis for Synthetic Lethality Between the BLM and RECQ1 DNA Helicases*

Xavier University of Louisiana (Louisiana)

Preceptors: Dr. Robert Brosh, Dr. Srijita Dhar

**LCH-116. Dongwon Lee**

*Optimizing Bone Marrow Cryopreservation for Primitive Hematopoietic Stem Cell Compartment Studies Using Flow Cytometry Analysis*

James Clemens High School (Alabama)

Preceptors: Dr. Isabel Beerman, Dr. Hagai Yanai

**LCH-117. Sabrina Mackey-Alfonso**

*Quantification of Inhibitory Neuronal Populations in the Prefrontal Cortex in Behaviorally Characterized Young and Aged Monkeys*

Johns Hopkins University (Maryland)

Preceptors: Dr. Cristina Bañuelos, Dr. Peter Rapp

**LCH-118. Alexander Maltsev**

*3D Segmentation of Human Skeletal Muscle Using Machine Learning Supercomputing Techniques Imaged by High-resolution Focused Ion Beam-scanning Electron Microscopy*

University of California, Los Angeles (California)

Preceptor: Dr. Luigi Ferrucci

**LCH-119. Nikhil Mathews**

*Longitudinal Changes of the Left Ventricular Outflow Tract with Aging in a Community Dwelling Population.*

Eastern Regional High School (New Jersey)

Preceptors: Dr. Matthew Oberdier, Mr. Paul Adler

**LCH-120. Roman Musselman**

*Determinants of Vascular Aging from the VALIDATE Study*

University of the Pacific (California)

Preceptors: Dr. Majd AlGhatrif, Dr. Matt Oberdier

**LCH-121. Nkatha Mwenda**

*Screening for SIRT6 Modulators Using Protein Coated Magnetic Beads*

Kalamazoo College (Michigan)

Preceptors: Dr. Ruin Moaddel, Dr. Luigi Ferrucci

**LCH-122. Victoria Nguyen**

*Behavioral Characterization of Dual Lrrk2/Rab29 Knockout Mice: A Novel Model for Parkinson's Disease*

Howard University (District of Columbia)

Preceptors: Dr. Melissa Conti, Dr. Mark Cookson, Dr. Alexandra Beilina

**LCH-123. Jessie O'Donnell**

*Transcriptional Changes Induced by TMS in the Rat Brain*

Liberty University (Virginia)

Preceptors: Dr. Kevin Becker, Dr. Elin Lehrmann

**LCH-124. Chinenye Onyima**

*Rapamycin Inhibits Senescence by Reducing Mitochondrial Biogenesis in shATM Cells*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Vilhem Bohr, Dr. Beimang Yang

**LCH-125. Isabella Perone**

*Exploring the Role of Sirt3 in the Pathogenesis of Alzheimer's Disease*

Johns Hopkins University (Maryland)

Preceptors: Dr. Mark Mattson, Dr. Aiwu Cheng, Ms. Jing Wang

**LCH-126. Alex Rains**

*Subjective Cognitive Complaints, Brain Changes, and Cognitive Impairment in the Baltimore Longitudinal Study of Aging*

Vanderbilt University (Tennessee)

Preceptors: Dr. Nicole Armstrong, Dr. Owen Williams, Dr. Susan Resnick

**LCH-127. April Riddick**

*microRNA Regulation of Inflammation-associated Genes in Hypertension*

University of Virginia (Virginia)

Preceptors: Dr. Calais Prince, Dr. Nicole Noren Hooten, Dr. Michele Evans

**LCH-128. Edward Rivera**

*Effects of Repetitive Electromagnetic Stimulation on Neurite Outgrowth and Survival*

Interamerican University of Puerto Rico (Puerto Rico)

Preceptors: Dr. Peter Rapp, Dr. Marina Weiler

**LCH-129. Emily Samuels**

*Identification of Atherosclerotic Antibodies from Single Cell Analysis*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Mark Hutchinson, Dr. Robert Maul, Mr. Darrell Norton, Dr. Patricia Gearhart

**LCH-130. Emma Santa**

*Investigating the Role of LMO3 in Dopaminergic Neurons and Parkinson's Disease*

Gustavus Adolphus College (Minnesota)

Preceptor: Dr. Sara Saez

**LCH-131. Cameron Sarabi**

*Investigating the Association between IGF-1, Psychosocial Stress, and Aging Disparities*

University of Nevada, Las Vegas School of Medicine (Nevada)

Preceptor: Dr. Nancy Chiles

**LCH-132. Aleah Scott**

*Role of DNA Polymerase Beta in Neuronal Cell Function*

Baltimore Polytechnic Institute (Maryland)

Preceptors: Ms. Arina Perez, Dr. David Wilson

**LCH-133. Haley Thompson**

*Targeting BRCA Deficiencies with WRN-specific Helicase Inhibitor*

Bethany College (West Virginia)

Preceptors: Dr. Arindam Datta, Dr. Robert Brosh

**LCH-134. Gia Thinh Truong**

*Quantitation of the NAD<sup>+</sup> Metabolome in Cellular mMatrix, Red Blood Cells and Skeletal Muscle*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Ruin Moaddel

**LCH-135. Ashley Tucewicz**

*NAD<sup>+</sup> Supplementation Attenuates Neuroinflammation in a Mouse Model of Alzheimer's Disease*

Dickinson College (Pennsylvania)

Preceptors: Dr. Yujun Hou, Dr. Vilhelm Bohr

**LCH-136. Patricia Vera-González**

*Is Entorhinal Cortex Vulnerability in Cognitive Aging Activity-dependent?*

University of Puerto Rico, Río Piedras Campus (Puerto Rico)

Preceptors: Dr. Craig Myrum, Dr. Cristina Bañuelos, Dr. Peter Rapp

**LCH-137. Jing Wang**

*Single-cell Transcriptomics Reveals Age-associated Alteration of Human CD8<sup>+</sup> T Cell Composition*

University of Virginia (Virginia)

Preceptors: Dr. Nan-ping Weng, Dr. Jian Lu

**LCH-138. Briana Washington**

*Longitudinal Changes in Blood Cell Composition as a Biomarker of Aging*

Howard University (District of Columbia)

Preceptors: Dr. Rafael deCabo, Dr. Clara diGermanio

**LCH-139. Zhané Washington**

*Dissecting the Insulin Signaling Cascade Using Extracellular Vesicles*

Morgan State Univeristy (Maryland)

Preceptors: Dr. Maja Mustapic, Dr. Dimitrios Kapogiannis, Mr. Sahil Chawla

**LCH-140. Jordan Weiss**

*Cytokines Are Associated with Longitudinal Changes in Cognitive Performance Among Urban Adults.*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. May Baydoun, Dr. Alan Zonderman

**LCH-141. Caroline Whittington**

*Does Fatigability Mediate Emotional Vitality and Functional Mobility?*

University of Alabama (Alabama)

Preceptor: Dr. Eleanor Simonsick

**LCH-142. Weipeng Xie**

*3D Quantification of Brain Changes in a Rat Model of Age-associated Hypertension Using MRI*

Vassar College (New York)

Preceptors: Dr. Olga Fedorova, Dr. Becca McPherson

**LCH-143. Anthony Yao**

*Marinobufagenin Stimulates the Development of Fibrosis in Young Rat Vascular Smooth Muscle Cells via TGF $\beta$ -1 Signaling*

Dulaney High School (Maryland)

Preceptors: Dr. Olga Fedorova, Dr. Wen Wei

**National Institute on Drug Abuse (NIDA)**

**LCH-144. Kate Barranco**

*Analysis of Simultaneous EEG and fMRI Data: A Multi-modal Approach to Identify Cognitive Differences between Nicotine-dependent and Healthy Individuals*

McDonogh School (Maryland)

Preceptors: Dr. Elliot Stein, Dr. Vaughn Steele, Ms. Andrea Maxwell

**LCH-145. Concetta Brusco**

*Activation of the Mouse Olfactory Circuit Using Transcranial Magnetic Stimulation*

Johns Hopkins University (Maryland)

Preceptors: Dr. Khaled Moussawi, Dr. Antonello Bonci

**LCH-146. Daniel Callahan**

*Role of Astrocyte in BOLD fMRI Signal*

Northwestern University (Illinois)

Preceptors: Dr. Hanbing Lu, Dr. Akira Sumiyoshi

**LCH-147. Nicole Centazzo**

*Pharmacokinetics and Pharmacodynamic Effects of the Synthetic Cathinone, Methylone, in Male Rats*

John Jay College of Criminal Justice (New York)  
Preceptor: Dr. Michael Baumann

**LCH-148. Ian Chambers**

*The Effects of Ethanol on Glutamatergic Neurons in the VTA*

Rhodes College (Tennessee)

Preceptors: Dr. Jorge Miranda-Barrientos, Dr. Marisela Morales, Dr. Huikun Wang, Mr. Gabriel Mateo Semidey

**LCH-149. William Cusma**

*Effect of Chronic Stress Exposure on the Excitability of VGluT3 Neurons in the Dorsal Raphe*

Loyola University Maryland (Maryland)

Preceptors: Dr. Jorge Miranda-Barrientos, Dr. David Barker, Dr. Marisela Morales

**LCH-150. Urjita Das**

*Predicting Age of Nicotine Exposure in Adolescent Rats Using Machine Learning*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Robin Keeley, Dr. Elliot Stein

**LCH-151. Sarah Eger**

*Olfactory and Visual Cues for Natural Rewards in Cocaine Dependent and Healthy Individuals*

Dartmouth College (New Hampshire)

Preceptors: Dr. Betty Jo Salmeron, Dr. Yuzheng Hu

**LCH-152. Anjali Gajendiran**

*Leptin Receptor-expressing Lateral Hypothalamic Neurons Gate Motivation*

Centennial High School (Maryland)

Preceptors: Dr. Justin Siemian, Dr. Yeka Aponte

**LCH-153. Iliana Gonzalez**

*The Parabrachial Nucleus Projections to The Ventral Tegmental Area and Their Role in Pain*

Academy of Health Sciences at Prince George's Community College (Maryland)

Preceptors: Dr. Smriti Mongia, Dr. Huiling Wang, Dr. Marisela Morales

**LCH-154. Sophia Guan**

*Biochemical Analysis of Sigma-1 Receptor Oligomerization*

River Hill High School (Maryland)

Preceptors: Dr. Lei Shi, Dr. Hideaki Yano

**LCH-155. Gerald Hou**

*Glutamatergic Neurons from the Lateral Parabrachial Nucleus Establish Synapses on Neurons in the Ventral Tegmental Area*

University of California, San Diego (California)

Preceptors: Dr. Shiliang Zhang, Dr. Marisela Morales

**LCH-156. Joslyn Jung**

*Predicting Drug Blockade of hERG Channel Using Machine Learning Algorithms*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Lei Shi, Dr. Andrew Fant

**LCH-157. Grace Lechmann**

*Nicotine Dose and Exposure Age Changes Nicotinic Acetylcholine Receptor Density*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Robin Keeley, Ms. McKenzie Prillaman

**LCH-158. Tiffany Lee**

*Dynamics of Sigma-1 Receptors at Dorsal Root Ganglia Contributes to Neuropathic Pain Caused by Peripheral Nerve Injury*

Marriotts Ridge High School (Maryland)

Preceptors: Dr. Tsung-Ping Su, Dr. Hsiang-En Wu, Dr. Nino Gogvadze

**LCH-159. Charday Long**

*Relapse to Fentanyl Seeking after Choice-based Voluntary Abstinence*

Kansas State University (Kansas)

Preceptors: Dr. Yavin Shaham, Dr. David Reiner, Ms. Olivia Lofaro

**LCH-160. Thashanna Lyle**

*Determining a Potential Role for the Lateral Preoptic Area-->Lateral Habenula Pathway in Pain by Quantifying Pathway-specific  $\mu$ -opioid Receptor Expression*

Baltimore City Community College (Maryland)

Preceptors: Dr. David Barker, Dr. Marisela Morales

**LCH-161. Nishad Maggirwar**

*Utilization of Gesicles for Cre-dependent Protein Expression in Mammalian Cell Lines*

University of California, San Diego (California)

Preceptors: Dr. Lee Campbell, Dr. Brandon Harvey

**LCH-162. Edith Martinez**

*Optimization of a Fluorescent Nuclear Dye Assay to Monitor Cell Viability under Endoplasmic Reticulum Stress*

Quince Orchard High School (Maryland)

Preceptors: Dr. Brandon Harvey, Ms. Lowella Fortuno, Dr. Doug Howard

**LCH-163. Meghna Mathews**

*Effect of THC on Neuronal Activity in the Dorsolateral Striatum*

Eastern Regional High School (New Jersey)

Preceptors: Dr. Maria Laura Zuccoli, Dr. Osama Abulseoud, Mrs. Sarah Sarsfeild, Dr. Yeka Aponte



**LCH-164. Gustavo Mejias-Torres**

*VTA Glutamatergic Neurons Encode Defensive Behaviors through LH Glutamatergic Neurotransmission*

Hereford High School (Maryland)

Preceptors: Dr. Marisela Morales, Dr. Flavia Barbano

**LCH-165. Jatia Mills**

*Exploring the Pharmacodynamics of Ketamine*

Morgan State University (Maryland)

Preceptors: Mr. Jordi Bonaventura, Ms. Sherry Lam

**LCH-166. Daniela Moreira**

*Allostatic Load and Psychosocial Factors in Non Drug Users and Drug Users in Baltimore City*

Wesleyan University (Connecticut)

Preceptors: Dr. Kenzie Preston, Dr. David Epstein, Dr. Karran Phillips, Dr. Landhing Moran

**LCH-167. Hannah Morgan**

*Physiological Characterization of the Lateral Hypothalamus Inputs to Ventral Tegmental Area Glutamate Neurons.*

College of New Jersey (New Jersey)

Preceptors: Dr. Carlos Mejias-Aponte, Ms. Leah Pappalardo

**LCH-168. Joseph Nguyen**

*Nucleus Accumbens Cell-type Specific Control of Operant Aggression Reward and Relapse in Hybrid Transgenic Mice*

College of William and Mary (Virginia)

Preceptors: Ms. Michelle Jin, Dr. Sam Golden, Dr. Yavin Shaham

**LCH-169. Chloe Noh**

*Regional Disparity in Microglial Responses to Aging in the Basal Ganglia*

Richard Montgomery High School (Maryland)

Preceptor: Dr. Lindsay De Biase

**LCH-170. Myra Rice**

*Exploring Potential Utility of a Novel Dopamine D3 Receptor Antagonist R-VK4-40 for the Treatment of Opioid Abuse and Addiction in Rodents*

California State University San Marcos (California)

Preceptors: Dr. Guo-Hua Bi, Dr. Chloe Jordan, Dr. Zheng-Xiong Xi, Dr. Amy Newman

**LCH-171. Ibrahim Sartaj**

*Characterization of PV+ Interneurons in the Orbitofrontal Cortex Using Transgenic Rats*

Chesapeake Math and IT Academy North High School (Maryland)

Preceptors: Dr. Carl Lupica, Dr. Alex Hoffman, Dr. Andrew Wright

**LCH-172. Dana Shaw**

*Fos-expressing Neuronal Ensembles Mediating Cocaine Self-administration Are Distinct from Those Mediating Food Self-administration*

Ohio State University (Ohio)

Preceptors: Dr. Bruce Hope, Dr. Brandon Warren, Ms. Louisa Kane

**LCH-173. Tjerignimin Silue**

*Monitoring Extracellular Levels of GABA by Brain Microdialysis in Adult Rats Hippocampus*

George Mason University (Virginia)

Preceptors: Dr. Gianluigi Tanda, Dr. Jacqueline Keighron, Ms. Emily Demarco, Dr. Shaimaa Elshebiney

**LCH-174. Abhishek Singla**

*Sex Difference in the Effect of Nicotine Smoking on Brain Volumetric Measures*

University Of Connecticut (Connecticut)

Preceptors: Dr. Xiaoyu (Sherry) Ding, Dr. Thomas Ross, Dr. Elliot Stein, Dr. Osama Abulseoud

**LCH-175. Jerry Song**

*Differentiating the Role of D1 Medium Spiny Neurons in the Ventral vs. Dorsal Shell of the Nucleus Accumbens*

Johns Hopkins University (Maryland)

Preceptor: Mr. Satoshi Ikemoto

**LCH-176. Simon Su**

*The Relationship of Nicotine Dependence Severity and Nicotine Consumption on White Matter Integrity*

Vanderbilt University (Tennessee)

Preceptors: Dr. Betty Jo Salmeron, Dr. Yuzheng Hu

**LCH-177. Rebecca Suthard**

*The Role of Dopaminergic Prediction Error Signals in Updating Expected Outcome Encoding in Orbitofrontal Cortex*

Boston College (Massachusetts)

Preceptors: Dr. Thomas Stalnaker, Dr. Geoffrey Schoenbaum

**LCH-178. Itzel Tejeda**

*GABAergic Inputs to Dorsal Raphe VGlut3 neurons*

University of Texas at El Paso (Texas)

Preceptors: Dr. Marisela Morales, Dr. Hui-Ling Wang, Ms. Almaris Figueroa

**LCH-179. Elise Van Leer**

*Using c-Fos mRFP Rats to Map Neuronal Ensembles during Reward Learning*

McGill University (Non-U.S.)

Preceptors: Dr. Rajtarun Madangopal, Dr. Bruce Hope

**LCH-180. Haoxuan Wang**

*Population Neural Code for Social Exploration in the Nucleus Accumbens*

Thomas Sprigg Wootton High School (Maryland)

Preceptors: Dr. Yun Li, Dr. Yan Zhang

**LCH-181. Brooke Weiner**

*Effects of Buprenorphine on Depression*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Petra Jacobs, Dr. Udi Ghitza

**LCH-182. Helen Yang**

*Prefrontal Microcircuit Dynamics Encode Reward Seeking*

Centennial High School (Maryland)

Preceptors: Dr. Giovanni Barbera, Dr. Hong Gu

**LCH-183. Wendy Yang**

*In Real Time: Visualizing ER Stress and Golgi Fragmentation Induced by ER Calcium Dysregulation*

New York University (New York)

Preceptors: Dr. Amanda Dossat, Dr. Brandon Harvey

**National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)**

**LCH-184. Idri Abdullah**

*Bone Mineral Metabolism in Patients with Extreme Insulin Resistance*

Montgomery College (Maryland)

Preceptors: Dr. Phillip Gorden, Dr. Rebecca Brown, Dr. Yevgeniya Kushchayeva

**LCH-185. Hajera Afreen**

*Bromodomain Inhibitors Abrogate Terminal Erythroid Differentiation*

University of Illinois at Urbana-Champaign (Illinois)

Preceptors: Dr. Benjamin Leadem, Dr. Ann Dean

**LCH-186. Layla Alsulami**

*Developing Methods to Perfectly Isolate Male C. elegans for RNAseq Analysis*

Catholic University of America (Virginia)

Preceptors: Dr. John Hanover, Dr. Dan Konzman

**LCH-187. Alexis Ayuketah**

*Processed Food and Energy Intake*

Eleanor Roosevelt Highschool (Maryland)

Preceptors: Dr. Valerie Darcey, Dr. Kevin Hall

**LCH-188. Leilah Nicole Baumgarten**

*Implementation of T1 Mapping in Routine Clinical MR Liver Exam for the Detection of Hepatic Fibrosis and Portal Hypertension in Hepatitis C patients*

University of Maryland, Baltimore County (Maryland)

Preceptor: Dr. Ahmed Gharib

**LCH-189. Kai Benedict**

*Characterization of a Myoglobin Knockout Mouse Model*

University of California, Berkeley (California)

Preceptors: Dr. Soumyadeep Dey, Dr. Constance T. Noguchi

**LCH-190. Grace Bergan**

*Probing Suitability of Click Chemistry in Glycoconjugate Vaccine Preparation: Synthesis and Conjugation of Structurally Relevant Haptens*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Helene Pfister, Dr. Paul Kovac

**LCH-191. Elaine Beulick**

*Artificial Sweetener Exposure Begins Early in Life*

Miami University (Ohio)

Preceptors: Dr. Kristina Rother, Dr. Sheetal Malhotra, Ms. Ellen Conway

**LCH-192. Stefanie Brizuela**

*Using dCAS9 to Attenuate Transcription and Its Effect on the Recruitment of AGO2 to Active Promoters in Drosophila melanogaster*

University of California, Santa Cruz (California)

Preceptors: Dr. Elissa Lei, Dr. Ezequiel Nazer

**LCH-193. Camille Burgos, David Wu**

*Role of CBP/p300-Mediated H3K27 Acetylation in Adipogenesis and Cell Growth*

Chaminade University of Honolulu (Hawaii), Walter Johnson High School (Maryland)

Preceptors: Dr. Younghoon Jang, Dr. Kai Ge

**LCH-194. Viktoria Catalan**

*Beta-arrestin-1 Is a Key Modulator of Pdx1 Expression in Pancreatic Beta-cells under Glucolipotoxic Conditions*

Sidwell Friends School (District of Columbia)

Preceptors: Dr. Luiz Barella, Dr. Jurgen Wess

**LCH-195. Liam Chalk**

*Insulin Sensitivity and Pancreatic Beta Cell Function in Patients with Hyperaldosteronism*

Saint Albans School (District of Columbia)

Preceptors: Dr. Ranganath Muniyappa, Mr. Shivraj Grewal, Ms. Andin Fosam

**LCH-196. Rohit Chari**

*Predicting the Severity of Kidney Ischemia Reperfusion Injury Using miR192 from Urine Exosomes*

Poolesville High School (Maryland)

Preceptors: Dr. Jonathan Street, Dr. Peter Yuen, Mr. Erik Koritzinsky

**LCH-197. Caleigh Curley**

*Functional Assessment of a Predicted Stop-gain Variant in D-Amino Acid Oxidase (DAO) That Associates with Energy Expenditure and Insulin Secretion*

Northern Arizona University (Arizona)

Preceptors: Dr. Leslie Baier, Dr. Anup Nair, Mr. Jeff Sutherland, Dr. Paolo Piaggi

**LCH-198. Andrea D'Souza**

*Immunohistochemistry and Brain Pathology of GM1 Gangliosidosis Mouse Models*

University of Maryland, College Park (Maryland)

Preceptors: Ms. Brianna Glase, Dr. Cynthia Tifft, Dr. Richard Proia

**LCH-199. Sarah Dahms**

*Defining the Glycosylation of PPAR Axis Members*

Towson University (Maryland)

Preceptors: Dr. Michelle Bond, Dr. John Hanover

**LCH-200. Arjun Deven**

*Sex and Ethnic Differences in Glucose Metabolism*

Lecanto High School (Florida)

Preceptors: Dr. Ranganath Muniyappa, Mr. Shivraj Grewal, Mrs. Andin Fosam

**LCH-201. Corey Duenas**

*Predictors of Weight Maintenance after Weight Loss*

University of Guam (Guam)

Preceptors: Dr. Susanne Votruba, Dr. Tim Hollstein, Dr. Jonathan Krakoff

**LCH-202. Yaeli Fink**

*The Metabolic Responses and Changes in Brown Fat Activity after Chronic Treatment with the  $\beta$ 3-Adrenergic Receptor Agonist Mirabegron in Humans*

WITS/Maalot (Maryland)

Preceptor: Dr. Aaron Cypess

**LCH-203. Michael Gan**

*Effects of Pancreatic  $\alpha$  Cell-specific Deficiency of the G Protein A-Subunit (Gsa) on Islet Mass and Function*

Richard Montgomery High School (Maryland)

Preceptors: Ms. Christina Le, Dr. Min Chen, Dr. Lee Weinstein

**LCH-204. Alexa Garcia**

*Mitochondrial Morphology and Dynamics Serve as an Indicator for Homeostasis*

Texas A&M International University (Texas)

Preceptors: Dr. Coney Pei-Chen Lin, Dr. Daniel Masison

**LCH-205. Charlyn Gomez**

*Orchestrating Hunger via Intersectional Genetics*

George Washington University (District of Columbia)

Preceptors: Dr. Michael Krashes, Ms. Jovana Navarrete

**LCH-206. Mayte Gonzalez**

*The Development and Validation of a LC-MS Method for Analysis of Nineteen Bile Acids in Human Plasma*

Schreiner University (Texas)

Preceptors: Dr. Peter J. Walter, Dr. Hongyi Cai

**LCH-207. Molly Halprin**

*Quantification of Shivering Activity Using Surface EMG*

Georgia Institute of Technology (Georgia)

Preceptors: Dr. Robert Brychta, Dr. Kong Chen

**LCH-208. Isuru Herath**

*Towards the Discovery of Antibiotics from Soil Bacteria*

Marriotts Ridge High School (Maryland)

Preceptors: Dr. Shannon Ohlemacher, Dr. Carole Bewley

**LCH-209. Trung Huynh**

*TGF $\beta$  Differentiates Insulin-producing Cells in Type Two Diabetes*

University of Alabama at Birmingham (Alabama)

Preceptors: Dr. Ji-Hyeon Lee, Dr. Sushil Rane

**LCH-210. Alexis Jacob**

*The Effects of Hydroxysteroid 17-Beta Dehydrogenase 13 Variants on Lipid Content in Liver Cells*

Georgia Institute of Technology (Georgia)

Preceptors: Dr. Yaron Rotman, Dr. Yanling Ma

**LCH-211. Adrianna Jones**

*Human Erythropoietin Treatment and Metabolic Stress Leads to Pure Red Cell Aplasia*

Louisiana State University (Louisiana)

Preceptors: Dr. Heather Rogers, Dr. Constance "Connie" Noguchi

**LCH-212. Nathan Kelsey**

*The Differential Regulation of Fuel Utilization in Muscle, Fat, Liver, and Brain as Quantified by <sup>18</sup>F-FDG PET/CT*

University of Pennsylvania (Pennsylvania)

Preceptor: Dr. Aaron Cypess

**LCH-213. Annabelle Kim**

*A New Tool for Rapidly Generating Plasmids to Express Tagged Proteins in Cultured Cells*

Bethesda Chevy Chase High School (Maryland)

Preceptors: Dr. William Prinz, Dr. Alex Toulmay

**LCH-214. Rachel Klink**

*Objective Measures of Physical Activity, Sedentary Behavior, and Sleep Associated with Maternal Glycemia and Weight during Pregnancy*

Taylor University (Indiana)

Preceptors: Dr. William Knowler, Mrs. Mary Hoskin, Dr. Muideen Olaiya, Dr. Jeremy Pomeroy

**LCH-215. Bakey Kouanda**

*Knock-in of Reporter Genes in Induced Pluripotent Stem Cells Using the Crispr/Cas9 System*

University of Connecticut (Connecticut)

Preceptors: Dr. Seung Bum Park, Mr. Christopher Ma, Dr. T. Jake Liang

**LCH-216. André León**

*Unraveling Alzheimer's: Pressure-jump NMR Studies of Amyloid Beta Disease Mutants*

The Scripps Research Institute (California)

Preceptors: Dr. Adriaan Bax, Dr. Ashley Barnes

**LCH-217. Andrew Liu**

*Development of a Novel Hepatitis B Virus Infection Reporter System*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Yuchen Xia, Dr. Xiaoming Cheng, Dr. Jake Liang

**LCH-218. Paola Lugo Tosado**

*Palatable Food Intake and Weight Change after Weight Cycling in C57BL/6 Mice*

University of Puerto Rico, Mayagüez Campus (Puerto Rico)

Preceptors: Dr. Wambura Fobbs, Dr. Alexxai Kravitz

**LCH-219. Matthew Martin**

*Optimization of Cryo-electron Microscopy Sample Preparation towards a High Resolution Structure of OPA1 on Lipid Tubes*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Andrew Kehr, Dr. Jenny Hinshaw

**LCH-220. Braden Mediavilla**

*Retinal Promoter Analysis of Possible TRBeta2 Transcription Factor Behavior*  
Colgate University (New York)

Preceptors: Dr. Michihiko Aramaki, Dr. Hong Liu, Dr. Douglas Forrest

**LCH-221. Esther Meisler**

*Endogenous Tagging of piRNA Pathway Genes Using CRISPR Genome Editing*  
Bais Yaakov High School (Maryland)

Preceptors: Ms. Allie Elchert, Mr. Sushil Sobti, Dr. Astrid Haase

**LCH-222. Azzah Momenh**

*Protein Stabilization and Purification by Targeted Domain Swapping*  
Catholic University of America (Maryland)

Preceptor: Dr. Agata steenackers

**LCH-223. Nicholas Mouser**

*Effects of Liver-specific PCBP1 Knockout on Endoplasmic Reticulum Stress*  
Wake Forest University (North Carolina)

Preceptors: Dr. Shyamalagauri Jadhav, Dr. Caroline Philpott

**LCH-224. Nicholas Munyan**

*Direct Quantification of Dehydroascorbate Using UPLC-MS/MS*  
University of Maryland, College Park (Maryland)

Preceptors: Dr. Pierre-Christian Violet, Dr. Mark Levine

**LCH-225. Richard Nguyen**

*Evaluating the Role of Serine/Threonine Phosphorylation in Regulation of SSA1/SSA2 in the Yeast Saccharomyces cerevisiae*

James Hubert Blake High School (Maryland)

Preceptors: Dr. Daniel Masison, Dr. Shailesh Kumar

**LCH-226. Lindsey Njanja**

*Beta-barrel Assembly and Quality Control in Gram-negative Bacteria.*  
Bergen Community College (New Jersey)

Preceptors: Dr. Harris Bernstein, Dr. Matthew Doyle

**LCH-227. Nnanna Onyekaba**

*TGF- $\beta$  Signaling Promotes Beta Cell Dysfunction in T2D*  
Cornell University (New York)

Preceptors: Dr. Ji-Hyeon Lee, Dr. Sushil Rane

**LCH-228. Yashira Ortega Sustache**

*Modeling NGLY1 Deficiency in C. elegans*

University of Puerto Rico at Bayamón (Puerto Rico)



Preceptors: Ms. Carina Graham, Dr. Andy Golden

**LCH-229. Jessica Pan**

*Predicting Regulation of O-GlcNAc Transferase-related Pathways in Leukemia Using Publicly Available Datasets*

Winston Churchill High School (Maryland)

Preceptors: Dr. John Hanover, Dr. Weiping Chen

**LCH-230. Luke Parsley**

*Defects in Zona Pellucida Formation and Gamete Interaction in Myosin IIA Knockouts*

Rollins College (Florida)

Preceptors: Dr. Edgar-John Vogt, Dr. Jurrien Dean

**LCH-231. Danielle Pickering**

*Muscle nNOS Activity Regulates Metabolism and Cytokine Response*

Kansas State University College of Veterinary Medicine (Kansas)

Preceptors: Dr. Soumyadeep Dey, Dr. Constance T. Noguchi, Dr. Alan N. Schecter

**LCH-232. Darcia Pingree**

*The Yogurt Project*

Carroll College (Montana)

Preceptors: Dr. Kristina Rother, Dr. Stephanie Olivier-Van Stichelen

**LCH-233. Ethan Pritikin**

*The Effect of Gsa Deficiency in Adipose Tissue and Muscle on Energy Expenditure and Thermogenesis.*

University of Chicago (Illinois)

Preceptors: Dr. Min Chen, Ms. Hui Sun, Dr. Lee Weinstein, Mr. Peter Metzger

**LCH-234. Kyle Rhodehouse**

*Modeling Human Multiple Mitochondrial Dysfunctions Syndrome in C. elegans*

Colgate University (New York)

Preceptors: Dr. Peter Kropp, Dr. Andy Golden

**LCH-235. Elizabeth Romo**

*Role of piRNA in Spermiogenesis and Male Fertility*

Los Angeles Valley College (California)

Preceptors: Dr. Heejin Choi, Dr. Jurrien Dean

**LCH-236. Aviva Schwartz**

*Cytokine Changes during Treatment of Hepatitis D*

Bnos Yisroel of Baltimore (Maryland)

Preceptors: Ms. Gabriella Quinn, Dr. Rabab Ali, Dr. Cristopher Koh, Dr. Theo Heller

**LCH-237. Tesia Shi**

*Predicting Biological Pathways for Potential Drugs Affecting Adenosine Receptors through Bioinformatics Data Mining of Five Publicly Available Datasets (Alzheimer's Disease, Bipolar Disorder, Schizophrenia, Major Depressive Disorder, and Hepatocellular Carcinoma)*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Kenneth Jacobson, Dr. Weiping Chen

**LCH-238. Sooah Sohn**

*Erythropoietin Stimulates Metabolic Response via Glucose Transporter Member 4 (GLUT4) in Culture*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Constance Noguchi, Dr. Heather Rogers

**LCH-239. Sandra Solis**

*Obesity Associated Bardet-Biedl Syndrome Gene 9 (BBS9) Potentially Affects Leptin Signalling*

Great Basin College (Nevada)

Preceptors: Dr. Leslie Baier, Dr. Samantha Day, Mr. Gregory Elson

**LCH-240. Cody Stein**

*Sequencing Analysis of CD8 T Cell Epitopes in Chronic Hepatitis D Virus Infection*

University of Colorado, Colorado Springs (Colorado)

Preceptors: Dr. Helenie Kefalakes, Dr. Barbara Reherrmann

**LCH-241. Xiangliang Sui**

*Cyclotriazadisulfonamides Down-regulate TSH Receptor Cell Surface Expression*

Washington University in St. Louis (Missouri)

Preceptors: Dr. Christine Krieger, Dr. Susanne Neumann, Dr. Marvin Gershengorn

**LCH-242. George Tang**

*A Virtual Reality, Mobile Application for Binocular Rivalry Experiments*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Carson Chow, Dr. Shashaank Vattikutis

**LCH-243. Rachel Vanjoske**

*Defining the Role of O-GlcNAc on Modulating Cellular Respiration*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Lara Abramowitz, Dr. John Hanover

**LCH-244. Gayathri Veeraraghavan**

*The NIH Experience (1990-2018) of Thymic Carcinoid: A Review of the Cases*

Alabama College of Osteopathic Medicine (Alabama)

Preceptors: Mr. James Welch, Dr. Adel Mandl, Dr. Jenny Blau

**LCH-245. Richard Wang**

*Effects of CL316243, a beta-3 Adrenergic Agonist in Mice*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Marc Reitman, Dr. Oksana Gavrilova

**LCH-246. F'jei Will**

*Use of Whole Exome Sequencing to Identify Rare Variation Contributing to Extreme Obesity in American Indian Families*

Georgia State University (Georgia)

Preceptors: Dr. Leslie Baier, Dr. Cigdem Koroglu, Mr. Darin Mahkee

**LCH-247. David Woodbury**

*Is Major Sperm Protein Involved in Preventing Germline Degradation in Caenorhabditis elegans?*

Muhlenberg College (Pennsylvania)

Preceptors: Dr. Andy Golden, Dr. Xiaofei Bai

**LCH-248. Donald Wunsch**

*Statistical Inference from Stock Market Sentiment Data*

Missouri University of Science and Technology (Missouri)

Preceptors: Dr. Joseph McKenna, Dr. Vipul Periwal

**LCH-249. Chris Yang**

*Predicting Protein Contacts from Multiple Sequence Alignments*

Oakton High School (Virginia)

Preceptors: Dr. Joseph McKenna, Dr. Vipul Periwal

**LCH-250. Kyungyoon Yoo**

*Metabolic Regulation by Hfq-binding sRNA in Human Pathogen B. pertussis*

Vassar College (New York)

Preceptors: Dr. Kyung Moon, Dr. Deborah Hinton

**LCH-251. Ashley Young**

*Inferring Visual Experiences from fMRI Data*

Oakton High School (Virginia)

Preceptors: Dr. Joseph McKenna, Dr. Vipul Periwal

**LCH-252. Michelle Yue**

*Transfer of Misfolded alpha-Synuclein from Neurons to Microglial Cells in Drosophila*

Princess Anne High School (Virginia)

Preceptors: Dr. Yihong Ye, Ms. Layla Saidi, Dr. Yue Xu

**LCH-253. Lillian Zheng**

*Twitter and the Liver: The Influence of Social Media in Medicine*

Holton-Arms School (Maryland)  
Preceptors: Dr. Christopher Koh, Ms. Pallavi Surana

## **National Institute of Environmental Health Sciences (NIEHS)**

### **LCH-254. Juhitha Chinthapatla**

*Investigation of SMCHD1 Proteome Using Yeast Two-hybrid Screening*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Kaoru Inoue, Dr. Natalie Shaw

### **LCH-255. Donald De Alwis**

*The Effects of Solvent Exposure on the Development of Myositis Phenotypes*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Adam Schiffenbauer, Dr. Frederick Miller

### **LCH-256. Sandy Drye**

*Development of Standardized 3D Printed Capacitive Touch Sensors for Object Recognition Tasks*

North Carolina State University (North Carolina)

Preceptors: Dr. Jesse Cushman, Mrs. Jemma Strauss, Mr. Korey Stevanovic

### **LCH-257. Fatima Gunter-Rahman**

*IFN Regulated Gene Expression in Juvenile Dermatomyositis (JDM)*

Massachusetts Institute of Technology (Massachusetts)

Preceptors: Dr. Hanna Kim, Dr. Lisa Rider

### **LCH-258. Tahja Harris**

*Per- and Poly-fluoroalkyl Substances: Analytical Method Development and Hepatic Clearance*

North Carolina A&T State University (North Carolina)

Preceptors: Dr. Michael Devito, Dr. David Crizer

### **LCH-259. Shauntre Lilley**

*Hippocampal Area ca2 Selectively Expresses Genetic Material Packaged in Adeno-associated Viral Particles*

Sandhills Community College (North Carolina)

Preceptors: Dr. Georgia Alexander, Dr. Serena Dudek

### **LCH-260. Marque Long**

*Relationships between Birthweight and Overweight/Obesity May Vary by Phthalate Metabolite Concentrations among US Adolescents*

Morehouse College (Georgia)

Preceptors: Dr. Symbielle Gaston, Dr. Chandra Jackson

**LCH-261. Ethan Swofford**

*Survey of Techniques in Next Generation Sequencing Using Molecular Biology as My Guide*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Ms. Nicole Reeves, Mrs. Molly Cook, Mr. Gregory Solomon

**LCH-262. John Yannotty**

*The Impact of Silica Dust Exposure on Myositis Phenotype*

Slippery Rock University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Adam Schiffenbauer, Dr. Frederick W. Miller

**National Institute of Mental Health (NIMH)**

**LCH-263. Ankush Bajaj**

*Characterizing Rhesus Monkey Brains from Anatomical MRI Scans*

Brown University (Rhode Island)

Preceptors: Dr. Adam Messinger, Mr. Benjamin Jung, Dr. Leslie Ungerleider

**LCH-264. Timothy Barry**

*A Data-driven Approach to Predicting Stroke Progression*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Charles Zheng, Dr. Patrick McClure, Dr. Francisco Pereira

**LCH-265. Justin Buck**

*The Impact of Rewarding Experiences on the Dopamine Circuit Architecture of the Mouse Brain*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Kuan Wang, Dr. Theodore Usdin

**LCH-266. Daniel Chen**

*Validation of Transcripts Identified by RNA-Seq in MIR137HG, a Host Gene of Schizophrenia-associated microRNA*

University of Virginia (Virginia)

Preceptors: Dr. Barbara Lipska, Dr. Ningping Feng

**LCH-267. John Chen**

*3D Tracing of Midline Thalamic Inputs*

Indiana University Bloomington (Indiana)

Preceptors: Dr. Gloria Laryea, Dr. Yogita Chudasama

**LCH-268. Natenin Cisse**

*Dendritic Spine Analyses in the Nucleus Accumbens to Reveal Role of Rapgef2 in Cocaine Responding*

Springbrook High School (Maryland)

Preceptors: Dr. Lee Eiden, Ms. Sean Sweat

**LCH-269. Karis Courey**

*Optimizing Optogenetic Techniques for Behavior in Avp-Cre Transgenic Mice*

University of Akron (Ohio)

Preceptors: Dr. Su Lee, Dr. Adi Cymerblit-Sabba, Dr. Nicholas Cilz, Dr. W. Scott Young

**LCH-270. Zoe DeGrazia**

*Threat of Shock Impacts Risk Aversion, but not Loss Aversion, in Clinically Anxious Participants*

Clark University (Massachusetts)

Preceptors: Mr. Christian Grillon, Mrs. Monique Ernst

**LCH-271. Michael Dib**

*Effect of Electroconvulsive Therapy on Serotonin Function as Assessed by Loudness Dependence of the Auditory Evoked Potential: An MEG Study*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Zhi-De Deng

**LCH-272. Naomi Gancz**

*Exploring the Validity of the MAP-DB Temper Loss Scale through Associations with Irritability in a Clinical Sample of Youth*

University of Chicago (Illinois)

Preceptor: Dr. Elise Cardinale

**LCH-273. Sarah George**

*The Role of Synaptic Plasticity in Aggression Priming*

Virginia Commonwealth University (Virginia)

Preceptors: Dr. Zheng Li, Dr. Jacob Nordman

**LCH-274. Dannie Griggs**

*Characterizing Neurobiological Processing of Naturalistic Stimuli Using Multimodal Neuroimaging*

University of Chicago (Illinois)

Preceptors: Dr. Peter Bandettini, Dr. Peter Molfese, Dr. Emily Finn, Ms. Amy Loret

**LCH-275. Katie Hahm**

*Light and Clock Differentially Regulate Activity-dependent Molecular Markers in the Mouse Central Circadian Pacemaker: Molecular Correlate of Photic Gating in the Circadian Clock*

Maret School (District of Columbia)

Preceptor: Dr. Samer Hattar

**LCH-276. Oliver Hightower**

*Expression of Neurotransmitter Transporters Using the pXoom Vector in mMammalian Cells and Xenopus Oocytes*

George Washington University (District of Columbia)

Preceptors: Dr. Delany Torres-Salazar, Mrs. Glasser Carla, Dr. Susan Amara

**LCH-277. Frances Johnson**

*Characterizing the Diversity of Excitatory Projection Neurons in the Primary Somatosensory Cortex*

University of Hartford/University of Connecticut (Connecticut)

Preceptor: Dr. Soohyun Lee

**LCH-278. Ahnaf Khan**

*Visualizing Vasopressin 1b Receptor Neuronal Pathways in Hippocampal CA2*

University of Virginia (Virginia)

Preceptors: Dr. Sarah Williams-Avram, Dr. Ted Usdin, Dr. Jonathan Kuo

**LCH-279. Joanna Kondylis**

*The Relationship between Psychopathology and Brain Activity in a Large Sample of Preadolescent Children from the Adolescent Brain and Cognitive Development Study*

Nueva School (California)

Preceptors: Dr. Narun Pornpattananangkul, Dr. Argyris Stringaris

**LCH-280. Ilan Layman**

*Translational Research in Electrophysiologic Sleep Phenotyping: Best Animal Models for Sleep and Neurodevelopment*

Howard University College of Medicine (District of Columbia)

Preceptor: Dr. Ashura Buckley

**LCH-281. Judith Licht**

*Emotion Processing in Individuals with Moebius Syndrome*

Muhlenberg College (Pennsylvania)

Preceptors: Dr. Shruti Japee, Ms. Jessica Jordan

**LCH-282. Tobie Little Finger**

*Comparing IQ and Adaptive Behavior with Neurodevelopmental Disorders*

Oglala Lakota College (South Dakota)

Preceptors: Dr. Audrey Thurm, Dr. Cristan Farmer, Ms. Dee Adedipe, Mr. Doug Harrison

**LCH-283. Anoo Maskeri**

*Oxytocin Receptor Knockout in Mouse Hippocampal CA2 Area Pyramidal Neurons and Long Term Social Recognition*

Virginia Polytechnic Institute and State University (Virginia)

Preceptors: Dr. Su Hyun Lee, Dr. Adi Cymerblit-Sabba, Dr. Sarah Williams Avram

**LCH-284. Nino Migineishvili**

*Parsimony and Data Characteristics in Machine Learning for Neuroimaging*

University of California, Los Angeles (California)

Preceptors: Dr. Dylan Nielson, Dr. Charles Zheng, Dr. Adam Thomas, Dr. Peter Bandettini

**LCH-285. Nahom Mossazghi**

*Psychiatric Risk CYFIP1 Gene Disrupts Frontal Cortical Circuit Dynamics and Behavior*

University of Minnesota (Montana)

Preceptors: Dr. Kuan Hong Wang, Dr. Liu Qing

**LCH-286. Kelsey Mumford**

*Investigating the Correlation between Action Prediction and Social Responsiveness*

University of Texas at Austin (Texas)

Preceptors: Ms. Emalie McMahon, Dr. Leslie Ungerleider, Dr. Maryam Vaziri-Pashkam

**LCH-287. Myriam Rama**

*Ketamine as a Rapid-acting Antidepressant in Major Depressive Disorder Compared to Healthy Controls*

University of New Mexico (New Mexico)

Preceptors: Dr. Jessica Gilbert, Dr. Carlos Zarate

**LCH-288. Amanda Riddle**

*Assessment of Migraine Prodromes Using Mobile Technology*

Langely High School (Virginia)

Preceptors: Dr. Kathleen Merikangas, Dr. Tarannum Lateef

**LCH-289. Victoria Rooke**

*Anatomical Dissociation of the Anterior and Posterior Paraventricular Nucleus of the Thalamus and Their Connectivity to the Medial Prefrontal Cortex*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Mario Penzo

**LCH-290. Elizabeth Sahagun**

*Does hypertension Contribute to Vascular Damage in the Brain Caused by Chronic Psychosocial Stress?*

Purdue University (Indiana)

Preceptors: Dr. Michael Lehmann, Dr. Miles Herkenham

**LCH-291. Leslie Schneider**

*Does Parenting Behavior Moderate the Development of Childhood Irritability?*

Yale University (Connecticut)

Preceptors: Dr. Ellen Leibenluft, Dr. Courtney Filippi

**LCH-292. Kimya Shirazi**

*Inter-relationship of Pain, Mood and Sleep in a Community-based Sample Using Mobile Technologies*

McLean High School (Virginia)



Preceptor: Dr. Kathleen Merikangas

**LCH-293. Jamilah Silver**

*The Effects of Cognitive Behavioral Therapy on Adolescents with Depression*

Northwestern University (Illinois)

Preceptor: Dr. Stringaris Argyris

**LCH-294. Sara Stahl**

*Impact of Trait and State Anxiety on the Monetary Incentive Delay Task*

University of Texas at Austin (Texas)

Preceptors: Dr. Christian Grillon, Dr. Monique Ernst

**LCH-295. Caitlin Stavish**

*Emotion Dysregulation in Bipolar and At-risk Youth: A Longitudinal Study*

Boston University (Massachusetts)

Preceptors: Dr. Julia Linke, Dr. Ellen Leibenluft

**LCH-296. Ian Stukes**

*Syntheses of New Ligands for Imaging TSPO in Brain with PET*

Sandy Spring Friends School (Maryland)

Preceptors: Dr. Victor Pike, Dr. Fabrice Simeon

**LCH-297. Ginny Sun**

*Psychosocial Stress Alters Immune System Composition and Activity in the Meninges*

Massachusetts Institute of Technology (Massachusetts)

Preceptors: Dr. Stacey Kigar, Ms. Nicole Wrigley, Dr. Miles Herkenham

**LCH-298. Michelle Tang**

*Bayesian Analysis of Amygdala Lesions in Stimulus-based versus Action-based Reinforcement Learning*

Montgomery Blair High School (Maryland)

Preceptor: Dr. Bruno Averbeck

**LCH-299. Caitlin Van Wicklin**

*Category-selective Subdivisions in Medial Parietal Cortex Revealed during Memory Recall*

Virginia Tech (Virginia)

Preceptors: Dr. Christopher Baker, Dr. Edward Silson

**LCH-300. Grace Wang**

*Maturation of Sexual Dimorphism in Hypothalamic Cells*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Kuan Hong Wang, Dr. Wenyu Zhang, Mr. Matthew Coon

**LCH-301. Sharon Washio**

*Projections behind Somatosensation: Paralemniscal Thalamocortical Circuitry*

Princeton University (New Jersey)

Preceptor: Dr. Soohyun Lee

**LCH-302. Alexandra Webster**

*Organization of Subnetworks in the Primary Sensory Cortex by Their Projection Targets*

Tufts University (Massachusetts)

Preceptors: Dr. Soohyun Lee, Dr. Ana Inacio

**LCH-303. Katy Werwath**

*An Examination of Brain Morphometry in Generalized Anxiety Disorder across Multiple Sites*

Maggie L. Walker Governor's School for Government and International Studies (Virginia)

Preceptors: Dr. Daniel Pine, Dr. Anderson Winkler

**National Institute of Nursing Research (NINR)**

**LCH-304. Jasmine Benally**

*Mitochondrial Function in a Mouse Model of Radiation-induced Fatigue*

Fort Lewis College (Colorado)

Preceptors: Dr. Rebekah Feng, Dr. Leorey Saligan

**LCH-305. Kavisha Chandrawarakkhalage**

*Characterization of Molecular Mechanisms of Weight Gain of Kidney Transplant Patients*

Wheaton High School (Maryland)

Preceptors: Mr. Abe Roy, Dr. Paule Joseph, Dr. Ann Cashion

**LCH-306. Stephanie Chidester**

*Oxidative Stress and Mitochondrial Function in Models of Neuromuscular Disease*

University of Missouri - St. Louis (Missouri)

Preceptor: Dr. Joshua Todd

**LCH-307. Guyton Harvey**

*Inflammation as a Mediator of Fatigue after Radiation Therapy*

Morehouse College (Georgia)

Preceptors: Dr. Brian Wolff, Dr. Rebekah Feng, Dr. Leorey Saligan

**LCH-308. Candace Moore**

*Associations between Mechanism of Traumatic Brain Injury and Psychological Outcomes*

Virginia Commonwealth University (Virginia)

Preceptors: Dr. Cassie Pattinson, Dr. Jessica Gill

**LCH-309. Kirsten Nottingham**

*Glial Fibrillary Acidic Elevations Relate to Neuroimaging Abnormalities after a Mild TBI*

George Washington University (District of Columbia)

Preceptor: Dr. Jessica Gill

**LCH-310. Tyler Tonko**

*The Role of Natural Killer Cells in Radiation-induced Cancer Fatigue*

Texas A&M University - Commerce (Texas)

Preceptors: Dr. Leorey Saligan, Dr. Rebekah Feng

**LCH-311. Miriam Weiss**

*Transcriptional Profiling in Chronic Pain Research*

University of Maryland School of Nursing (Maryland)

Preceptors: Dr. Paule Joseph, Dr. Ann Cashion, Dr. Susan Dorsey

**National Library of Medicine (NLM)**

**LCH-312. Claire Anderson**

*Functional Classification of Non-coding Mutations*

University of Georgia Honors College (Georgia)

Preceptors: Dr. Ivan Ovcharenko, Dr. Sanjarbek Hudaiberdiev

**LCH-313. Caroline Cunningham**

*Developing Analysis Tools for Cancer Mutational Data*

Washington-Lee High School (Virginia)

Preceptors: Dr. Alexander Goncarencu, Dr. Anna Panchenko

**LCH-314. Priya Deshpande**

*Challenges in Clinical Data Management for Data-driven Research*

DePaul University (Illinois)

Preceptor: Dr. Sameer Antani

**LCH-315. Lucas Folio**

*TB or Not TB: If That Is the Global Health Question, Is Machine Learning on the Chest X-Ray the Answer?*

Walt Whitman High School (Maryland)

Preceptors: Dr. Stefan Jaeger, Dr. Zhiyun Xue, Dr. George Thoma, Dr. Les Folio

**LCH-316. Soumith Gadila**

*Uncovering Tissue Specific Gene Regulatory Networks in Flies*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Yijie Wang, Dr. Teresa Przytycka

**LCH-317. Yasmin Kassim**

*Robust Detection for Malaria Cells in Thin Blood Smear Microscopy Using Deep Learning*

University of Missouri Columbia (Missouri)

Preceptors: Dr. Stefan Jaeger, Dr. Kannappan Palaniappan, Dr. Richard Maude, Dr. George Thoma

**LCH-318. Benjamin Kussmaul**

*Optical Disc Detection from Fundus Images Using Deep Learning*

Swarthmore College (Pennsylvania)

Preceptors: Dr. Jongwoo Kim, Dr. George Thoma

**LCH-319. Aaron Kyei-Asare, Prosun Das**

*Investigations into Cross-platform User Interface Design Using Material Design Components*

University of Maryland, College Park (Maryland), Charles H. Flowers High School (Maryland)

Preceptors: Dr. George Thoma, Mr. Michael Gill, Mr. Gregory Miernicki, Mr. Sathishkumar Subramaniyan

**LCH-320. Jonah Langlieb**

*Investigating Image Analysis and Machine Learning Methods for Estimating Ejection Fraction from Echocardiograms*

Swarthmore College (Pennsylvania)

Preceptors: Dr. Sameer Antani, Dr. George Thoma

**LCH-321. Daniel Li**

*Prediction of AMD Severity Score from Fundus Photographs and Demographics via Deep Learning*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Zhiyong Lu, Dr. Yifan Peng

**LCH-322. Fucheng Li**

*Generating Answers to Consumer Health Questions*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Dina Demner Fushman, Dr. Yassine M'Rabet, Mr. Michael Gill

**LCH-323. Mike-Ryan Mofor**

*Evolutionary Gain and Loss of Sex Biased and Tissue Biased Genes in Drosophila*

Salisbury University (Maryland)

Preceptors: Dr. Soumitra Pal, Dr. Teresa Przytycka

**LCH-324. Shalika Neelaveni**

*Discovering the Bacterial Antecedents of Key Transcription and Apoptosis Regulators in Animals*

Briar Woods High School/Academy of Science (Virginia)

Preceptors: Dr. Gurmeet Kaur, Dr. L. Aravind

**LCH-325. Harshit Parmar**

*Open Challenges and Approaches in fMRI Data Analysis and Modeling*

Texas Tech University (Texas)

Preceptor: Mr. Rodney Long

**LCH-326. Daniel Schaffer**

*Evolutionary Origins of Animal ER Calcium Signaling and a Proposed Role for the Channelopathy Protein Wolframin*

Montgomery Blair High School (Maryland)

Preceptors: Dr. A. Maxwell Burroughs, Dr. Lakshminarayan M. Iyer, Dr. L. Aravind

**LCH-327. Priscilla Seah**

*Developing an Educational Game about Antimicrobial Resistance to Expand Consumer Health Outreach*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Jeff Day, Ms. Anne Altemus

**LCH-328. Brian Shen**

*MiClD GUI: A Toolbox for Microorganism Classification, Identification, and Metaproteomics Analysis*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Gelio Alves

**LCH-329. Alexander Sherwin**

*Visual Representation of Deep Neural Networks for Localizing Region-of-Interest in Medical Images*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Incheol Kim, Dr. George Thoma

**LCH-330. Sanjana Singh**

*Characterization of Cervigram Image Sharpness Using Numerous Focus Measure Operators*

McLean High School (Virginia)

Preceptors: Dr. Sameer Antani, Dr. Zhiyun Xue

**LCH-331. Felix Donghwi Son**

*Workflow Development for 3D Model Creation from the Carnegie Human Embryo Collection*

University of Toronto (Non-U.S.)

Preceptor: Ms. Anne Altemus

**LCH-332. Tung Tran**

*A Multi-task Learning Framework for Extracting Drugs and Their Interactions from Drug Labels*

University of Kentucky (Kentucky)

Preceptor: Dr. Halil Kilicoglu

## **Office of the Director (OD)**

### **LCH-333. Alexis Bryant**

*The Impact of Biomedical Research on Total Toxic Organic Discharges at a Major Biomedical Institute*

University of Maryland, University College (Maryland)

Preceptor: Mr. Mark Miller

### **LCH-334. Christina You**

*Application of NIH Library Bioinformatics Resources in the Analysis of Crohn's Disease Genetics*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Lynn Young, Mr. James King

## **Clinical Center (CC)**

### **PM-1. Alena Abraham**

*DCE-MRI and Lesion Volumetry in High Grade Glioma*

Prince George's Community College (Maryland)

Preceptors: Dr. Nadia Biassou, Dr. Mohammadhadi Bagheri

### **PM-2. Mahima Agrawal**

*Psychosocial Interventions for Treatment Adherence among People Living with HIV/AIDS*

Tufts University (Massachusetts)

Preceptor: Ms. Joy Hart

### **PM-3. Ivy Antunes**

*Characterization of Inducible Murine Monocytic and Granulocytic Differentiation*

St. Mary's College of Maryland (Maryland)

Preceptors: Dr. Katherine Calvo, Ms. Stephenie Droll, Dr. Weixin Wang

### **PM-4. Daniel Chen**

*Image Overlay Accuracy Analysis of Interventional Radiology Augments Reality Application*

University Of Maryland, College Park (Maryland)

Preceptors: Dr. Sheng Xu, Dr. Ming Li, Dr. Bradford Wood, Dr. Reza Seifabadi

### **PM-5. Jason Chou**

*Neural Correlates of Muscle Synergies during Gait in Children With and Without Cerebral Palsy: An EEG Study*

Duke University (North Carolina)

Preceptors: Dr. Thomas Bulea, Dr. Diane Damiano

**PM-6. Anna Christou**

*Evaluation of Immunologic Response to Cancer Therapeutics in Preclinical Animal Tumor Models*

Columbia University (New York)

Preceptors: Dr. Olga Franco Mahecha, Dr. Michal Mauda-Havakuk, Dr. John Karanian, Dr. Bradford Wood

**PM-7. Jordan Down-Dorsey**

*Application of Low Cost Microcontroller in Biomedical Research*

Charles Herbert Flowers High School (Maryland)

Preceptors: Mr. Kris Kim, Mr. Linwood Tucker, Mr. George Elliott, Dr. Lawrence Szajek

**PM-8. Nisita Dutta**

*Characterization of a Flow-through Drug Release System for Evaluation of Drug-eluting Embolic Beads for Treatment of Hepatocellular Carcinoma*

Johns Hopkins University (Maryland)

Preceptors: Dr. Andrew Mikhail, Dr. Brad Wood

**PM-9. Nathaniel Edisis**

*Optimization of Thermochromic Paint for Use in Therapeutic Heat Ablation Research*

Georgetown Day School (District of Columbia)

Preceptors: Dr. Ayele Negussie, Dr. Bradford Wood

**PM-10. Divya Gandla**

*Banking with Precision: Using Next Generation Sequencing to Predict Red Blood Cell Phenotype*

Columbia University in the City of New York (New York)

Preceptors: Dr. Celina Montemayor, Dr. Harvey Klein

**PM-11. Ava Akua Graf**

*Impact of Ebola Virus Protein on Human Intestinal Cell Function*

University of Illinois - Chicago Medical School (Illinois)

Preceptors: Dr. Daniel Chertow, Dr. Kevin Vannella

**PM-12. Lauren Hammel**

*Comparison of Hand Grasp and Release of Blocks in Children With and Without Cerebral Palsy*

Southern Illinois University Edwardsville (Illinois)

Preceptors: Dr. Diane Damiano, Dr. Thomas Bulea, Mr. Christopher Stanley

**PM-13. Devin Hannon**

*Ultrasound Calibration for Image Fusion Guided Surgery*

Villanova University (Pennsylvania)

Preceptors: Dr. Sheng Xu, Dr. Reza Seifabadi, Dr. Bradford Wood

**PM-14. Cindy Huang**

*Deconvoluting Highly-related HIV Virus Quasispecies and Early Detection of Minor Populations of HIV Drug Resistant Strains with an Improved De Novo Assembly Procedure*

Thomas S. Wootton (Maryland)

Preceptors: Dr. Dawei Huang, Dr. Calvin Johnson

**PM-15. Ritika Jain**

*Characterizing Endothelial Cell Activation by Ultrasound*

University of Washington (Washington)

Preceptors: Dr. Joseph Frank, Dr. Scott Burks

**PM-16. Wendy Jiang**

*Ethical Challenges Faced by Community Health Workers in Clinical Research: A Review of Cases and the Literature*

University of Alabama at Birmingham (Alabama)

Preceptors: Dr. Christine Grady, Dr. Marion Danis

**PM-17. Victoria Kocsuta**

*Immunophenotypic and Molecular Characteristics of Eosinophils and Mast Cells in Hypereosinophilic Syndrome Patients*

Ohio State University (Ohio)

Preceptors: Dr. Irina Maric, Dr. Xiaoping Sun

**PM-18. Dana Kost**

*Healthy Volunteer Recruitment in Clinical Trials at the NIH Clinical Center: Guide to Developing Successful Recruitment Strategies*

Cornell University (New York)

Preceptors: Ms. Valery Rodrigue, Ms. Melanie Webb

**PM-19. Andrea Krenek**

*Comparing Healthy Eating Index 2015 scores in African Immigrant, African American, and White American Women*

Texas A&M University (Texas)

Preceptors: Ms. Shanna Bernstein, Dr. Amber Courville

**PM-20. Joy Li**

*Design of Histogram-derived Metrics to Assess Quantitative Accuracy of PET Images*

Cornell University (New York)

Preceptor: Dr. Roberto Maass-Moreno

**PM-21. Katherine Li, Anusha Rao**

*Factors Affecting Hematopoietic Cell Selection on the Highly Automated CliniMACS Plus Instrument*

Purdue University (Indiana), Maret School (District of Columbia)



Preceptors: Dr. Sandhya Panch, Dr. David Stroncek

**PM-22. Dilara Long**

*Correlating Drug Dose and Radiopaque Drug-eluting Bead Density on CT Following Chemoembolization in a Woodchuck Hepatic Tumor Model*

Virginia Polytechnic Institute and State University (Virginia)

Preceptors: Dr. Brad Wood, Dr. Andrew Mikhail

**PM-23. Matthew Lunchick**

*Progressive Multifocal Leukoencephalopathy (PML): A Central Nervous System Disease*

University of North Carolina at Greensboro (North Carolina)

Preceptor: Ms. Anne Fejka

**PM-24. Christopher Martin**

*RNA-Seq Profiling of Peripheral Tissue during Persistent Inflammatory Hyperalgesia*

University of Massachusetts Amherst (Massachusetts)

Preceptors: Dr. Andrew Mannes, Dr. Michael Iadarola

**PM-25. Mikaela Matera-Vatnick**

*Characteristics and Outcomes of a Capacity-to-Consent Assessment Service*

Cornell University (New York)

Preceptor: Dr. Marion Danis

**PM-26. Margaret McGurn**

*Examination of Carbapenemase-producing Bacteria in the Hospital and Non-hospital Environment*

University of Notre Dame (Indiana)

Preceptors: Dr. Karen Frank, Mrs. Frida Stock, Dr. Jung-Ho Youn

**PM-27. Paras Mehta**

*Organ Segmentation on CT Scans Using Distributed Human Intelligence for the Generation of Annotated Datasets*

University of Arizona College of Medicine - Tucson (Arizona)

Preceptor: Dr. Ronald Summers

**PM-28. Irwin Munoz**

*Design of Spring Operated Knee Exoskeleton for Reducing Crouch Gait in Children with Cerebral Palsy*

University of Nevada, Las Vegas (Nevada)

Preceptors: Dr. Ji Chen, Dr. Thomas Bulea

**PM-29. Margaret Nettleton**

*Nitrite and cGMP Levels in a Mouse Model of Sickle Cell Disease*

Frank H. Netter M.D. School of Medicine at Quinnipiac University (Connecticut)

Preceptors: Dr. Zenaide Quezado, Dr. Luis Almeida, Mrs. Sayuri Kamimura

**PM-30. Sooyoun Oh**

*Mask-guided Realistic CT Lesion Image Generation*

Cornell University (New York)

Preceptors: Dr. Ronald Summers, Dr. Youbao Tang

**PM-31. Anne Overly**

*Nursing Management of Autoimmune Polyendocrinopathy-Candidiasis-Ectodermal Dystrophy (APECED)*

East Carolina University (North Carolina)

Preceptors: Dr. Paul Wong, Ms. Mary Myers

**PM-32. Yash Parikh**

*Viability of SNOMED CT for Cystic Fibrosis Patients within the NIH's Electronic Health Record*

Hillsborough High School (New Jersey)

Preceptors: Dr. David Herion, Dr. Milica Chernick

**PM-33. Megan Parker**

*Construction of a Donor DNA Fragment for CRISPR/Cas9 Based Gene Therapy in Congenital Adrenal Hyperplasia*

Stanford University (California)

Preceptors: Dr. Qizong Lao, Dr. Deborah Merke

**PM-34. Oliver Pavletic**

*Interoperability in Health Care: A Communication Model for Independent Electronic Health Record Systems*

University of Maryland, College Park (Maryland)

Preceptors: Dr. David Herion, Mr. Christopher Siwy

**PM-35. Graham Peet**

*Expression of TGF-beta Signaling and Extracellular Matrix-associated Genes in Tenascin Deficient Congenital Adrenal Hyperplasia*

Haverford College (Pennsylvania)

Preceptors: Dr. Vipula Kolli, Dr. Deborah Merke

**PM-36. Michael Ranasinghe**

*Combined Pharmacodynamic and Spatial Modeling of Blood, Cellular, and Background Tissue Uptake in PET Imaging: Does Change in Glitter Equal Change in Gold?*

George Washington University (District of Columbia)

Preceptor: Dr. Mark Ahlman

**PM-37. Emma Robinson**

*Chimeric Antigen Receptor T-Cell Therapy in Pediatric Acute Lymphoblastic Leukemia: The Nurse's Role*

Western Kentucky University (Kentucky)

Preceptor: Ms. Anne Fejka

**PM-38. Juliana Ruggiero**

*Effect of Secreted Mediators from THP1 Cells with Constitutively Active miRNA 145, 191, 221 on Normal THP1 Cells*

Saint Vincent College (Pennsylvania)

Preceptors: Dr. Anthony Suffredini, Dr. Salina Gairhe

**PM-39. Jordan Schneider**

*Genetic Analysis of the ICAM4 Gene in an Autochthonous East-African Population*

George Washington University (District of Columbia)

Preceptors: Dr. Kshitij Srivastava, Dr. Willy Flegel

**PM-40. Sofia Sheikh**

*Immunoassays: Always Precise, Often Precisely Wrong. Mass Spec to be Believed*

University of Illinois at Chicago (Illinois)

Preceptors: Dr. Steven Soldin, Mr. Brian Stolze, Dr. Clarence Ling

**PM-41. Joshua Starost**

*Opioid Receptors in the Spinal Cord*

Poolesville High School (Maryland)

Preceptor: Dr. Michael Iadarola

**PM-42. Erin Teigen**

*Exploring the Influence of Psychosocial Distress on Traumatic Stress Symptoms among Oncology Patients*

University of Maryland School of Social Work (Maryland)

Preceptor: Mr. Schuyler Cunningham

**PM-43. Sabrina Thapar**

*Identification of Pneumocystis Species in Wild Rodents*

Winston Churchill High School (Maryland)

Preceptors: Dr. Joseph Kovacs, Dr. Liang Ma

**PM-44. Caroline Wang**

*Effect of HIFalpha Inhibition on Endothelial Cell Proliferation and Apoptosis*

Thomas Sprigg Wootton High School (Maryland)

Preceptors: Dr. Robert Danner, Dr. Shuibang Wang

**PM-45. Andie Weiser-Schlesinger**

*B. anthracis Lethal Toxin Increases Pulmonary Vascular Permeability and Resistance While Edema Toxin Negates the Resistance but Not Permeability Changes in an Isolated Perfused Rat Lung Model*

Livingston Senior High School (New Jersey)

Preceptors: Dr. Xizhong Cui, Dr. Pranita Neupane, Mrs. Yvonne Fitz, Dr. Peter Eichacker

**PM-46. Kenmin Wu**

*Effect of Granulocyte Apheresis Donation on Bone Mineral Density and Renal Function in Healthy Donors*

SUNY Upstate Medical University (New York)

Preceptors: Dr. Cathy Conry-Cantilena, Dr. Kamille West

**PM-47. Ruth Yonas**

*Prognostic Evaluation of Sickle Cell Patients Treated with Stem Cells*

Towson University (Maryland)

Preceptor: Ms. Joan Aaron

**National Center for Complementary and Integrative Health (NCCIH)**

**PM-48. Uriah Contreras**

*Sex Differences in Visceral Hypersensitivity in the Dextran Sodium Sulfate Model of Colitis in Mice*

Fort Lewis College (Colorado)

Preceptors: Dr. Santiago Martinez Gonzales, Dr. Yarimar Carrasquillo

**PM-49. Michelle Guevara**

*Efferent Projections of Genetically Identified Cells in the Mouse Central Amygdala*

Sherwood High School (Maryland)

Preceptors: Dr. Yarimar Carrasquillo, Ms. Torri Wilson, Ms. Aleisha Kahn

**PM-50. Brianna Leitzelar**

*Autonomic Responses to Deep Pressure*

University of Wisconsin-Madison (Wisconsin)

Preceptors: Dr. Laura Case, Dr. Catherine Bushnell

**PM-51. Perri Wein**

*Autonomic Correlates of Tonic Noxious Heat in a Pain Insensitive Patient: A Case Study*

Gratz College (Maryland)

Preceptors: Dr. Eleni Frangos, Dr. Catherine Bushnell

## **National Cancer Institute (NCI)**

### **PM-52. Abigail Abikoye**

*A High Throughput Platform to Examine G-Quadruplex Formation and Recognition*

Academy of Health Sciences at Prince George's Community College (Maryland)

Preceptor: Mr. Nima Assad

### **PM-53. Kwasi Aboagye**

*Differences in BRCA 1/2 Genetic Testing Use among Breast and Ovarian Cancer Survivors*

Barry University (Florida)

Preceptors: Dr. Richard Moser, Dr. Tanya Agurs-Collins

### **PM-54. Joel Abraham**

*Semantic Modeling of the Preclinical Brain Tumor Domain*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Orieta Celiku

### **PM-55. Mary Acevedo**

*Retrospective Study of the Breadth of Donor Options for Patients with Inherited Diseases Requiring Allogeneic Hematopoietic Cell Transplantation in the Era of Alternative Donor Transplants*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Jennifer Kanakry, Dr. Dimana Dimitrova

### **PM-56. Charlotte Adema**

*Review of Cancer Data Resources*

University of Notre Dame (Indiana)

Preceptors: Dr. Dolly Penn, Dr. Janet de Moor

### **PM-57. Alexis Adkins, Jacqueline Chung**

*Nanoscale 3-D Visualization of Mitochondrial Architectures from FIB-SEM Images*

Francis Scott Key High School (Maryland), Urbana High School (Maryland)

Preceptor: Dr. Kedar Narayan

### **PM-58. Anila Afzal**

*Pre-clinical Development of TSLPR-CD19 Bispecific Chimerical Antigen Receptor (CAR) to Prevent Relapse of B-cell Acute Lymphoblastic Leukemia (B-cell ALL)*

University of Maryland, Baltimore County (Maryland)

Preceptors: Ms. Haiying Qin, Dr. Terry Fry

### **PM-59. Raphael Agbor-Enoh**

*Screening of Different Cancer Cell Lines for Transduction with BacMam Baculovirus To Express P-glycoprotein*

Temple University School of Pharmacy (Pennsylvania)

Preceptors: Dr. Andaleeb Sajid, Dr. Suresh Ambudkar

**PM-60. Sana Ahmad**

*The Inhibition of BRD4 with AZD5153 in Pediatric Solid Tumors*

Brookwood High School (Georgia)

Preceptors: Mr. Will Kelley, Ms. Silvia Pomella, Dr. Xiaolin Wan, Mr. Berkley Gryder, Dr. Marielle Yohe

**PM-61. Alexander Ahn**

*Investigating the Role of Exportin 7 in Pathogenesis of Hepatobiliary Tract Cancers*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Reed Ayabe, Dr. Jonathan Hernandez

**PM-62. Megan Andres**

*Inhibition of WNT Signaling Pathway to Disrupt Brain Endothelial barrier Integrity*

University of North Georgia (Georgia)

Preceptors: Dr. Amélie Vézina, Dr. Sadhana Jackson

**PM-63. James Anibal**

*Machine Learning Analysis of Multi-dimensional CyTof Data Reveals Unique Cellular Phenotypes in Immunocompromised Patients*

Case Western Reserve University (Ohio)

Preceptor: Dr. Grégoire Altan-Bonnet

**PM-64. Tiffany Anthony**

*Prevalence of Palliative Care Consultations in Phase 1 Pediatric Oncology Patients*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Andrea CuvIELlo, Ms. Andrea Beri, Mr. Austin Layne, Dr. Lori Wiener

**PM-65. Bhargav Arimilli**

*Spectroscopic Analysis of Reductive Carboxylation of Glutamine in Patient-derived, Fumarate Hydratase-deficient Tumor Cells*

University of Texas at Dallas (Texas)

Preceptors: Dr. Dan Crooks, Dr. W. Marston Linehan, Dr. Murali Cherukuri

**PM-66. Emily Ashe**

*Flow Cytometric Analysis of Thymocytes and Splenocytes in C57BL/6 Mice*

Eckerd College (Florida)

Preceptor: Dr. Yousuke Takahama

**PM-67. Asma Azam**

*Understanding the Role of RNA Localization on Protein Distribution and Function*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Stavroula Mili, Dr. Konstadinos Moissoglu

**PM-68. Nahid Baghdadi**

*Histone H3 Trimethylation at Lysine 36 Is Associated with Development of Castrate Resistant Prostate Cancer*

Michigan State University (Michigan)

Preceptors: Dr. Remi Adelaiye-Ogala, Dr. David VanderWeele

**PM-69. Vivek Batheja**

*Determining the Effect of SIV Vaccination on Differentiation and Function of Natural Killer Cells*

George Washington University (District of Columbia)

Preceptors: Dr. Mohammad Arif Rahman, Dr. Marjorie Robert-Guroff

**PM-70. Kevin Bernal-Rivera**

*Two-dimensional Topological Representation of Protein Domains*

Los Angeles Trade Technical College (California)

Preceptors: Dr. Philippe Youkharibache, Dr. Tom Madej, Dr. Jiyao Wang

**PM-71. Aaron Bernstein**

*Generalized Meta-analysis: Synthesis of a Truly Integrated Breast Cancer Risk Meta-model*

Pennsylvania State University (Pennsylvania)

Preceptors: Dr. Nilanjan Chatterjee, Dr. Montserrat Garcia-Closas

**PM-72. Rachel Bernstein**

*A Comparison of Oncologists' versus Radiologists' Assessment of Cancer Patients' Re-staging Scans.*

Atara Girls High School (Ohio)

Preceptors: Dr. Julius Strauss, Dr. Mohammad Hadi Bagheri

**PM-73. David Billings**

*3D Printing of Custom Imaging Beds and Life Support Systems for PET and Other Pre-clinical Imaging Modalities*

North Carolina State University (North Carolina)

Preceptors: Dr. Stephen Adler, Dr. Michael Green

**PM-74. Elias Boussouf**

*Validation of Novel Nanoparticle Tracking Analysis Software*

James Hubert Blake High School (Maryland)

Preceptors: Dr. Joshua Welsh, Dr. Jennifer Jones

**PM-75. Eric Bowman Jr**

*Aminoglycosides and Nonaminoglycosides Influence on Readthrough Premature Stop Codons In XPC Fibroblasts*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. Laila Al-Eryani, Dr. Sikandar Khan, Dr. Kenneth Kraemer

**PM-76. Ashley Bushey**

*Immortalized Macrophages Exhibit Dysfunctional Responses in the Context of Murine Lupus-like Autoimmunity*

Middletown High School (Maryland)

Preceptors: Dr. Julio Valencia, Dr. Howard Young, Mr. John Fenimore, Dr. Rebecca Erwin-Cohen

**PM-77. Caitlyn Cabral**

*Reducing the Burden of Methicillin-resistant Staphylococcus aureus Colonization in Research Macaques*

West Virginia University (West Virginia)

Preceptors: Dr. Matthew Breed, Dr. Joshua Kramer

**PM-78. Sabrina Cai**

*Targeting Antioxidant Pathways for Cancer Therapy*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Chunzhang Yang, Dr. Yang Liu

**PM-79. Wesley Caldwell**

*Classifying Emphysema on CT Images via Convolutional Neural Networks in the National Lung Screening Trial*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Hormuzd Katki, Dr. Ronald Summers

**PM-80. Nikki Cannon**

*Benchmarking the Taxonomical and Functional Characterization of a Bacterial Consortium Used in Mouse Models Using Different Sequencing Strategies*

Frankfort High School (West Virginia)

Preceptors: Dr. John McCulloch, Dr. Giorgio Trinchieri

**PM-81. Jason Cao**

*A Comparison between the Effects of Cigarette Smoke and Hookah Smoke on Cytokine Release in Airway Epithelial Cells*

Thomas S. Wootton High School (Maryland)

Preceptor: Dr. Haobin Chen

**PM-82. Stephany Carrasco**

*Factors Regulating the Organization of B-cells in Mucosal Germinal Centers*

Montgomery Blair High School (Maryland)

Preceptors: Ms. Anne Albright, Dr. Jagan Muppidi

**PM-83. Katherine Carroll**

*Tobacco Companies' Targeting of LGBT Communities through Marketing*

Colby College (Maine)



Preceptors: Dr. Christopher Wheldon, Dr. Stephanie Land

**PM-84. Rachel Carter**

*Testing the Efficacy of NAMPT Inhibitors as a Potential Treatment for Neuroendocrine Cancer*

George Mason University (Virginia)

Preceptors: Dr. Michael Gottesman, Dr. Robert Robey

**PM-85. Yin Mei Chan**

*The Role of AMPK Activation in Intermittent Fasting-improved Metabolic Dysfunction*

University of California, Los Angeles (California)

Preceptors: Dr. Cen Xie, Dr. Yuhong Luo, Dr. Frank Gonzalez

**PM-86. Tae Yoon Chang**

*Novel Signaling Pathways in a Bacterial Phosphorelay*

Northern Virginia Community College (Virginia)

Preceptors: Dr. Erin Wall, Dr. Nadim Majdalani, Dr. Susan Gottesman

**PM-87. Chaitali Chitnis**

*Novel Role of Mitochondrial Topoisomerase I (top1mt) in Non-alcoholic Steatohepatitis*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Andrea Baechler, Dr. Valentina Factor, Dr. Yves Pommier

**PM-88. Rachel Choi**

*Discovery of Transcription Factor DNA Binding Domains Essential for Cancer Growth by CRISPR/cas9*

Magruder High School (Maryland)

Preceptors: Mr. Berkley Gryder, Mr. Young Song

**PM-89. Lily Christou**

*Exploring Roles of CFBF and RUNX1 in Cell Cycle Regulation*

National Cathedral School (District of Columbia)

Preceptors: Dr. Navdeep Malik, Dr. Jing Huang

**PM-90. Ntongacha Chu**

*Studying the Interaction of the N-Terminus of Arf1 with the PH Domain of Arf-GAP ASAP1*

University of Chicago (Illinois)

Preceptors: Dr. Neeladri Roy, Dr. Paul Randazzo

**PM-91. Hyunsoo Chung**

*Differential Tissue Tropism Results in Distinct Kinetics of Lymphopenia-induced Homeostatic Proliferation and Tissue Repopulation between Naïve and Memory T Cells*

Columbia University in the City of New York (New York)

Preceptors: Dr. Ronald Gress, Dr. Hye kyung Kim

**PM-92. Jeremy Clemente**

*Examination of P-gp and ABCG2 Expression in Pancreatic Cancer Cell Lines and Tissue Microarrays*

University of Michigan, Ann Arbor (Michigan)

Preceptors: Dr. Michael Gottesman, Dr. Robert Robey

**PM-93. Rachel Cohen**

*Ploidy Predicts Response to Chemotherapeutics*

Lander College for Women (New York)

Preceptors: Dr. Thomas Ried, Dr. Darawalee Wangsa, Dr. Oyku Gonul Geyik

**PM-94. Olivia Cong**

*The Regulation of mTOR Expression by Transcription Factor MZF1*

Northwestern University (Illinois)

Preceptors: Dr. Beverly Mock, Dr. Shuling Zhang

**PM-95. Sean Cook**

*Characterization of a Novel Fricke Gel for Application in Gel Dosimetry*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Robert Miller, Dr. Jason Cheng

**PM-96. Katherine Curt**

*Dual PI3K and Bromodomain Inhibitor SF2523 Sensitizes KRAS Mutant Cancers to the Histone Deacetylase Inhibitor Romidepsin*

Boston College (Massachusetts)

Preceptors: Dr. Michael Gottesman, Dr. Robert Robey

**PM-97. Dominique Daly**

*Recombinant Immunotoxins Targeting BCMA for the Treatment of Multiple Myeloma*

Hampton University (Virginia)

Preceptors: Dr. Ira Pastan, Ms. Zoe Shancer

**PM-98. Shiva Deljookorani**

*Exploring the Relationship between Dopamine Signaling and PD-L1 Expression in Lung Cancer*

Howard Community College (Maryland)

Preceptors: Mr. Christopher Grant, Dr. Brid Ryan

**PM-99. Neehar Desai**

*Optimization of Micrococcal Nuclease Assay for CHIP Sequencing for YD10B Squamous Cell Carcinoma Cells*

Jesuit High School (Louisiana)

Preceptor: Dr. Vassiliki Saloura

**PM-100. Julian Dixon**

*The Localization and Role of Septins in the Mammalian Colon*

Harvard (Massachusetts)

Preceptors: Dr. Roberto Weigert, Dr. Seham Ebrahim, Mr. Max Weiss

**PM-101. Kalie Dominick**

*Pilot Evaluation: Role of NLRP3 Inhibition in Liver Pathology in Sickle Cell Disease*

Syracuse University (New York)

Preceptors: Dr. Martha Quezado, Dr. Zenaide Quezado, Dr. Astin Powers

**PM-102. Janhavi Dubhashi**

*Comparative Efficacy of Single Agent versus Combination Drug Therapy Using SNX and Dasatinib for Papillary Renal Cell Carcinoma*

Georgia State University (Georgia)

Preceptors: Dr. Roma Pahwa, Dr. Ramaprasad Srinivasan

**PM-103. Ashli Earl**

*IL-15 Stimulates IP10 Production and Attracts CXCR3+ T Lymphocytes*

Frederick Community College (Maryland)

Preceptor: Dr. Antonio Valentin

**PM-104. Sarah Eng**

*Serine 861 Phosphorylation of Epithelial Cell Transforming 2 (ECT2) Is a Potential Target for Triple Negative Breast Cancer: Bioinformatics Analysis*

University of Southern California (California)

Preceptors: Dr. Dunrui Wang, Dr. Douglas Lowy

**PM-105. Elizabeth Engle**

*Cytokine Regulators of Muscle Fatigue in Autoimmunity*

Urbana High School (Maryland)

Preceptors: Dr. Howard Young, Mr. John Fenimore, Dr. Julio Valencia, Dr. Rebecca Erwin-Cohen

**PM-106. Tiama Essama-Ayi**

*Exploring the CD47 'Don't Eat Me Signal' in Normal and Malignant Breast Cells*

Rockville High School (Maryland)

Preceptors: Dr. Sukhbir Kaur, Dr. David Roberts

**PM-107. Rivka Farrell**

*Effects of Low-dose Demethylating Agent Decitabine on Breast Cancer Cells*

Bais Yaakov of Passaic High School (New Jersey)

Preceptors: Mrs. Sarah Deasy, Dr. Daniel Edelman

**PM-108. Sivia Feinstein**

*Effects of ARS-853, a Covalent KRAS G12C Specific Inhibitor in Neuroblastoma*

Bnos Yisroel (Maryland)

Preceptors: Dr. Xiaolin Wan, Dr. Marielle Yohe

**PM-109. Iris Feng**

*Is There an Interaction between FGFR1 and FGF8 in Embryonic Kidney Development?*

University of California, Los Angeles (California)

Preceptors: Dr. Alan Perantoni, Dr. Mark Lewandoski, Dr. Michael Hall

**PM-110. Ruonan Feng**

*Development of Anti-B7H3 Antibodies for Cancer Immunotherapy*

Thomas Sprigg Wootton High School (Maryland)

Preceptors: Dr. Mitchell Ho, Dr. Zhijian Duan

**PM-111. Cheyenne Fields**

*Optimization of the Human Papillomavirus (HPV)-16 L1- specific Enzyme-linked Immunosorbent Assay (ELISA)*

Hood College (Maryland)

Preceptors: Dr. Jason Marshall, Dr. Ligia Pinto, Dr. Athina Zacharia

**PM-112. Tiana Fitzgerald**

*The Role of E3 Ubiquitin Ligase Protein RMND5A in Ciliogenesis*

Princeton University (New Jersey)

Preceptors: Dr. Jian Sun, Dr. Ira Daar

**PM-113. Jamie Fleishman, Katie Dolan**

*Screening Theories Project*

University of Maryland, College Park (Maryland), University of Maryland, College Park (Maryland)

Preceptor: Dr. Kara Hall

**PM-114. Kristina Folta**

*Mechanism of the Multidrug Transporter P-Glycoprotein: Characterization of Fluorescent Probe-conjugated Substrates*

Pomona College (California)

Preceptors: Dr. Andaleeb Sajid, Dr. Suresh Ambudkar

**PM-115. Meagan Ford**

*Determining the Optimal Sequence of NAMPT and Topoisomerase 1 Inhibition in Ewing Sarcoma Cell Lines*

Jackson State University (Mississippi)

Preceptors: Ms. Anna Gibson, Mr. Choh Yeung, Dr. Christine Heske

**PM-116. James Frisbie**

*Clinical and Molecular Characteristics of Long Term Survivors of Central Nervous System Tumors: A Report from the Neuro-Oncology Branch Natural History Study*

University of Maryland School of Medicine (Maryland)

Preceptors: Dr. Terri Armstrong, Dr. Mark Gilbert, Ms. Elizabeth Vera

**PM-117. Ophir Gal**

*Predicting Complete Remission in Leukemia Patients Using Gene Expression*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Daoud Meerzaman, Ms. Noam Auslander

**PM-118. Kelsey Gallant**

*Targeting the PARP1 DNA Repair Pathway in IDH1-mutated Glioma*

Spelman College (Georgia)

Preceptors: Dr. Yiqiang Zhou, Dr. Yang Liu, Ms. Di Yu, Dr. Chun Zhang Yang

**PM-119. Benjamin Garcia**

*Chemoenzymatic Sialylation Optimization of a GalNAc Tyrosine Derivative*

University of Texas Rio Grande Valley (Texas)

Preceptors: Dr. Jeff Gildersleeve, Dr. Molly Congdon

**PM-120. Katherine Gelinas**

*Characterization of SIVmac251 gp120 Mutant Proteins*

Longmeadow High School (Massachusetts)

Preceptors: Dr. Genoveffa Franchini, Dr. Isabela Silva de Castro

**PM-121. Radhika Gholap**

*Development of a RT-PCR Panel to Investigate Myogenic Gene Expression and Fusion Status in Suspected Cases of Rhabdomyosarcoma*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Frederic Barr, Dr. Bishwanath Chatterjee

**PM-122. Calvin Godfrey**

*Highly Multiplex Imaging of Mouse Spleen Using CODEX*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Noemi Kedei, Dr. Jin-Qiu Chen

**PM-123. Michael Gouzoulis**

*Characterization of the Mechanism of Action of Combination Treatment with NAMPT Inhibitor OT-82 and Topoisomerase 1 Inhibitor SN-38 in Ewing Sarcoma*

University of Maryland, College Park (Maryland)

Preceptors: Mr. Choh Yeung, Dr. Christine Heske

**PM-124. Nikhil Gowda**

*Unraveling the Single-cell Transcriptomic Profile of Pediatric T-Cell Acute Lymphoblastic Leukemia Treated with Anti-hIL7R*

George Washington University School of Medicine (District of Columbia)

Preceptors: Dr. Maggie Cam, Mr. Parthav Jailwala, Dr. Vishal Koparde, Dr. Scott Durum, Ms. Julie Hixon

**PM-125. Kimberly Grasmick**

*Regulation of Ciliogenesis by Basigin (CD147)*

West Virginia University (West Virginia)

Preceptors: Dr. Jaeho Yoon, Dr. Ira Daar

**PM-126. Hannah Grayman**

*Advances in Therapy Approaches for Rett Syndrome*

Bnos Yisroel of Baltimore (Maryland)

Preceptors: Dr. Daniel Edelman, Dr. Galit Saar

**PM-127. Adlai Grayson**

*Castration-resistant Prostate Cancer Upregulates Alternative Pathways to Promote Cancer Survival*

Howard University College of Medicine (District of Columbia)

Preceptors: Dr. David VanderWeele, Dr. Remi Adelaiye-Ogala

**PM-128. Tarik Green**

*Understanding the Role of a Novel Gene in Muscle Invasive Bladder Cancer*

University of Miami (Florida)

Preceptors: Dr. Rouf Banday, Dr. Ludmila Prokunina

**PM-129. Nina Gutzeit, Richard Korshkov**

*Delineation of Tumor Heterogeneity and Segregation Errors in Cervical Cell Lines Using miFISH and Binucleated FISH Assays*

Field School (District of Columbia), Western Sierra Collegiate Academy (California)

Preceptors: Dr. Anna Roschke, Dr. Kerstin Heselmeyer-Haddad, Mr. Tim Thoerner, Dr. Thomas Reid

**PM-130. Nana Gyabaah-Kessie**

*Cooperative CDK/HDAC Inhibition in Carfilzomib Resistant Multiple Myeloma*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Tyler Peat, Dr. Beverly Mock

**PM-131. Chloe Ham**

*Analytic and Stochastic Methods for Modelling Cytokine Interactions amongst Leukocytes*

George Mason University (Virginia)

Preceptor: Dr. Grégoire Altan-Bonnet

**PM-132. Jonathan Han**

*Chemotherapeutic PARP Inhibitors Alter p53 Dynamics and Cell Fate following DNA Double-strand Break Induction*

Cornell University (New York)

Preceptors: Dr. Ryan Hanson, Dr. Eric Batchelor

**PM-133. Jenna Hasson**

*FLIP-SGS: A Novel Assay to Characterize the Genetics and Site of Integration of HIV-1 Proviruses in the Peripheral Blood*

Hood College (Maryland)

Preceptors: Dr. Sean Patro, Dr. Mary Kearney

**PM-134. Melanie Heller**

*Multispectral Faces of Programmed Death Ligand 1(PD-L1) in Human Tissue*

Winston Churchill High School (Maryland)

Preceptors: Dr. Houssein Abdul Sater, Dr. Beatriz Walter Rodriguez, Dr. James Gulley, Dr. Jeffrey Schlom

**PM-135. Cristal Imar Hernandez-Hernandez**

*Impact of Mitogen-activating Protein MEK Inhibition in the Growth of Medullary Thyroid Cancer*

Universidad Central del Caribe School of Medicine (Puerto Rico)

Preceptors: Dr. John Glod, Dr. Brigitte Widemann

**PM-136. Katharine Hewlett**

*Development of Compounds That Are Broadly Effective against HIV-1 INSTI-resistant Integrase Mutants*

Brown University (Rhode Island)

Preceptors: Dr. Steven Smith, Dr. Stephen Hughes

**PM-137. Jane Higley**

*Chronotype and Insulin Resistance*

Denison University (Ohio)

Preceptor: Dr. Carolyn Reyes-Guzman

**PM-138. Luna Homsí**

*Assessing Training Needs of Adult Learners in the NCI Summer Curriculum Cancer Training Program*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Hala Azzam, Ms. Crystal Spruill, Ms. Aili Evert, Mrs. Yelena Shnyder

**PM-139. Mackenzie Honikel**

*Development of Tumor-associated Carbohydrate Antigen (TACA) Coated Nanoparticles for Inhibition of Tumor Cell Adhesion and Metastasis*

Arizona State University (Arizona)

Preceptor: Dr. Joseph Barchi

**PM-140. Alex Hruska**

*Probing Cellular Response to Topography and Micromechanical Stiffness in Three Dimensions*

Brown University (Rhode Island)

Preceptor: Ms. Kandice Tanner

**PM-141. Tiffaney Hsia**

*CTC Analysis Using EMT markers in Patients Treated with AZD1775 or Nilotinib+Paclitaxel*

Carnegie Mellon University (Pennsylvania)

Preceptors: Dr. Geraldine O'Sullivan Coyne, Dr. Alice Chen, Dr. Naoko Takebe

**PM-142. Maddie Hurwitz**

*Genetic Analysis of Digit Number Control by Positive and Negative Feedback Loops between Mesodermal Shh and Ectodermal Fgf8*

Williams College (Massachusetts)

Preceptors: Dr. Jianjian Zhu, Dr. Susan Mackem

**PM-143. Hena Hussain**

*Sensitivity of Poly (ADP-ribose) Polymerase Inhibitors as a Single Agent or in Combination with Temozolomide to Patient-Derived Mesothelioma Cell Lines*

Sherwood High School (Maryland)

Preceptor: Dr. Mana Kamana Khanal

**PM-144. Cheryl Hutman**

*Pharmacotherapy of Fragile X Syndrome Using mGluR5 Antagonists*

Bnos Yisroel High School (Maryland)

Preceptors: Dr. Inbal Gazy, Dr. Daniel Edelman

**PM-145. Natalie Hwang**

*Enhancing Adoptive Cell Therapy for Human Cancer with miR-155*

Tufts University (Massachusetts)

Preceptors: Dr. Luca Gattinoni, Mr. Neal Lacey

**PM-146. Robert Hwang**

*The Role of TRAF-binding Domains in CD40-mediated Ig Class Switching*

North High School (Iowa)

Preceptors: Dr. Richard Hodes, Mrs. Ying Lu, Mr. Jeffrey Chiang



**PM-147. Iris Indig**

*Using CA9 CAR-T Cells to Target Glioblastoma Multiforme*

University of Maryland, Baltimore County (Maryland)

Preceptors: Dr. Jing Cui, Dr. Zhengping Zhuang, Dr. Mark Gilbert

**PM-148. Kavita Iyer**

*An Analysis of Translational Behavioral and Social Sciences Research: A Review of the Past Twenty Years*

Columbia University Mailman School of Public Health (New York)

Preceptors: Ms. Alicia Livinski, Dr. Ya-Ling Lu, Dr. Susan Czajkowski

**PM-149. Rida Jamal**

*Development of Alternative Confirmatory Assays for CRISPR/Cas9 Mediated Knock-In*

John Champe High School (Virginia)

Preceptors: Dr. Wei-dong Chen, Dr. Thomas Ried

**PM-150. Kathleen Jevtich**

*Network Analysis of the mTOR Interactome in a Tumor Susceptibility Model*

Fairfield University (Connecticut)

Preceptors: Dr. Beverly Mock, Dr. Patty Wiley

**PM-151. Michelle Ji**

*A Study of the Correlation between Tumor and Neoantigen Recognition by TCRs Identified in TIL from Patients with Gastrointestinal Cancers*

Northwestern University (Illinois)

Preceptors: Dr. Zhiya Yu, Dr. Nicholas Restifo

**PM-152. Andrew Jing, Caroline Hardie**

*Elucidating the Impact of Metabolic Activity and Cell Adhesion on the Sensitivity of KRAS Mutant Cancer Cells to Ras Effector Pathway Inhibitors*

Sidwell Friends School (District of Columbia), Colgate University (New York)

Preceptors: Dr. Ji Luo, Dr. Shin-Jen Lin

**PM-153. Christina E. Jones**

*Evaluating Scales Used to Assess Trial Quality*

University of Detroit Mercy (Michigan)

Preceptor: Dr. Vance W. Berger

**PM-154. Seungyeon Jung**

*Developing an Automatic Segmentation Method for Monitoring Metastatic Lung Disease in Patients with Alveolar Soft Part Sarcoma (ASPS)*

Vanderbilt University (Tennessee)

Preceptors: Dr. Eva Dombi, Dr. Jeffrey Solomon, Dr. Brigitte Widemann

**PM-155. Melissa Kallarakal**

*Transcriptional Control of Foxn1 in Thymic Epithelial Cells*

Montgomery College (Maryland)

Preceptors: Dr. Avinash Bhandoola, Dr. Brian Larsen

**PM-156. Saisruthi Kannan**

*Identifying Suppressor Mutations That Mitigate a Defect in Bacterial Morphogenesis*

George Mason University (Virginia)

Preceptors: Dr. Kumaran Ramamurthi, Ms. Carissa Chan

**PM-157. Naviya Kapadia**

*Rapid Identification and Optimization of T-Cell Receptors Recognizing Tumor Neoantigens*

Harker School (California)

Preceptors: Dr. James Yang, Dr. Kenichi Hanada, Mr. Chihao Zhao

**PM-158. Priya Katyal**

*T Cell Receptor A/B NGS Library Preparation/Sequencing Optimization of Activated CD8+/CD4+ T Cells from Immunohistochemistry (IHC) Stained Formalin-fixed and Paraffin-embedded Tumor Tissue*

St. Stephens and St. Agnes School (Virginia)

Preceptor: Dr. Todd Prickett

**PM-159. Will Kelley**

*Identifying Transcription Drivers of Pediatric Cancers Using Coltrion*

Middlebury College (Vermont)

Preceptors: Dr. Berkley Gryder, Dr. Javed Khan

**PM-160. Victoria Kennerley**

*Spatio-temporal Patterns of Meningioma Incidence in United States, 2004-2015*

University of Florida (Florida)

Preceptors: Dr. Philip Rosenberg, Dr. Ana Best

**PM-161. Emily Kim**

*CD1d-tetramer-mediated Enrichment of iNKT Cells Skews Their Subset Composition and Introduces a Bias towards NKT2 Lineage Cells*

Georgetown University (District of Columbia)

Preceptor: Dr. Hyun Park

**PM-162. Iris Kim**

*Generating delta133p53 Knockout ES Cells Using CRISPR/Cas9 Technology*

Vanderbilt University (Tennessee)

Preceptors: Dr. Izumi Horikawa, Dr. Curtis Harris, Dr. Kye-yoon Park

**PM-163. Madeline Kim**

*Reproducible and Reusable Cancer Analysis Pipelines on the NCI Cloud Resources*

University of Chicago (Illinois)

Preceptor: Dr. Hsinyi Tsang

**PM-164. Yujin Kim**

*Role of Immunoglobulin Subtypes in Hepatocellular Carcinoma*

Emory University (Georgia)

Preceptors: Dr. Jinping Liu, Dr. Xin Wei Wang

**PM-165. Gabriel Kline**

*Efficient Syntheses of Stable, Near-infrared Fluorescent Markers for Antibody Labeling and Ureter Imaging*

Colby College (Maine)

Preceptors: Dr. Michael Luciano, Dr. Martin Schnermann

**PM-166. Jessica Kline**

*Cytokine-dependent MSC Differentiation Disrupts Disseminated Tumor Cell Dormancy*

Washington University in St. Louis (Missouri)

Preceptors: Mr. Shil Patel, Dr. Meera Murgai, Dr. Rosandra Kaplan

**PM-167. Lindsay Kohan, Kevin Kong**

*Ramification of the Model Structure of H1X with TAF-1beta by Point Mutation*

University of Maryland, College Park (Maryland), Winston Churchill High School (Maryland)

Preceptors: Dr. Shipeng Li, Dr. Hanqiao Feng, Dr. Yawen Bai

**PM-168. Amita Kulshreshtha**

*Impact Of CRS on Cardiac Function following CD19 CAR-T Cell Therapy In Children And Young Adults with ALL*

University of Texas Southwestern Medical School (Texas)

Preceptor: Dr. Nirali Shah

**PM-169. Anurika Kumar**

*Is CENP-A's Innate Elastic Nature Conserved?*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Daniël Melters, Dr. Yamini Dalal

**PM-170. Sahana Kundu, Rhea Sofat**

*The Effect of the Steroid Hormone Receptor Ligand Guggulsterone on Radiation-induced Senescence in Human Tumor Cell Lines*

Poolesville High School (Maryland), University of Maryland, College Park (Maryland)

Preceptors: Dr. Rajani Choudhuri, Dr. Chandra Nagineni, Dr. John Cook, Dr. Murali Cherukuri

**PM-171. Miriam Temmeh Lattin**

*APOL1 Risk Allele Status in Hidradenitis Suppurativa and Sarcoidosis*

Stern College for Women, Yeshiva University (Non-U.S.)

Preceptors: Dr. Cheryl Winkler, Mrs. Elizabeth Binns-Roemer

**PM-172. Rivka Lax**

*Mother-to-Newborn Transmission of Autoimmune Diseases: Case Reports of Neonatal Lupus Erythematosus.*

Manhattan High School for Girls (New York)

Preceptors: Dr. Ana Caroline Costa Da Silva, Dr. Daniel Edelman

**PM-173. Anh Le**

*Identification and Characterization of Novel Targets in SCLC Using the iPSC Model*

University of Maryland, College Park (Maryland)

Preceptors: Dr. David Schrupp, Dr. Vivek Shukla, Dr. Sudheer Kumar Gara

**PM-174. Farland Lee**

*Sequence Analysis of Camelid Single Domain Antibodies*

Walt Whitman High School (Maryland)

Preceptors: Dr. Hejiao Bian, Dr. Mitchell Ho

**PM-175. Eileen Li**

*Interrogation of Translational Activator Protein GCN1L1 Pathway in Metastatic Dormancy and Reactivation*

University of Pittsburgh (Pennsylvania)

Preceptors: Dr. Jonathan Hernandez, Dr. Surajit Sinha

**PM-176. Xinyi (Mimi) Li**

*My STORI: A Symptom Tracking and Reporting Instrument for CNS Cancer Patients*

Carnegie Mellon University (Pennsylvania)

Preceptors: Dr. Terri Armstrong, Dr. Orieta Celiku, Ms. Elizabeth Vera, Dr. Mark Gilbert

**PM-177. Leah Liebman**

*Combinatorial Immunotherapy Can Enhance Antitumor Activity in Multiple Myeloma*

Bnos Yisroel High School (Maryland)

Preceptors: Ms. Meghali Goswami, Dr. Daniel Edelman

**PM-178. Vivian Lin**

*Screening of Small Molecules to Overcome P-glycoprotein-mediated Resistance to Anticancer Drugs*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Megumi Murakami, Dr. Suresh Ambudkar

**PM-179. Cami Lingenfelter**

*Investigating the Effect of Nat10 on Metastasis through Ribosomal Transcription*

College of William & Mary (Virginia)

Preceptors: Dr. Ngoc-Han Ha, Dr. Kent Hunter

**PM-180. Jose Lopez**

*Standardization of Clonogenic Assay: Literature Review and Colony Forming Assay*

University of Texas at El Paso (Texas)

Preceptor: Mr. Mansoor Ahmed

**PM-181. Carolina Lopez Silva**

*Ciliary Targeting of a DREADD-Gi to Study cAMP Regulation of Hedgehog Signaling*

William & Mary (Virginia)

Preceptors: Dr. Ramiro Iglesias-Bartolome, Dr. Pilar Pedro

**PM-182. Matthew Lynberg**

*Targeting Metabolic Vulnerabilities in Drug Resistant Non-small Cell Lung Cancer*

Monterey Peninsula College (California)

Preceptors: Dr. Abhilash Venugopalan, Dr. Udayan Guha

**PM-183. Justin Ma**

*Detecting Prostate Cancer Hidden from Multi-parametric MRI with 18F-DCFPyL PET*

Poolesville High School (Maryland)

Preceptors: Dr. Maria Lindenberg, Dr. Esther Mena Gonzalez, Dr. Baris Turkbey, Dr. Stephanie Harmon

**PM-184. Arushi Mahajan**

*The Role of MicroRNA 206 in Mesothelioma*

University of Michigan (Michigan)

Preceptors: Dr. Chuong Hoang, Dr. Anand Singh, Dr. Nathanael Pruett

**PM-185. Ruchika Mahapatra**

*Selective pre-miRNA Degradation and the Effect of 25-hydroxycholesterol on Innate Immunity Genes*

University of California, Berkeley (California)

Preceptors: Dr. Joseph Ziegelbauer, Dr. Anna Serquina, Dr. Takanobu Tagawa, Dr. Insun Kook

**PM-186. Frances Angela Maher**

*Investigating the Responses of Cisplatin-resistant Ovarian Cancer Cells to Tubulin Drugs*

Brandeis University (Massachusetts)

Preceptors: Dr. Michael Gottesman, Dr. Sachi Horibata, Ms. Ruchi Patel

**PM-187. Madison Martin**

*Mutational Analysis of the Role of the Matrix Domain of HIV-1 Gag Protein in RNA Binding*

Lebanon Valley College (Pennsylvania)

Preceptors: Ms. Demetria Harvin, Dr. Tomas Kroupa, Dr. Alan Rein

**PM-188. Cole Martini**

*The Detection of LST-3TM12 in Human Cancer Cells*

Washington University in St. Louis (Missouri)

Preceptor: Dr. Tristan Sissung

**PM-189. Maria Maslyanko**

*Immunohistochemical Evaluation of Histones in Gliomas*

George Mason University (Virginia)

Preceptors: Dr. Martha Quezado, Dr. Osorio Lopes Abath Neto

**PM-190. Franck Mbuntcha Bogni**

*Development of an Improved Imaging System to Visualize HIV Assembly.*

Montgomerycollege (Maryland)

Preceptor: Dr. Jonathan Rawson

**PM-191. Kayla McDonald**

*High-throughput Sequencing of 4-thiouridine Modified RNAs in E. coli*

Spelman College (Georgia)

Preceptors: Dr. Pedro Batista, Dr. Christina Fitzsimmons

**PM-192. Kyle McGreivy, Dave Peeney**

*Assessing the Non-classical Functions of TIMP-2*

Saint Mary's College of Maryland (Maryland), (-)

Preceptors: Dr. Dave Peeney, Dr. Sandra Jenson, Dr. William Stetler-Stevenson

**PM-193. Isabella Meerzaman**

*Ki-67: Biomarker in Clinical Trials: How Is it Used?*

Thomas A. Edison High School (Virginia)

Preceptors: Dr. Barbara Dunn, Mrs. Carol Topp

**PM-194. Shubham Mehta**

*Targeting HIV Reverse Transcriptase via Negative-mRNA Encoding Pseudomonas Exotoxin*

University of South Carolina (South Carolina)

Preceptors: Dr. Sankar Adhya, Dr. David FitzGerald, Dr. Dale Lewis, Dr. Nathan Simon

**PM-195. Sheindel Meister**

*The Association Between the Efficacy of Cabozantinib and Hypothyroidism in Patients with Soft Tissue Sarcomas*

Bnos Yisroel of Baltimore (Maryland)

Preceptors: Dr. Geraldine O'Sullivan Coyne, Dr. Alice Chen

**PM-196. Nathan Mella**

*Mapping TBATA CSN1 Interaction Protein Domains*

Brigham Young University (Utah)

Preceptor: Dr. Francis Flomerfelt

**PM-197. Shira Mencer**

*Phantom Limb Pain and Its Treatments: Evidence-based Medicine*

Bnos Yisroel of Baltimore High School (Maryland)

Preceptors: Dr. Emily Petrus, Dr. Daniel Edelman

**PM-198. Jonathan Mendley**

*Retrospective Analysis Using Known Prognostic Scoring Systems in Oncology Phase 1 Patients*

University of Chicago (Illinois)

Preceptors: Dr. Alice Chen, Dr. Geraldine Helen O'Sullivan Coyne, Dr. Naoko Takebe

**PM-199. Shani Menken**

*Impact of Lenvatinib (TKI) in the Growth of Medullary Thyroid Cancer*

Gratz College (Maryland)

Preceptors: Dr. John Glod, Dr. Brigitte Widemann

**PM-200. Ritika Miryala**

*Variant Classification on Cancer Genomics Cloud Using Machine Learning Classifiers*

Northwest High School (Maryland)

Preceptors: Dr. KanakaDurga Addepalli, Dr. Steve Tsang

**PM-201. Mitchell Moore**

*Detection of Cancer Biomarkers on the Surface of Extracellular Vesicles (EV) from Clinical Samples*

Texas A&M University (Texas)

Preceptors: Dr. Jennifer Jones, Dr. Joshua Welsh, Ms. Julia Kepley

**PM-202. Caroline Moreyra**

*Nitric Oxide-mediated Kynurenine/AHR Signaling Enhances Disease Progression in Pancreatic Cancer*

Cornell University (New York)

Preceptors: Dr. Perwez Hussain, Dr. Limin Wang

**PM-203. Shayan Nazari**

*Investigating the Role of the PERK/JAK2/STAT3 Axis in Stress-induced C/EBP $\delta$  Expression in Triple Negative Breast Cancer*

University of North Carolina at Charlotte (North Carolina)

Preceptors: Dr. Namratha Sheshadri, Dr. Esta Sterneck

**PM-204. Shivani Nellore**

*The Role of Phosphorylation of Ect2 S336 in Human Cancer*

North Oldham High School (Kentucky)

Preceptors: Dr. Xiaolan Qian, Dr. Dunrui Wang, Mr. Alex Papageorge, Dr. Douglas Lowy

**PM-205. Valerie Nguyen**

*The Effect of Genetically-engineered Myeloid Cells (GEMys) on T-Cell Function*

University of North Carolina at Chapel Hill (North Carolina)

Preceptors: Dr. Sabina Kaczanowska, Dr. Rosandra Kaplan, Dr. Daniel Beury

**PM-206. Rande Nieto**

*The DNA Binding Properties of HU in Mycoplasma pulmonis*

Grinnell College (Iowa)

Preceptors: Dr. Subhash Verma, Ms. Sabina Gudmundsson

**PM-207. Andrea Noronha**

*Examination of the Effect of Small Molecule Inhibitors on the Binding of Purified Hepatitis B Virus Reverse Transcriptase to its Cognate RNA Epsilon*

Temple University (Pennsylvania)

Preceptors: Dr. Jennifer Miller, Dr. Jason Rausch

**PM-208. Maria Novitskaya**

*Using Single Cell Western to Dissect the Protein Kinase C Signaling Pathway*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Noemi Kedei, Dr. Jinqiu Chen

**PM-209. Anthony Nwankwo**

*Characterization of B1 Cells in the Bone Marrow of SIV-infected Rhesus Macaques*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Gospel Asonye

**PM-210. Chidera Obiwuma**

*Development of a System to Examine Transporters at the Blood-Brain Barrier*

Benjamin Banneker Academic High School (District of Columbia)

Preceptors: Dr. Michael Gottesman, Dr. Robert Robey, Ms. Andrea Robinson

**PM-211. Taivan Odzorig**

*The Innate Defense Regulator RP-182 Induces Pattern Recognition Receptor Expression on M2-like Macrophages*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Rushikesh Sable, Mr. Zachary Knotts, Dr. Udo Rudloff



**PM-212. Daniel Oh**

*Integrated microRNA, mRNA, and Protein Expression Profiles in bPGN-treated Colorectal Cancer Cells*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Joe Matarlo, Dr. Barry O'Keefe

**PM-213. Felix Oh**

*Combining VEGFR-targeting Drugs with Immunotoxins Directed to Surface-expressed Mesothelin on Cancer Cells*

University of Minnesota-Twin Cities (Minnesota)

Preceptors: Dr. David FitzGerald, Dr. Antonella Antignani, Dr. Nathan Simon

**PM-214. Jonas Okafor Jr.**

*Qualitative Analysis of Patient and Parent Reported Clinical Changes in Children with Neurofibromatosis Type 1 and Inoperable Plexiform Neurofibromas on SPRINT: A Phase II Trial of the MEK 1/2 Inhibitor Selumetinib (AZD6244, ARRY-142886)*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Pamela Wolters, Mrs. Mary Anne Tamula, Dr. Staci Martin, Dr. Brigitte Widemann

**PM-215. Michael Onwukaeme**

*Improving Brain Tumor Immunotherapy Outcome by Modulating the Integrity of the Blood-Brain Barrier*

Howard University (District of Columbia)

Preceptors: Dr. Nivi Ratnam, Dr. Amber Giles, Dr. Mark Gilbert

**PM-216. Sandra Oska**

*Multiple Genetic Abnormalities Confound the Genotype/Phenotype Relationship: Cockayne Syndrome Patient with MEN1 and FH Mutations*

Oakland University William Beaumont School of Medicine (Michigan)

Preceptors: Dr. Kenneth Kraemer, Dr. John DiGiovanna

**PM-217. Teresa Ozga, Bethany Kuo**

*Examining the Biochemical Mechanism of the CD47 Morpholino in Normal Versus Cancerous Cells*

Eleanor Roosevelt High School (Maryland), Eleanor Roosevelt High School (Maryland)

Preceptors: Dr. Sukhbir Kaur, Dr. David Roberts

**PM-218. Reethi Padmanabhan**

*Evaluating the Binding Properties of B-ZIP Proteins*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Charles Vinson, Mr. Ani Ufot

**PM-219. Aprill Park**

*Sub-cloning of RNF168 Catalytic Dead Mutant*

University of Michigan (Michigan)

Preceptor: Dr. Ukhyun Jo

**PM-220. Kiran Parwani**

*The Effects of Wild Type versus Enzymatically-inhibited SIRT1 Protein on DNA Origins of Replication*

University of Southern California (California)

Preceptors: Dr. Mirit Aladjem, Ms. Adrian Baris

**PM-221. Lilli Pedersen**

*Novel Mutations in Hypoxia Signaling Pathway Lead to Polycythemia*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Herui Wang, Dr. Zhengping Zhuang, Dr. Mark Gilbert

**PM-222. Helen Peng**

*Exploring the Mechanism of Pomalidomide-induced Surface Marker Expression in Virus-infected Cells*

University of Kansas (Kansas)

Preceptors: Dr. Robert Yarchoan, Dr. David Davis

**PM-223. Luyi Peng**

*Engineering Anti-GPC2 Antibodies in CAR T Cells Targeting Neuroblastoma*

Johns Hopkins University (Maryland)

Preceptors: Dr. Nan Li, Dr. Mitchell Ho

**PM-224. Adelle Perkelvald**

*Evaluation of Olaparib, a PARP Inhibitor, in the Treatment of HER2- Negative Metastatic Breast Cancer in Patients with BRCA Germline Tumor Mutations.*

Lev Bais Yaakov High School (New York)

Preceptors: Dr. Alida Palmisano, Dr. Dan Edelman

**PM-225. Nathan Phillips**

*Insight into the Role of Smurfs on the Repair of Cutaneous Wounds in Mice*

James Hubert Blake High school (Maryland)

Preceptors: Dr. Christina Stuelten, Dr. Ying Zhang

**PM-226. Olivia Preston**

*Molecular Mechanisms That Prevent Mislocalization of CenH3 Variant to Promote Chromosome Stability*

Colgate University (New York)

Preceptors: Dr. Munira Basrai, Dr. Jessica Eisenstatt

**PM-227. Nancy Qin**

*Identification of Radiation-responsive miRNA from Lungs of Whole Body Irradiated Mini-pigs*

Cornell University (New York)

Preceptors: Dr. Moly Aryankalayil, Dr. Sunita chopra

**PM-228. Anaisa Quintanilla-Arteaga**

*A Model of Proteasome Inhibitor Resistance driven by Metabolic Reprogramming in Multiple Myeloma*

Georgetown University (District of Columbia)

Preceptors: Dr. Snehal Gaikwad, Dr. Beverly Mock

**PM-229. Madeline Ramser**

*Two Lead Compounds of a Novel Class of Androgen Receptor (AR) Antagonists: A Pharmacokinetic Analysis*

Georgetown College (Kentucky)

Preceptors: Dr. William Figg, Dr. Cody Peer

**PM-230. Maya Ravichandran**

*Structural Variants in Osteosarcoma*

Rutgers University (New Jersey)

Preceptor: Dr. Paul Meltzer

**PM-231. Peter Raymond-Smiedy**

*How Does E. coli Recover from Magnesium Starvation?*

Binghamton University (New York)

Preceptors: Dr. Susan Gottesman, Dr. Nadim Majdalani

**PM-232. Noor Raza, Xiao Ling Li**

*Investigating the Mechanisms of LINC00675 Transcriptional Regulation in Colorectal Cancer Cells*

Sherwood High School (Maryland), (-)

Preceptors: Dr. Ashish Lal, Dr. Xiao Ling Li

**PM-233. Emily Reagle**

*Isostichopin: Initial Studies on a Potent Cytotoxic Protein from the Cookie Dough Sea Cucumber Isostichopus badionotus*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Carter Mitchell, Dr. Barry O'Keefe

**PM-234. Tiffany Ashley Reyes**

*The Search for ALK-fusion Genes in Colorectal Carcinoma with Immunohistochemistry*

Rockville High School (Maryland)

Preceptor: Mrs. Patricia Fetsch

**PM-235. Alexander Robbins**

*Sub-cloning of LZTR1 Over Expressing Vector*

Walter Johnson High School (Maryland)

Preceptor: Dr. Ukhyun Jo

**PM-236. James Rogers**

*Provider Reported Challenges and Barriers to Referring Patients to Neuro-oncology Clinical Trials: A Report from the Society for Neuro-oncology Member Survey*

Tulane University (Louisiana)

Preceptors: Dr. Terri Armstrong, Dr. Mark Gilbert, Ms. Elizabeth Vera, Ms. Alvina Acquaye

**PM-237. Dahlia Rohm**

*Role of Chromatin Binding Protein HMGN3 in Pancreatic Development*

Johns Hopkins University (Maryland)

Preceptors: Dr. Takashi Furusawa, Dr. Michael Bustin

**PM-238. Mia Rosenfeld**

*Investigation of the Role of Topoisomerase II in Chromosome Condensation*

University of North Carolina Wilmington (North Carolina)

Preceptors: Dr. Alexander Kelly, Mr. Julian Haase

**PM-239. Ana Rosu**

*RNA Nanoparticle Processing within RNA Interference Pathway*

University Laboratory High School (Illinois)

Preceptors: Dr. Lorena Parlea, Mr. Anuk Dayaprema, Dr. Paul Zakrevsky, Dr. Bruce Shapiro

**PM-240. Claire Ruben**

*Predictors of Malignancy Relapse among Patients with Chronic Graft-Versus-Host Disease*

University of Rochester (New York)

Preceptor: Dr. Steven Pavletic

**PM-241. Nathan Ruchelman**

*Molecular Remissions in Patients with Hairy Cell Leukemia after Anti-cd22 Recombinant Immunotoxin Moxetumomab Pasudotox in Phase I and Phase III Trials*

Touro College (New York)

Preceptors: Dr. Robert Kreitman, Dr. Evgeny Arons

**PM-242. Rachel Rutstein**

*Activation of p53 Protein Results in Anemia in 5q syndrome*

Yeshiva of Greater Washington (Maryland)

Preceptors: Mrs. Laura Marler, Dr. Daniel Edelman

**PM-243. Rishabh Saha**

*The Immunohistochemical Detection of TRK - fusion Proteins in Colorectal Carcinoma*

Richard Montgomery High School (Maryland)

Preceptor: Mrs. Patricia Fetsch

**PM-244. Sahil Sahni**

*The Function of MYO1C in an Ewing Sarcoma Cell Line*

McGill University (Non-U.S.)

Preceptors: Dr. Carla Neckles, Dr. Suntae Kim, Dr. Natasha Caplen

**PM-245. Kennedy Salamat**

*3D Structure of Deoxygenated Sickle Hemoglobin Studied by Cryo-electron Microscopy*

Montgomery Blair High School (Maryland)

Preceptors: Dr. Jean-Philippe Demers, Dr. Sagar Chittori, Dr. Sriram Subramaniam

**PM-246. Genevieve Sampson**

*The trENDS in Young Adult E-cigarette Use*

Severna Park High School (Maryland)

Preceptors: Dr. Stephanie Land, Dr. Rachel Grana

**PM-247. Hadassah Schwartz**

*Comparative Characterization of Macrophage Sub-populations in Stage I Lung Adenocarcinoma from European Americans and African Americans*

Community College of Baltimore County (Maryland)

Preceptors: Dr. Brid Ryan, Dr. Adriana Zingone

**PM-248. Ematu Sesay**

*Investigating the Novel Role of Dopamine Pathway in Relation to MAPK Pathway in Normal Lung and Lung Cancer*

Prince George Community College (Maryland)

Preceptors: Dr. Leila Toulabi, Mr. Christopher Grant, Dr. Brid Ryan

**PM-249. Veeraj Shah**

*Multidimensional Body-self Relations in Patients with Primary Brain Tumors*

University of Maryland, College Park (Maryland)

Preceptors: Ms. Elizabeth Vera, Dr. Kevin Camphausen, Dr. Terri Armstrong, Dr. Lindsay Rowe

**PM-250. Holly Shan**

*Targeting SRC-3 by a Small-molecule Inhibitor in Anaplastic Thyroid Cancer*

Emory University (Georgia)

Preceptors: Dr. Li Zhao, Dr. Sheue-Yann Cheng

**PM-251. Daanish Sheikh**

*Identifying Bacteriophage Resistance Mechanisms in Klebsiella pneumoniae*

DeBakey High School for Health Professions (Texas)  
Preceptors: Dr. Shayla Hesse, Dr. Sankar Adhya

**PM-252. Chana Shemtov**

*Evaluating Isotretinoin among Patients with Various Acne Diagnoses*  
Bnos Yosroel of Baltimore (Maryland)  
Preceptors: Ms. Susana Najera, Dr. Daniel Edelman

**PM-253. Juncheng Shen**

*Inhibition of JAK/STAT and mTORC Pathways Shows Synergistic Antiproliferation Activity against Adult T-cell Leukemia/Lymphoma*  
Johns Hopkins University (Maryland)  
Preceptors: Dr. Yuquan Lin, Dr. Meili Zhang, Dr. Thomas Waldmann

**PM-254. Ethan Shi**

*TGF beta-mediated Regulation of Alternative Splicing in Colon Cancer Cells*  
Thomas S Wootton highschool (Maryland)  
Preceptors: Dr. Ying Zhang, Dr. Xuan Xu

**PM-255. Selena Shirkin**

*Finding New Tumor-inhibiting Treatments by Exploring the Effects of Anticancer Drugs on Chromosomal Instability*  
Beth Tfiloh Dahan Community School (Maryland)  
Preceptors: Dr. Vladimir Larionov, Dr. Natalay Kouprina

**PM-256. Amina Siddiqui**

*"Don't Eat Me" (CD47) Signal and BRCA1-associated Protein (BAP-1) Expression in Malignant Mesothelioma Cytology*  
West Springfield High School (Virginia)  
Preceptor: Mrs. Patricia Fetsch

**PM-257. Tankya Simoneaux**

*Immunophenotyping Leukocytes for Adoptive T Cell Therapy against Cancer*  
Morehouse School of Medicine (Georgia)  
Preceptors: Dr. Gregoire Altan-Bonnet, Dr. Ratnadeep Mukherjee

**PM-258. Mohamed Simpara**

*Role of CD47 during Red Blood Cell Development*  
Howard University College of Medicine (District of Columbia)  
Preceptors: Dr. Rajdeep Banerjee, Dr. David Roberts

**PM-259. Anisha Singh**

*Dysregulation of HNF1-b/Clusterin Axis Enhances Disease Progression in a Highly Aggressive Subgroup of Pancreatic Cancer*

Stony Brook University (New York)

Preceptors: Dr. Shouhui Yang, Dr. Perwez Hussain

**PM-260. Gurbani Singh**

*Systematically Assessing Changes in Plexiform Neurofibroma-related Disfigurement in Patients with Neurofibromatosis Type 1 on a Phase 2 Clinical Trial*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Andrea Gross, Dr. Brigitte Widemann, Dr. Eva Dombi

**PM-261. Kathryn Slacin**

*School and Home Neighborhoods That May Support Healthy Eating: Is There Racial Variation among Adolescents in Body Mass Index and Intake of Energy-dense Nutrient-poor Foods, and Fruits and Vegetables?*

College of William & Mary (Virginia)

Preceptors: Dr. Tanya Agurs-Collins, Dr. Laura Dwyer

**PM-262. Hannah Smith**

*Hematologic Toxicity Profile of Cytokine Release Syndrome in Patients Treated with CD22 CAR-T Cell Therapy*

St. Mary's College of Maryland (Maryland)

Preceptor: Dr. Nirali Shah

**PM-263. Lauren Smith**

*Identifying FBS Component Which Increases Tumor Cell sensitivity to Immunotoxin Treatment*

University of Oklahoma (Oklahoma)

Preceptors: Dr. Christine Alewine, Mrs. Xianyu Zhang, Dr. Leela Avula

**PM-264. Julianna Solomon**

*Impact of Mammalian Target of Rapamycin mTOR Protein Inhibition in the Growth of Medullary Thyroid Carcinoma*

University of Maryland, College Park (Maryland)

Preceptors: Dr. John Glod, Dr. Brigitte Widemann

**PM-265. Helena Steffens**

*Design and Synthesis of Novel Long-wavelength Fluorophores*

University of California, Santa Barbara (California)

Preceptors: Dr. Martin Schnermann, Dr. Siddharth Matikonda

**PM-266. Sara Street**

*Antibody-mediated Degradation of HSF1 Proteins*

Frederick High School (Maryland)

Preceptors: Dr. Kuo-Hui Su, Dr. Chengkai Dai

**PM-267. Eric Sun**

*Evidence for Epitranscriptomic Regulation of DNA Double Strand Break Repair*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Andy Tran, Mr. Will Hannon, Dr. Philipp Oberdoerffer

**PM-268. Arvind Suresh**

*Scribe: A Robust System for Collecting Patient-reported Outcome Data for Clinical Research Trials*

Dartmouth College (New Hampshire)

Preceptor: Dr. Jason Levine

**PM-269. Abigail Svoysky**

*Locating the BRD4 Kinase Domain*

Charles E. Smith Jewish Day School (Maryland)

Preceptors: Ms. Jocelyn Weissman, Dr. Dinah Singer

**PM-270. Julia Tager**

*Bereaved Parents' Perceptions of Suffering and Psychosocial Needs at End of Life for Children with Cancer*

University of Massachusetts Amherst (Massachusetts)

Preceptors: Dr. Lori Wiener, Dr. Sima Zadeh, Dr. Haven Battles

**PM-271. Srikar Tallavajhala**

*Metabolic Targeting of Bladder Cancer*

Cornell University (New York)

Preceptors: Dr. Piyush Agarwal, Dr. Reema Railkar

**PM-272. Kevin Tang**

*Comparative Analysis of Common Negative Staining Reagents for Human Papillomavirus*

Ridge High School (New Jersey)

Preceptors: Dr. Natalia De Val, Mr. Kunio Nagashima, Dr. Ziqiu Wang, Dr. Troy Kemp

**PM-273. Suchet Taori**

*Targeting Cancer Metabolism: A Novel Approach for Improved Radiotherapy*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Sarwat Naz, Dr. James Mitchell

**PM-274. Isaiah Taylor**

*Gene Expression Differences Associated with an Engineered Mesothelin Point Mutation That Ablates MUC16 Binding*

University of Dayton (Ohio)

Preceptors: Dr. Christine Alewine, Dr. Leela Avula, Mrs. Xianyu Zhang



**PM-275. Tim Thoerner**

*Single-cell Genetic Analysis of Estrogen Receptor Positive Recurrent and Non-recurrent Breast Carcinomas Using miFish*

German International School, Washington D.C. (Maryland)

Preceptors: Dr. Kerstin Heselmeyer-Haddad, Ms. Irianna Torres, Dr. Thomas Ried

**PM-276. Sarah Thomas**

*Mechanical Regulation of Dormancy*

Hampton University (Virginia)

Preceptors: Dr. Kandice Tanner, Dr. Colin Paul

**PM-277. Matthew Thompson, Nicholas Williams, Vincent Allen, Davis Crawford**

*A Distributed Real-time Patient Genomics Search and Analytics Engine for NCI-MATCH*

Harding University (Arkansas), University of Maryland, College Park (Maryland), University of Maryland College Park (Maryland), Virginia Tech (Virginia)

Preceptors: Mr. Brent Coffey, Mr. Tony Fu, Mr. Waleed Osman

**PM-278. Michael Timmer**

*General Health Status of Long Term (>5 years) Survivors of Central Nervous System Tumors: A Report from the NOB Natural History Study*

St. Mary's College of Maryland (Maryland)

Preceptors: Dr. Terri Armstrong, Dr. Mark Gilbert, Ms. Elizabeth Vera

**PM-279. Garrett Tisdale**

*Analysis of Transcriptional Bursting Data via Unsupervised Clustering Reveals Gene Specific Heterogeneity*

Boise State University (Idaho)

Preceptors: Dr. Daniel Larson, Dr. Yihan Wan

**PM-280. Alexandra Toscano**

*Simulated Artificial Intelligence Automated Metastatic Lesion Identification and Measurements in Radiologist Workflow in Cancer Trials*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Les Folio, Dr. James Gulley

**PM-281. Khadijah Toumbou**

*Investigating the Mechanism of Immune Activation in Response to RNase H2C Knockdown in Model of Breast Cancer Metastasis*

Grinnell College (Iowa)

Preceptor: Ms. Sarah Deasy

**PM-282. Jack Tsintolas**

*Whole-exome Sequencing Identifies Novel Somatic Mutations in variant HCL*

University of Maryland, College Park (Maryland)

Preceptor: Dr. Evgeny Arons

**PM-283. Danielle Tulchinsky**

*The Role of Repid in Mitotic Exit*

University of South Carolina (South Carolina)

Preceptors: Dr. Sang-Min Jang, Dr. Mirit Aladjem

**PM-284. Aslihan Turan**

*Effect of R848 Treatment on the Expression of IFN $\gamma$ R in Murine Leukocytes*

Maltepe University (Non-U.S.)

Preceptor: Dr. Neslihan Kayraklioglu

**PM-285. Arielle Tycko**

*Characterization of Genetically-engineered Myeloid Cells (GEMys)*

Walt Whitman High School (Maryland)

Preceptors: Dr. Daniel Beury, Dr. Sabina Kaczanowska, Dr. Rosie Kaplan

**PM-286. Adam Tyrlik**

*T-cell Repopulation in Primary Immunodeficiency Patients Post-transplant*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Jennifer Kanakry, Dr. Dimana Dimitrova, Mr. Jeremy Rose

**PM-287. Andy Vega**

*Characterization of Bone Lesions Using Sequential (18)-F-FDG-NaF PET/CT Imaging in Patients with Metastatic Genitourinary Tumors Receiving Treatment with Cabozantinib and Nivolumab With and Without Ipilimumab*

San Juan Bautista School of Medicine (Puerto Rico)

Preceptors: Dr. Andrea Apolo, Dr. Liza Lindenberg, Dr. Esther Mena

**PM-288. Claudia Mae Velasco**

*Effect of Neddylation Inhibitor Drug MLN4924 on U251 Glioblastoma Cell Line*

Virginia Tech (Virginia)

Preceptors: Ms. Tamalee Kramp, Dr. Kevin Camphausen

**PM-289. Shreya Vinjamuri**

*Application of CRISPR-Cas9 Knockin Mice in Regulatory T cell Differentiation*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Chuan Wu, Dr. Zuoqia Chen, Dr. Girak Kim, Dr. Jialie Luo

**PM-290. James Virga**

*Effects of Rifaximin on Immune Activation and Gut Microbiome in HIV Infected Individuals*

St. John's University (New York)

Preceptors: Mrs. Jennifer Bell, Dr. Deborah McMahon, Dr. Anuradha Ganesan, Dr. Frank Maldarelli

**PM-291. Katharine Walker-Bawa**

*Alternative Fixation Techniques for Enhanced Histology and Biomolecular Preservation*

George Washington University (District of Columbia)

Preceptors: Dr. Stephen Hewitt, Dr. Joon-Yong Chung

**PM-292. Adeline Walsh**

*Understanding the Interactions between Inner Kinetochore Proteins and Their Role in Chromosome Alignment*

University of Virginia (Virginia)

Preceptors: Dr. Alexander Kelly, Mr. Hayden Saunders, Mr. Julian Haase

**PM-293. Amiya Walton**

*Modulation of TK1 Expression: Dimerization or Methylation?*

Spelman College (Georgia)

Preceptors: Dr. Miriam Poirier, Dr. Ofelia Olivero, Dr. Daniel Edleman, Dr. Vanesa Sanchez

**PM-294. Jasmine Wang**

*A KNIME-based Approach for Analysis of Nuclear Foci in Live-cell Imaging*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Paul Meltzer, Dr. Sarah Clatterbuck Soper

**PM-295. Aliza Weiss**

*Adoptive Cell Therapy for the Treatment of Metastatic Melanoma*

Bais Yaakov of Passaic High School (New Jersey)

Preceptors: Dr. Senta Kapnick, Dr. Daniel Edelman

**PM-296. Kiara Whitaker**

*Single-cell Genetic Analysis of Atypical Ductal Hyperplasia Using miFISH*

North Carolina Agricultural and Technical State University (North Carolina)

Preceptors: Dr. Thomas Ried, Dr. Kerstin Heselmeyer, Ms. Irianna Torres, Ms. Dara Wangsa

**PM-297. Ernestina Wiafe**

*Studying the Toxic Mutants of Human Topoisomerase 3B*

Hampton University (Virginia)

Preceptors: Dr. Yves Pommier, Dr. Sourav Saha

**PM-298. Lily Widdup**

*Genetic and Environmental Correlates of Hypertension in Urban and Rural Youth Living in South Africa*

Wellesley College (Massachusetts)

Preceptors: Dr. Cheryl Winkler, Mrs. Elizabeth Binns-Roemer

**PM-299. Taiye Winful**

*Biochemical Mechanism of Drug Transport by Human P-glycoprotein*

Vanderbilt University (Tennessee)

Preceptors: Dr. Sabrina Lusvardi, Dr. Suresh V. Ambudkar

**PM-300. Erin Winrow**

*Characterization of Vaginal Secretions following MucoCept Administration in Rhesus Macaques*

Howard University (District of Columbia)

Preceptors: Dr. Genoveffa Franchini, Dr. Luca Schifanella, Dr. Massimiliano Bissa

**PM-301. Ethan Wu**

*Papillomavirus Regulates Long Non-coding RNA Expression*

Thomas Jefferson High School for Science and Technology (Virginia)

Preceptors: Dr. Haibin Liu, Dr. Zhi-Ming Zheng

**PM-302. Brian Xi**

*Validation of the Clinical FISH Test for the Detection of RET Oncogene Rearrangement in Lung Cancer*

Thomas S. Wootton High School (Maryland)

Preceptors: Dr. Zied Abdullaev, Dr. Svetlana Pack

**PM-303. Clarissa Xia**

*A Functional Study of Rex-Orf1 in HTLV-1 Subtype C*

Richard Montgomery High School (Maryland)

Preceptors: Dr. Genoveffa Franchini, Dr. Maria Omsland, Dr. Ramona Moles, Dr. Veronica Galli

**PM-304. Jane Xie**

*Investigating the Role of Cancer-derived Smad3 Mutations in TGF-beta Signaling*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Liu-Ya Tang, Dr. Ying Zhang

**PM-305. Hongjia Yang**

*Optimizing GPC-3 CAR T-Cell Therapy Targeting Liver Cancer*

University of California, Berkeley (California)

Preceptors: Dr. Nan Li, Dr. Mitchell Ho

**PM-306. Tianen Yang**

*Semi-automatic Bone Lesion Segmentation on PSMA PET/CT Imaging*

Winston Churchill High School (Maryland)

Preceptors: Dr. Stephanie Harmon, Dr. Liza Lindenberg, Dr. Baris Turkbey, Dr. Peter Choyke

**PM-307. Dahye Yoon**

*The Role of Eye Tracking in Human Behavioral Research: The Context of Cancer Information*

Georgetown University (District of Columbia)

Preceptors: Dr. Sylvia Chou, Dr. Melinda Krakow

**PM-308. Amy Zhong**

*Structural and Functional Investigation of TMEM205, an Integral Membrane Protein Involved in Cisplatin Resistance*

Thomas Sprigg Wootton High School (Maryland)

Preceptors: Dr. Di Xia, Dr. Xiaoyun Bai

**PM-309. Sophie Zhuang**

*How is DNA Replicated during the Re-replication Cycle?*

Northville High School (Michigan)

Preceptors: Mrs. Haiqing Fu, Dr. Christophe Redon, Dr. Mirit I. Aladjem

**National Cancer Institute - Division of Cancer Epidemiology and Genetics (NCI-DCEG)**

**PM-310. Vineeth Amba**

*Nut Consumption and Total and Cause-specific Mortality in the NIH-AARP Diet and Health Study*

College of New Jersey (New Jersey)

Preceptors: Dr. Maryam Hashemian, Dr. Christian Abnet

**PM-311. Courtney Baker**

*Modelling Longitudinal Microbiome Compositional Data: A Two-part Regression Model with Shared Random Effects*

Case Western Reserve University (Ohio)

Preceptors: Dr. Danping Liu, Dr. Yongli Han

**PM-312. Batel Blechter**

*Environmental Tobacco Smoke and Lung Cancer Susceptibility Loci Interactions in Lung Adenocarcinoma among Never-smoking Women in Asia*

Johns Hopkins Bloomberg School of Public Health (Maryland)

Preceptor: Dr. Qing Lan

**PM-313. Brenna Douthitt**

*Estimation of Frequency of Pathogenic Variation in NF1, SPRED1 and MAPK1/3 in Unaffected Populations Using Public Genomic Databases*

Vassar College (New York)

Preceptors: Dr. Alex Pemov, Dr. Douglas Stewart

**PM-314. Michelle Fang**

*Respiratory and Circulatory Disease in a Group Given Diagnostic Fluoroscopic X-rays as Treatment for Tuberculosis*

Thomas Sprigg Wootton High School (Maryland)  
Preceptor: Dr. Mark Little

**PM-315. Haley Garbus**

*Pesticide Exposure and Body Mass Index in the Wives of Farmers in the Agricultural Health Study*  
Yale School of Public Health (Connecticut)  
Preceptors: Dr. Catherine Lerro, Dr. Laura Beane-Freeman

**PM-316. Summer Harvey**

*Predictors of Hysterectomy in Two Nationally Representative U.S. Surveys*  
University of Virginia (Virginia)  
Preceptors: Dr. Megan Clarke, Dr. Nico Wentzensen

**PM-317. Louis Hopkins**

*The Impact of Interferon Lambda 4 on CD4 T-cell Stimulation in vitro*  
Johns Hopkins Bloomberg School of Public Health (Maryland)  
Preceptors: Dr. Ludmila Prokunina-Olsson, Dr. Olusegun Onabajo

**PM-318. Raymond Hughley**

*Association of Genetic Polymorphisms in UNG and APOBEC3 Regions with Bladder Cancer APOBEC-signature Mutation Loads*  
Tuskegee University (Alabama)  
Preceptors: Dr. Oscar Florez-Vargas, Dr. Rouf Banday, Dr. Ludmila Prokunina-Olsson

**PM-319. Rishi Makkar**

*Association of Seropositivity to H. pylori Antigens and Hepatobiliary Cancers in the PLCO Study*  
University of California, Los Angeles (California)  
Preceptors: Dr. Gwen Murphy, Dr. Neal Freedman

**PM-320. Hannah Mandle**

*Analgesic Use during Pregnancy and Risk of Male Genital Anomalies*  
Emory University Rollins School of Public Health (Georgia)  
Preceptor: Dr. Katherine McGlynn

**PM-321. Yusuph Mavura**

*Genome-wide Association Study to identify Risk Loci in Pancreatic Cancer in Samples from China*  
Georgia Institute of Technology (Georgia)  
Preceptors: Dr. Laufey Amundadottir, Dr. Jun Zhong

**PM-322. Teja Nagaradona**

*Characterizing Burden of Disease in a Cohort of People Exposed to Indoor Air Pollution in China*  
Emory University (Georgia)  
Preceptors: Dr. Bryan Bassig, Dr. Qing Lan, Dr. Nat Rothman

**PM-323. Alison Nichols**

*Association of Hand and Kidney Abnormalities in Patients with Fanconi Anemia*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Neelam Giri, Dr. Blanche Alter

**PM-324. Matthew Oh**

*Characterization of an Optically Stimulated Luminescence Dosimetry System for Assessing Medical Radiation Exposure*

Dublin Jerome High School (Ohio)

Preceptors: Dr. Matthew Mille, Dr. Choonsik Lee, Mr. Keith Griffin

**PM-325. Nikhil Padmanabhan**

*Application of an Automatic CT Mapping Method to Adult female Patients for Accurate Organ Dosimetry*

University of Pennsylvania (Pennsylvania)

Preceptors: Dr. Gleb Kuzmin, Dr. Choonsik Lee

**PM-326. Joemy Ramsay**

*Using Toenail Metal Concentrations to Validate Occupational Exposure Estimates Based on Expert Judgment*

University of Utah (Utah)

Preceptors: Dr. Melissa Friesen, Dr. Jean-Francois Sauve

**PM-327. Nirav Shah**

*Rare Variant Analysis of known Cancer-susceptibility Genes in North-American Chordoma Patients*

Georgia Institute of Technology (Georgia)

Preceptor: Dr. Alisa Goldstein

**PM-328. Joshua Smith-Sreen**

*Trends in Premature Mortality Due to Neoplastic Disease: A Comparative Analysis of the United States with European and Latin American Countries from 2000 to 2014*

Boston University (Massachusetts)

Preceptors: Dr. Yingxi Chen, Dr. Amy Berrington de González

**PM-329. Maya Spaur**

*Exposure Assessment of Drinking Water Contaminants among North Carolina Participants in the Agricultural Health Study*

Johns Hopkins University (Maryland)

Preceptor: Dr. Mary Ward

**PM-330. Ashley Thompson**

*Determining the Effects of Novel Regulator of Telomere Elongation Helicase 1 (RTEL1) Variants on Alternative Protein Isoforms*

Converse College (South Carolina)

Preceptors: Dr. Sharon Savage, Dr. Lisa McReynolds

**PM-331. Mimi (Trucmai) Ton**

*Nut and Peanut Butter Consumption and Risk of Prostate Cancer in the NIH-AARP Diet and Health Study*

Yale School of Public Health (Connecticut)

Preceptors: Dr. Jiaqi Huang, Dr. Demetrius Albanes

**PM-332. Chinenye Ugoji**

*Cancer Risk following Non-Hodgkin Lymphoma in HIV-infected individuals*

Johns Hopkins University Bloomberg school of Public Health (Maryland)

Preceptors: Dr. Eric Engels, Dr. Parag Mahale, Dr. Lindsay Morton

**PM-333. Rebecca Venetianer**

*Identifying Causal HPV Infections in Cervical Pre-cancer Using Tissue-based Genotyping*

Columbia University (New York)

Preceptors: Dr. Nicolas Wentzensen, Dr. Megan Clarke

**PM-334. Lea Widemann**

*Methods in Crown-like Structure Assessment*

University of Maryland, College Park (Maryland)

Preceptors: Dr. Gretchen Gierach, Dr. Mustapha Abubakar

**PM-335. Shawn Zamani**

*Dietary Polyunsaturated Fatty Acid Intake and Risk of Upper Gastrointestinal Cancer Incidence: NIH-AARP Diet and Health Study*

University of South Florida (Florida)

Preceptors: Dr. Jessica Petrick, Dr. Michael Cook

**PM-336. Isaac Zhao**

*Endogenous Estrogen Metabolites and Gastric Cancer Risk among Postmenopausal Women*

Brown University (Rhode Island)

Preceptor: Dr. Maria Constanza Camargo

**OD High School Scientific Training and Enrichment Program (HiSTEP)**

**HS-177. Rihana Ali**

*My Summer Experience in HiSTEP at NIH*

Justice (JEB Stuart) High School (Virginia)



Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-178. Samuel Alia**

*My Summer Experience in HiSTEP at NIH*

Charles Herbert Flowers High School (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-179. Bryan Alvarez-Carcamo**

*My summer Experience in HiSTEP at NIH*

Mount Vernon High School (Virginia)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-180. Chinomso Ashiogwu**

*My Summer Experience in HiSTEP at NIH*

Gaithersburg High School (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-181. Eku Beneman**

*My Summer Experience in HiSTEP at NIH*

Paint Branch High School (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-182. Lencho Chawaka**

*My Summer Experience in HiSTEP at NIH*

Wheaton High School (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-183. Mory Diaby**

*My Summer Experience in HiSTEP at NIH*

High Point High school (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-184. Caroline Djakuduel**

*My Summer Experience in HiSTEP at NIH*

Wheaton High School (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-185. Beza Ketema**

*My Summer Experience in HiSTEP at NIH*

Gaithersburg High school (Maryland)

Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-186. Alexander Keth**

*My Summer Experience in HiSTEP at NIH*

James Hubert Blake High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-187. Shandana Khaliq**

*My Summer Experience in HiSTEP at NIH*  
Eleanor Roosevelt High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-188. Jules Koudouovoh**

*My Summer Experience in HiSTEP at NIH*  
James Hubert Blake High (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-189. Long Lam**

*My Summer Experience in HiSTEP at NIH*  
Montgomery Blair High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-190. Rosalba Linares**

*My Summer Experience in HiSTEP at NIH*  
Wheaton High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-191. Rachel Myers**

*My Summer Experience in HiSTEP at NIH*  
Academy of Health Sciences at Prince George's Communiy College (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-192. Ryan-Daniela Nganjo**

*My Summer Experience in HiSTEP at NIH*  
Academy of Health Sciences at Prince George's Communiy College (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-193. Mohammed Niyas**

*My Summer Experience in HiSTEP at NIH*  
Wheaton High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-194. Ezinne Oguguo**

*My Summer Experience in HiSTEP at NIH*  
Academy of Health Sciences (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-195. Emmanuela Otunuga**

*My Summer Experience in HiSTEP at NIH*  
Eleanor Roosevelt High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-196. Vanessa Reyes**

*My Summer Experience in HiSTEP at NIH*  
Colonel Zadok A. Magruder High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-197. James Sawyerr**

*My Summer Experience in HiSTEP at NIH*  
Eleanor Roosevelt High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-198. Jarely Soriano**

*My Summer Experience in HiSTEP at NIH*  
Duke Ellington School of the Arts (District of Columbia)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-199. Feven Tadesse**

*My Summer Experience in HiSTEP at NIH*  
John F. Kennedy High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-200. Toya Tanner**

*My Summer Experience in HiSTEP at NIH*  
Benjamin Banneker Academic High School (District of Columbia)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

**HS-201. Kathryn Windsor**

*My Summer Experience in HiSTEP at NIH*  
Paint Branch High School (Maryland)  
Preceptor: Dr. Sharolyn Kawakami-Schulz

MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HISTEP SESSION	HS	3:00 PM-4:00 PM

**PARTICIPANT . . . . .SESSION-POSTER#**

Abdullah, Idri . . . . . LCH-184  
 Abikoye, Abigail . . . . .PM-52  
 Aboagye, Kwasi . . . . .PM-53  
 Aboagye, Omena . . . . .AM-26  
 Abraham, Alena . . . . .PM-1  
 Abraham, Joel . . . . .PM-54  
 Acevedo, Mary . . . . .PM-55  
 Acha, Beatrice . . . . .AM-72  
 Acha, Chris . . . . .LCH-1  
 Adema, Charlotte . . . . .PM-56  
 Adkins, Alexis . . . . .PM-57  
 Afreen, Hajera . . . . .LCH-185  
 Afzal, Anila . . . . .PM-58  
 Agbor-Enoh, Raphael . . . . .PM-59  
 Agrawal, Mahima . . . . .PM-2  
 Agrawal, Malhaar . . . . .LCH-32  
 Agrawal, Priya . . . . .LCH-2  
 Agyepong, Stephen . . . . .AM-171  
 Ahmad, Sana . . . . .PM-60  
 Ahmed, Mariya . . . . .LCH-3  
 Ahn, Alexander . . . . .PM-61  
 Ahn, Elise . . . . .LCH-33  
 Ake, Jeriel . . . . .AM-27  
 Alexander, Rachel . . . . .AM-143  
 Alhomsy, Alia . . . . .AM-232  
 Ali, Rihana . . . . .HS-177  
 Alia, Samuel . . . . .HS-178  
 Allen, Vincent . . . . .PM-277  
 Allnutt, Mary Alice . . . . .AM-251  
 Alsulami, Layla . . . . .LCH-186  
 Alur, Ruha . . . . .AM-252  
 Alvarez, Carolina . . . . .LCH-34  
 Alvarez-Carcamo, Bryan . . . . .HS-179  
 Amare, Abel . . . . .AM-245  
 Amba, Vineeth . . . . .PM-310  
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 Andres, Megan . . . . .PM-62  
 Anibal, James . . . . .PM-63  
 Anthony, Tiffany . . . . .PM-64  
 Antunes, Ivy . . . . .PM-3  
 Aquino, Draven . . . . .AM-8  
 Archer, Blake . . . . .AM-144  
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 Ashiogwu, Chinomso . . . . .HS-180  
 Attor, Felicia . . . . .AM-9  
 Ault, Larissa . . . . .AM-88  
 Aviles Fernandez, Kenneth . . . . .LCH-35  
 Ayele, Enat . . . . .LCH-4  
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 Bergan, Grace . . . . .LCH-190  
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 Beulick, Elaine . . . . .LCH-191  
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 Brown, Ian . . . . .AM-29  
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 Burgess, Alexander . . . . .AM-30  
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 Burrell, Shalicia . . . . .AM-73  
 Bush, Hannah . . . . .LCH-6  
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 Bustos Barocio, Sonia . . . . .AM-175  
 Cabral, Caitlyn . . . . .PM-77  
 Cadavid, Sara . . . . .AM-233  
 Cai, Sabrina . . . . .PM-78  
 Calco, Brice . . . . .AM-291  
 Caldwell, Wesley . . . . .PM-79  
 Callahan, Daniel . . . . .LCH-146  
 Cannon, Nikki . . . . .PM-80  
 Cao, Jason . . . . .PM-81

Carrasco, Stephany . . . . .PM-82  
 Carroll, Katherine . . . . .PM-83  
 Carter, Rachel . . . . .PM-84  
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 Castillo Rivera, Nelson . . . . .LCH-98  
 Castro, Dánielle . . . . .AM-92  
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 Celestine, Ikia . . . . .LCH-38  
 Centazzo, Nicole . . . . .LCH-147  
 Chalk, Liam . . . . .LCH-195  
 Chambers, Ian . . . . .LCH-148  
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 Chan, William . . . . .LCH-101  
 Chan, Yin Mei . . . . .PM-85  
 Chandra, Swati . . . . .AM-157  
 Chandrawarakalage, Kavisha . . . . .LCH-305  
 Chang, Alexander . . . . .AM-31  
 Chang, Allison . . . . .AM-177  
 Chang, David . . . . .AM-32  
 Chang, Justin . . . . .LCH-7  
 Chang, Tae Yoon . . . . .PM-86  
 Chari, Rohit . . . . .LCH-196  
 Charles, Shaquille . . . . .LCH-102  
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 Chen, Anna . . . . .AM-93  
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 Chen, Daniel . . . . .PM-4  
 Chen, John . . . . .LCH-267  
 Chen, Vivian . . . . .LCH-103  
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 Cheng, Debby . . . . .AM-94  
 Cheng, Ethan . . . . .AM-262  
 Cherry, Jamil . . . . .AM-234  
 Chidester, Stephanie . . . . .LCH-306  
 Chinthapatla, Juhitha . . . . .LCH-254  
 Chitnis, Chaitali . . . . .PM-87  
 Chitsaz, Ata . . . . .AM-11  
 Chitturi, Megha . . . . .AM-33  
 Choi, Monica . . . . .LCH-39  
 Choi, Rachel . . . . .PM-88  
 Choi, Sally . . . . .AM-95  
 Chopra, Varuna . . . . .AM-263  
 Chou, Jason . . . . .PM-5  
 Chowdhury, Navid . . . . .AM-145  
 Christou, Anna . . . . .PM-6  
 Christou, Lily . . . . .PM-89  
 Chu, Eileen . . . . .AM-146  
 Chu, Ntongacha . . . . .PM-90  
 Chung, Hyunsoo . . . . .PM-91  
 Chung, Jacqueline . . . . .PM-57  
 Cisse, Natenin . . . . .LCH-268  
 Clawson, Ellie . . . . .LCH-104  
 Clemente, Jeremy . . . . .PM-92  
 Clinton, Carter . . . . .AM-34  
 Cloyd, Aya . . . . .AM-158  
 Cohen, Rachel . . . . .PM-93  
 Colbert, Caleb . . . . .AM-264  
 Compo, JoAnne . . . . .AM-265

MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HiSTEP SESSION	HS	3:00 PM-4:00 PM

Cong, Olivia . . . . .PM-94	Dubhashi, Janhavi . . . . .PM-102	Galli, Francesca . . . . .AM-189
Contreras, Uriah . . . . .PM-48	Dubofsky, Eric . . . . .AM-160	Gan, Michael . . . . .LCH-203
Cook, Sean . . . . .PM-95	Dubuche, Tsemacha . . . . .AM-269	Ganatra, Stuti . . . . .AM-190
Corrado, Michael . . . . .LCH-40	Duenas, Corey . . . . .LCH-201	Gancz, Naomi . . . . .LCH-272
Courey, Karis . . . . .LCH-269	Durbhakula, Vinay . . . . .LCH-44	Gandhi, Nimit . . . . .LCH-46
Cowie, Kate . . . . .AM-74	Dutta, Nisita . . . . .PM-8	Gandla, Divya . . . . .PM-10
Crawford, Davis . . . . .PM-277	Dwyer, Nathaniel . . . . .AM-98	Ganesan, Divya . . . . .AM-277
Cullather, Erin . . . . .LCH-8	Earl, Ashli . . . . .PM-103	Ganga, Arjun . . . . .AM-278
Cunningham, Caroline . . . . .LCH-313	Edgar, Samantha . . . . .AM-182	Garbus, Haley . . . . .PM-315
Curley, Caleigh . . . . .LCH-197	Edisis, Nathaniel . . . . .PM-9	Garcia, Alexa . . . . .LCH-204
Curt, Katherine . . . . .PM-96	Eger, Sarah . . . . .LCH-151	Garcia, Benjamin . . . . .PM-119
Cusma, William . . . . .LCH-149	Eisenberg, Jonah . . . . .AM-99	Garcia, Carmen-Maria . AM-259,AM-279
D'Ostroph, Bryan . . . . .AM-178	Eisler, Ben . . . . .AM-183	Garcia, Eric Joshua . . . . .AM-40
D'Souza, Andrea . . . . .LCH-198	Elzarea, Noha . . . . .AM-184	Gardiner, Mariko . . . . .AM-2
Dahms, Sarah . . . . .LCH-199	Eng, Sarah . . . . .PM-104	Garg, Deeya . . . . .AM-13
Daly, Dominique . . . . .PM-97	Engle, Elizabeth . . . . .PM-105	Gasnikov, Dmitry . . . . .LCH-11
Dame, Isabel . . . . .AM-223	Espinoza, David . . . . .AM-270	Gbenro, Mabel . . . . .AM-191
Dandi, Gauri . . . . .LCH-41, LCH-45	Esquerio, Anah . . . . .AM-271	Gbenro Jr, Macred . . . . .AM-41
Dang, Kathleen . . . . .AM-246	Essama-Ayi, Tiama . . . . .PM-106	Geddes, Catriona . . . . .AM-280
Danso, Melanie . . . . .AM-179	Estrada, Luis . . . . .AM-161	Geib, Ryan . . . . .AM-101
Das, Prosun . . . . .LCH-319	Evans, Ayia . . . . .AM-185	Gelinas, Katherine . . . . .PM-120
Das, Urjita . . . . .LCH-150	Factor, Zekiel . . . . .AM-272	George, Emmett . . . . .AM-14
Davies, Biobele . . . . .AM-2	Famili, Hannah . . . . .AM-224	George, Sarah . . . . .LCH-273
De Alwis, Donald . . . . .LCH-255	Famuyiwa, Olufisola . . . . .AM-186	Gevorgyan, Anahit . . . . .LCH-47
Dean, Frances . . . . .AM-266	Fan, Olivia . . . . .AM-100	Gholap, Radhika . . . . .PM-121
DeGrazia, Zoe . . . . .LCH-270	Fang, Francia . . . . .AM-273	Giannetti, Alicia . . . . .AM-42
DeJesus, Jessica . . . . .LCH-42	Fang, Michelle . . . . .PM-314	Gibson, Takiel . . . . .LCH-112
Delavari, Delyar . . . . .AM-180	Fang, William . . . . .LCH-110	Gliniewicz, Emily . . . . .AM-102
Delgado, Melanie . . . . .AM-267	Farooque, Nashwan . . . LCH-41, LCH-45	Godfrey, Calvin . . . . .PM-122
Deljookorani, Shiva . . . . .PM-98	Farrell, Rivka . . . . .PM-107	Golden, Amber . . . . .AM-43
DeLuca, Marisa . . . . .LCH-105	Farrin, Fadihah . . . . .AM-187	Gomez, Charlyn . . . . .LCH-205
DeNegre, Noah . . . . .AM-235	Feinstein, Sivia . . . . .PM-108	Gomez, Fatima . . . . .LCH-12
Desai, Alisha . . . . .LCH-43	Feng, Iris . . . . .PM-109	Gomez-Fonseca, Duber . . . . .AM-44
Desai, Neehar . . . . .PM-99	Feng, Ruonan . . . . .PM-110	Gonzalez, Iliana . . . . .LCH-153
Deshmukh, Sanyukta . . . . .AM-181	Fields, Cheyenne . . . . .PM-111	Gonzalez, Mayte . . . . .LCH-206
Deshpande, Priya . . . . .LCH-314	Filipowicz, Natalie . . . . .AM-36	Goode-Arthur, Michala . . . . .AM-103
DeTuncq, Astoria . . . . .AM-236	Fink, Yaeli . . . . .LCH-202	Gormaley, Anne . . . . .LCH-48
Deven, Arjun . . . . .LCH-200	Fioriti, Cynthia . . . . .AM-274	Gouzoulis, Michael . . . . .PM-123
DeVol, Charlotte . . . . .AM-159	Fitzgerald, Tiana . . . . .PM-112	Gowda, Nikhil . . . . .PM-124
Diaby, Mory . . . . .HS-183	Flaherty, Sarah . . . . .AM-37	Graf, Ava Akua . . . . .PM-11
Dias, Travis . . . . .AM-97	Fleishman, Jamie . . . . .PM-113	Grasmick, Kimberly . . . . .PM-125
Diaz Torres, Natalia . . . . .LCH-9	Flores, Saul . . . . .AM-275	Grayman, Hannah . . . . .PM-126
Dib, Michael . . . . .LCH-271	Fodor, R'ay . . . . .AM-276	Grayson, Adlai . . . . .PM-127
Dixon, Julian . . . . .PM-100	Folio, Lucas . . . . .LCH-315	Greco, Matt . . . . .AM-281
Djakuduel, Caroline . . . . .HS-184	Folta, Kristina . . . . .PM-114	Green, Tarik . . . . .PM-128
Dogbe, Nadine . . . . .AM-35	Fones, Lilah . . . . .AM-147	Greene, Sunny . . . . .AM-45
Dohse, Carlos . . . . .LCH-106	Fong, Daniel . . . . .AM-225	Greenlee, Ashley . . . . .AM-192
Dolan, Katie . . . . .PM-113	Fonseca, Victoria . . . . .AM-148	Grewe, Adriana . . . . .LCH-49
Dominah, Gifty . . . . .AM-268	Ford, Meagan . . . . .PM-115	Griffiths, Carla . . . . .AM-226
Dominick, Kalie . . . . .PM-101	Frazier, Dorian . . . . .AM-149	Griggs, Dannie . . . . .LCH-274
Domrachev, Bogdan . . . . .AM-12	Frederick, Hannah . . . . .LCH-111	Grube, Natalia . . . . .AM-104
Donahue, Jack . . . . .LCH-107	Freeman, Joshua . . . . .AM-188	Guan, Sophia . . . . .LCH-154
Dougherty, Ryan . . . . .LCH-108	Frisbie, James . . . . .PM-116	Guevara, Michelle . . . . .PM-49
Douthitt, Brenna . . . . .PM-313	Funderburk, Karen . . . . .AM-38	Gui, Catherine . . . . .LCH-50
Down-Dorsey, Jordan . . . . .PM-7	Gabert, Tess . . . . .AM-39	Gulko, Daniel . . . . .AM-193
Driscoll, Riley . . . . .LCH-109	Gadila, Soumith . . . . .LCH-316	Gunter-Rahman, Fatima . . . . .LCH-257
Drye, Sandy . . . . .LCH-256	Gajendiran, Anjali . . . . .LCH-152	Gutzeit, Nina . . . . .PM-129
Du, Michelle . . . . .LCH-10	Gal, Ophir . . . . .PM-117	Gyabaah-Kessie, Nana . . . . .PM-130
Duarte, Danielle . . . . .AM-247	Gallant, Kelsey . . . . .PM-118	Hacker, David . . . . .AM-237

MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HISTEP SESSION	HS	3:00 PM-4:00 PM

Hagerman, Charlotte . . . . .AM-46	Jabara, Isabel . . . . .LCH-55	Kocsuta, Victoria . . . . .PM-17
Hahm, Katie . . . . .LCH-275	Jacob, Alexis . . . . .LCH-210	Kohan, Lindsay . . . . .PM-167
Haile, Meron . . . . .AM-75	Jain, Arad . . . . .LCH-56	Kondapolu, Manish . . . . .AM-4
Halprin, Molly . . . . .LCH-207	Jain, Arjun . . . . .AM-106	Konduru, Hima . . . . .LCH-15
Ham, Chloe . . . . .PM-131	Jain, Ritika . . . . .PM-15	Kondylis, Joanna . . . . .LCH-279
Hamdi, Osama . . . . .AM-227	Jamal, Rida . . . . .PM-149	Kong, Kevin . . . . .PM-167
Hammel, Lauren . . . . .PM-12	Javdan, Cameron . . . . .AM-77	Korshkov, Richard . . . . .PM-129
Han, Elaine . . . . .AM-76	Jayakar, Gopal . . . . .AM-47	Kost, Dana . . . . .PM-18
Han, Jonathan . . . . .PM-132	Jean, Catherine . . . . .AM-290	Kostic, Aleksandra . . . . .AM-49
Hanes, Camille . . . . .AM-282	Jevtich, Kathleen . . . . .PM-150	Kothari, Ruchita . . . . .AM-198
Hannon, Devin . . . . .PM-13	Ji, Michelle . . . . .PM-151	Kouanda, Bakey . . . . .LCH-215
Hardie, Caroline . . . . .PM-152	Jiang, Matthew . . . . .AM-291	Koudouovoh, Jules . . . . .HS-188
Harling, Mitchell . . . . .LCH-51	Jiang, Wendy . . . . .PM-16	Koutsoukos, Stefanos . . . . .AM-50
Harris, Tahja . . . . .LCH-258	Jing, Andrew . . . . .PM-152	Krenek, Andrea . . . . .PM-19
Hartnett, Jamie . . . . .LCH-113	Joe, Tawnjrae . . . . .AM-78	Krishnakumar, Asha . . . . .AM-293
Harvey, Guyton . . . . .LCH-307	Johnson, Frances . . . . .LCH-277	Krishnamoorthi, Mahima . . . . .AM-109
Harvey, Summer . . . . .PM-316	Johnson, Lauren . . . . .LCH-115	Kulshreshtha, Amita . . . . .PM-168
Hasson, Jenna . . . . .PM-133	Johnson, Takerra . . . . .LCH-13	Kumar, Anurika . . . . .PM-169
Heller, Melanie . . . . .PM-134	Jones, Adrianna . . . . .LCH-211	Kundu, Sahana . . . . .PM-170
Hentschel, Matthew . . . . .LCH-114	Jones, Christina E. . . . .PM-153	Kuo, Bethany . . . . .PM-217
Herath, Isuru . . . . .LCH-208	Jung, Joslyn . . . . .LCH-156	Kussmaul, Benjamin . . . . .LCH-318
Hernandez-Hernandez, Cristal Imar . . . . .PM-135	Jung, Seungyeon . . . . .PM-154	Kyei-Asare, Aaron . . . . .LCH-319
Hewlett, Katharine . . . . .PM-136	Kabir, Sheaneela . . . . .AM-239	Lam, Long . . . . .HS-189
Hightower, Oliver . . . . .LCH-276	Kalfsbeek, Cheyenne . . . . .AM-164	Lane, Jamil . . . . .AM-199
Higley, Jane . . . . .PM-137	Kallarakal, Melissa . . . . .PM-155	Langlieb, Jonah . . . . .LCH-320
Holland, Elizabeth . . . . .AM-194	Kalra, Andrew . . . . .LCH-14	Lattin, Miriam Temmeh . . . . .PM-171
Holt, Ashley . . . . .AM-162	Kambhampati, Roja . . . . .LCH-57	Lax, Rivka . . . . .PM-172
Homsy, Luna . . . . .PM-138	Kang, Joo Young . . . . .AM-197	Layman, Ilan . . . . .LCH-280
Honikel, Mackenzie . . . . .PM-139	Kannan, Saisruthi . . . . .PM-156	Le, Anh . . . . .PM-173
Hopkins, Louis . . . . .PM-317	Kanuri, Ajith . . . . .AM-3	Le, Katherine D. . . . .AM-240
Hoque, Laboni . . . . .LCH-52	Kapadia, Naviya . . . . .PM-157	Lechmann, Grace . . . . .LCH-157
Horowitch, Brooke . . . . .AM-105	Karpurapu, Anish . . . . .AM-107	Lee, Annie . . . . .LCH-61
Hossain, Mahin . . . . .AM-283	Kassim, Yasmin . . . . .LCH-317	Lee, Daniel . . . . .AM-294
Hou, Gerald . . . . .LCH-155	Katyal, Priya . . . . .PM-158	Lee, Dongwon . . . . .LCH-116
Hruska, Alex . . . . .PM-140	Keith, Rachel . . . . .AM-292	Lee, Farland . . . . .PM-174
Hsia, Tiffany . . . . .PM-141	Kelleher, Andrew . . . . .LCH-58	Lee, Tiffany . . . . .LCH-158
Hsu, Eric . . . . .AM-284	Kellenberger, Tyler . . . . .AM-150	Lehr, Alexander . . . . .AM-295
Hu, Clarice . . . . .AM-195	Keller, Alana . . . . .AM-79	Lehr, Liam . . . . .AM-296
Huang, Cindy . . . . .PM-14	Kelley, Will . . . . .PM-159	Lei, Katherine . . . . .AM-200
Hughes, Randall . . . . .AM-285	Kelsey, Nathan . . . . .LCH-212	Leitzelar, Brianna . . . . .PM-50
Hughley, Raymond . . . . .PM-318	Kennerley, Victoria . . . . .PM-160	León, André . . . . .LCH-216
Hurt, Christopher . . . . .AM-196	Ketema, Beza . . . . .HS-185	Lewis, Devin . . . . .AM-16
Hurwitz, Maddie . . . . .PM-142	Keth, Alexander . . . . .HS-186	Li, Daniel . . . . .LCH-321
Hussain, Hena . . . . .PM-143	Khaliq, Shandana . . . . .HS-187	Li, Eileen . . . . .PM-175
Hutman, Cheryl . . . . .PM-144	Khan, Ahnaf . . . . .LCH-278	Li, Fucheng . . . . .LCH-322
Hutman, Rebecca . . . . .AM-286	Kibbey, Nicholas . . . . .AM-15	Li, Joy . . . . .PM-20
Huynh, Trung . . . . .LCH-209	Kim, Annabelle . . . . .LCH-213	Li, Katherine . . . . .PM-21
Hwang, Natalie . . . . .PM-145	Kim, Caroline . . . . .AM-108	Li, Rao . . . . .LCH-62
Hwang, Robert . . . . .PM-146	Kim, Edward . . . . .LCH-59	Li, Ryan . . . . .AM-297
Hyppolite, Kervin . . . . .AM-238	Kim, Emily . . . . .PM-161	Li, Tianming . . . . .AM-298
Inbody, Laura . . . . .AM-287	Kim, Iris . . . . .PM-162	Li, Xiao Ling . . . . .PM-232
Indig, Iris . . . . .PM-147	Kim, Madeline . . . . .PM-163	Li, Xinyi (Mimi) . . . . .PM-176
Iruvanti, Sushruta . . . . .AM-163	Kim, YeonSoo (Kelly) . . . . .AM-228	Li, Zhiyuan . . . . .AM-51
Islam, Promotto . . . . .LCH-53	Kim, Yujin . . . . .PM-164	Liao, Jennifer . . . . .LCH-16
Islam, Zahin . . . . .LCH-54	Kirkpatrick, Alex . . . . .LCH-60	Licht, Judith . . . . .LCH-281
Iyengar, Sanjna . . . . .AM-288	Kiser, Daniel . . . . .AM-48	Liebman, Leah . . . . .PM-177
Iyer, Amrita . . . . .AM-289	Kline, Gabriel . . . . .PM-165	Lilley, Shauntre . . . . .LCH-259
Iyer, Kavita . . . . .PM-148	Kline, Jessica . . . . .PM-166	Lin, Adrian . . . . .AM-201
	Klink, Rachel . . . . .LCH-214	Lin, Ashley . . . . .LCH-63

MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HiSTEP SESSION	HS	3:00 PM-4:00 PM

Lin, Nyusha . . . . .	LCH-17	McGurn, Margaret . . . . .	PM-26	Nguyen, Tuyet . . . . .	AM-204
Lin, Vivian . . . . .	PM-178	Mediavilla, Braden . . . . .	LCH-220	Nguyen, Valerie . . . . .	PM-205
Linares, Rosalba . . . . .	HS-190	Meerzaman, Isabella . . . . .	PM-193	Nguyen, Victoria . . . . .	LCH-122
Lindstrom, Taylor . . . . .	AM-52	Mehta, Paras . . . . .	PM-27	Nichols, Alison . . . . .	PM-323
Lingenfelter, Cami . . . . .	PM-179	Mehta, Shubham . . . . .	PM-194	Niebler, Jake . . . . .	AM-19
Little Finger, Tobie . . . . .	LCH-282	Meisler, Esther . . . . .	LCH-221	Niehoff, Taylor . . . . .	AM-20
Liu, Amanda . . . . .	AM-17	Meister, Sheindel . . . . .	PM-195	Nieto, Rande . . . . .	PM-206
Liu, Andrew . . . . .	LCH-217	Mejias-Torres, Gustavo . . . . .	LCH-164	Niyas, Mohammed . . . . .	HS-193
Liu, Catherine . . . . .	LCH-64	Mekonnen, Naol . . . . .	AM-105	Njanja, Lindsey . . . . .	LCH-226
Liu, Ivy . . . . .	AM-80	Mella, Nathan . . . . .	PM-196	Njeri, Brigdet . . . . .	AM-205
Lodhi, Taha . . . . .	AM-299	Mena, Daya . . . . .	LCH-70	Noh, Chloe . . . . .	LCH-169
Long, Charday . . . . .	LCH-159	Mencer, Shira . . . . .	PM-197	Noronha, Andrea . . . . .	PM-207
Long, Dilara . . . . .	PM-22	Mendez, Adriana . . . . .	LCH-19	Nottingham, Kirsten . . . . .	LCH-309
Long, Marque . . . . .	LCH-260	Mendley, Jonathan . . . . .	PM-198	Novitskaya, Maria . . . . .	PM-208
Lopez, Jose . . . . .	PM-180	Menken, Shani . . . . .	PM-199	Nwankwo, Anthony . . . . .	PM-209
Lopez Silva, Carolina . . . . .	PM-181	Metenou, Dhalia . . . . .	AM-113	Nwokoye, Diana . . . . .	AM-309
Lopez-Haz, Erica . . . . .	AM-202	Migineishvili, Nino . . . . .	LCH-284	O'Connell, Eoin . . . . .	LCH-72
Lugo Tosado, Paola . . . . .	LCH-218	Miller, Cameron . . . . .	AM-152	O'Donnell, Jessie . . . . .	LCH-123
Lulseged, Ezana . . . . .	AM-53	Mills, Jatia . . . . .	LCH-165	Obiwuma, Chidera . . . . .	PM-210
Lunchick, Matthew . . . . .	PM-23	Miryala, Ritika . . . . .	PM-200	Odzorig, Taivan . . . . .	PM-211
Lyle, Thashanna . . . . .	LCH-160	Mofor, Mike-Ryan . . . . .	LCH-323	Odzorig, Tamir . . . . .	LCH-21
Lynberg, Matthew . . . . .	PM-182	Momenh, Azzah . . . . .	LCH-222	Ogbonna, Oluchi . . . . .	LCH-22
Ma, Hanley . . . . .	LCH-65	Montileaux, Summer . . . . .	AM-303	Oguguo, Ezinne . . . . .	HS-194
Ma, Justin . . . . .	PM-183	Moore, Candace . . . . .	LCH-308	Oh, Daniel . . . . .	PM-212
Mackey-Alfonso, Sabrina . . . . .	LCH-117	Moore, Maya . . . . .	AM-54	Oh, Felix . . . . .	PM-213
Maddox, Anthony . . . . .	AM-300	Moore, Mitchell . . . . .	PM-201	Oh, Matthew . . . . .	PM-324
Maggirwar, Nishad . . . . .	LCH-161	Moreira, Daniela . . . . .	LCH-166	Oh, Sooyoun . . . . .	PM-30
Mahajan, Arushi . . . . .	PM-184	Moreyra, Caroline . . . . .	PM-202	Okafor Jr, Jonas . . . . .	PM-214
Mahajan, Vikrant . . . . .	AM-81	Morgan, Hannah . . . . .	LCH-167	Olondo Kuba, Jacob . . . . .	AM-206
Mahapatra, Ruchika . . . . .	PM-185	Morris, Denise . . . . .	AM-114	Olson, Bridget D . . . . .	AM-96
Maher, Frances Angela . . . . .	PM-186	Mossazghi, Nahom . . . . .	LCH-285	Onuoha, Gloria . . . . .	LCH-73
Makkar, Rishi . . . . .	PM-319	Mouser, Nicholas . . . . .	LCH-223	Onwukaeme, Michael . . . . .	PM-215
Malave-Ramos, Ken . . . . .	LCH-66	Movsas, Rachel . . . . .	AM-304	Onyeador, Jeffrey . . . . .	AM-82
Malik, Tooba . . . . .	AM-110	Mumford, Kelsey . . . . .	LCH-286	Onyebuchukwu, Maureen . . . . .	AM-207
Mallick, Zyannah . . . . .	LCH-67	Munoz, Irwin . . . . .	PM-28	Onyekaba, Nnanna . . . . .	LCH-227
Maltsev, Alexander . . . . .	LCH-118	Munyan, Nicholas . . . . .	LCH-224	Onyima, Chinenye . . . . .	LCH-124
Mandle, Hannah . . . . .	PM-320	Musselman, Roman . . . . .	LCH-120	Orellana, Halyn . . . . .	LCH-74
Mannes, Jacob . . . . .	LCH-68	Mwenda, Nkatha . . . . .	LCH-121	Orozco, Leah . . . . .	AM-248
Marani, Melika . . . . .	AM-301	Myers, Rachel . . . . .	HS-191	Ortega Sustache, Yashira . . . . .	LCH-228
Marcantonio, Olivia . . . . .	AM-111	Myung, Sangho . . . . .	AM-55	Ortiz, Maria S . . . . .	AM-249
Martin, Christopher . . . . .	PM-24	Nagaradona, Teja . . . . .	PM-322	Osborne, Jennifer . . . . .	AM-208
Martin, Clare . . . . .	AM-112	Naidu, Arush . . . . .	AM-18	Oska, Sandra . . . . .	PM-216
Martin, Madison . . . . .	PM-187	Nakuchima, Sofia . . . . .	AM-115	Osman, Manolya . . . . .	AM-153
Martin, Matthew . . . . .	LCH-219	Nalls, Matthew . . . . .	AM-305	Osterholt, Thomas . . . . .	AM-291
Martinez, Edith . . . . .	LCH-162	Natesh, Naveen . . . . .	AM-203	Otero Rios, Andrea . . . . .	AM-56
Martini, Cole . . . . .	PM-188	Nazari, Shayan . . . . .	PM-203	Otunuga, Emmanuela . . . . .	HS-195
Maskeri, Anoo . . . . .	LCH-283	Ndiaye, Ndeye Marieme . . . . .	AM-306	Overly, Anne . . . . .	PM-31
Maslyanko, Maria . . . . .	PM-189	Neelaveni, Shalika . . . . .	LCH-324	Ozga, Teresa . . . . .	PM-217
Matera-Vatnick, Mikaela . . . . .	PM-25	Nellore, Shivani . . . . .	PM-204	Padmanabhan, Nikhil . . . . .	PM-325
Mathew, Nidhi . . . . .	LCH-18	Nelson, Charlie . . . . .	AM-307	Padmanabhan, Reethi . . . . .	PM-218
Mathews, Meghna . . . . .	LCH-163	Nelson, Jordany . . . . .	AM-116	Pak, Eowyn . . . . .	LCH-75
Mathews, Nikhil . . . . .	LCH-119	Nelson, Luke . . . . .	LCH-20	Pan, Jessica . . . . .	LCH-229
Matic, Erica . . . . .	AM-151	Nelson, Matthew . . . . .	AM-308	Panakal, Parvathy . . . . .	AM-310
Mavura, Yusuph . . . . .	PM-321	Nettleton, Margaret . . . . .	PM-29	Pannullo, Nicole . . . . .	LCH-23
Mbuntcha Bogni, Franck . . . . .	PM-190	News, Madalyn . . . . .	LCH-71	Pantin, Kenzhane . . . . .	AM-57
McDonald, Kayla . . . . .	PM-191	Nganjo, Ryan-Daniela . . . . .	HS-192	Paranzino, Cameron . . . . .	AM-183
McGinnis, ReLiza . . . . .	AM-302	Nguyen, Joseph . . . . .	LCH-168	Parekh, Kavya . . . . .	LCH-24
McGinty, Shane . . . . .	LCH-69	Nguyen, Quynh-Van . . . . .	AM-229	Parikh, Yash . . . . .	PM-32
McGreivy, Kyle . . . . .	PM-192	Nguyen, Richard . . . . .	LCH-225	Park, Aaron . . . . .	AM-311



MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HISTEP SESSION	HS	3:00 PM-4:00 PM

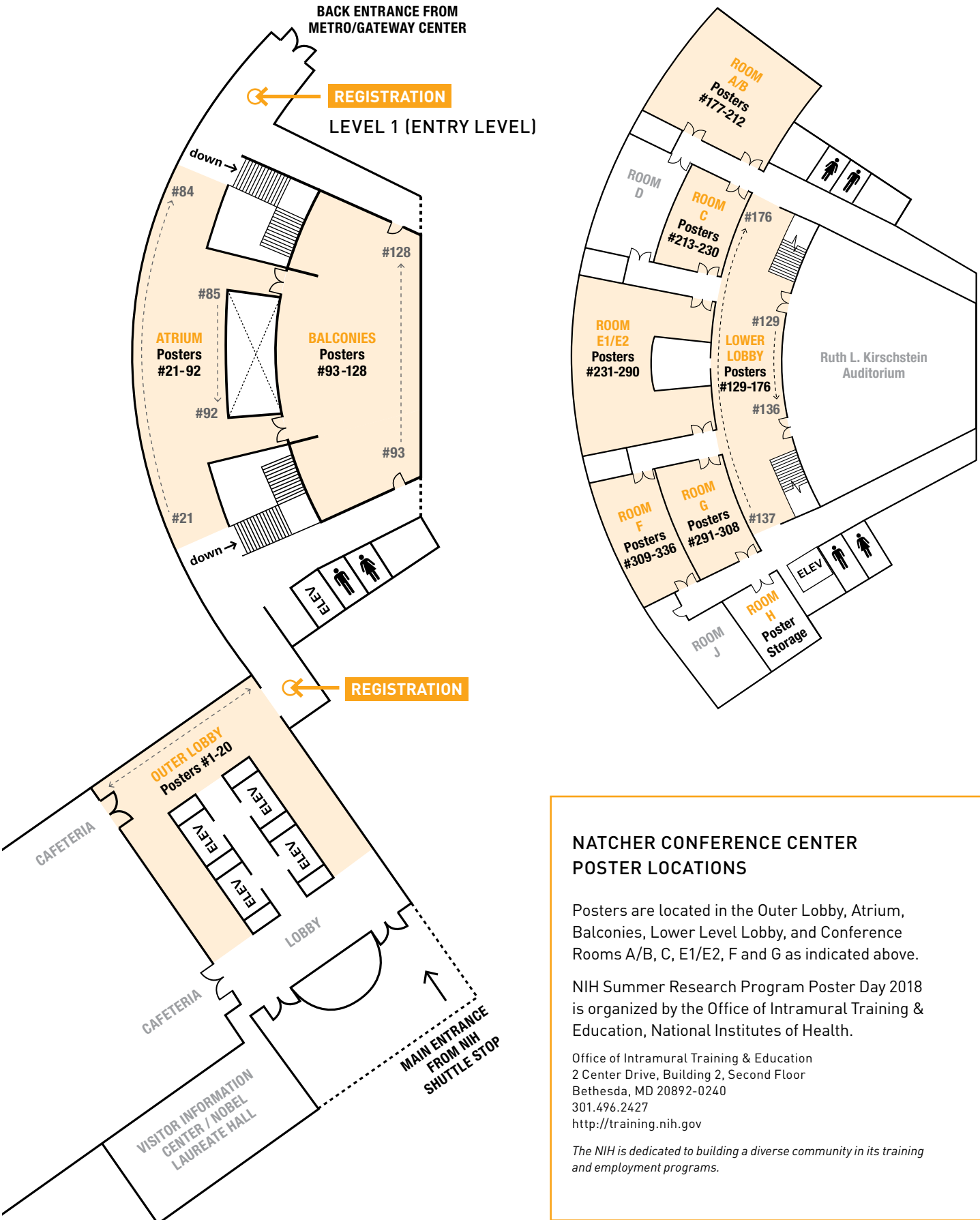
Park, Aprill . . . . .	PM-219	Rios-Brady, Lillian . . . . .	AM-318	Shaw, Elana . . . . .	AM-126
Parker, Megan . . . . .	PM-33	Rivellini, Olivia . . . . .	AM-83	Sheikh, Daanish . . . . .	PM-251
Parmar, Harshit . . . . .	LCH-325	Rivera, Edward . . . . .	LCH-128	Sheikh, Sofia . . . . .	PM-40
Parsley, Luke . . . . .	LCH-230	Rizzo, Robert . . . . .	AM-59	Shemtov, Chana . . . . .	PM-252
Parwani, Kiran . . . . .	PM-220	Ro, Chunghwan . . . . .	AM-211	Shen, Brian . . . . .	LCH-328
Pasternack, Nicholas . . . . .	AM-312	Robbins, Alexander . . . . .	PM-235	Shen, Christine . . . . .	AM-325
Patel, Nishka . . . . .	AM-58	Robinson, Emma . . . . .	PM-37	Shen, Juncheng . . . . .	PM-253
Patgiri, Anusha . . . . .	AM-313	Robnett, Maya . . . . .	AM-212	Sherwin, Alexander . . . . .	LCH-329
Pavletic, Oliver . . . . .	PM-34	Rogers, James . . . . .	PM-236	Shi, Ethan . . . . .	PM-254
Pedersen, Lilli . . . . .	PM-221	Rogers, Keith . . . . .	AM-123	Shi, Tesia . . . . .	LCH-237
Pedersen, Yoni . . . . .	AM-5	Rohm, Dahlia . . . . .	PM-237	Shin, Janis . . . . .	AM-127
Pederson, Alia . . . . .	AM-230	Romo, Elizabeth . . . . .	LCH-235	Shirazi, Kimya . . . . .	LCH-292
Peeney, Dave . . . . .	PM-192	Rooke, Victoria . . . . .	LCH-289	Shirkin, Selena . . . . .	PM-255
Peet, Graham . . . . .	PM-35	Roque, Christopher . . . . .	AM-6	Shorb, Emily . . . . .	AM-326
Peng, Brian . . . . .	LCH-25	Rosencrans, William . . . . .	AM-213	Shukla, Niharika . . . . .	AM-128
Peng, Helen . . . . .	PM-222	Rosenfeld, Mia . . . . .	PM-238	Siddiqui, Amina . . . . .	PM-256
Peng, Luyi . . . . .	PM-223	Rosenzweig, Sofia . . . . .	AM-60	Silue, Tjerignimin . . . . .	LCH-173
Perkelvald, Adelle . . . . .	PM-224	Rosu, Ana . . . . .	PM-239	Silva, Alexander . . . . .	AM-327
Perone, Isabella . . . . .	LCH-125	Ruben, Claire . . . . .	PM-240	Silver, Jamilah . . . . .	LCH-293
Pham, Linh . . . . .	AM-117	Rubinovitz, Evan . . . . .	AM-319	Simoneaux, Tankya . . . . .	PM-257
Phillips, Nathan . . . . .	PM-225	Ruchelman, Nathan . . . . .	PM-241	Simpara, Mohamed . . . . .	PM-258
Pickerill, Ethan . . . . .	AM-118	Rudolph, Nia . . . . .	LCH-26	Sims, Wynton . . . . .	AM-62
Pickering, Danielle . . . . .	LCH-231	Ruggiero, Juliana . . . . .	PM-38	Singh, Anisha . . . . .	PM-259
Pingree, Darcia . . . . .	LCH-232	Rutstein, Rachel . . . . .	PM-242	Singh, Gurbani . . . . .	PM-260
Pogrebniak, Elizabeth . . . . .	AM-209	Saha, Rishabh . . . . .	PM-243	Singh, Sanjana . . . . .	LCH-330
Polk, Katherine . . . . .	AM-119	Sahagun, Elizabeth . . . . .	LCH-290	Singla, Abhishek . . . . .	LCH-174
Preston, Olivia . . . . .	PM-226	Sahni, Sahil . . . . .	PM-244	Sivakumar, Ishwarya . . . . .	LCH-77
Pritikin, Ethan . . . . .	LCH-233	Salamat, Kennedy . . . . .	PM-245	Slacin, Kathryn . . . . .	PM-261
Prucnal, Rachel . . . . .	AM-120	Salvady, Karun . . . . .	AM-22	Smith, Hannah . . . . .	PM-262
Pryor, Matthew . . . . .	LCH-76	Sampson, Genevieve . . . . .	PM-246	Smith, Lauren . . . . .	PM-263
Pu, Alex . . . . .	AM-5	Samuels, Emily . . . . .	LCH-129	Smith, Lily . . . . .	AM-63
Qin, Nancy . . . . .	PM-227	Sandman-Long, Aidan . . . . .	AM-124	Smith-Cohen, Ethan . . . . .	AM-323
Quaid, Kara . . . . .	AM-314	Santa, Emma . . . . .	LCH-130	Smith-Sreen, Joshua . . . . .	PM-328
Queme, Bryan . . . . .	AM-21	Sapiro, Elizabeth . . . . .	AM-84	Sofat, Rhea . . . . .	PM-170
Quintanilla-Arteaga, Anaisa . . . . .	PM-228	Sarabi, Cameron . . . . .	LCH-131	Sohn, Sooah . . . . .	LCH-238
Rains, Alex . . . . .	LCH-126	Sarch, Gabriel . . . . .	AM-320	Solis, Sandra . . . . .	LCH-239
Rama, Myriam . . . . .	LCH-287	Sartaj, Ibrahim . . . . .	LCH-171	Solomon, Julianna . . . . .	PM-264
Ramirez, Eliana . . . . .	AM-210	Sawyers, James . . . . .	HS-197	Solomon, Talia . . . . .	AM-155
Ramsay, Joemy . . . . .	PM-326	Schaffer, Daniel . . . . .	LCH-326	Son, Felix Donghwi . . . . .	LCH-331
Ramser, Madeline . . . . .	PM-229	Schipma, Anika . . . . .	AM-214	Song, Jerry . . . . .	LCH-175
Ranasinghe, Michael . . . . .	PM-36	Schmidt, Theo . . . . .	AM-125	Song, Justin . . . . .	AM-166
Randazzo, Jessica . . . . .	AM-121	Schneider, Jordan . . . . .	PM-39	Soriano, Jarely . . . . .	HS-198
Rao, Anusha . . . . .	PM-21	Schneider, Leslie . . . . .	LCH-291	Spaur, Maya . . . . .	PM-329
Rastegar, Cyrus . . . . .	AM-315	Schwartz, Aviva . . . . .	LCH-236	Squirewell, Catherine . . . . .	AM-328
Ravichandran, Maya . . . . .	PM-230	Schwartz, Hadassah . . . . .	PM-247	Srinivasan, Tejas . . . . .	AM-329
Ravindra, Pavan . . . . .	AM-320	Schwartz, Mollie . . . . .	AM-154	Stahl, Sara . . . . .	LCH-294
Ravipati, Kaushik . . . . .	AM-316	Scott, Aleah . . . . .	LCH-132	Starost, Joshua . . . . .	PM-41
Raymond-Smiedy, Peter . . . . .	PM-231	Scott, Devin . . . . .	AM-321	Stavish, Caitlin . . . . .	LCH-295
Raza, Noor . . . . .	PM-232	Scott, Natasha . . . . .	AM-322	Steffens, Helena . . . . .	PM-265
Reagle, Emily . . . . .	PM-233	Seah, Priscilla . . . . .	LCH-327	Steger, Benjamin . . . . .	AM-64
Redweik, Graham . . . . .	AM-122	Seid, Raya . . . . .	AM-61	Stein, Cody . . . . .	LCH-240
Reyes, Tiffany Ashley . . . . .	PM-234	Semancik, Christopher . . . . .	AM-323	Stevens, Carúmey . . . . .	AM-215
Reyes, Vanessa . . . . .	HS-196	Sesay, Ematu . . . . .	PM-248	Stevens, Madison . . . . .	AM-216
Rhim, Brian . . . . .	AM-241	Shah, Nirav . . . . .	PM-327	Street, Sara . . . . .	PM-266
Rhodehouse, Kyle . . . . .	LCH-234	Shah, Veeraj . . . . .	PM-249	Stukes, Ian . . . . .	LCH-296
Rice, Myra . . . . .	LCH-170	Shan, Holly . . . . .	PM-250	Su, Simon . . . . .	LCH-176
Riddick, April . . . . .	LCH-127	Shao, Emily . . . . .	AM-165	Sui, Xiangliang . . . . .	LCH-241
Riddle, Amanda . . . . .	LCH-288	Shapiro, Jeremy . . . . .	AM-324	Sukinik, Joseph . . . . .	LCH-78
Rios, Maria Jose . . . . .	AM-317	Shaw, Dana . . . . .	LCH-172	Sullivan, Delaney . . . . .	AM-129



MORNING SESSION	AM	9:00 AM-11:00 AM	AFTERNOON SESSION	PM	1:00 PM-3:00 PM
LUNCH SESSION	LCH	11:00 AM-1:00 PM	HiSTEP SESSION	HS	3:00 PM-4:00 PM

Sun, Carol . . . . .	AM-130	Tycko, Arielle . . . . .	PM-285	Williams, Nicholas . . . . .	PM-277
Sun, Eric. . . . .	PM-267	Tyrlik, Adam . . . . .	PM-286	Wilson, Sierra . . . . .	LCH-86
Sun, Ginny . . . . .	LCH-297	Tyrlik, Michal. . . . .	LCH-81	Windsor, Kathryn . . . . .	HS-201
Sun, Mitchell . . . . .	AM-330	Ueberla, Anja. . . . .	AM-133	Winful, Taiye . . . . .	PM-299
Sundaresan, Janani . . . . .	AM-23	Ugoji, Chinenye . . . . .	PM-332	Winrow, Erin . . . . .	PM-300
Suresh, Arvind. . . . .	PM-268	Vaile, John . . . . .	AM-134	Wisniewski, Andrea . . . . .	LCH-87
Suthard, Rebecca . . . . .	LCH-177	Van Leer, Elise . . . . .	LCH-179	Wolfe, Anna . . . . .	AM-168
Svirydava, Maryia . . . . .	LCH-79	Van Wicklin, Caitlin. . . . .	LCH-299	Wolfish, Leah. . . . .	AM-139
Svoisky, Abigail. . . . .	PM-269	Vanjoske, Rachel. . . . .	LCH-243	Wong, Vanessa . . . . .	AM-69
Swofford, Ethan. . . . .	LCH-261	Vasquez, Cyndy. . . . .	AM-135	Woo, Elizabeth Geena . . . . .	LCH-29
Szajek, Justin . . . . .	AM-24	Vaughn, Lauren. . . . .	LCH-82	Woodbury, David. . . . .	LCH-247
Tadesse, Feven . . . . .	HS-199	Veeraraghavan, Gayathri . . . . .	LCH-244	Wright, Sheavonnie . . . . .	LCH-88
Tager, Julia . . . . .	PM-270	Vega, Andy . . . . .	PM-287	Wu, David. . . . .	LCH-193
Takla, Christina. . . . .	AM-231	Velasco, Claudia Mae . . . . .	PM-288	Wu, Ethan . . . . .	PM-301
Tallavajhala, Srikar. . . . .	PM-271	Vemulakonda, Madhu . . . . .	AM-136	Wu, Kenmin . . . . .	PM-46
Talusan, Simon . . . . .	AM-65	Vemulakonda, Pavan . . . . .	AM-137	Wu, Sophia. . . . .	AM-170
Taner, Hulya . . . . .	AM-242	Venetianer, Rebecca. . . . .	PM-333	Wucherer, Kelly . . . . .	AM-140
Tang, George . . . . .	LCH-242	Venkataganesh, Harini. . . . .	AM-219	Wunsch, Donald . . . . .	LCH-248
Tang, Kevin . . . . .	PM-272	Vera-González, Patricia. . . . .	LCH-136	Wyble, Matthew. . . . .	AM-220
Tang, Michelle. . . . .	LCH-298	Verschleisser, Sara . . . . .	LCH-83	Xi, Brian . . . . .	PM-302
Tanner, Toya . . . . .	HS-200	Vigil, Deionna . . . . .	AM-333	Xia, Clarissa. . . . .	PM-303
Taori, Suchet . . . . .	PM-273	Vinjamuri, Shreya . . . . .	PM-289	Xie, Danny . . . . .	AM-169
Taylor, Isaiah . . . . .	PM-274	Virga, James . . . . .	PM-290	Xie, Jane. . . . .	PM-304
Teigen, Erin . . . . .	PM-42	Vyas, Anjali. . . . .	AM-334	Xie, Weipeng . . . . .	LCH-142
Tejeda, Itzel . . . . .	LCH-178	Walker-Bawa, Katharine . . . . .	PM-291	Xin, Victoria . . . . .	LCH-89
Teng, Evan . . . . .	LCH-80	Walsh, Adeline . . . . .	PM-292	Xu, Lily . . . . .	AM-141
Terse, Puja. . . . .	AM-85	Walton, Amiya . . . . .	PM-293	Xu, Samantha . . . . .	LCH-90
Teshome, Samuel. . . . .	AM-217	Wang, Brandon. . . . .	AM-7	Yadav, Harsh . . . . .	LCH-91
Thapar, Sabrina . . . . .	PM-43	Wang, Caroline . . . . .	PM-44	Yang, Chris. . . . .	LCH-249
Thepmankorn, Parisorn . . . . .	AM-331	Wang, Eric . . . . .	LCH-84	Yang, Daniel. . . . .	LCH-92
Thoerner, Tim . . . . .	PM-275	Wang, Grace . . . . .	LCH-300	Yang, Helen . . . . .	LCH-182
Thomas, Sarah . . . . .	PM-276	Wang, Haoxuan. . . . .	LCH-180	Yang, Hongjia. . . . .	PM-305
Thompson, Ashley . . . . .	PM-330	Wang, Jasmine . . . . .	PM-294	Yang, Tianen . . . . .	PM-306
Thompson, Haley . . . . .	LCH-133	Wang, Jing . . . . .	LCH-137	Yang, Wendy. . . . .	LCH-183
Thompson, Matthew . . . . .	PM-277	Wang, Richard. . . . .	LCH-245	Yannotty, John. . . . .	LCH-262
Thorkelsdottir, Gudrun . . . . .	AM-198	Warburton, Anne. . . . .	LCH-24	Yao, Anthony . . . . .	LCH-143
Thyagarajan, Arthi . . . . .	AM-86	Washington, Briana . . . . .	LCH-138	Yavatkar, Ambika . . . . .	AM-142
Timmer, Michael . . . . .	PM-278	Washington, Zhané. . . . .	LCH-139	Yonas, Ruth . . . . .	PM-47
Tisdale, Garrett. . . . .	PM-279	Washio, Sharon. . . . .	LCH-301	Yoo, Kyungyoon. . . . .	LCH-250
Tittley, Tishina . . . . .	LCH-27	Watson, Alyssa . . . . .	AM-250	Yoon, Dahye . . . . .	PM-307
Toker, Joey. . . . .	AM-66	Webster, Alexandra . . . . .	LCH-302	You, Christina . . . . .	LCH-334
Ton, Mimi (Trucmail) . . . . .	PM-331	Wein, Perri. . . . .	PM-51	Young, Ashley . . . . .	LCH-251
Tong, Andrew. . . . .	AM-218	Weiner, Brooke . . . . .	LCH-181	Yue, Michelle . . . . .	LCH-252
Tonko, Tyler . . . . .	LCH-310	Weiser-Schlesinger, Andie . . . . .	PM-45	Zamani, Shawn. . . . .	PM-335
Toote, Shenandoa . . . . .	LCH-28	Weiss, Aliza . . . . .	PM-295	Zhang, Mason . . . . .	AM-25
Torquati, Matteo . . . . .	AM-243	Weiss, Jordan . . . . .	LCH-140	Zhao, Isaac. . . . .	PM-336
Toscano, Alexandra . . . . .	PM-280	Weiss, Miriam . . . . .	LCH-311	Zhao, Neo. . . . .	LCH-30
Toumbou, Khadijah. . . . .	PM-281	Wen, Bronte . . . . .	LCH-85	Zheng, Lillian. . . . .	LCH-253
Tran, Tung . . . . .	LCH-332	Werwath, Katy. . . . .	LCH-303	Zhong, Amy . . . . .	PM-308
Trang, Nancy . . . . .	AM-244	Whitaker, Kiara. . . . .	PM-296	Zhou, Julia. . . . .	AM-170
Traore, Ziann . . . . .	AM-131	Whitted, Calandra. . . . .	AM-68	Zhu, Alice . . . . .	AM-70
Truong, Gia Thinh . . . . .	LCH-134	Whittington, Caroline . . . . .	LCH-141	Zhu, Jennifer . . . . .	LCH-31
Tsintolas, Jack. . . . .	PM-282	Whitworth, Isabella . . . . .	AM-138	Zhuang, Sophie . . . . .	PM-309
Tucewicz, Ashley . . . . .	LCH-135	Wiafe, Ernestina . . . . .	PM-297	Zimand, Oreet . . . . .	AM-71
Tuffour, Kwaniyah. . . . .	AM-67	Widdup, Lily . . . . .	PM-298	Zukin, Stefan . . . . .	AM-221
Tulchinsky, Danielle . . . . .	PM-283	Widemann, Lea. . . . .	PM-334	Zuo, Mei Xing. . . . .	AM-87
Turan, Aslihan. . . . .	PM-284	Will, F'jei . . . . .	LCH-246		
Turner, Triniti . . . . .	AM-132	Williams, Ashley . . . . .	AM-291		
Turnham, Alice . . . . .	AM-332	Williams, Brandon . . . . .	AM-167		

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