NIH SUMMER RESEARCH PROGRAM
POSTER DAY · AUGUST 9, 2018

SESSION INSTITUTE OR CENTER POSTER NUMBER

**MORNING SESSION AM 9:00 AM-11:00 AM**

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 Eunice Kennedy Shriver 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

**LUNCH SESSION LCH 11:00 AM-1:00 PM**

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

**AFTERNOON SESSION PM 1:00 PM-3:00 PM**

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

**HiSTEP SESSION HS 3:00 PM-4:00 PM (Room A/B)**

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.
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
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 RXFP2: 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 Trpml1 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 Sundaresan  
*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. Jielu 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. Irini 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  
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)
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. Shaliciana 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)
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 Fe3+ -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 Zarember, 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)
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 Strebel, Dr. Eri Miyagi

AM-112. Clare Martin
De-Orphanizing Atypical Mouse Chemokine Receptor Ccr1l1
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
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. Puthupparampil 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)
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 crisprCas9 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)
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. Atoa 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]-γMSH 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
*Determining 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 Brainbow 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 Pogrebiak  
*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 Kass, 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 elf1 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 Alhomsi
**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^2+ 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)
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 maría 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 TP5 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
University of Maryland, 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-Bötzinger Complex Neurons in Adult Transgenic Rats
Northern Virginia Community College- Loudoun (Virginia)
Preceptors: Dr. Shahriar Sheikhbahaei, 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. Lawerence 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)
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 Mastrogiacomo

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-imaging 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
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 Egwuagu, 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-Nicalos

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 Toote
*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 Mechano sensing*
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. Minoo 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. Gangqiang 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 Elovl4-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 Hemaglutinin Fusion Peptide*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Richard Pastor, Dr. Joshua Zimmerberg, Dr. Sourav Haldar

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 HANDELs*  
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 Nogueras-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)
LCH-124. Chinenyre 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
*miRNA 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+ 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+ 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+ 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 University (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 TGFβ-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*
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 Goguadze

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 µ-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 Elshebiny

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

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**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)
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 β3-Adrenergic Receptor Agonist Mirabegron in Humans*  
WITS/Maalot (Maryland)  
Preceptor: Dr. Aaron Cypess

LCH-203. Michael Gan  
*Effects of Pancreatic α Cell-specific Deficiency of the G Protein A-Subunit (Gsa) on Islet Mass and Function*  
Richard Montgomery High School (Maryland)
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  
*TGFB Dedifferentiates 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 18F-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-β 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 Gsα 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 Rehermann

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 Schaffenbauer, 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. Symielle 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 Ccells 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)
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)
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 Chandrawarakkalage
*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 Goncearenco, 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  
*MiCId 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
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 Detecting Minor Population of HIV Drug Resistant Strain 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)
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)
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 Resting 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  
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)
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 CBFB 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*  
Landers 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 FGFRL1 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 Lgase 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)
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 Schlam

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 Homsi
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 Shnayder
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 Coltron*  
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 Schrump, 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.*
Montgomery College (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 McReivy, 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)
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/EBPδ 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

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
PM-260. Gurbani Singh
Systematically Assessing Changes in Plexiform Neurofibroma-related Disfigurement in Patients with Neurofibromatosis Type 1 on a Phase 2 Clinical Trial
Univeristy of Maryland, College Park (Maryland)
Preceptors: Dr. Andrea Gross, Dr. Brigitte Widemann, Dr. Eva Dombi

PM-261. Kathryn Slacin
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)
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 IFNγR 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. Zuojia 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 Lusvarghi, 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)
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 Heath (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. Rihanna 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. Ekua 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 Community 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 Community 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
PARTICIPANT .............. SESSION-POSTER# 
Abdullah, Idri ........................ LCH-184
Abikoye, Abigail ........................ PM-52
Abogue, Kwasi ........................ PM-53
Abogue, 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
Agypeong, Stephen ........................ AM-171
Ahmad, Sana ........................ PM-60
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Alur, Rucha ........................ AM-252
Alvarez, Carolina ........................ LCH-34
Alvarez-Carcamo, Bryan ........................ HS-179
Amare, Abe ........................ AM-245
Amba, Vineeth ........................ PM-310
Anderson, Claire ........................ LCH-312
Andres, Megan ........................ PM-62
Anibal, James ........................ PM-63
Anthony, Tiffany ........................ PM-66
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Arimitli, Bhargav ........................ PM-65
Arnold, Nicole ........................ LCH-93
Ascencio, Jefferson ........................ AM-253
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Ashitgwwu, Chromoso ........................ HS-180
Attor, Felicia ........................ AM-9
Ault, Larissa ........................ AM-88
Aviles Fernandez, Kenneth ........................ LCH-35
Ayele, Eanat ........................ LCH-4
Ayuketah, Alexis ........................ LCH-187
Azam, Asma ........................ PM-67
Bagasao, Adore Corina ........................ LCH-94
Baghdadi, Nahid ........................ PM-68
Bagnell, Anna ........................ AM-254
Bailey, Ashley ........................ AM-89
Bailey, Jamal ........................ AM-255
Bajaj, Ankush ........................ LCH-263
Baker, Courtney ........................ PM-311
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Benally, Jasmine ........................ LCH-304
Benedict, Kai ........................ LCH-189
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Bergan, Grace ........................ LCH-190
Bergman, Zipporah ........................ AM-257
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Bernstein, Rachel ........................ PM-72
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Bhayana, Malaika ........................ AM-9
Biggs, Morgan ........................ LCH-95
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Bong, Charles ........................ LCH-36
Bordeaux, Skyler ........................ AM-260
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Brosh, Natalie ........................ LCH-97
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Bushey, Ashley ........................ PM-76
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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
Carter, William ........................ AM-176
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Castro, Danile ........................ AM-92
Catalan, Viktoria ........................ LCH-194
Celestine, Ikia ........................ LCH-38
Cenazzo, Nicole ........................ LCH-147
Chalk, Liam ........................ LCH-195
Chambers, Ian ........................ LCH-148
Chambers, Shane ........................ LCH-99
Chang, Andrew ........................ LCH-100
Chang, William ........................ LCH-101
Chang, Yin Mei ........................ PM-85
Chandra, Swati ........................ AM-157
Chandrarakakkage, 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, Chaquille ........................ LCH-102
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Chen, Daniel ........................ LCH-266
Chen, Daniel ........................ PM-4
Chen, John ........................ LCH-267
Chen, Vivian ........................ LCH-103
Cheng, Claire ........................ AM-222
Cheng, Debby ........................ AM-94
Cheng, Ethan ........................ AM-262
Cherry, Jamil ........................ AM-234
Childester, Stephanie ........................ LCH-306
Chinthapatla, Juthiya ........................ LCH-254
Chitnis, Chaitali ........................ PM-87
Chitsaz, Ata ........................ AM-11
Chitturi, Megha ........................ AM-33
Choi, Monica ........................ LCH-39
Choi, Rachel ........................ PM-88
Choi, Salty ........................ 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, Nongacha ........................ PM-90
Chung, Hyunsoo ........................ PM-91
Chung, Jacqueline ........................ PM-57
Cisse, Natenin ........................ LCH-268
Clawson, Ellisie ........................ 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 9:00 AM–11:00 AM
LUNCH SESSION 11:00 AM–1:00 PM
AFTERNOON SESSION 1:00 PM–3:00 PM
HISTEP SESSION 3:00 PM–4:00 PM

POSTER DAY 2018 PARTICIPANTS

NATIONAL INSTITUTES OF HEALTH
NIH SUMMER RESEARCH PROGRAM
Lin, Nyusha .................................. LCH-17
Lin, Vivian .................................. PM-178
Linares, Rosalba .......................... HS-190
Lindstrom, Taylor ......................... AM-52
Lingenfelter, Cami ......................... PM-179
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Liu, Amanda ................................ AM-17
Liu, Andrew ................................ LCH-217
Liu, Catherine .......................... LCH-64
Liu, Ivy ................................................ AM-80
Lodhi, Taha ................................... AM-299
Long, Charday .............................. LCH-159
Long, Dilara .................................. PM-22
Long, Marque ............................... LCH-260
Lopez, Jose .................................. PM-180
Lopez Silva, Carolina ................. PM-181
Lopez-Haz, Erica ......................... AM-202
Lugo Tosado, Paola .................... LCH-218
Lulseged, Ezana ......................... AM-53
Lunchick, Matthew ....................... PM-23
Lyle, Thashanna ......................... LCH-160
Lynberg, Matthew ....................... PM-182
Ma, Hanley ................................ LCH-65
Ma, Justin .................................. PM-183
Mackey-Alfonso, Sabrina .......... LCH-117
Maddock, Anthony ....................... AM-300
Magirwar, Nishad ......................... LCH-161
Mahajan, Arushi ........................ PM-184
Mahajan, Vikrant ......................... AM-81
Mahapatra, Ruchika ..................... PM-185
Maher, Frances Angela ............... PM-186
Makkar, Rishi .............................. PM-319
Malave-Ramos, Ken .................. LCH-66
Malik, Tooba ................................ AM-110
Mallick, Zyanah .......................... LCH-67
Maltsev, Alexander ..................... LCH-118
Mandle, Hannah ......................... PM-320
Mannes, Jacob .......................... LCH-68
Marani, Melika .......................... AM-301
Marcantonio, Olivia .................. AM-111
Martin, Christopher ..................... PM-24
Martin, Clare ............................... AM-112
Martin, Madison ......................... PM-187
Martin, Matthew ......................... LCH-219
Martinez, Edith .......................... LCH-162
Martini, Cole ................................ PM-188
Maskeri, Anoo ............................. LCH-283
Maslyanko, Maria ....................... PM-189
Matera-Vatnick, Mikaela .......... PM-25
Mathew, Nidhi .......................... LCH-18
Mathews, Megha ........................ LCH-163
Mathews, Nikki .......................... LCH-119
Matich, Erica ........................... AM-151
Mavura, Yusuph ......................... PM-321
Mbuchta Boghi, Franck ............... PM-190
McDonald, Kayla ......................... PM-191
McGinnis, ReLiza ......................... AM-302
McGinty, Shane ......................... LCH-69
McGreivy, Kyle .......................... PM-192
McGurn, Margaret ..................... AM-26
Mediavilla, Braden .................... LCH-220
Meerzaman, Isabella ................ LCH-193
Mehta, Paras ............................. PM-27
Mehta, Shubham ....................... PM-194
Meisler, Esther ......................... LCH-221
Meister, Shneidl ......................... PM-195
Mekonnen, Naol ......................... AM-105
Mella, Nathan .......................... PM-196
Mena, Daya .............................. LCH-70
Mencer, Shira ............................ PM-197
Mendez, Adriana ....................... LCH-19
Mendley, Jonathan ....................... PM-198
Menken, Shani .......................... PM-199
Metenou, Dhahia ....................... AM-113
Migneishvili, Nino .................... LCH-284
Miller, Cameron ....................... AM-152
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Miryala, Ritika .......................... PM-200
Mofor, Mike-Ryan ...................... LCH-323
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Montileaux, Summer ............... AM-303
Moore, Candace ....................... LCH-308
Moore, Maya ............................ AM-54
Moore, Mitchell ......................... PM-201
Moreira, Daniela ..................... LCH-166
Moreyra, Caroline .................. PM-202
Morgan, Hannah ....................... LCH-167
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Mossazghi, Nahom ..................... LCH-285
Mouser, Nicholas ....................... LCH-223
Mvosas, Rachel ....................... AM-304
Mumford, Kelsey ...................... LCH-286
Munoz, Irwin ............................. PM-28
 Munyan, Nicholas ..................... LCH-224
Musselman, Roman ............... LCH-120
Mwenda, Nkatha ....................... LCH-121
Myers, Rachel ........................ HS-191
Myung, Sangho ....................... AM-55
Nagaradona, Teja .................. PM-322
Naidu, Arush ......................... AM-18
Nakuchima, Sofia ...................... AM-115
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Nguyen, Richard ................. LCH-225
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Nguyen, Valerie ....................... PM-205
Nguyen, Victoria ................. LCH-122
 Nichols, Alison .................. PM-323
 Niebler, Jake ......................... AM-19
Niehoff, Taylor .................... AM-20
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Novitskaya, Maria ........ PM-208
Nwankwo, Anthony ........ AM-209
Nwokoye, Diana ................ AM-309
O’Connell, Eoin ...................... LCH-72
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Pan, Jessica .......................... LCH-229
Panakal, Parvathy ................. AM-310
Pannullo, Nicole ...................... LCH-23
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