NIH SUMMER RESEARCH PROGRAM

POSTER DAY 2013

NATCHER CONFERENCE CENTER, NATIONAL INSTITUTES OF HEALTH, BETHESDA, MARYLAND

NIH National Institutes of Health
**NIH SUMMER RESEARCH PROGRAM**
**POSTER DAY 2013**

**NOTE:** the complete program for Summer Poster Day 2013, including poster titles, can be found at https://www.training.nih.gov/assets/2013_Summer_Poster_Day_Program.pdf.

### Session Schedule

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<td><strong>AM</strong> 9:00 AM - 11:00 AM</td>
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### Session Institute or Center

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<td>National Cancer Institute – Division of Cancer Epidemiology and Genetics (NCI – DCEG)</td>
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<td>National Human Genome Research Institute (NHGRI)</td>
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Clinical Center (CC)

1-AM. David Allen
*Automatic CT Lesion Segmentation using Robust Random Classification Forests*
The University of Texas at Dallas (Texas)
Preceptor: Dr. Le Lu

2-AM. William Altemus Cullen
*Changes in the Components of Stored Blood as it Ages and the Role of Washing*
Georgetown Day School (District of Columbia)
Preceptor: Dr. Steven Solomon

3-AM. Alyson Beden
*A Comparison of Energy Intake versus Predicted Energy Needs*
University of Connecticut (Connecticut)
Preceptors: Dr. Amber Courville, Dr. Tricia Psota, Ms. Madeline Michael

4-AM. Tammy Cavazos
*Registries: A Tool for Healthy Volunteer Recruitment*
Northern Virginia Community College (Virginia)
Preceptors: Ms. Mandy Jawara, Mrs. Deshawn Riddick, Ms. Barbara Brandys, Dr. Elise Berliner

5-AM. Michael Choi, Mohammad Sajjad Soltanmohammadi
*Diagnostic CT Radiation Dose Distribution for Chest, Abdomen, and Pelvis Exams: Cumulative Dose in Prostate and Bladder Cancer Trials at NIH*
The College of William and Mary (Virginia), University of Maryland - College Park (Maryland)
Preceptors: Dr. Les Folio, Ms. Vana Derderian

6-AM. Brittany Cines
*A Comparison of Energy Intake versus Predicted Energy Needs*
University of Maryland (Maryland)
Preceptors: Dr. Amber Courville, Dr. Tricia Psota, Ms. Madeline Michael

7-AM. Phil Dormish
*Characterization of an SUV Ratio Method for Internal Dosimetry Correction using Monte Carlo Simulations*
University of Virginia (Virginia)
Preceptor: Dr. Roberto Maass-Moreno

8-AM. Catalina Dumitrascu
*Neuroanatomical analysis of sensory dorsal root ganglion pain-related molecules*
Preceptors: Dr. Michael Iadarola, Dr. Andrew Mannes

**9-AM. Devin English**
*Patient Activation and Engagement in Underserved, Low-Income, Urban Communities*
George Washington University (District of Columbia)
Preceptor: Dr. Marion Danis

**10-AM. Jonathan Fix**
*Setting Priorities for Global Health Spending*
University of Maryland - College Park (Maryland)
Preceptors: Dr. Joseph Millum, Mr. Daniel Sharp

**11-AM. Josh Hasan**
*Quantifying Adipose Tissue of Psoriasis Patients using PET CT Images*
University of Virginia (Virginia)
Preceptors: Dr. Nehal Mehta, Dr. Jack Yao

**12-AM. Angela Hou**
*Role of Nuclear Receptors in Modulation of Inflammatory Responses*
New York University School of Medicine (New York)
Preceptors: Dr. Edward Dougherty, Dr. Robert Danner

**13-AM. Yijun Hu**
*Imaging features of RFA with heat deployed liposomal doxorubicin*
Winston Churchill High School (Maryland)
Preceptors: Dr. Sheng Xu, Dr. Evrim Turkbey

**14-AM. Eileen Hu-Wang**
*Optimizing Bacterial Detection in Tissue Specimens by Universal 16S rRNA Gene PCR*
Dartmouth College (New Hampshire)
Preceptors: Dr. Karen Frank, Dr. Rebecca Weingarten

**15-AM. Kenneth Kasper**
*Narrative Review and Media Study of Public Attitudes toward Brain Death*
University of Pennsylvania (Pennsylvania)
Preceptors: Ms. Seema Shah, Dr. Franklin Miller

**16-AM. Casey Kickingwoman**
*A Comparison of Post Traumatic Stress Disorder (PTSD) to Historical Trauma Response*
Montana State University (Montana)
Preceptor: Dr. Teresa Brockie

17-AM. Kayte Lambert  
*Pediatric Clinical Holding in the Ambulatory Care Setting*  
Shepherd University (West Virginia)  
Preceptor: Ms. Angeline Thomas

18-AM. David Liao  
*Game Integrated Lung Therapy (GILT): A Proof of Concept*  
Vanderbilt University (Tennessee)  
Preceptors: Dr. Scott Paul, Dr. Hyung Park

19-AM. Nina Mai Lan Nguyen May  
*Longitudinal patterns of biomarkers and radiographic findings in Hypoparathyroidism: Medical applications of temporal visualization and data mining*  
University of California, Los Angeles (California)  
Preceptors: Dr. Karen Winer, Dr. James Cimino

20-AM. Kristin McCall, Michelle Stakem  
*Implementation of a Psychosocial Risk Screening Tool for Patients on a General Medicine Research Unit*  
George Mason University (Virginia), Christopher Newport University (Virginia)  
Preceptors: Mrs. Jeasmine Aizvera, Ms. Emily Hershenson, Ms. Lynn Hardesty

21-AM. Anand Nair  
*Exploring Behavioral Outcome Measures in HIV-1 Transgenic Rats*  
Laramie High School (Wyoming)  
Preceptors: Dr. Dima Hammoud, Dr. Dianne Lee

22-AM. Hannah Natanson  
*Effect of Inhaled O2 Levels on Nitric Oxide Metabolism in Tissue in Non-Anesthetized Rats*  
Georgetown Day School (District of Columbia)  
Preceptors: Dr. Barbora Piknova, Dr. Ji Won Park, Ms. Kathryn Swanson

23-AM. Melanie Norris  
*Department of Clinical Research Informatics Staffing Analysis 2013*  
College of William and Mary (Virginia)  
Preceptors: Dr. Jon McKeebey, Mrs. Susan Houston

24-AM. Danielle Oliver  
*(Superscript)18 F-FDG PET/CT Findings of Patients with Erdheim-Chester Disease*  
Hampton University (Virginia)
25-AM. Mark Orloff  
_The Effect of Blood Plasma Clozapine Levels on Specific Measures of Behavior in Childhood Onset Schizophrenia_  
Virginia Polytechnic Institute and State University (Virginia)  
Preceptors: Dr. Nitin Gogtay, Dr. Scott Penzak, Dr. Gerald Overman

26-AM. Muyinat Osoba  
_Relating Brain Activation to Motor Function in Children with Cerebral Palsy_  
Harvard University (Massachusetts)  
Preceptors: Dr. Diane Damiano, Dr. Theresa Sukal-Moulton

27-AM. Roshni Patel  
_Microbiological Safety and Environmental Efficacy of Disposable Cool-Mist Humidifiers_  
Virginia Polytechnic Institute and State University (Virginia)  
Preceptors: Dr. Tara Palmore, Dr. Brooke Decker

28-AM. Jed Paul  
_Impact of transplant conditioning and early lympho-hematopoietic chimerism on the kinetics of hepatitis B surface antibody loss following allogeneic hematopoietic stem cell transplantation_  
Stanford University (California)  
Preceptors: Dr. Rick Childs, Dr. Hawwa Alao, Dr. Kit Lu, Dr. Marc Ghany

29-AM. Halloran Peterson  
_Myelodysplasia/Acute Myeloid Leukemia Associated Mutations in GATA2 Deficiency_  
University of Washington School of Medicine (Washington)  
Preceptors: Dr. Katherine Calvo, Dr. Weixin Wang

30-AM. Nathaniel Piety  
_Antigen-Antibody Mediated Rheological Changes in Artificial Microvascular Networks_  
Tulane University (Louisiana)  
Preceptors: Dr. Willy Flegel, Dr. Sergey Shevkoplyas, Dr. Yao Yuan

31-AM. Thomas Pritchard  
_Genomic Study on the Effects of Low-Dose Radiation on Human Embryonic Stem Cells_  
Grinnell College (Iowa)  
Preceptors: Dr. Ronald Neumann, Dr. Igor Panyutin

32-AM. Nicholas Prust  
_Cloning and Characterization of a Family of Genes that are Highly Expressed by Pneumocystis murina_
University of Delaware (Delaware)
Preceptors: Dr. Joseph Kovacs, Ms. Lisa Bishop, Dr. Liang Ma

33-AM. Cody Silva
Quantitative Analysis of Specific Gene Expression Change in TILs and Its Correlation with Polymorphisms
University of Maryland College Park (Maryland)
Preceptors: Dr. Michele Sommariva, Dr. Ena Wang

34-AM. Prajesh Singh, Brendan Joyce
Procedural Maintenance of the Medical WOW (Workstation on Wheels)
Lake Norman Charter High School (North Carolina), Thomas S. Wootton High School (Maryland)
Preceptor: Mr. Bertram Brown

35-AM. Mohammad Sajjad Soltanmohammadi, Michael Choi
Radiation Dose in Diagnostic CT: a Comparison of Chest, Abdomen and Pelvis Acquisition Methods
University of Maryland - College Park (Maryland), The College of William and Mary (Virginia)
Preceptors: Dr. Les Folio, Ms. Vana Derderian

36-AM. Benjamin Spielman
Identification of Mitochondrial DNA Polymorphisms for Typing Pneumocystis jirovecii Isolates
Winston Churchill High School (Maryland)
Preceptors: Dr. Joseph Kovacs, Dr. Geetha Kutty, Ms. Grace Handley, Dr. Liang Ma

37-AM. Lauren Starks
Case Western Reserve University (Ohio)
Preceptors: Ms. Pamela Horwitz, Dr. Deborah Kolakowski

38-AM. Gillian Takamaru
Improving the Delivery of Health Knowledge to the Bedside
University of Maryland University College (Maryland)
Preceptor: Dr. James Cimino

39-AM. Hena Thakur
The Role of IQGAP1 in Insulin Signaling
Boston University (Massachusetts)
Preceptors: Dr. David Sacks, Dr. Bhavna Chawla
40-AM. Huong Tran
*Impact of contrast enhancement in CT on organ radiation dose estimation*
Georgetown University (District of Columbia)
Preceptor: Dr. Elizabeth Jones

41-AM. Charles Warburton, Maurya Chaurasia, Radhika Tyagi
*Development and Analysis of Estradiol Capsules in Women with Postpartum Depression*
St. Andrew's Episcopal School (Maryland), University of Kentucky (Kentucky), Thomas S. Wooton High School (Maryland)
Preceptors: Mr. Ram Agarwal, Dr. Peng Yuan, Dr. George Grimes

42-AM. Kevin You
*Using Image-Based Statistical Probes to Query Imaging Archives*
Walt Whitman High School (Maryland)
Preceptor: Dr. John Butman

43-AM. William Young
*The Green Road Project: An Examination of the Effect of Nature on Psychosocial Spiritual Healing*
The Catholic University of America (District of Columbia)
Preceptor: Dr. Ann Berger

Food and Drug Administration (FDA)

44-AM. Deon Guduru
*How Diffusion of Activated Enzyme Affects the Size of a Clot*
University of Maryland College Park (Maryland)
Preceptors: Dr. Mikhail Ovanesov, Dr. Naveen Jha

45-AM. Wesley Jong
*Development of field flow fractionation method for the analysis of protein aggregates*
University of Maryland College Park (Maryland)
Preceptors: Dr. Ewa Marszal, Dr. Joseph Kotarek

46-AM. Amritanshu Joshi
*Demonstration of reproducible visceralization of Leishmania donovani following transmission by sandfly bites in BALB/c mice: Estimation of parasite numbers deposited by Lutzomyia longipalpis by Real Time PCR*
University of Miami (Florida)
Preceptor: Dr. Ranadhir Dey

47-AM. Timothy Klepp, Wing Mei Ko
*Effect of Cell Fixation on Antibody Binding*
New York University (New York), Winston Churchill High School (Maryland)
Preceptor: Dr. Heba Degheidy

48-AM. Wing Mei Ko, Timothy Klepp  
*Effect of Anticoagulants on Cell Characteristics Over Time*  
Winston Churchill High School (Maryland), New York University (New York)  
Preceptor: Dr. Heba Degheidy

49-AM. Heather Liu  
*Innate cytokine expression by lung epithelial cells in response to Respiratory Syncytial Virus*  
Duke University (North Carolina)  
Preceptor: Dr. Ronald Rabin

50-AM. Pallavi Malla, Shaomei Hou  
*Uba5 as a novel drug target in the human protozoan parasite Leismania donovani*  
Thomas S. Wooton High School (Maryland), Thomas S. Wooton High School (Maryland)  
Preceptors: Dr. Hira Nakhasi, Dr. Sreenivas Gannavaram

51-AM. Jacob Mccright  
*Cas9-mediated recombination in lentiviral vector transduced cells*  
Poolesville High School (Maryland)  
Preceptors: Dr. Jakob Reiser, Dr. Pingjuan Li

52-AM. Shivani Raina  
*Molecular Characterization of Potential Biomarkers for Chagas Disease*  
Long Reach High School (Maryland)  
Preceptors: Dr. Charu Gupta, Dr. Alain Debrabant

53-AM. Carly Starke  
*Improving Acid Resistance in Salmonella typhi Vaccine Ty21a*  
James Madison University (Virginia)  
Preceptors: Dr. Madushini Dharmasena, Dr. Dennis Kopecko

54-AM. Nikhil Talwar  
*Analysis of Interleukin-4 Receptor mRNA Expression in Human Cancer Cell Lines by Reverse-Transcription Polymerase Assays*  
Landon School (Maryland)  
Preceptors: Dr. Bharat Joshi, Dr. Raj Puri

55-AM. Anjali Thaivalappil  
*Analysis of Z variant alpha-1-proteinase inhibitor accumulated in the liver*  
Poolesville High School (Maryland)
56-AM. Carter Wonnacott
Assessment of Interleukin-13 Receptor Chain Expression in Human Cancer Cell Lines by
Multiplex Immunostaining
Quince Orchard High School (Maryland)
Preceptors: Dr. Bharat Joshi, Dr. Raj Puri

National Center for Complementary and Alternative Medicine (NCCAM)

57-AM. Jenny Zhang
Determining the survival rates of human monocyte subtypes
University of Maryland College Park (Maryland)
Preceptor: Dr. Baoying Liu

National Eye Institute (NEI)

58-AM. Rebecca Abay
Resveratrol inhibits expression of proinflammatory cytokine-induced expression of CXCL11 in
retinal pigment epithelial cells
University of Maryland College Park (Maryland)
Preceptor: Dr. Michael Redmond

59-AM. Kaifa Boyce
Isolation of Anti-inflammatory Molecules from the Leaves of the Sterculia foetida Plant
Mount Saint Mary's University (Maryland)
Preceptors: Dr. Jung Lee, Dr. Ignacio Rodriguez

St. Mary's College of Maryland (Maryland)
Preceptor: Dr. James Raber

61-AM. Siqi Chen
Activation of Inflammasome Results in Different Pattern of Cytokin Release by Ocular Myeloid
Derived Cells and Retinal Pigment Epithelium Cells
Johns Hopkins University (Maryland)
Preceptors: Mr. Guangpu Shi, Dr. Igal Gery, Ms. Osato Ogbeifun

62-AM. Yoel Cortes-Pena
Functional Characterization of RPE65 P25L Knock In Mice.
Georgia Institute of Technology (Georgia)
63-AM. Morgan Davis  
*Analysis of the Phosphorylation Sites of Interphotoreceptor Retinoid Binding Protein (IRBP)*  
Skyline College (California)  
Preceptors: Mr. Todd Duncan, Dr. William Samuel, Dr. Krishnan Kutty, Dr. T. Michael Redmond

64-AM. Jennifer Du, Anurag Goel  
*3D reconstructions of ground squirrel retina*  
Thomas Jefferson High School for Science and Technology (Virginia), Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptor: Dr. Wei Li

65-AM. David Fernandez-Fidalgo  
*Detection of "blue" ganglion cells in ground squirrel retina*  
University of Miami (Florida)  
Preceptors: Dr. Kiyoharu Miyagishima, Dr. Shan Chen, Dr. Li Wei

66-AM. Laura Keehan  
*Genetic Engineering of the Receptor Binding Domain of PEDF, a Key Protein for the Retina*  
Stone Ridge School of the Sacred Heart (Maryland)  
Preceptors: Dr. Jason Kenealey, Dr. Patricia Becerra

67-AM. Donnell Knighten  
*Quantitative Analysis of Color Deficiency in Retinitis Pigmentosa*  
Howard University (District of Columbia)  
Preceptor: Dr. Brett Jeffrey

68-AM. Karly Lebherz  
*Olfactomedin1: Investigation of the Role in Retinal Ganglion Cell Degeneration After Elevation of Intraocular Pressure by Microbeads Injection*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Naoki Nakaya, Dr. Stanislav Tomarev

69-AM. Andrea Li  
*A Surface Proteome of Primary Fetal Human Retinal Pigment Epithelium Cells*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Janine Davis, Dr. Kapil Bharti

70-AM. Eileen Mayro  
*Characterization of tertiary lymphoid aggregates in mouse retinas with chronic autoimmune uveitis*  
University of Pennsylvania (Pennsylvania)
Preceptors: Dr. Jennifer Kielczewski, Dr. Rachel Caspi

71-AM. Clare McLaughlin
Genotyping of CCl2 and CX3Cr1 Single knockout mice with or without Rd8 backgrounds
Woodrow Wilson High School (District of Columbia)
Preceptors: Dr. Chi-Chao Chan, Dr. De Fen Shen

72-AM. Lucy Megan, Madeline Melch
The Effects of Nitisinone on Melanosomes in TYRP1 Mice
Stone Ridge School (Maryland), Stone Ridge School (Maryland)
Preceptors: Dr. Brian Brooks, Dr. Felix Onojafe

73-AM. Emily Mendez
Peptide Regions from Pigment Epithelium-Derived Factor Receptor Bind and Inhibit 5-
Lipooxygenase
Johns Hopkins University (Maryland)
Preceptors: Dr. Preeti Subramanian, Dr. S. Patricia Becerra

74-AM. Alejandro Morales Martinez
Application of Logistic Regression for Soluble Molecule Concentration Analysis Using Flow
Cytometry
University of Maryland College Park (Maryland)
Preceptor: Mr. Rafael Villasmiil

75-AM. Cydney Nguyen
Isolation of anti-inflammatory compounds in the extract of the Emblica officinalis fruit
University of Maryland, College Park (Maryland)
Preceptors: Dr. Jung Wha Lee, Dr. Ignacio Rodriguez

76-AM. Christine Park
Morphological Analysis of Nrl Targets involved in Photoreceptor Presynaptic Development
Smith College (Massachusetts)
Preceptors: Dr. Soo-Young Kim, Dr. Anand Swaroop

77-AM. Nisha Patel
Macf1 interactions with Bardet-Biedl Syndrome proteins
Montgomery College (Maryland)
Preceptors: Dr. TianSen Li, Dr. Helen May-Simera

78-AM. Aidan Pillard
Spike Sorting Multi-Electrode Array Data Sets to Examine Interneuronal Correlations
Georgetown Day School (District of Columbia)
Preceptors: Dr. Bruce Cumming, Mr. Adrian Bondy

79-AM. Nikhil Reddy
*Observation of Zebrafish Cataract from the Knockdown of a Candidate Gene*
Centerville High School (Ohio)
Preceptor: Dr. Dan Jiang

80-AM. Jose Salazar
*Omicstract: A Software Solution for Converting and Analyzing Large Datasets*
Poolesville High School (Maryland)
Preceptor: Dr. Mones Abu-Asab

81-AM. Hyun Jae Seo
*Anti-CD40 antibody-induced B cell proliferation is inhibited by rIL-35*
Amherst College (Massachusetts)
Preceptors: Dr. Cheng-Rong Yu, Ms. Sung-Hye Kim, Dr. Ivy Dambuza, Dr. Charles Egwuagu

82-AM. Joseph Soucy
*Analysis of BCMO2 carotenoid cleavage products*
University of Rochester (New York)
Preceptors: Dr. Eugenia Poliakov, Dr. T. Michael Redmond

83-AM. Sonali Srivastava
*Characterization of Macrophages in Conjunctiva-Associated Lymphoid Tissue*
Brookfield East High School (Wisconsin)
Preceptors: Dr. Anthony St. Leger, Dr. Rachel Caspi

84-AM. Tiffany Strong
*The Role of Interferon Regulatory Factor 8 (IRF8) Transcription Factor in Retina*
Academy of the Holy Cross (Maryland)
Preceptors: Ms. Grace Kim, Dr. Charles Egwuagu

85-AM. Eve Waters
*Potential criteria for welfare assessment of aquatic and rodent species.*
Virginia-Maryland Regional College of Veterinary Medicine (Virginia)
Preceptor: Dr. James Raber

86-AM. Rebecca Xi
*A novel allele causes two distinct degrees of pigmentation of eyes and fur in mice with the OCA4 mutation*
University of Maryland, College Park (Maryland)
Preceptors: Dr. Brian Brooks, Dr. Felix Onojafe, Dr. Prasad Alur

87-AM. Margaret Yang
Candidate Gene Screening for Genetic Modification in Occult Macular Degeneration
Cornell University (New York)
Preceptors: Dr. Xinjing Wang, Ms. Angela Turner, Mrs. Hong He

88-AM. Elizabeth Yuen
Evaluating the Participation of Commensial Microbiota in the Development of Autoimmune Uveitis
San Francisco State University (California)
Preceptors: Dr. Carlos Zarate-Blades, Dr. Reiko Yamane, Dr. Rachel Caspi

National Heart, Lung, and Blood Institute (NHLBI)

89-AM. Katelyn Cabral
Topographical Influences on Growth Cone Movement
Worcester Polytechnic Institute (Massachusetts)
Preceptors: Dr. Herbert Geller, Mr. Michael Smirnov

90-AM. Carly Cantilena
Characterization of Pain in Sickle Cell Patients Before and After Treatment of Leg Ulcers with Topical Sodium Nitrite: A Phase I Study
Case Western Reserve University (Ohio)
Preceptor: Dr. Caterina Minniti

91-AM. Jane Chen, Rachael Schwartz
Differentiation of Human Pluripotent Stem Cells into Corneal Epithelium and Lens Progenitor
University of Maryland, College Park (Maryland), Johns Hopkins University (Maryland)
Preceptors: Dr. Guokai Chen, Dr. Jane Qin, Dr. Yongshun Lin, Ms. Kaari Linaskk, Ms. Jeanette Beers

92-AM. Katherine Chen
Catch Bonds in Persistent Movement of Bacterial Cell Division Machinery
University of Maryland, College Park (Maryland)
Preceptors: Dr. Zhanghan Wu, Dr. Jian Liu

93-AM. Irena Cich
Transcatheter Device System for Tricuspid Regurgitation Treatment
Worcester Polytechnic Institute (Massachusetts)
Preceptors: Dr. Robert Lederman, Dr. Merdim Sonmez, Dr. Toby Rogers, Dr. Ozgur Kocaturk
94-AM. Anish Dalal  
Probing RNA Ligand Interactions  
Urbana High School (Maryland)  
Preceptors: Dr. Adrian Ferre-D’Amare, Dr. Nathan Baird

95-AM. Brian Diaz  
Evaluating GAPDH Expression Using Western Blot Analysis  
Whitney M. Young Magnet High School (Illinois)  
Preceptors: Dr. Elizabeth Murphy, Dr. Mark Kohr

96-AM. Angela DiNardo  
Clathrin-independent endocytosis and desmosomal protein trafficking  
Towson University (Maryland)  
Preceptors: Dr. Julie Donaldson, Dr. Lymarie Maldonado-Baez

97-AM. Anabela Esteves  
Novel SIRT2 Inhibitors  
Catholic University of America (District of Columbia)  
Preceptors: Dr. Toren Finkel, Ms. Maria Ferguson

98-AM. Ricky Fairhurst  
Studying the Chemo-mechanical Properties of Myosin-5a with Single Molecule Methods  
Wootton High School (Maryland)  
Preceptors: Dr. James Sellers, Dr. Yasuharu Takagi

99-AM. Monica Ghadiyaram  
High Density Lipoprotein Suppresses Inflammasome Activation Due to Cholesterol Crystals  
Virginia Polytechnic Institute and State University (Virginia)  
Preceptors: Dr. Seth Thacker, Dr. Alan Remaley

100-AM. Daniel Hageman  
The Aquaporin-2 Interactome  
Case Western Reserve University (Ohio)  
Preceptors: Dr. Chung-Lin Chou, Dr. Mark Knepper

101-AM. David Hepp  
Preparation and TEM analysis of sickle red blood cells for hemoglobin polymers  
Alfred University (New York)  
Preceptors: Dr. Christine A. Brantner, Mrs. Patricia S. Connelly, Dr. Mathew P. Daniels

102-AM. Allison Hockman  
Human PDE3A regulates the expression of anti-oxidant genes by controlling Yap1p oxidation in yeast
103-AM. Gloria Hwang  
*In vitro* Phosphorylation of Vasopressin-Regulated Urea Channel Slc14a2 by Protein Kinases  
Dickinson College (Pennsylvania)  
Preceptors: Dr. Chung-Lin Chou, Dr. Mark A. Knepper, Dr. Jason Hoffert

104-AM. Evangelos Katradis  
*Heart Functions in Patients with Sickle Cell Anemia Before and After Stem-Cell Transplant*  
University of Delaware (Delaware)  
Preceptor: Dr. Matthew Hsieh

105-AM. Emily King  
*Mutation Analysis of STAT3 and STAT5b Genes in Large Granular Lymphocytic Leukemia*  
Bowdoin College (Maine)  
Preceptors: Dr. Bogdan Dumitriu, Dr. Sachiko Kajigaya, Dr. Neal Young

106-AM. Bharath Krishnamurthy  
*Progress in Advancing the Field of Proteomics: The NHLBI Proteomics Centers (2010-13)*  
University of Virginia (Virginia)  
Preceptors: Dr. Richard Fabsitz, Dr. Pothur Srinivas, Ms. Mona Puggal

107-AM. Nikolle Lambrinos  
*Centrosome Regulation during Cell Division and Directed Cell Migration in Early Development*  
Florida Atlantic University (Florida)  
Preceptors: Dr. Dorothy Lerit, Dr. Nasser Rusan

108-AM. Emma Landgren  
*Characterization of CT-RCC HERV-E Transcriptional Activity in EBV-Transformed B-cells*  
Walter Johnson Highschool (Maryland)  
Preceptors: Dr. Richard Childs, Dr. J. Luis Espinoza Calderon

109-AM. Christian Lanier  
*Characterization of Novel Caspase Recruitment Domain 14 (CARD14) Protein Interactions*  
Montgomery Blair High School (Maryland)  
Preceptors: Dr. Nehal Mehta, Dr. Martin Playford

110-AM. Justin Lee  
*Modular Programs for Global Analysis of Fluorescence Lifetime Imagery*  
The George Washington University (District of Columbia)
111-AM. Tyler Lu  
*Separation of Single-Walled Carbon Nanotubes by Mixer-Settler Counter-Current Chromatography*  
Thomas S. Wootton High School (Maryland)  
Preceptors: Dr. Yoichiro Ito, Dr. Ashwin Bhirde, Dr. Ying Ma, Dr. Min Zhang

112-AM. Michael Marino, Kelly Shan  
*Investigating the Role of GMF-gamma in Remodeling the Jurkat T Cell Actin Cytoskeleton*  
University of Richmond (Virginia), Brown University (Rhode Island)  
Preceptors: Dr. John Hammer III, Dr. Christian Combs, Dr. Sricharan Murugesan

113-AM. Kendall Masada  
*An Investigation of the Reverse Cholesterol Transport Pathway in Patients with Psoriasis*  
The University of Texas at Austin (Texas)  
Preceptors: Dr. Nehal Mehta, Dr. Martin Playford

114-AM. Katherine McGowan  
*Use of a novel multi-gene expression array to predict relapse risk in acute myeloid leukemia*  
Georgetown University (District of Columbia)  
Preceptors: Dr. Christopher Hourigan, Ms. Meghali Goswami

115-AM. Joy Morgan  
*Comparison of Whole Blood miRNA Expression Profiles in Sickle Cell Anemia and Hb SC*  
Howard University College of Medicine (District of Columbia)  
Preceptors: Dr. James Taylor, Dr. Lena Diaw, Dr. Zhengyuan Wang

116-AM. Radina Mutskova  
*Reconstructing Luminex Cytokine Immunoassay Data into Biologically Relevant Variable*  
Montgomery Blair High School (Maryland)  
Preceptors: Dr. Angelique Biancotto, Dr. Shira Perl

117-AM. Tracy Okoli  
*Acetylation in the Control of the NLRP3 Inflammasome*  
Belmont University College of Pharmacy (Tennessee)  
Preceptors: Dr. Javier Traba, Dr. Michael Sack

118-AM. Jacob Ortega  
*New Insights into Centrosome Function in Stem Cells through Super Resolution Imaging and High-throughput Genetic Analysis*  
Texas Christian University (Texas)
119-AM. Meghan Quinn
*Comparison of experimental pain phenotyping in adults with sickle cell anemia and normal volunteers*
University of Maryland, College Park (Maryland)
Preceptors: Dr. James Taylor, Dr. Gwenyth Wallen, Ms. Cassie Seamon, Dr. Deepika Darbari

120-AM. Bria Rice
*Characterizing the Effects of pH and Salt Concentration on Polyethyleneimine Polymer Properties with Molecular Dynamics Simulations*
Howard University (District of Columbia)
Preceptors: Dr. Richard Pastor, Dr. Richard Venable, Dr. Preethi Chandran

121-AM. Christina Rush
*Associations between Mindfulness and Self-control: Potential Implications for Health-related Behaviors*
American University (District of Columbia)
Preceptors: Dr. Susan Czajkowski, Dr. Deborah Norris

122-AM. Aparna Sajja
*Effect of local hypoxia on Cxcl12 and VEGF expression in nerves and arterial branching.*
George Washington University (District of Columbia)
Preceptors: Dr. Yosuke Mukoyama, Dr. Wenling Li

123-AM. Akshay Sanghi
*Meta - analysis of Vasopressin Effects on the Kidney*
Johns Hopkins University (Maryland)
Preceptor: Dr. Mark Knepper

124-AM. Rachael Schwartz, Annie Chen
*Differentiation of Human Pluripotent Stem Cells for the Study of Aging Skeletal Muscle*
Johns Hopkins University (Maryland), University of Maryland (Maryland)
Preceptors: Dr. Guokai Chen, Dr. Jeanette Beers, Dr. Yonshun Lin, Ms. Kaari Liisi Linask

125-AM. Nageen Sherani
*Dependence of apolipoprotein C-III membrane binding properties on lipid composition and membrane curvature*
Gaithersburg High School (Maryland)
Preceptors: Dr. Jennifer Lee, Dr. Michel de Messieres

126-AM. Carol Shou
*An Introduction to Stem Cell Concepts and Handling*
127-AM. Menghua Wu
*Constructing a Genetic Circuit that Memorizes Intercellular Signaling Events*
The Harker School (California)
Preceptors: Dr. Zhe Chen, Dr. Hong Xu

128-AM. Kiet Zhou
*A Genetic Approach to Visualize Sub-Compartmental Localization of Mitochondrial Proteins*
Damascus High School (Maryland)
Preceptors: Dr. Hong Xu, Dr. Yun Qi

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

129-AM. Oyindamola Adefisayo
*Molecular Assay Development For Testing Transmission Blocking Vaccines in Plasmodium falciparum*
Clark University (Massachusetts)
Preceptors: Dr. Patrick Duffy, Mr. Kun-Lin Lee, Mr. Liam Donnelly

130-AM. Sherene Agama
*Molecular and functional characterization of monoclonal antibodies against VAR2CSA DBL4e and DBL5e domains*
Princeton University (New Jersey)
Preceptors: Dr. Harold Obiakor, Dr. David Narum, Dr. Patrick Duffy

131-AM. Mathew Alexander
*Effect of Autoclaved versus Unautoclaved Diets on the Development of Sand Fly Larvae*
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptor: Dr. Phillip Lawyer

132-AM. Alisa Bochnowski
*Exploration of the Differential Stimulation of Toll-like Receptors*
The George Washington University (District of Columbia)
Preceptors: Dr. Aleksandra Nita-lazar, Dr. Virginie Sjoelund, Dr. Nathan Manes

133-AM. Aaron Bodansky
*Development of a Xeno-Free Method for Generating Human iPSC Derived Functional Neutrophils*
St. Louis University School of Medicine (Missouri)
Preceptors: Dr. Colin Sweeney, Dr. Harry Malech
134-AM. Daniel Brooks
Characterization of PGAM5 Function in Cell Necrosis
University of Pennsylvania (Pennsylvania)
Preceptors: Dr. Michael Lenardo, Dr. Wei Lu

135-AM. Robert Brooks
Characterization of the Antiviral Properties of IFIT3
Haverford College (Pennsylvania)
Preceptor: Dr. Kathryn Zoon

136-AM. William Caruso
Structure of Antibody 8ANC195 in Complex with HIV-1 gp120.
Toms River High School East (New Jersey)
Preceptors: Dr. Marie Pancera, Dr. Peter Kwong

137-AM. Cindy Carvajal
A Gene Dosing Strategy to Identify Fungicidal Drug Targets
University of Southern California (California)
Preceptors: Dr. Yoon-Dong Park, Dr. Peter Williamson

138-AM. Rachel Cotton
Immune modulation by Brugia malayi microfilariae involves induction of indoleamine 2, 3-dioxygenase and downregulation of mTOR signaling in dendritic cells
University of Notre Dame (Indiana)
Preceptors: Dr. Roshanak Semnani, Dr. Thomas Nutman

139-AM. Matthew Cowles
Development of a flow cytometry assay using chondroitin sulfate proteoglycans chemically conjugated to Fluorescent Microspheres to assess blocking activity of Plasmodium falciparum VAR2CSA specific antibodies
Frederick Community College (Maryland)
Preceptors: Dr. Harold Obiakor, Mr. Chris Rowe, Dr. David Narum, Dr. David Jones

140-AM. Ananth Devadas
The development of an Atg 5 conditional knockout mouse to study macrophage autophagy in response to pathogenic fungi
Gaithersburg High School (Maryland)
Preceptors: Dr. Peter Williamson, Dr. Travis McQuiston

141-AM. Shane Falcinelli
Probing the Hamster Kinome for Drug Targets to Arenavirus Infection
University of Maryland - College Park (Maryland)
Preceptors: Dr. Reed Johnson, Dr. Victoria Jensen, Dr. Jason Kindrachuk, Dr. Peter Jahrling

142-AM. Valerie Felipe, Olufemi Ojumu
*The Function of a RNA Helicase DDX6 in Mammalian Cells*
Gaithersburg High School (Maryland), Central Gwinnett High School (Georgia)
Preceptors: Dr. Nannan Zhang, Dr. Peter Williamson

143-AM. Haris Ghayur
*Exploring New Pharmaceutical Molecules From the Salivary Glands of Blood-Sucking Arthropods*
Northern Virginia Community College (Virginia)
Preceptors: Dr. Dongying Ma, Dr. Jose Ribeiro

144-AM. Rebecca Glowinski
*Evaluation of Antibody Titers in Patients with Anti-Interferon-Gamma Autoantibodies After Rituximab Therapy*
Walt Whitman High School (Maryland)
Preceptor: Dr. Sarah Browne

145-AM. Nita Gombakomba
*Cellular Uptake System for Fusion Proteins of Anthrax Toxin Lethal Factor and Beta-Lactamase*
Montgomery College (Maryland)
Preceptors: Dr. Christopher Bachran, Dr. Stephen Leppla

146-AM. Sarah Himmelfarb
*Site Specific Function of Human and Non-Human Primate Skin Resident T Cells*
George Washington University School of Medicine and Health Sciences (District of Columbia)
Preceptors: Dr. Shruti Naik, Dr. Heidi Kong, Dr. Jason Brenchley, Dr. Yasmine Belkaid

147-AM. Azam Husain, Dara Lorn
*Cellular stress response enhances induction of type-I interferon*
Temple University (Pennsylvania), Wesleyan University (Connecticut)
Preceptor: Dr. Kathryn Zoon

148-AM. Soo Hwang
*Characterization and structural analysis of conjugate malaria transmission blocking vaccine antigens using a sandwich ELISA*
University of Maryland, College Park (Maryland)
Preceptor: Dr. David Narum

149-AM. Chernoh Jalloh
*Analysis of Artemisinin Resistance in a Plasmodium falciparum Cross between African and Cambodian Parasites*
Bennington College (Vermont)
Preceptors: Dr. Thomas Wellems, Dr. Juliana Sa

150-AM. Barbora Kabatova
Studies to Optimize a Bivalent Live Vaccine Against Respiratory Syncytial Virus (RSV) and Parainfluenza Virus Type 3 (PIV3)
University of Maryland College Park (Maryland)
Preceptors: Dr. Bo Liang, Dr. Shirin Munir, Dr. Peter Collins

151-AM. Cole Kerr
Characterizing artemisinin-resistance phenotypes in culture-adapted strains of Plasmodium falciparum
University of Massachusetts Amherst (Massachusetts)
Preceptors: Dr. Chanaki Amaratunga, Dr. Rick Fairhurst

152-AM. Aaren Kettelhut
Determination of serum IL-6 levels in children with cutaneous and systemic mastocytosis
Hanover College (Indiana)
Preceptor: Dr. Hirsh Komarow

153-AM. Kiyoon Ko
Using PichiaPink™ Expression System to Find Immunogens of HA Ferritin Antigen
Montgomery Blair High School (Maryland)
Preceptor: Dr. Cheng Cheng

154-AM. Aarti Kolluri
Proteomic analysis of Plasmodium infected Placenta
Grinnell College (Iowa)
Preceptors: Dr. Michal Fried, Dr. Patricia Gonzales, Mr. Arkady Rasin

155-AM. Amy Krystosik
Development of a novel assay to measure flight capacity of Anopheles gambiae s.l.
Kent State University, College of Public Health (Ohio)
Preceptors: Dr. Tovi Lehmann, Dr. Diana Huestis

156-AM. Eunjae Lee
Malaria Vectors in Pursat Province, Western Cambodia
Washington University in Saint Louis (Missouri)
Preceptors: Dr. Becky Miller, Dr. Brandyce St. Laurent

157-AM. David Lieb
Investigation of the degradation of wild-type, D96N, and S180L TIRAP/Mal in response to multiple TLR activation
158-AM. Janice Luo
The Effect of Eosinophil Granule Proteins, Major Basic Protein and Eosinophil Peroxidase, on Pneumonia Virus of Mice Disease
University of Maryland, College Park (Maryland)
Preceptors: Ms. Caroline Percopo, Dr. Helene Rosenberg

159-AM. Zachary Mendel
Developing a Flourescent VLP for the Detection of Norovirus Entry
American University (District of Columbia)
Preceptors: Dr. Kim Green, Dr. Rachel Dexter

160-AM. Tommy Nguyen
Characterization of recombinant Pfs230, a malaria transmission-blocking antigen
University of Maryland, Baltimore (Maryland)
Preceptors: Ms. Daming Zhu, Ms. Holly McClellan

161-AM. Olufemi Ojumu, Valerie Felipe
The Function of a RNA Helicase DDX6 in Mammalian Cells
Central Gwinnett High School (Georgia), Gaithersburg High School (Maryland)
Preceptors: Dr. Peter Williamson, Dr. Nannan Zhang

162-AM. Christopher Peek
Applications of Respiratory Syncytial Virus Strand-Specific qPCR Analysis
Davidson College (North Carolina)
Preceptors: Dr. Syed Moin, Dr. Barney Graham

163-AM. Gretchen Peppers
Multiple Functional CD4 T Clones Respond to a Single Epitope During Respiratory Syncytial Virus Infection
Xavier University of Lousiana (Louisiana)
Preceptors: Dr. Barney Graham, Mr. Jie Liu

164-AM. Olga Prokunina
Rapid peripheral changes in cellular populations during interferon-free treatment of hepatitis C virus
Richard Montgomery High School (Maryland)
Preceptors: Dr. Shyam Kottilil, Dr. Eric Meissner, Dr. Anu Osinusi, Dr. Anita Kohli

165-AM. Pierce Radecki
Profiling Neutralizing Antibody Response to Vaccine Candidates for EBV via Flow Cytometry
166-AM. Rachel Schwitzgebel  
*Gene expression profile chasing in microarray data archives: New insights from old experiments*  
Saint Mary's School (North Carolina)  
Preceptors: Dr. Timothy Myers, Dr. Krystyna Szymczyk, Dr. Paul Gardina

167-AM. Ellen Sebastian  
*Exploring functions and pleiotropic effects of microRNA expression quantitative trait loci in humans*  
Stanford University (California)  
Preceptors: Dr. Naisha Shah, Dr. John Tsang

168-AM. James Shepherdson  
*An Inducible System for Examining Gene Expression and Function in B. anthracis*  
Johns Hopkins University (Maryland)  
Preceptors: Dr. Stephen Leppla, Dr. Clinton Leysath, Ms. Amy Tresenrider

169-AM. Brandon Sickel  
*Analysis of Downstream Implications of IL-12 Pathway Defects in Multiple Cell Lines*  
Sidwell Friends School (District of Columbia)  
Preceptors: Dr. Steve Holland, Dr. Elizabeth Sampaio, Ms. Mary Hanks

170-AM. Sarah Wagner  
*Characterization of follicular helper CD4 T cells in human and non-human primate lymph nodes*  
Montgomery Blair High School (Maryland)  
Preceptors: Dr. Costantinos Petrovas, Dr. Richard Koup

171-AM. William Woodruff  
*Bloodmeal analysis of malaria vectors in Pursat province, western Cambodia*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Robert Gwadz, Dr. Becky Miller, Dr. Brandyce St Laurent

172-AM. Amy Xiao  
*Using fluorescent microspheres to quantify LPS stimulation of macrophages*  
Richard Montgomery High School (Maryland)  
Preceptors: Dr. John Tsang, Dr. Rachel Gottschalk, Dr. Andrew Martins

173-AM. George Zhang  
*Novel Method of HIV Deep Sequencing and Phylogenetic Analysis Using Microfluidic Droplet Technology*  
University of Maryland, College Park (Maryland)
174-AM. Iowis Zhu
Expression, Purification, and Characterization of Immunity-related Membrane Receptors CD64, NKp44, and mPVR
University of Maryland, College Park (Maryland)
Preceptors: Dr. Jinghua Lu, Dr. Peter Sun

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

175-AM. Yusef A. Bazzy
Hematopoietic stem cell transplant for Systemic Lupus Erythematosus: Efficacy and adverse effects.
University Of Michigan (Michigan)
Preceptor: Dr. Sarfaraz Hasni

176-AM. Clinton Enos
Mixed Messages: Alternative Splicing of an Essential Regulator of NF-kB Associated with Severe Disease
Eastern Virginia Medical School (Virginia)
Preceptors: Dr. Eric Hanson, Dr. Richard Siegel

177-AM. Brian Huang
Exploring the Fibril Polarity of alpha-Synuclein Amyloid by Conjugation Chemistry and Electron Microscopy.
Montgomery Blair High School (Maryland)
Preceptors: Dr. Altaira Dearborn, Dr. Alasdair Steven

178-AM. Uzma Hussain
Long Term Immunological Outcomes in Patients with the Autoinflammatory Disease, NOMID
Mount Holyoke College (Massachusetts)
Preceptors: Dr. Raphaela Goldbach-Mansky, Dr. Adriana Almeida de Jesus, Dr. Hanna Kim, Mrs. Bahar Kost

179-AM. Raven Johnson
Investigating the Role of Autophagy in TNFR1 Homeostasis
Tuskegee University (Alabama)
Preceptors: Dr. Richard Siegel, Dr. Martin Pelletier, Ms. Leah Billingham

180-AM. Maura Jones
Expression, Purification, and Crystallization of Bacteriophage T7 Scaffolding Protein (gp9)
Xavier University of Louisiana (Louisiana)
Preceptors: Dr. Michael DiMattia, Dr. Alasdair Steven

181-AM. Jordan Krebs, Andrea Lopez
Targeting the mediator complex via TALEN nucleases
Lycoming College (Pennsylvania), Massachusetts Institute of Technology (Massachusetts)
Preceptors: Dr. Steevenson Nelson, Dr. Rafael Casellas

182-AM. Laurel Mast
Analysis of the JAK inhibitor Tofacitinib on immune cell metabolism
Bowdoin College (Maine)
Preceptors: Dr. Massimo Gadina, Dr. Yasuko Furumoto

183-AM. Paola Reyes
Baseline characteristics of Remission on Anti-TNF medications in patients with Rheumatoid Arthritis study
Hudson County Community College (New Jersey)
Preceptors: Dr. Cailin Sibley, Dr. Michael Ward, Dr. Alice Fike, Ms. Clara Gomez-Quinonez

184-AM. Yoseph Semma
Exploring the Assembly of Viruses: the Formation of Scaffolding Protein in T4 and T7 Bacteriophages.
San Jose City College (California)
Preceptor: Dr. Bernard Heymann

185-AM. Crissie Vandehoef
Does HLA-B27 Influence the Gut Microbiome?
Lamar University (Texas)
Preceptors: Dr. Robert Colbert, Dr. Gerlinde Layh-schmitt, Dr. Tejpal Gill

186-AM. Karinna Vivanco
Polycomb protein Ezh2 controls microRNA pathways to regulate skeletal muscle development
Massachusetts Institute of Technology (Massachusetts)
Preceptors: Dr. Aster Juan, Dr. Vittorio Sartorelli

187-AM. Robert Williams
Determining the effects of monensin on Influenza virus structure by cryo-electron microscopy
The Lawrenceville School (New Jersey)
Preceptors: Dr. Alasdair Steven, Dr. Juan Fontana

188-AM. Chelsea Willoughby
The effect of BSP loss on bone formation and turnover
The George Washington University (District of Columbia)
189-AM. Angelica Woo  
*Role of Dlx-3 in IL-17-mediated Inflammatory Pathways in Skin*  
Creighton University School of Medicine (Nebraska)  
Preceptors: Dr. Jin-Chul Kim, Dr. Maria Morasso

190-AM. Laura Zweifler  
*The Role of Phosphatases during Cementogenesis*  
The Ohio State University (Ohio)  
Preceptors: Dr. Brian Foster, Dr. Martha Somerman

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

191-AM. Daniel Abraham  
*Inter-brain Coherence Between Talkers Involved in Real-time Conversation Revealed by Joint Independent Component Analysis*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Yisheng Xu, Dr. Allen Braun

192-AM. Enyinnaya Asonye  
*Reconstruction of Synaptic Contacts on Fusiform Cell Basal Dendrites in the Mouse Dorsal Cochlear Nucleus Using Serial Block Face Imaging*  
Saint Ignatius College Preparatory (Illinois)  
Preceptors: Dr. Stephan Brenowitz, Dr. Ronald Petralia

193-AM. Chelsey Campillo Rodriguez  
*Analyses of Mouse Transgenes Expressing TMC1 and TMC2 Proteins in Inner Ear Sensory Cells*  
Walter Johnson High School (Maryland)  
Preceptors: Dr. Andrew Griffith, Dr. Kiyoto Kurima

194-AM. Mark Chang  
*Antitumor effects of CK2 inhibitor CX-4945 are enhanced in vitro when combined with upstream inhibitors of the AP1 pathway in head and neck squamous cell carcinoma*  
Wake Forest University (North Carolina)  
Preceptors: Dr. Carter Van Waes, Dr. Zhong Chen, Dr. Yansong Bian, Dr. Jiawei Han

195-AM. Allison Chen  
*Identifying Patterns of Brain Activity that Precede Dysfluencies in Adults who Stutter Using fMRI*  
Montgomery Blair High School (Maryland)  
Preceptors: Dr. Ho Ming Chow, Dr. Allen Braun, Dr. Margarita Krivega
196-AM. Daniela Ganelin  
*Discourse Production in Partially Recovered Aphasic Patients*  
Montgomery Blair High School (Maryland)  
Preceptors: Dr. Allen Braun, Dr. Siyuan Liu, Ms. Meghan Healey, Ms. Jessica Carson

197-AM. Steven Lee  
*Aberrantly Co-activated NF-kappaB Family Members Promote Survival, Migration, and Inflammation in Head and Neck Cancer*  
Stanford University (California)  
Preceptors: Dr. Carter Van Waes, Dr. Zhong Chen, Dr. Liesl Nottingham, Dr. Hui Cheng

198-AM. Govind Mattay  
*Um-mazing conversation: Neural correlates of filled pauses in natural speech*  
University of Pennsylvania (Pennsylvania)  
Preceptors: Dr. Allen Braun, Dr. Yisheng Xu, Ms. Nuria Abdulsabur, Ms. Katelyn Lippitt

199-AM. Kelsey Nickerson  
*Cellular Movement During Mammalian Cochlear Development*  
Smith College (Massachusetts)  
Preceptors: Dr. Elizabeth Driver, Dr. Matt Kelley

200-AM. Esther Ogbuokiri  
*Determining the Function of EphA7 in Cochlear Development*  
Columbia University (New York)  
Preceptors: Dr. Matthew Kelley, Dr. Thomas Coate

201-AM. Avikar Periwal  
*Using Computational Simulations to Compare Resting State fMRI and PET Brain Networks*  
Montgomery Blair High School (Maryland)  
Preceptor: Dr. Barry Horwitz

202-AM. Stephen Schiltz  
*Lymphotoxins activate NF-kB mediated inflammatory and survival pathways in head and neck squamous cell carcinomas*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Carter Van Waes, Dr. Zhong Chen, Ms. Jialing Zhang, Ms. Jamie Coupar

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

203-AM. Susan Chen  
*Transcriptome Analysis of Calcium-induced Gene Expression in Primary Salivary Gland Epithelial Cells*  
Montville Township High School (New Jersey)
204-AM. Casscius Colbert
*TGF-Beta and IL-10 released by Macrophages after engulfing apoptotic cells; are not Impaired in NOD mice*
Pennsylvania State University (Pennsylvania)
Preceptors: Dr. Shimpei Kasagi, Dr. Wanjun Chen, Mrs. Brittany Abbatiello

205-AM. Lisa Deng
*Gene Expression Associated With Inhibitor DNA Binding 3 Naïve T Cells When Polarized to Th9 Phenotypes*
Walt Whitman High School (Maryland)
Preceptors: Dr. Wanjun Chen, Dr. Hiroko Nakatsukasa

206-AM. Aaron Gordon
*Molecular Pathways Controlling Cell Dynamics*
Walt Whitman High School (Maryland)
Preceptors: Dr. William Daley, Dr. Kenneth Yamada

207-AM. Jeffrey Hong
*Vasopressin Induced mRNA Changes in Bone Marrow Cells*
Haverford College (Pennsylvania)
Preceptors: Dr. Eva Mezey, Dr. Miklos Krepuska

208-AM. Janet Hu
*Anti-lymphangiogenic effects of Semaphorin3E in Head and Neck Cancer*
University of Maryland, College Park (Maryland)
Preceptors: Dr. Silvio Gutkind, Dr. Atsuko Sakurai

209-AM. Salman Kazmi
*SLC9A3R1 (NHERF1) is a Component of the Ezrin Macromolecular Complex in the Apical Pole of Salivary Acinar Cells*
University of Maryland - College Park (Maryland)
Preceptors: Dr. Paola Perez-Riveros, Dr. Ilias Alevizos

210-AM. Ephrem Rae
*Determining DNA, mRNA, miRNA, and Protein Extraction Efficiency in LCM-cut Human Minor Salivary Gland Biopsies*
St. Albans School (District of Columbia)
Preceptors: Dr. Ilias Alivizos, Dr. Paola Perez
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

211-AM. Paola Aldana
*TGF-β/Smad3 signaling suppresses FNDC5/Irisin in mouse muscle*
Georgetown University (District of Columbia)
Preceptors: Dr. Joseph Tiano, Dr. Sushil Rane

212-AM. Molly Anderson
*Morphologies of culture generated sickle cells*
Sherwood High School (Maryland)
Preceptors: Dr. Jeffery Miller, Mr. Terry Lee, Dr. Jaira Vasconcellos, Dr. Megha Kaushal, Ms. Antoinette Rabel, Ms. Colleen Byrnes

213-AM. Sreya Atluri
*The Dynamics of Staying Focused*
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. Carson Chow, Dr. Shashaank Vattikuti

214-AM. Fallon Bader
*Effects of Leptin on Hunger in Patients With Lipodystrophy*
Penn State University (Pennsylvania)
Preceptor: Dr. Rebecca Brown

215-AM. Kendra Birtcher
*The Role of the Microbiome in Liver Disease Progression*
Arizona State University (Arizona)
Preceptors: Dr. Theo Heller, Dr. Mi Sun Moon, Ms. Alyson Bradshaw

216-AM. Jonathan Credo
*DNA/RNA Cell Cycle Analysis through Counterflow Elutriation*
Northern Arizona University (Arizona)
Preceptors: Dr. Ruifeng Teng, Dr. Daniel Wright

217-AM. Christopher Cross
*Exploring the role of Neil-1 in somatic instability in a Fragile X pre-mutation mouse model*
Howard University (District of Columbia)
Preceptors: Ms. Rachel Lokanga, Dr. Daman Kumari, Dr. Karen Usdin

218-AM. Angela Davis
*Measuring Liking and Wanting in Humans of Food*
Alabama Agricultural and Mechanical University (Alabama)
Preceptors: Dr. Kevin Hall, Mr. Arjun Sanghvi
219-AM. Chandni Dhamsania
Erythropoietin receptor-mediated gene expression in mouse hypothalamus
Gaithersburg High School (Maryland)
Preceptors: Dr. Soumyadeep Dey, Dr. Constance Noguchi

220-AM. Mata'uitafa Faiai
Determination of non-nutritive sweeteners in human breast milk
Chaminade University of Honolulu (Hawaii)
Preceptors: Dr. Kristina Rother, Dr. Allison Sylvetsky, Ms. Alexandra Gardner

221-AM. Jonathan Gaillard
The autonomic control of metabolism: Don’t let your fat cells get fat
University of Virginia (Virginia)
Preceptor: Dr. Vipul Periwal

222-AM. Weber Gaowen
nNOS Expression in K562 Cells and Human Erythroid Progenitor Cells
Georgetown Prep (Maryland)
Preceptor: Dr. Heather Rogers

223-AM. Zhuoqun Gaowen
nNOS Expression in K562 Cells and Human Erythroid Progenitor Cells
Georgetown Preparatory School (Maryland)
Preceptor: Dr. Heather Rogers

224-AM. Arlene Gonzalez-Martinez
Identification of target genes in Smad3 mediating pancreatic beta-cell apoptosis
University of Puerto Rico at Cayey (Puerto Rico)
Preceptors: Dr. Sushil Rane, Dr. Ji-Hyeon Lee

225-AM. Ramita Gowda
Ethnic Differences in Cardiac and Hepatic Steatosis and its Relationship to Insulin Sensitivity
Livingston High School (New Jersey)
Preceptor: Dr. Ranganath Muniyappa

226-AM. Rama Hagos
Whole Genome Sequencing to Identify Variants Influencing Pre-Diabetic Traits
Amherst College (Massachusetts)
Preceptors: Dr. Leslie Baier, Mr. Darin Mahkee

227-AM. Eric Huang
Effects of Extracellular Matrices on Renal Epithelial Morphogenesis
University of California, Berkeley (California)
228-AM. Daniel Jacobs  
*Investigating Tom40 Structure and Function Relationship Through Planar Lipid Bilayer Recordings*  
Northwestern University (Illinois)  
Preceptors: Dr. Adam Kuszak, Dr. Tatiana Rostovtseva

229-AM. Ofer Kimchi  
*Modeling Alpha and Beta Cell Interaction through Insulin*  
Princeton University (New Jersey)  
Preceptors: Dr. Arthur Sherman, Dr. Margaret Watts

230-AM. Claudia Lujan  
*What is the association of perceived and objectively measured stress levels to incidence of gestational/post-partum diabetes? A proposal for a sub-study of current Lifestyle Intervention for Expectant Moms (LIFE-MOMs)*  
Swarthmore College (Pennsylvania)  
Preceptor: Dr. Jeremy Pomeroy

231-AM. Jesus Medrano  
*Common variation in TRIM66 is associated with childhood obesity in Pima Indians*  
University of Northern Colorado (Colorado)  
Preceptors: Dr. Leslie Baier, Dr. Yunhua Muller, Mr. Duncan Hoffman

232-AM. Mahathi Nagarur  
*Challenges of recruiting adolescents with Type 2 Diabetes: Lessons learned from the ‘Buddy Study’*  
The George Washington University (District of Columbia)  
Preceptors: Dr. Allison Sylvetsky, Dr. Kristina Rother

233-AM. Ethan Paddock  
*Mutations of Ure2 protein that impair propagation of [URE3] prion or that prevent curing of [URE3] by Hsp40 chaperone Ydj1*  
Northern Arizona University (Arizona)  
Preceptors: Dr. Suman Mukherjee, Dr. Daniel Masison

234-AM. Anna Panyutin  
*Effect of the drugs MTII and BMS-470539 on the MC1R in mice*  
Thomas S. Wootton HS (Maryland)  
Preceptors: Dr. Oksana Gavrilova, Dr. Mark Reitman
235-AM. Charles Phillips
Challenges associated with using A1C to diagnose glucose tolerance status in people of African descent
Tougaloo College (Mississippi)
Preceptor: Dr. Anne Sumner

236-AM. Dylan Powell
Construction and evaluation of a plasmid vector for the dual expression of the human iron chaperones PCBP1 and PCBP2 in E. coli
Carleton College (Minnesota)
Preceptors: Dr. Pam Smith, Dr. Caroline Philpott

237-AM. Kushi Ranganath
Effects of pancreatic alpha cell-specific deficiency of the G protein alpha-subunit (Gs-alpha) on islet cell morphology
Thomas Wootton High School (Maryland)
Preceptors: Dr. Min Chen, Dr. Lee Weinstein

238-AM. Gabriela Rivera Camacho
Development and validation of an immunoassay to measure Neurokinin A in human plasma samples using electrochemiluminescence
Pontifical Catholic University of Puerto Rico (Puerto Rico)
Preceptor: Dr. Mary F. Walter

239-AM. Theresa Russell
Mouse Model of De Novo Sphingolipid Biosynthesis in the Liver
University of Maryland College Park (Maryland)
Preceptors: Dr. Aikaterini Alexaki, Dr. Richard Proia

240-AM. Danielle Scott
HIV’s gp120 as a Pharmaceutical Target: Exploiting Carbohydrate Recognition
Coastal Carolina University (South Carolina)
Preceptors: Dr. Sandra Loesgen, Dr. Sabrina Lusvarghi, Dr. Carole Bewley

241-AM. Nicole Spears
Identification and Characterization of New Mutant Required for Embryogenesis in C.elegans
Howard University (District of Columbia)
Preceptors: Dr. Aimee Jaramillo-Lambert, Dr. Andy Golden

242-AM. Veeraya Tanawattanacharoen
The effect of N-acetylmannosamine on Adriamycin-induced podocytopathy
Memorial High School (Wisconsin)
Preceptors: Dr. May Christine Malicdan, Dr. Jeffrey Kopp, Dr. Shashi Shrivastav

243-AM. Janelle Thomas
The Cloning, Expression, and Crystallization of a β - CASP Nuclease
University of Pittsburgh (Pennsylvania)
Preceptors: Dr. Wei Yang, Mr. Mark Gregory

244-AM. Kayla Williams, Erik Koritzinsky
Quantifying Differential Exosome Excretion from Kidney Epithelial Cells
George School (Pennsylvania), Cornell University (New York)
Preceptors: Dr. Robert Star, Dr. Peter Yuen

245-AM. Jacqueline Yang
Mechanism of Cytotoxicity by Pharmacologic Ascorbic Acid in Murine Melanoma Cells
Northwestern University (Illinois)
Preceptors: Dr. Nermi Parrow, Dr. Mark Levine

246-AM. Yunlong Yang
Insight into the role of Chaperone Mediated Autophagy in the Degradation of TRAF2
University of Maryland College Park (Maryland)
Preceptors: Dr. Yihong Ye, Dr. Yue Xu

247-AM. Andrew Yin
Optimized synthesis of PPTN, a selective P2Y14 receptor antagonist with potential use in diabetes and inflammatory diseases
Wesleyan University (Connecticut)
Preceptors: Dr. Kenneth Jacobson, Dr. Evgeny Kiselev

248-AM. Justin Young
Identification of a Gene for the Folate Receptor in Dictyostelium discoideum
Yale University (Connecticut)
Preceptors: Dr. Netra Pal Meena, Dr. Alan Kimmel

249-AM. Alexander Zhang
The Drug SRT1720 Causes Cell Death of Breast Cancer Cells
Winston Churchill High school (Maryland)
Preceptor: Dr. Tyler Lahusen

250-AM. Zuri Zhao
Cloning shRNA against Eto2
Richard Montgomery High School (Maryland)
Preceptor: Dr. Jennifer Plank
National Institute of Environmental Health Sciences (NIEHS)

251-AM. Natalie Smith
*Tobacco Use is Correlated with Auto-Antibody Formation in Idiopathic Inflammatory Myopathies*
Purdue University (Indiana)
Preceptors: Dr. Adam Schiffenbauer, Dr. Frederick Miller

National Library of Medicine (NLM)

252-AM. Stella Cho
*Optimizing RPS-BLAST Heuristics through Model-Specific Word Score Thresholds*
Swarthmore College (Pennsylvania)
Preceptor: Dr. Aron Marchler-Bauer

253-AM. Jacqueline Li, Isabel Paterson, Brandon Groce
*A Case Study of the Medline Plus Interactive Tutorials for Optimizing Usability and Education*
Rochester Institute of Technology (New York), Shepherd University (West Virginia),
Montgomery College (Maryland)
Preceptors: Ms. Anne Altemus, Mr. Donald Bliss

Center for Information Technology (CIT)

1-LCH. Ron Ulric Domingo
*Lab Linux: A Solution to the Vexing Problem of Managing Linux Systems in NIH Research Laboratories*
Poolesville High School (Maryland)
Preceptors: Dr. Anthony Fletcher, Mr. Jim Cottrell, Dr. Calvin Johnson

2-LCH. Anirvan Guha
*Microfabricated PDMS Vessel Mimetics for Cancer Cell Culture in 6-Well Plates*
University of Michigan (Michigan)
Preceptors: Mr. Thomas Pohida, Dr. Michael Gottesman, Dr. Nicole Morgan, Dr. Matthew Hall

3-LCH. Brett Kirkland, Eugene Lin, Jonathan Burke, Katherine Fesen
*Automated Behavior Detection and Analysis of Mice in a Homecage Environment*
University of Alabama at Birmingham (Alabama), University of Maryland, College Park (Maryland),
George Washington University (District of Columbia), University of Pittsburgh (Pennsylvania)
Preceptors: Mr. Ghadi Salem, Mr. Tom Pohida, Dr. Michael Bustin, Dr. Salim Khiati

4-LCH. Ryan Kuo
*A Comparative Method for Validation of Lysosomal pH Estimation Using Fluorescence Imaging*
University of Maryland - College Park (Maryland)
Preceptors: Mr. William Lau, Dr. Calvin Johnson

5-LCH. Anish Potnis
*Development of a Video-Based Tracking System for the Routine Clinical Evaluation of Motor Disorders*
Georgia Institute of Technology (Georgia)
Preceptors: Mr. John Kakareka, Mr. Tom Pohida, Dr. Brandon Harvey, Dr. Codrin Lungu

National Center for Advancing Translational Sciences (NCATS)

6-LCH. Michael Bender
*Synthesis and Biological Activity of KN-62 Analogues for Treatment of Malaria*
St. Mary's College of Maryland (Maryland)
Preceptors: Dr. Paresma Patel, Dr. Bryan Mott

7-LCH. Charles Eyermann, Robert Huang
*Profiling Inducers of Endoplasmic Reticulum Stress Response in U87-MG Malignant Glioma Cells*
Carleton College (Minnesota), University of Maryland, College Park (Maryland)
Preceptors: Mr. Adam Yasgar, Mr. Ajit Jadhav

8-LCH. Alice Lu
*Using Cellular Assays and Quantitative High Throughput Screening for Drug Discovery*
Thomas S. Wootton High School (Maryland)
Preceptors: Dr. Lesley Mathews, Dr. Xiaohu Zhang, Dr. Madhu Lal

9-LCH. Juliet Mayer
*The effect of SLC33A1 on autophagy*
Wakefield School (Virginia)
Preceptor: Dr. Scott Martin

10-LCH. Lindsey Noll
*Optimization of Retinoid-related Orphan Receptor gamma Assay in 1536-well Plate Format*
Richard Montgomery High School (Maryland)
Preceptors: Dr. Menghang Xia, Mrs. Srilatha Sakamuru

11-LCH. David Shou
*Identification of Potentiators for Wnt/Beta-Catenin Signaling Pathway*
Duke University (North Carolina)
Preceptors: Dr. Srilatha Sakamuru, Dr. Menghang Xia

12-LCH. Lorena Tagle
*Assaying the intracellular calcium response of CHO cells by different fluorescent dyes*
University of Maryland College Park (Maryland)
Preceptors: Dr. Wei Zheng, Ms. Xiuli Huang, Mr. Mengqiao Wang

National Cancer Institute (NCI)

13-LCH. Ifeanyi Achu
An Examination of Protocols for Extracting DNA and RNA from Formalin-Fixed Paraffin-Embedded Tissues
Timber Creek Regional High School (New Jersey)
Preceptors: Dr. Daniel Edelman, Ms. Jennifer Walling, Ms. Allison Gomez

14-LCH. Mary Margaret Addison
Optimizing Flow Cytometric Detection of Minimal Residual Disease in CLL
St. Mary's College of Maryland (Maryland)
Preceptors: Dr. Maryalice Stetler-Stevenson, Ms. Catharine McCoy, Ms. Margo Santiago

15-LCH. Isha Agarwal
The Role of miR-155 in Lumphoproliferative Disease in Mice
University of Maryland College Park (Maryland)
Preceptors: Dr. Connie Sommers, Dr. Alex Rouquette-Jazdanian, Dr. Robert Kortum, Dr. Wenmei Li, Dr. Lawrence Samelsom

16-LCH. Joseph Ahearn
Using Metabolomics to Decipher the Physiological Role of ATP-binding Cassette Transporters
Colgate University (New York)
Preceptors: Dr. Suresh Ambudkar, Dr. Suneet Shukla

17-LCH. Theresa Alexander
University of Maryland, College Park (Maryland)
Preceptors: Dr. Richard Morgan, Dr. Daniel Abate-Daga

18-LCH. Sonia Ammu
Analysis of exosomes from vegetative and differentiated Dictyostelium cells
University of North Carolina at Chapel hill (North Carolina)
Preceptors: Dr. Carole Parent, Dr. Paul Kriebel

19-LCH. Umm-e-hani Anis
Regulation of RNA metabolism by the Mutant p53/let-7 axis
Colonel Zadok Magruder High School (Maryland)
Preceptors: Dr. Ashish Lal, Dr. Murugan Subramanian
20-LCH. Sara Azeem
Assessment of genetic interactions of the centromeric histone H3 variant in S. cerevisiae
University of Maryland, Baltimore County (Maryland)
Preceptors: Dr. Munira Basrai, Dr. Lars Boeckmann

21-LCH. Towqir Aziz
NADPH Oxidases Inactivation Protects From Ionizing Radiation-Induced DNA Damage
The University of North Carolina at Chapel Hill (North Carolina)
Preceptors: Dr. Urbain Weyemi, Dr. Christophe Redon

22-LCH. Gabriella Baez
Characterization of the Tumor Suppressor PRDM2 in DNA Damage Repair
The Fu Foundation School of Engineering and Applied Sciences at Columbia University (New York)
Preceptors: Dr. Philipp Oberdoerffer, Dr. Andy Tran, Dr. Simran Khurana

23-LCH. Wenelia Baghoomian
Identifying Candidate Genes in Patients with Trichothiodystrophy
University of California, Los Angeles (California)
Preceptors: Dr. Christiane Kuschal, Dr. Kenneth Kraemer, Ms. Deborah Tamura

24-LCH. Andrew Barnes
TIMP-2 affects the phenotype of glioblastoma cell lines through in-vitro culture system
Colonel Zadok Magruder High School (Maryland)
Preceptors: Dr. Huiying Han, Dr. William G. Stetler-Stevenson

25-LCH. Alexandra Barsell
Significance of bone abnormalities in Trichothiodystrophy
George Washington University School of Medicine (District of Columbia)
Preceptors: Dr. Kenneth Kraemer, Ms. Deborah Tamura, Dr. Suvimol Hill, Dr. John DiGiovanna

26-LCH. Josepg Bergman
Preparation of lipo-plexes for siRNA delivery in breast cancer cells
Brunswick High School (Maryland)
Preceptors: Dr. Kshitij Gupta, Dr. Anu Puri

27-LCH. Kavita Bhatnagar
The Roles of Serine Protease Inhibitor Kazal Type 3 (SPINK3) in Metastasis
Johns Hopkins University (Maryland)
Preceptor: Dr. Yanlin Yu
28-LCH. Jennifer Bi, Emily Hu
*Radiation Treatment Associated with Higher Risk of Second Malignancies in Women with Breast cancer*
Trinity School (New York), Carnegie Mellon University (Pennsylvania)
Preceptors: Dr. Leon Sun, Dr. Joseph Su

29-LCH. Daniel Bogachek
*The status of FOXO1 rearrangement and 12q/13q amplification in Rhabdomyosarcoma (RMS) defines tumor subtype and suggests fusion-negative Alveolar RMS and Embryonal RMS are the same subtype of RMS.*
Thomas S. Wootton High School (Maryland)
Preceptors: Dr. Svetlana Pack, Dr. Ziedulla Abdullaev

30-LCH. Shree Bose
*Rapid and Deep Responses: A Phase II Trial for Newly Diagnosed Multiple Myeloma Using Carfilzomib, Revlimid, and Low-dose Dexamethosone*
Harvard University (Massachusetts)
Preceptor: Dr. Ola Landgren

31-LCH. Benjamin Bouvier
*Optimizing Immune-Mediated Leukemia Killing with Smac Mimetics*
Walt Whitman High School (Maryland)
Preceptors: Dr. Rimas Orentas, Dr. Crystal Mackall

32-LCH. Laura Brown
*Study of the Loss of Cdk1 Phosphorylation Sites in Exons Four to Seven of BRCA2 Mutants*
Francis Scott Key High School (Maryland)
Preceptors: Dr. Eswary Thirthagiri, Dr. Shyam Sharan

33-LCH. Jonathan Burke
*Effects of the absence of High Mobility Group N protein expression on behavioral phenotypes in mice*
George Washington University (District of Columbia)
Preceptors: Dr. Michael Bustin, Mr. Ghadi Salem, Dr. Tao Deng, Dr. Takashi Furusawa

34-LCH. Andrew Cangelosi
*The Effects of Cancer-Associated Mutations in Cbl on E3 Function*
Duke University (North Carolina)
Preceptors: Dr. Stanley Lipkowitz, Dr. Juan Crespo-Barreto

35-LCH. Katherine Carruthers
*Developing New Epigenetic Therapies for Neuroblastoma*
The University of Toledo College of Medicine (Ohio)
36-LCH. Adriel Casellas, Andy Grewal  
Cloning of Wnt Signaling Components for Prospective ES Cell Research  
Brigham Young University (Hawaii), University of Maryland (Maryland)  
Preceptors: Dr. Jing Huang, Dr. Shunling Jiang

37-LCH. Ari Charnoff  
Validating the Automated QIAcube Robot for DNA Extraction  
Charles E. Smith Jewish Day School (Maryland)  
Preceptors: Ms. Allison Gomez, Dr. Dan Edelman

38-LCH. Zheng Che  
A Gadd45alpha peptide controls T cell inflammatory cytokine production by inhibiting TCR-induced p38 activation  
The Ohio State University (Ohio)  
Preceptors: Dr. Alam Muhammad, Dr. Jonathan Ashwell

39-LCH. Austin Cheng  
T-Bet+ Th1 Cells can Up-Regulate FoxP3 in the Presence of PDL-1  
Carnegie Mellon University (Pennsylvania)  
Preceptors: Dr. Shoba Amarnath, Dr. Daniel Fowler, Dr. Jinfang (Jeff) Zhu

40-LCH. Anna Chichura  
Characterization of metabolic response to PLX4032, a selective BRAFV600E kinase inhibitor, in a mouse melanoma model expressing BRAFV600E  
Georgetown University School of Medicine (District of Columbia)  
Preceptors: Dr. Nicholas Restifo, Dr. Zhiya Yu, Dr. Nicholas Acquavella Pesantes, Dr. Madhu Sukumar

41-LCH. Camila Chile  
Characterizing Androgen Receptor Expression in Bladder Cancer Cell lines  
Massachusetts Institute of Technology (Massachusetts)  
Preceptors: Dr. Piyush Agarwal, Dr. Quentin Li, Dr. Jane Trepel

42-LCH. Rohini Choudhuri  
Investigating the use of Hypothermia to Improve Cancer Therapy  
University of Maryland, College Park (Maryland)  
Preceptor: Dr. Christophe Redon

43-LCH. Ann Cirincione  
Characterization of Treslin, a DNA Replication Initiation Factor  
James Hubert Blake High School (Maryland)
Preceptors: Dr. Mirit Aladjem, Mr. Owen Smith

**44-LCH. Tiffany Coates**

*BRAF mutation in colon cancer Immunohistochemical and molecular genetic approach*
University of Maryland - College Park (Maryland)
Preceptors: Dr. Markku Miettinen, Dr. Jerzy Lasota

**45-LCH. Charles Coomer**

*Virus Populations in Plasma and Tissues are Well-Mixed in RT-SHIV-Infected Macaques*
Western Kentucky University (Kentucky)
Preceptors: Dr. Mary Kearney, Dr. Zandrea Ambrose

**46-LCH. Callan Corcoran**

*Studying dynamic p53 activation of the mdm2-promter region using fluorescence microscopy*
Duke University (North Carolina)
Preceptors: Dr. Amie Moody, Dr. Eric Batchelor

**47-LCH. Yasmin Crespo-Mejias**

*Mitochondria as Targets of NRTI-induced Toxicity and the Search for Protective Agents*
University of Puerto Rico, Rio Piedras Campus (Puerto Rico)
Preceptors: Dr. Yongmin Liu, Dr. Miriam Christine Poirier, Ms. Eunwoo Shim

**48-LCH. Elisabeth Davis**

*New Human Breast Cancer Cell Strains with Divergent TGF-beta Responses*
Georgetown Day School (District of Columbia)
Preceptors: Dr. Kathleen Flanders, Dr. Binwu Tang, Dr. Lalage Wakefield

**49-LCH. Moez Dawood**

*Burkitt Lymphoma Pathogenesis and Therapeutic Targets from Structural and Functional Genomics*
Rice University (Texas)
Preceptors: Dr. Roland Schmitz, Dr. Louis Staudt

**50-LCH. Sophie Dean**

*Release of Encapsulated Molecules on Interaction of β-Hairpin Peptides with Model Membranes*
Our Lady of Good Counsel High School (Maryland)
Preceptors: Dr. Anu Puri, Dr. Kshitij Gupta, Dr. Robert Blumenthal

**51-LCH. Matthew Ebia**

*The association between Fusobacterium nucleatum and DNA damage in colon cancer*
University of the Pacific (California)
52-LCH. Nicole Ehler
*Social Support Networks of Women in BRCA1/2 Positive Families: As seen through Colored Eco-Genetic Relationship Maps (CEGRMs)*
University of Maryland - College Park (Maryland)
Preceptors: Ms. June Peters, Dr. Laura Koehly, Dr. Lindsey Hoskins, Dr. Jennifer Loud

53-LCH. Emily Erickson
*Characterization of Redirected Human Carcinoma Cells from Chimeric Tumor-free Mouse Mammary Outgrowths*
Purdue University (Indiana)
Preceptors: Dr. Gilbert Smith, Dr. Sonia Rosenfield

54-LCH. Arelys Flores Vázquez
*Affinity Maturation of a Human Monoclonal Antibody to Mesothelin by Phage Display Technology*
University of Puerto Rico at Cayey (Puerto Rico)
Preceptors: Dr. Mitchell Ho, Dr. Mingqian Feng, Dr. Wei Gao, Dr. Zhewei Tang

55-LCH. Giovanni Forcina
*Probing for Biological and Chemical Diversity in Amazon Rainforest Endophytes*
Yale University (Connecticut)
Preceptors: Dr. Kirk Gustafson, Dr. Amaya Castro-Ruiz, Dr. Heidi Bokesch, Dr. Scott Strobel

56-LCH. Zaneta Franklin
*Methylation and functional studies of microRNA 520e in lung cancer*
University of Pittsburgh (Pennsylvania)
Preceptor: Dr. Ana Robles

57-LCH. Rubi Garcia
*Multidrug resistance-linked P-glycoprotein (ABCB1): Residues in the intracellular loop 3 are critical for proper folding of the transporter*
Dominican University of California (California)
Preceptors: Dr. Suresh Ambudkar, Dr. Khyati Kapoor

58-LCH. Sophia Gauthier
*3D Cultures of Hepatocellular Carcinoma and Expression of Cancer Stem Cell Biomarkers*
Johns Hopkins University (Maryland)
Preceptors: Dr. Mitchell Ho, Mr. Zhewei Tang

59-LCH. Yantenew Gete
*DNA Methylation Regulates Gene Expression and Cancer Stem Cell Properties*
Metropolitan State University of Denver (Colorado)
Preceptors: Dr. Nicolas Skrypek, Dr. Li Yang

**60-LCH. April Gilkey**
*Investigation of the Blood Brain Barrier in Mouse Model of Brain Metastasis*
Towson University (Maryland)
Preceptors: Dr. Brunilde Gril, Dr. Patricia Steeg

**61-LCH. Meghana Golla**
*SPECT Imaging of Non-Small Cell Lung Cancer Progression in vivo using a [99mTc] Met Probe*
Stanford University (California)
Preceptors: Dr. Fabiola Cecchi, Dr. Don Bottaro, Dr. Elaine Jagoda, Dr. Peter Choyke

**62-LCH. Adam Goode, Marica Sharashenidze**
*Ovarian Cancer Sensitivity: In Pursuit of Prevention*
University of Virginia (Virginia), Rice University (Texas)
Preceptors: Dr. Christina Annunziata, Dr. Anne Noonan

**63-LCH. Gianni Graham**
*An essential Staphylococcus aureus cell division protein displays broad-spectrum antimicrobial activity*
Pomona College (California)
Preceptors: Dr. Prahathees Eswara Moorthy, Dr. Kumaran Ramamurthi

**64-LCH. Ashley Hall**
*Effects of Tamoxifen and Anastrozole on Immunogenic Modulation*
SUNY Binghamton University (New York)
Preceptors: Dr. James Hodge, Dr. Anna Kwilas, Dr. Andressa Smith

**65-LCH. Patrick Hall**
*Studies with phototriggerable liposomes for drug delivery*
Walkersville High School (Maryland)
Preceptors: Ms. Jessica Sine, Dr. Mathias Viard, Dr. Robert Blumenthal, Dr. Anu Puri

**66-LCH. Deborah Hemingway**
*Determination of the physical parameters required for the establishment of multicellular architecture*
University of Maryland--College Park (Maryland)
Preceptors: Dr. Wolfgang Losert, Dr. Kandice Tanner

**67-LCH. Mariela Hernandez**
*The Genetic and Clinical Manifestations of Trichothiodystrophy (TTD) with a Xeroderma Pigmentosum (XPD) Mutation*
Bowie State University (Maryland)
Preceptors: Dr. Kenneth Kraemer, Dr. Sikander Khan, Dr. John Digiovanna, Ms. Deborah Tamura

68-LCH. Timothy Higgins
Improving the Migration of CAR T-Cells To Pediatric Solid Tumor
University of Maryland College Park (Maryland)
Preceptors: Dr. Steven Highfill, Dr. Crystal Mackall

69-LCH. Hai Hoang
Coordinating Cancer Care Across Care Transitions: Understanding The Evidence
Charles R. Drew University of Medicine and Science (California)
Preceptors: Mr. Bryan Leyva, Dr. Carly Parry, Dr. Stephen Taplin

70-LCH. Sun Min Hong
Investigating the Role of Inositol Metabolism in the Metastatic Phenotype
Cornell University (New York)
Preceptor: Dr. Ling Ren

71-LCH. Brittany Hoyle
Connecting Cancer Genotypes to Phenotypes
College of William and Mary (Virginia)
Preceptors: Dr. Danielle Carrick, Dr. Stefanie Nelson, Ms. Sharna Tingle

72-LCH. Katie Hsia
N-end rule in Bacillus subtilis
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. Michael Maurizi, Dr. Matthew Humbard

73-LCH. Nicholas Hughes
Analysis of Correlated and Anticorrelated Gene Expression in S. cerevisiae using Fluorescent in situ Hybridization (FISH)
Middlebury College (Vermont)
Preceptors: Dr. Tineke Lenstra, Dr. Daniel Larson

74-LCH. Sheindel Ifrah
Acupuncture as a treatment for neurological disorders such as TBI's and stroke
Bnos Yisroel Baltimore (Maryland)
Preceptors: Dr. Daniel Edelman, Dr. Linda Samuels

75-LCH. Jane Inyang
Metabolic Reprogramming during Macrophage Activation
Oxon Hill High School (Maryland)
76-LCH. Alana Jackson  
*Developing Alternative Fixatives To Replace Formalin In The Production of Tissue Micro arrays (TMAs)*  
Polytechnic School (California)  
Preceptors: Dr. Stephen Hewitt, Ms. Candice Perry

77-LCH. Jaleel Jefferson  
*The Effects of DNA Damage and Phosphorylation on SIRT1 Chromatin Binding at DNA Replication Origins*  
Dreher High School (South Carolina)  
Preceptors: Dr. Mirit Aladjem, Dr. Koichi Utani

78-LCH. Jessica Jiang, Eric Zhao  
*Mixed lineage kinase domain-like is a key receptor interacting protein 3 downstream component of TNF-induced necrosis*  
Novi High School (Michigan), St. Albans High School (District of Columbia)  
Preceptors: Dr. Siriporn Jitkaew, Dr. Jie Zhao

79-LCH. Oshea Johnson  
*The Effects of Immunohistochemistry on DNA Recovery from Formalin Fixed Paraffin Embedded Tissues*  
Morehouse College (Georgia)  
Preceptors: Mr. Jeffrey Hanson, Dr. Michael Emmert-Buck

80-LCH. Boris Joutovsky  
*Immunohistochemistry analysis helps recognize hereditary bladder pheochromocytoma associated with SDHB germline mutations*  
Colgate University (New York)  
Preceptors: Dr. Maria Merino, Dr. Karlena Lara-Otero

81-LCH. Tina Ju  
*Human antibodies as candidate therapeutics against cancer and viruses*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Tianlei Ying, Dr. Dimiter Dimitrov

82-LCH. Christopher Kaler  
*Analysis of potential interactions between guanine nucleotide exchange factor Vav and Protein Kinase C isoforms*  
Boston College (Massachusetts)  
Preceptors: Dr. Jessica Kelsey, Dr. Jessie Chen, Dr. David Jay Goldstein, Dr. Peter Blumberg
83-LCH. Natnael Kenea
*A Correlation between Breast Cancer Risk Factors and Epigenetic Regulation*
University of Maryland Baltimore County (UMBC) (Maryland)
Preceptors: Dr. Kevin Gardner, Dr. Jamaine Davis, Dr. Jung Byun

84-LCH. Kofi Khamit-Kush
*Differential Binding of Heat Shock Factor 1 by Heat Shock Protein 90 ATPase Mutants*
Morehouse College (Georgia)
Preceptors: Dr. Thomas Prince, Dr. Len Neckers

85-LCH. Samantha Kistler
*Human Studies of Cortisol Mediated Gene Response In Vivo*
Georgetown University (District of Columbia)
Preceptors: Dr. Diana Stavreva, Dr. Lyuba Varticovski, Dr. Lynette Nieman, Dr. Gordon Hager

86-LCH. Stephanie Kolb
*Simulations of the Binding Interactions between the EphB2 Receptor and the SNEW Peptide Variations*
The College of William and Mary (Virginia)
Preceptors: Dr. Buyong Ma, Dr. Ruth Nussinov

87-LCH. Daichi Komiya
*Why are Microtubule-Targeting Agents and DNA Damaging Drugs Used Together so Frequently*
Quince Orchard High School (Maryland)
Preceptors: Dr. Tito Fojo, Dr. Marianne Poruchynsky

88-LCH. Akiko Komura
*Investigation of the interaction of Wip1 phosphatase with ubiquitin*
University of Toledo (Ohio)
Preceptors: Dr. Ettore Appella, Dr. Sharlyn Mazur, Dr. Hiroyasu Sakai, Dr. Lisa Jenkins

89-LCH. Matthew Kreitman
*The Presence of Thymic Stromal Lymphopoeitin (TSLP) in Bone Marrow Supports Leukemia Progression*
Yeshiva University (New York)
Preceptors: Dr. Chris Chien, Dr. Terry Fry

90-LCH. Meir Kreitman
*RNA Silencing of Mcl-1 enhances AB7-737 mediated killing in Colorectal Cancer cells.*
Melvin J. Berman Hebrew Academy (Maryland)
Preceptors: Dr. Abid Mattoo, Dr. John Jessup
91-LCH. Dahlia Kronfli
*Immunohistochemistry Optimization and Experimental Application*
Walkersville High School (Maryland)
Preceptors: Dr. Sarah Cramer, Dr. Giorgio Trinchieri

92-LCH. Saikartik Kumar
*Epigenetic regulation of CpG islands in miRNA promoter regions*
University of Texas at Austin (Texas)
Preceptor: Dr. Ana Robles

93-LCH. Yasmin Lachir
*Role of C/EBPD in ER/PR+ Breast Cancer Cells*
Urbana High School (Maryland)
Preceptors: Dr. Esta Sterneck, Dr. Daniel Mendoza Villanueva

94-LCH. Joanne Lee
*Identification of proteins that interact with the MTV complex important for protection of chromosome ends in Drosophila*
Smithsburg High School (Maryland)
Preceptors: Dr. Yi Zhang, Dr. Yikang Rong

95-LCH. Tobie Lee
*The Effects of Lysosomal Trapping on Drug Penetration into Multicellular Spheroids*
Washington University in St. Louis (Missouri)
Preceptors: Dr. Matthew Hall, Dr. Michael Gottesman, Ms. Kate Telma, Mr. Joshua Bakhsheshian

96-LCH. Jingce Lei
*Reducing the Invasive Potential of Melanoma Cells through Genetic Modification*
Montgomery Blair High School (Maryland)
Preceptors: Dr. Julio Valencia, Dr. Vincent Hearing

97-LCH. Daniel Letwin
*Gp78 negatively regulates TRAIL-induced apoptosis*
Kent State University (Ohio)
Preceptors: Dr. Stanley Lipkowitz, Ms. Jennifer Dine

98-LCH. Jessica Li
*ROS plays a critical role in the differentiation of alternatively activated macrophages and the occurrence of tumor associated macrophages*
Walt Whitman High School (Maryland)
Preceptors: Dr. Swati Choksi, Dr. Yan Zhang, Dr. Yelena Pobezinskaya, Dr. Zhen-gang Liu
99-LCH. Jiaqi Li

In Vivo Efficacy of an Oncolytic Vaccinia Virus Expressing IL-15 and GM-CSF in a Mouse Model of Breast Cancer
University of Maryland, College Park (Maryland)
Preceptors: Dr. Liyanage Perera, Dr. Meili Zhang

100-LCH. Edward Liang

Engineering and analysis of various fluorescently-tagged RNA binding proteins for visualization of HIV RNA.
Poolesville High School (Maryland)
Preceptors: Dr. Olga Nikolaitchik, Dr. Wei-Shau Hu

101-LCH. Olivia Lim

Blockade of CD47 regulates autophagy to reduce cancer cell growth
University of Virginia (Virginia)
Preceptors: Dr. David Soto-Pantoja, Dr. David Roberts

102-LCH. Jayne Liu

Identification of miR-628-5p as a potential oncomir with a somatic mutation in hepatocellular carcinoma.
University of Michigan-Ann Arbor (Michigan)
Preceptor: Dr. Junfang Ji

103-LCH. Paydor Liu

Determining the substrate binding site(s) of Arf GAP ASAP1 by mutagenesis
National Cathedral School (District of Columbia)
Preceptors: Dr. Peng Zhai, Dr. Paul Randazzo

104-LCH. Andrea Lo

 Manipulation of E-Cadherin levels in a series of Breast Cancer cell lines
Thomas S. Wooton High School (Maryland)
Preceptors: Dr. Carole Parent, Dr. Christina Stuelten

105-LCH. Alexander Lopez

In Vitro Testing of Different Chemotherapeutic Drugs on Primary Malignant Mesothelioma Cell Lines
Walt Whitman High School (Maryland)
Preceptors: Dr. Raffit Hassan, Dr. Neetu Kalra, Ms. Jingli Zhang

106-LCH. Alexander Lu

Effects of Cytokine Treatment on the Biogenesis of KSHV MicroRNAs
Richard Montgomery High School (Maryland)
Preceptors: Dr. Joseph Ziegelbauer, Dr. Christine Happel, Dr. Dhivya Ramalingam

107-LCH. Solomon Lynch
Phenotypic characterization of an allelic variant of Mtor
University of the District of Columbia (District of Columbia)
Preceptors: Dr. Joy Gary, Dr. Ke Zhang, Dr. Shuling Zhang, Dr. Beverly Mock

108-LCH. Katya Malison
Accurate Measurement of Downstream Effects of p53 Activation
Washington International School (District of Columbia)
Preceptors: Dr. Mirit Aladjem, Dr. Sohyoung Kim

109-LCH. Monica Devi Manam
DepthFinder-4-NGS*: NGS Coverage and Depth Assessment for Genes, Transcripts and Exons
George Mason University (Virginia)
Preceptors: Dr. Eric Stahlberg, Dr. Yvonne Edwards

110-LCH. Philip Mannes
Targeting Aerobic Glycolysis in Hereditary Leiomyomatosis and Renal Cell Cancer
Dartmouth College (New Hampshire)
Preceptors: Dr. W. Marston Linehan, Dr. Carole Sourbier, Dr. Christopher Ricketts

111-LCH. Joanna Martinez
Detection of Human Papillomavirus in Cervical Swabs from Guatemala
University of Maryland College Park (Maryland)
Preceptors: Dr. Michael Dean, Dr. Hong Lou, Ms. Julie Sawitzke

112-LCH. Allison Meadows
Tracking the intracellular fate of the adapter LAT in T cells
University of Virginia (Virginia)
Preceptors: Dr. Lawrence Samelson, Dr. Lakshmi Balagopalan

113-LCH. Hillary Meeker
Study on the Pharmacokinetics of Doxorubicin in Patients with Newly Diagnosed Aggressive Lymphoma who have Hepatic Impairment
The University of Virginia (Virginia)
Preceptors: Dr. Kieron Dunleavy, Ms. Diane Cole, Dr. Margaret Shovlin, Dr. Wyndham Wilson

114-LCH. Margalit Mervis Addess
Damage, tumors, and deterioration in the Frontal Cortex of the brain can result in drastic changes of one's behavior.
Bnos Yisroel of Baltimore (Maryland)
115-LCH. Seog In Moon, Lucas Vasconcelos
*Unusual metastatic lung carcinoid to hemangioblastoma in VHL setting.*
Saint Paul Preparatory School (Non-U.S.), Walter Johnson High School (Maryland)
Preceptor: Dr. Martha Quezado

116-LCH. Trileena Myles
*An Effective method of Retriving Protein from Formalin Fixed Paraffin Embedded (FFPE) Tissue*
Washington High School (West Virginia)
Preceptors: Ms. Candice Perry, Dr. Joon-Yong Chung, Dr. Stephen Hewitt

117-LCH. Sett Naing, Vossler Christina
*Enhanced Discovery of Bioactive Natural Products Using a High Throughput Extract Prefractionation Strategy*
Frederick High School (Michigan), Hood College (Maryland)
Preceptors: Mrs. Laura Cartner, Mr. Richard Fuller, Dr. Kirk Gustafson, Dr. James McMahon

118-LCH. Mike Napolitano
*The KIR gene family and its diversity*
Tufts University (Massachusetts)
Preceptors: Dr. Mary Carrington, Dr. M. Pat Martin, Mrs. Fuh-Mei Duh, Dr. Yuko Yuki

119-LCH. Santiago Nevarez
*Generation of a retroviral vector encoding microRNA-155 and an inducible caspase 9 safety switch for T cell-based therapies*
University of Puerto Rico (Puerto Rico)
Preceptors: Dr. Luca Gattinoni, Dr. Yun Ji

120-LCH. Phuongminh Nguyen
*Incorporation of Gene Set Enrichment Analysis to Large Omics Databases for Pathway Analysis, Classification and Identification of Novel Therapies in Cancer*
Johns Hopkins University (Maryland)
Preceptors: Dr. Javed Khan, Dr. Jun Wei, Dr. Jianjun Wang

121-LCH. Anna Nkrumah
*Elucidating the CRKL Pathway in Rhabdomyosarcoma Cells*
Ohio University (Ohio)
Preceptors: Dr. Lee Helman, Mr. Choh Yeung

122-LCH. Ayodeji Obayomi
*Alteration of a XMRV plasmid leads to the expression of proteins that possess different recognition patterns to anti-FLAG tagged Antibodies*
Meharry Medical College (Tennessee)
Preceptors: Dr. Alan Rein, Ms. Demetria Harvin

123-LCH. Joshua Omade
Assessment of Glucose 6 Phosphate Dehydrogenase (G6PDH) as a target of the glucose-induced microRNA, miR-1207-5p in colon (HCT-116) and prostate (PC3) cancer cell lines
University of Maryland College Park (Maryland)
Preceptors: Dr. Natasha Caplen, Dr. Konrad Huppi

124-LCH. Michael Ongele
Antioxidant protection against Zidovudine–induced DNA damage using Tempol and WR-1065.
Howard University (District of Columbia)
Preceptors: Dr. Ofeila Olivero, Dr. Miriam Poirier

125-LCH. Sashant Palli
The effects of chemotherapy drugs on cognitive function and decision making
River Hill High School (Maryland)
Preceptors: Dr. Miho Tanaka, Dr. Sarah Kobrin, Dr. Alexander Persoskie

126-LCH. Joseph Park
CD103 downregulation is a novel marker for CD8 memory-phenotype T cells
Princeton University (New Jersey)
Preceptors: Dr. Jung-Hyun Park, Dr. Davinna Ligons

127-LCH. Aafreen Parvez
Effects of New Immunotoxin Targeting Mesothelin on Primary Patient Cell Lines
Clarksburg High School (Maryland)
Preceptors: Dr. Raffit Hassan, Dr. Neetu Kalra, Ms. Jingli Zhang

128-LCH. Simona Patange
Characterizing the Effects of Myc on Stochastic Gene Expression with Single-Molecule RNA Imaging
University of Maryland (Maryland)
Preceptor: Dr. Daniel Larson

129-LCH. Vishal Patel
Use of T-Cell Receptor Beta (TCRB) gene rearrangements to assess clonal expansion in the thymus of Asxl1 mutant mice
Albert Einstein College of Medicine (New York)
Preceptors: Dr. Peter Aplan, Dr. Yang Jo Chung

130-LCH. Prateek Paul
Detection of ssSPTa Localization Inside Mammalian Cells
131-LCH. Sergey Plisov
*Single molecule analysis of HIV-1 RNA-RNA interaction*
University of Maryland, College Park (Maryland)
Preceptors: Dr. Jianbo Chen, Dr. Wei-Shau Hu

132-LCH. Grace Purec, Malka Katz
*The Bnos Bridge Program: An Introduction to Biomedical Science*
Bnos Yisroel (Maryland), Bnos Yisroel (Maryland)
Preceptor: Dr. Daniel Edelman

133-LCH. Ellen Quarmby
*Tumor-secreted factors induce stromal cell activation in sites of metastasis in a murine melanoma model.*
Cornell University (New York)
Preceptors: Dr. Rosandra Kaplan, Dr. Meera Murgai

134-LCH. Travis Quinoa
*Multidrug resistance-linked P-glycoprotein (ABCB1): Mutational mapping of the primary drug-binding site.*
The Catholic University of America (District of Columbia)
Preceptors: Dr. Hong-May Sim, Dr. Suresh Ambudkar

135-LCH. Vishnutheja Rachakonda
*Fast Electron Paramagnetic Imaging to study Fluctuating Tumor Physiology; Use of Conjugate Symmetry of k-space and Trajectory design for image data acquisition*
Eleanor Roosevelt High School (Maryland)
Preceptors: Dr. Murali Cherukuri, Dr. Sankaran Subramaniam, Mr. Nallathamby Devasahayam, Dr. Chandramouli Gadisetti

136-LCH. Stephanie Rager, Lyric Forney
*Identifying new genes that regulate germline stem cells in Drosophila testis genetic system*
Montgomery Blair High School (Maryland), Tuscarora High School (Maryland)
Preceptor: Dr. Steven Hou

137-LCH. Mishal Rao
*Characterization of Cdt2 in Cell Cycle Regulation*
Walter Johnson High School (Maryland)
Preceptors: Dr. Mirit Aladjem, Mr. Owen Smith, Dr. Ya Zhang
138-LCH. Patricia Rivera  
*Differential expression of microRNAs in Prostate Carcinoma Cells Treated with Single and Multi-fractionated Dose Radiation*  
Montclair State University (New Jersey)  
Preceptors: Dr. Norman C. Coleman, Dr. Molykuty J. Aryankalayil

139-LCH. James Roach  
*Polymorphisms in selected genetic variants and papillary thyroid cancer risk*  
Saint Olaf College (Minnesota)  
Preceptors: Dr. Alice Sigurdson, Dr. Alina Brenner, Dr. Ruth Kleinerman

140-LCH. Kathleen Russell  
*Bioethics And Use of Human Tissue in Human Subjects' research*  
East Lansing High School (Michigan)  
Preceptor: Mr. Joseph Chinquee

141-LCH. Ontara Sarker  
*An Effective Alternative for Post-Fixation H&E Staining Through Pre-Fixation Cell Staining*  
Clarksburg High School (Maryland)  
Preceptors: Dr. Stephen Hewitt, Mr. Kris Ylaya

142-LCH. Robert Schmitz  
*Investigation of PD-L1 Expression in Common Mouse Cell Lines*  
University of Maryland: College Park (Maryland)  
Preceptors: Dr. Jonathan Fallon, Dr. Jack Greiner, Dr. Jeffery Schlom

143-LCH. Hirsh Shah  
*Cloning of mCERT Gene into Eukaryotic Expression Vector pCDNA3*  
Urbana High School (Maryland)  
Preceptors: Dr. Srideshikan Sargur Madabushi, Dr. Jairaj Acharya

144-LCH. Ronit Shah  
*Analysis of the mitotic role of Ran in normal human cells via temperature-sensitive RCC1 mutation and genome editing*  
University of Toledo (Ohio)  
Preceptors: Dr. Petr Kalab, Dr. Keisuke Hasegawa, Dr. SungJin Ryu

145-LCH. Abhinav Sharma  
*Augmented cytotoxicity of ABT-263 (Navitoclax) by ABT-888 (Veliparib) in women's cancers: Clonogenic survival assay and XTT cell viability assay confirmation*  
Emory University (Georgia)  
Preceptors: Dr. Jung-Min Lee, Dr. Minshu Yu, Dr. Elise Kohn
146-LCH. Ashwyn Sharma
*Effect of Inducible Regulation of EphrinB2 Expression on Primary Endothelial Cells and Tumor Cell Lines*
Johns Hopkins University (Maryland)
Preceptors: Dr. David Sanchez Martin, Dr. Giovanna Tosato

147-LCH. Audrey Shi
*Assessing the Effects of Combined mTOR and HDAC Inhibition on MYC Protein Stability*
Montgomery Blair High School (Maryland)
Preceptors: Dr. Beverly Mock, Dr. Benjamin Gamache, Mr. John Simmons

148-LCH. Hueyjong Shih
*Transcriptional Amplification in Transformed Human Small Airway Epithelial Cells with Inducible Mutant K-Ras Expression*
Montgomery Blair High School (Maryland)
Preceptors: Mr. Changwoo Lee, Dr. Ji Luo,

149-LCH. Kyle Shilling
*Improved Temporal Resolution in Molecular Imaging of Tumor Physiology using Electron Paramagnetic Resonance Imaging: Partial Fourier and Elliptical Acquisitions and Spiral Trajectory Design for Cartesian Grid*
Virginia Polytechnic Institute and State University (Virginia)
Preceptors: Dr. Murali Cherukuri, Mr. Chandramouli Gadisetti, Dr. Sankaran Subramanian, Mr. Nallathamby Devasahayam

150-LCH. Kevin Shores
*Detection of EphB4 and Ligand Ephrin-B2 in Bone Marrow using Clarity Imaging Method*
Clemson University (South Carolina)
Preceptors: Dr. Hyeong Il Kwak, Dr. Giovanna Tosato

151-LCH. Nebiyu Shukur
*Vaccine induced Natural Killer cell responses in the blood of Rhesus Macaques*
Eastern Virginia Medical School (Virginia)
Preceptors: Dr. Namal Liyanage, Dr. Genoveffa Franchini, Mr. Melvin Doster

152-LCH. Nancy Si
*Detection of Benzo(a)pyrene-DNA Adducts in Intestines of St. Lawrence Estuary Beluga Whales*
University of Miami (Florida)
Preceptors: Dr. Miriam Poirier, Dr. Elena Hernandez-Ramon

153-LCH. Maham Siddiqui
*Mesothelial Cell Analysis in Malignant and Benign Cytology Samples*
West Springfield High School (Virginia)
154-LCH. Kamal Smith
*Exploring the Warburg effect: Experimentation in Oncological Cell Lines*
St. Stephen's & St. Agnes School (Virginia)
Preceptors: Mr. Michael Weintraub, Dr. Piyush Agarwal

155-LCH. Luke Smith
*No Evidence for Evolution of Plasma HIV-1 RNA or PBMC HIV-1 DNA During Long-Term Suppressive Antiretroviral Therapy*
University of Notre Dame (Indiana)
Preceptors: Dr. Mary Kearney, Dr. Frank Maldarelli

156-LCH. Sean Smith
*Distinguishing Two Forms of Murine Leukemia Virus Gag Protein with Epitope Tags*
The University of Tennessee Knoxville (Tennessee)
Preceptors: Ms. Demetria Harvin, Dr. Yadvinder Ahi, Dr. Alan Rein

157-LCH. Timothy Song
*CD47 Regulates Breast Cancer Stem Cell Maintenance*
Virginia Polytechnic Institute and State University (Virginia)
Preceptors: Dr. Sukhbir Kaur, Dr. David Roberts

158-LCH. Christopher Sonn
*Functional Study of New Phosphorylation Sites at TGFbeta type I receptor*
Cornell University (New York)
Preceptors: Dr. Ying Zhang, Dr. Liu-Ya Tang, Ms. Mary Heller

159-LCH. Matthew Stack
*Exploring Critical Regions of the Essential Yeast Molecular Chaperone Hsp90 by Mutational Analysis*
University of Michigan (Michigan)
Preceptors: Dr. Olivier Genest, Dr. Sue Wickner

160-LCH. Kamelia Stavreva
*Examination of the affects of ASAP1 on Myosin.*
National Cathedral School (District of Columbia)
Preceptors: Dr. Paul Randazzo, Dr. Xiaoying Jian, Dr. Pei-Wen Chen

161-LCH. Jordan Stearns
*A Mammalian Replicator Binding Protein purification by Chromatography*
Maret School (District of Columbia)
Preceptors: Ms. Cindy Tseng, Dr. Mirit Aladjem

162-LCH. Marissa Stepler, Alison Sappe  
*Simultaneous release of multiple split functionalities on re-association of RNA-DNA hybrids*  
Brunswick High School (Maryland), Brunswick High School (Maryland)  
Preceptors: Dr. Bruce Shapiro, Dr. Kirill Afonin

163-LCH. Rebecca Stussman  
*Exploration of Novel Microdissection Techniques*  
Columbia University (New York)  
Preceptors: Dr. Michael Armani, Dr. Yun Chen, Dr. Michael Emmert-Buck

164-LCH. Angela Sun, Katherine Wu, Lalit Varada, Tushar Govil  
*Cryo-Electron Microscopy of Dynamic Protein Assemblies: Database Controlled Automation of Processing*  
Canton High School (Michigan), Thomas Jefferson High School for Science and Technology (Virginia), Thomas Jefferson High School for Science and Technology (Virginia), Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Sriram Subramaniam, Dr. Mario Borgnia, Dr. Alberto Bartesaghi, Dr. Jacqueline Milne

165-LCH. Jordan Sutton  
*Purification and Mass Spectroscopy of CD47 in Mammalian Cells*  
Lincoln Park High School (Illinois)  
Preceptor: Dr. Sukhbir Kaur

166-LCH. Jennifer Tai  
*Modulation of Actin Dynamics in Triple-Negative Breast Cancer Cells through Introduction of a Stapled Peptide*  
University of California, Berkeley (California)  
Preceptors: Dr. Bethanie Morrison, Dr. Federico Bernal

167-LCH. Cho Ki Tam  
*P-glycoprotein and endogenous TRAIL expression regulate extrinsic TRAIL–mediated apoptosis*  
University of California, Los Angeles (California)  
Preceptors: Dr. King Leung Fung, Dr. Michael Gottesman

168-LCH. Alexandra S. Taubman  
*Anti-tumor effects of tissue inhibitor of matrix metalloproteinase-2 (TIMP-2) in human glioma xenograft model*  
Bethesda Chevy-Chase HS (Maryland)  
Preceptors: Dr. Dimitra Bourboulla, Dr. William G Stetler-Stevenson, Dr. Sandra Jensen-Taubman
169-LCH. Sara Tenda
Improving on Past Successes: Combining Retinoids and HDAC Inhibitors to Reverse Epigenetic Dysfunction
Germanna Community College (Virginia)
Preceptor: Dr. Carol Thiele

170-LCH. Bethany Townsend
Association of c-MYC activation and ADHFE1 expression with accumulation of 2-hydroxyglutarate in breast cancer
University of Pittsburgh (Pennsylvania)
Preceptors: Dr. Prachi Mishra, Mrs. Tiffany Dorsey, Dr. Stefan Ambs

171-LCH. John Tracey
Improving CD8+ CAR T cell Anti-Leukemia Activity by Manipulating PD1 Expression
Fordham University (New York)
Preceptors: Dr. Daniel Lee, Dr. Michael Bux, Dr. Steven Highfill, Dr. Crystal Mackall

172-LCH. Paola Uscanga
Modulation of ATP hydrolysis by human multidrug transporter: mechanistic insights
Bowie State University (Maryland)
Preceptors: Dr. Suresh Ambudkar, Dr. Eduardo Chufan, Dr. Khyati Kapoor

173-LCH. Lucas Vasconcelos, Seog In Moon
Heterogeneity in DIPG: Morphology and Immunohistochemical evaluation
Walter Johnson High School (Maryland), Saint Paul Preparatory School (Maryland)
Preceptor: Dr. Martha Quezado

174-LCH. Vikas Venkateshwara
Combining Chimeric Antigen Receptors (CARs) and Apoptosis-Inducing Agents for the Immunotherapy of Solid Tumors
Winston Churchill High School (Maryland)
Preceptors: Dr. Crystal Mackall, Dr. Rimas Orentas, Mrs. Adrienne Long

175-LCH. Adrienne Viola
Who Do We Put First?: Parental Dyadic Adjustment in the Face of Childhood Cancer
Yale School of Public Health (Connecticut)
Preceptors: Dr. Lori Wiener, Dr. Sima Zadeh

176-LCH. Evelyn Wang
CASZ1, the novel 1p36 tumor suppressor gene: identification of critical motifs that mediate transcriptional activity and tumor growth
Eastern Virginia Medical School (Virginia)
Preceptors: Dr. Zhihui Liu, Dr. Carol Thiele

177-LCH. Cedona Watts, Samantha Kistler
The Detection of Endocrine Disrupting Chemicals by a Cell-Based Translocation Assay
University of Southern California School of Pharmacy (California), Georgetown University (District of Columbia)
Preceptors: Dr. Lyuba Varticovski, Dr. Diana Stavreva, Dr. Gordon Hager

178-LCH. Kristian Welch
The functional genomic analysis of kinases required for the survival of alveolar rhabdomyosarcoma
Tuscarora High School (Virginia)
Preceptor: Dr. Natasha Caplen

179-LCH. Yixuan Wen
Characterization of rare variants in melanoma-associated genes in melanoma-prone families without CDKN2A/CDK4 mutations using exome/genome sequencing data
Amherst College (Massachusetts)
Preceptors: Dr. Rose Yang, Dr. Melissa Rotunno

180-LCH. Josephine Wu
Characterizing SNPs in Prv1, a Candidate Gene Regulating Mouse Mammary Tumor Progression
University of Maryland, College Park (Maryland)
Preceptors: Dr. Ling Bai, Dr. Kent Hunter

181-LCH. Catherine Xue
Molecular cloning and expression of DNA binding domain fragments of yeast Swc2 protein
Montgomery Blair High School (Maryland)
Preceptors: Dr. Carl Wu, Dr. Anand Ranjan, Dr. Feng Wang

182-LCH. Hee-won Yoon
Bcl-xL induces lymphomagenesis in mice expressing a dominant negative isoform of the zinc finger protein Ikaros
McGill University (Quebec, Canada)
Preceptors: Dr. Joo-Young Park, Dr. Jung-Hyun Park

183-LCH. Jessica Yu
Protein complexes in cancer: A novel strategy to identify protein complexes through reduction of false discovery rate
Centennial High School (Maryland)
Preceptors: Dr. Thorkell Andresson, Dr. Allen Bosley, Dr. Sudipto Das
184-LCH. Alex Zhang
*Improving the Quality of Mouse P-glyco Protein Crystals: A Study in Solid State Engineering*
Walt Whitman High School (Maryland)
Preceptors: Dr. Lothar Esser, Dr. Di Xia, Dr. Fei Zhou

185-LCH. Angela Zhou
*Scgb3a1 deficiency in a mouse model of oncogenic K-ras-induced lung cancer*
Montgomery Blair High School (Maryland)
Preceptors: Dr. Shioko Kimura, Dr. Mitsuhiro Yoneda, Mr. Jorge Paiz

186-LCH. Amadeus Zhu
*Signaling pathways regulate PF4 in myeloid-derived suppressor cells*
Johns Hopkins University (Maryland)
Preceptors: Dr. Li Yang, Dr. Christine Hollander

187-LCH. Richard Zhu
*Lysine Dimethylation in the BH4 Domain of Bcl-2 and its Functional Significance*
Montgomery Blair High School (Maryland)
Preceptor: Dr. Wenqing Li

188-LCH. Xinyi Zhu
*The Effects of Brd4 Short Isoform Suppression on Breast Cancer Progression*
University of Maryland, College Park (Maryland)
Preceptors: Dr. Thomas Geiger, Dr. Kent Hunter

189-LCH. Noah Zweben
*Methylated Histone's Regulation of DNA Replication*
Charles E Smith Jewish Day School (Maryland)
Preceptors: Dr. Mirit Aladjem, Dr. Haiqing Fu

National Cancer Institute – Division of Cancer Epidemiology and Genetics (NCI – DCEG)

190-LCH. Rebecca Chornock
*Tissue Immune Cell Markers in Cervical Carcinogenesis: A Systematic Review*
Drexel University College of Medicine (Pennsylvania)
Preceptors: Dr. Vikrant Sahasrabuddhe, Dr. Nicolas Wentzensen

191-LCH. Jesse Diasparra
*Correlations of fecal cytokines with microbiome parameters in human volunteers*
University of South Florida (Florida)
Preceptors: Dr. James Goedert, Dr. Roberto Flores, Dr. Philip Rosenberg, Dr. Ruth Ley
192-LCH. Christine Fermo
Interactive Web Site for From Differences in Means between Cases and Controls to Risk Stratification: A Business Plan for Biomarker Development
Courant Institute of Mathematical Sciences - New York University (New York)
Preceptors: Dr. Sholom Wacholder, Dr. Nicolas Wentzensen, Dr. Carl McCabe

193-LCH. Steve Kemgang
PRDM 9: Recombination, allele frequency, and cancer. Analysis from a childhood leukemia cohort
Eleanor Roosevelt High School (Maryland)
Preceptors: Mr. Tim Myers, Dr. Stephen Chanock

194-LCH. Emily McDonald
Prescription diuretic use and risk of basal cell carcinoma in the United States Radiologic Technologists cohort
Indiana University (Indiana)
Preceptors: Dr. Elizabeth Cahoon, Dr. Michal Freedman, Dr. Martha Linet

195-LCH. Larissa Pardo
Using hierarchical clustering models to identify metal-related exposure scenarios from occupational questionnaire responses in a population-based case-control study.
Emory University (Georgia)
Preceptor: Dr. Melissa Friesen

196-LCH. Marina Piper
Vitamin D-binding protein and pancreatic cancer: A nested case-control study
George Washington University, School of Public Health and Health Services (District of Columbia)
Preceptor: Dr. Rachael Stolzenberg-Solomon

National Human Genome Research Institute (NHGRI)

197-LCH. Freidrich Anselmo
Thalamic atrophy due to KCTD7-associated myoclonic epilepsy
University of Maryland, College Park (Maryland)
Preceptors: Dr. May Christine Malicdan, Dr. Cornelius Boerkoel, Dr. William Gahl

198-LCH. Pryce Bevan
Hierarchical Clustering of Ribosomal Gene Regulatory Regions to Study Diamond Blackfan Anemia
St. Albans School (District of Columbia)
Preceptors: Dr. David Bodine, Dr. Jens Lichtenberg

199-LCH. Maria Burgos, Joseph Gross
Stop-signal task analysis of motor response inhibition in ADHD and healthy adults
Brown University (Rhode Island), University of Florida (Florida)
Preceptors: Dr. Eszter Szekely, Dr. Gustavo Sudre

200-LCH. Sanjay Chainani
Novel Biallelic Mutations in C19orf12 Cause Mitochondrial-Membrane Protein-Associated Neurodegeneration
University of Maryland, College Park (Maryland)
Preceptor: Dr. Cornelius Boerkoel

201-LCH. Helen Cheung
Validation of Sequence Variants Detected Using Next-Generation Sequencing
University of Maryland (Maryland)
Preceptors: Dr. Cornelius Boerkoel, Dr. Thomas Markello

202-LCH. Philip Connors
Exploring the impact of first whole genome sequencing results: A qualitative study of participants in ClinSeq®
Boston University School of Medicine (Massachusetts)
Preceptor: Dr. Barbara Biesecker

203-LCH. Miriam Eisenberg
Influence of obesity-related genetic causal beliefs among a diverse sample of adult women
George Washington University (District of Columbia)
Preceptor: Dr. Susan Persky

204-LCH. Sarah Green
Functional Analysis of Germline Polymorphisms in Necdin, a Modifier of Mammary Tumor Metastasis
University of Illinois at Chicago (Illinois)
Preceptors: Dr. Minnkyong Lee, Dr. Nigel Crawford

205-LCH. Jennifer Guo
Characterizing the causative gene of a congenital skeletal dysplasia with cognitive delays
Holton-Arms School (Maryland)
Preceptors: Dr. May Malicdan, Dr. William Gahl

206-LCH. Ellie Harrington
Conceptualizing the Understanding of Genetic Variants of Unknown Significance in Lynch Syndrome
University of Redlands (California)
Preceptor: Dr. Barbara Biesecker
207-LCH. Hyuk Joon Kwon
MRI Findings in the Brain of GM1 Gangliosidosis Juvenile Patients
University of Maryland, College Park (Maryland)
Preceptors: Dr. Cynthia Tifft, Dr. Cornelius Boerkoel

208-LCH. Somin Kwon
Characterizing the response of Fanconi Anemia cells to microtubule destabilizing agents
Amherst College (Massachusetts)
Preceptors: Ms. Stephanie Smith, Dr. Kyungjae Myung, Dr. Jennifer Fox

209-LCH. Kevin Lam
Computational Tools for Differential RNA Processing Detection and Transcript Quantification of Individuals with Undiagnosed Diseases
University of Maryland, College Park (Maryland)
Preceptor: Dr. Praveen Cherukuri

210-LCH. Brian Lemanski
Transcriptional changes from folate pathway disruption in developing zebrafish
Colgate University (New York)
Preceptors: Dr. Lawrence Brody, Dr. David McGaughey

211-LCH. Clare Liu
Evaluation of a Hidden Markov Model for the Detection of Copy Number Alterations in Next-generation Sequence Data from Tumors
Massachusetts Institute of Technology (Massachusetts)
Preceptors: Dr. Jim Mullikin, Dr. Nancy Hansen

212-LCH. Sangho Myung
Assessing the Effect of UT2, an Antagonist of ATAD5, on the Efficiency of Homologous Recombination Mediated by the CRISPR/Cas9 System
Montgomery Blair High School (Maryland)
Preceptor: Mr. Douglas Burke

213-LCH. Caryn Pasking
Analysis of GCSFR glycosylation in a congenital immune disorder
Winston Churchill High School (Maryland)
Preceptors: Dr. Thierry Vilboux, Dr. William A Gahl

214-LCH. Paul Pemberton
The Diploid Aligner (Novel Genome Alignment Techniques)
Tufts University (Massachusetts)
Preceptors: Dr. Thomas Markello, Dr. Cornelius Boerkoel, Dr. David Adams, Mr. Timothy Gall
215-LCH. Dylan Plaskon
*Molecular characterization of a novel antagonist on DNA damage repair and cell death*
Colby College (Maine)
Preceptors: Dr. Deokjae Lee, Dr. Kyungjae Myung

216-LCH. Aishwarya Raveesh
*Does increased ADA activity improve indices of liver pathology in patients with ADA-SCID?*
Dulaney High School (Maryland)
Preceptor: Dr. Robert Sokolic

217-LCH. Gabrielle Robbins
*A zebrafish model of myoclonic epilepsy*
Richard Montgomery High School (Maryland)
Preceptors: Dr. May Malicdan, Dr. Cornelius Boerkoel, Dr. William Gahl

218-LCH. Allie Rosen
*The Influence of Biological, Generational, and Social Distance on Network Communication about Genetic Testing in Families with Lynch Syndrome*
Brown University (Rhode Island)
Preceptors: Dr. Laura Koehly, Mr. Don Hadley, Dr. Chris Marcum

219-LCH. Rebecca Scranton
*Family Dynamics and Preventive Behaviors among Genetically Susceptible Families: The Case of Podoconiosis in Rural Ethiopia*
Northern Arizona University (Arizona)
Preceptors: Dr. Dirk deHeer, Dr. Gail Davey, Mr. Desta Ayode, Dr. Colleen McBride

220-LCH. Shaiara Smith
*Applying Virtual Reality Methods for Healthcare Research*
Howard University (District of Columbia)
Preceptor: Dr. Susan Persky

221-LCH. Crystiana Tsujiura
*Validation of the RPL3L gene as a Diamond-Blackfan Anemia gene*
Colby College (Maine)
Preceptors: Ms. Nancy Seidel, Dr. Kelly O'Brien, Dr. David Bodine

222-LCH. Michael Tzeng
*A Novel SMARCA4 Heterozygous Missense Mutation in a Unique Presentation of Coffin-Siris Syndrome*
University of Maryland, College Park (Maryland)
Preceptor: Dr. Cornelius Boerkoel
223-LCH. Mark Valeiras
The Identification of GBA Mutations in Autopsy Brain Samples from Patients with Parkinson Disease and Related Synucleinopathies; Correlation with Clinical and Neuropathological Findings
University of Virginia (Virginia)
Preceptor: Dr. Ellen Sidransky

224-LCH. Zachary Yaffe
Biodistribution of Methylmalonic CoA Mutase Post Gene Therapy
Princeton University (New Jersey)
Preceptors: Dr. Julien Senac, Dr. Charles Venditti

225-LCH. David Yarnell
Study of common genetic variants in LPHN3-harbored conserved elements and their possible implication in the pathology of ADHD
Oberlin College (Ohio)
Preceptors: Dr. Max Muenke, Mr. Ariel Martinez

226-LCH. Charles Yeh
Galectin-3 in Murine Models of Hermansky-Pudlak Syndrome Pulmonary Fibrosis
University of Maryland, Baltimore County (Maryland)
Preceptor: Dr. Bernadette Gochuico

227-LCH. Jovian Yu
Functional Characterization of Novel Spliceosome Mutations Found in Lung Adenocarcinoma
The Warren Alpert Medical School of Brown University (Rhode Island)
Preceptors: Dr. Harold Varmus, Dr. Liang Fei

228-LCH. Kathleen Yu
The use of mouse models to explore the association between Glucocerebrosidase mutations and Parkinsonism
Richard Montgomery High School (Maryland)
Preceptors: Mr. Emerson Maniwang, Ms. Bahafta Berhe, Dr. Nahid Tayebi, Dr. Ellen Sidransky

229-LCH. Lily Zheng
Functional characterization of two new zebrafish runx1 mutants
Duke University (North Carolina)
Preceptors: Dr. Paul Liu, Dr. Erica Bresciani

National Institute of Biomedical Imaging and Bioengineering (NIBIB)

230-LCH. Tyler Burden
Quansys Analysis of Cytokines and Cell Culture
St. Johns College High School (District of Columbia)
Preceptors: Dr. Heather Kalish, Mr. Mark Mendonca

231-LCH. Richard Chen
*Ultrastructural Variations in Glycogen Synthesis Define Heterogeneous Energetic States in Pluripotent Stem Cells*
Montgomery Blair High School (Maryland)
Preceptors: Dr. Richard Leapman, Dr. Guofeng Zhang, Ms. Susan Garfield

232-LCH. Annie Chu
*Quantification of Vascular Tone in Patients with Sickle Cell Anemia*
Poolesville High School (Maryland)
Preceptor: Dr. Alexander Gorbach

233-LCH. Lucy Chu
*Uncovering the role of the CENP-A histone and centromere protein CENP-C in the folding of centromere chromatin by atomic force microscopy*
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. Albert Jin, Dr. Yawen Bai, Dr. Bing-Rui Zhou

234-LCH. Elizabeth Feeney
*Microfluidic deposition & quantification of chondroitin sulfate proteoglycan gradients for neural cell culture*
University of Pennsylvania (Pennsylvania)
Preceptors: Dr. Nicole Morgan, Dr. Herbert Geller

235-LCH. Jessica Fredericks
*Variability in Trunk Motion and Gait Parameters with a Cognitive Demand during Ambulation in Service Members with Lower Limb Amputations*
University of Toledo (Ohio)
Preceptors: Dr. Erik Wolf, Dr. Robert Lutz, Ms. Alison Linberg

236-LCH. Havisha Garimella
*Structural and AFM Analyses of Alzheimer's Amyloid Beta Assembly*
Mount Hebron High School (Maryland)
Preceptors: Dr. Albert Jin, Dr. Paul Smith

237-LCH. Sydney Greene
*Photophysical Properties of Green Fluorescent Protein Mutants*
Charles E Smith Jewish Day School (Maryland)
Preceptor: Dr. George Patterson

238-LCH. Gregory Howard
*Robust hybrid nanocarriers for co-delivery of RNAs and chemotherapeutics*
The University of Akron (Ohio)
Preceptors: Dr. Ki Young Choi, Dr. Oscar Ferreira Silvestre, Dr. Shawn Chen

239-LCH. Patrick Jensen
Development of Photoactivatable Fluorescent Protein
University of Chicago (Illinois)
Preceptors: Dr. George Patterson, Dr. Yan Fu

240-LCH. Aanchal Johri
Characterizing Bioengineered Q Beta Virus Capsids as Malaria Vaccine Carriers via Atomic Force Microscopy
Montgomery Blair High School (Maryland)
Preceptors: Dr. Albert Jin, Mr. Aakash Shah

241-LCH. Pratha Katti
Fully Automated Prostate Biopsy Planning using Statistical Classifiers
Stony Brook University (New York)
Preceptors: Dr. Ronald Summers, Dr. Shijun Wang

242-LCH. Courtney Koenig
Use of Multiple Wireless Patches for Continuous Monitoring of Skin Temperature in Patients with Sickle Cell Anemia
University of Maryland, College Park (Maryland)
Preceptor: Dr. Alexander Gorbach

243-LCH. Angela Li
Probing inter-segmental spatial correlations of DNA via crosslinking
Poolesville High School (Maryland)
Preceptors: Dr. Albert Jin, Dr. Xiangyun Qiu, Dr. Fuyou Ke

244-LCH. Eshwar Manoharan
Isolating the Photoacoustic Signal of Gold Nanoparticles Circulating in Blood
Poolesville High School (Maryland)
Preceptor: Dr. Liming Nie

245-LCH. Rose Nadege Mbaye
Development of a paper based analytical device for the luciferase immunoprecipitation system (LIPS) assay
University of Rochester (New York)
Preceptor: Dr. Nicole Morgan
246-LCH. Miloslawa Piszczek
Investigating the Oligomeric State of Fluorescent Proteins by Sedimentation Velocity Analytical Ultracentrifugation
Richard Montgomery High School (Maryland)
Preceptors: Dr. George Patterson, Dr. Ernesto Casillas, Dr. Peter Schuck, Dr. Huaying Zhao

247-LCH. John Prewitt
Rank Vector Entropy as a Measure of Complexity in MEG Source Activity
Washington University in St. Louis (Missouri)
Preceptors: Dr. Richard Coppola, Dr. Stephen Robinson

248-LCH. Claire Spradling
Efficiency of Composite Radio Frequency Tumor Ablation Utilizing Treatment Planning
University of Missouri (Missouri)
Preceptors: Dr. Nadine Abi Jaoudeh, Dr. Sheng Xu, Mr. Ayele Negussie, Dr. Brad Wood

249-LCH. Jessica Sun
Synthesis and Characterization of new Dumbell Nanoparticles
Winston Churchill High School (Maryland)
Preceptor: Dr. Xiaolian Sun

250-LCH. Olivia Tran
Optimizing Flashlamp Target Activated Microdissection (fTAM) for Clinical Pathology
Olivia Nguyen Tran (South Carolina)
Preceptors: Dr. Robert Bonner, Mr. Tom Pohida, Mr. Randall Pursley, Dr. Nicole Morgan

251-LCH. Shuheng Wang
Light activated gene silencing with carbon nanoparticles
Richard Montgomery High School (Maryland)
Preceptors: Dr. Oscar Ferreira Silvestre, Dr. Ki Young Choi, Mr. Gregory Howard, Dr. Shawn Chen

252-LCH. Yitian Xiao
Studying cellular uptake of different types of nanoparticle formulations in microfluidic device mimicking in vivo models
Georgia Institute of Technology (Georgia)
Preceptor: Dr. Bhaskara Chikkaveeraiah

253-LCH. Jaclyn Yu
Atomic Force Microscopy of Circumsporozoite Protein Target in Malaria Vaccines
University of Illinois at Urbana-Champaign (Illinois)
Preceptor: Dr. Albert Jin
254-LCH. Jessica Yuan
Atomic Force Microscopy (AFM) for High Resolution Imaging and Mapping of Mechanical Properties Under Physiological Conditions
Carnegie Mellon University (Pennsylvania)
Preceptors: Dr. Emilos Dimitriadis, Dr. Preethi Chandran, Dr. Edward Mertz, Dr. Antonina Roll-Mecak

255-LCH. Joy Zeng
Synthesis of Fluorescent Translocator Protein Ligands
Poolesville High School (Maryland)
Preceptors: Dr. Dale Kiesewetter, Dr. Shawn Chen

National Institute on Aging (NIA)

1-PM. Zakaraya Ashour
Exploring Gene-Disease/Phenotype Relationships through Network Analysis
The University of Texas at Dallas (Texas)
Preceptors: Dr. Kevin Becker, Dr. Yongqing Zhang, Dr. Supriyo De, Dr. Elin Lehrmann

2-PM. Shay Behrens
Effect of Diet on Myogenic Stem Cell Abundance
University of Rochester (New York)
Preceptors: Dr. Jessica Curtis, Dr. Michel Bernier, Dr. Rafael deCabo, Dr. Luigi Ferrucci

3-PM. Thomas Butler
Estimating mitochondrial DNA copy number in silico from whole-genome sequencing data
University of Michigan (Michigan)
Preceptor: Dr. Jun Ding

4-PM. Aneesh Chandramouli
Effect of (R,S)-Ketamine, (R,S)-Norketamine and (2S,6S)-Hydroxynorketamine on in vitro phosphorylation of Akt, ERK and mTOR
University of California Berkeley (California)
Preceptors: Dr. Rajib Paul, Dr. Nagendra Singh, Dr. Irving Wainer

5-PM. Emily Clark
Time-course of AMPK levels in running mice
University of California, Davis (California)
Preceptors: Dr. Davide Guerrieri, Dr. Henriette van Praag

6-PM. Christopher Collins
Regulation of C-reactive Protein by RNA-binding Proteins
Delaware State University (Delaware)
7-PM. James Comotto
*Exosome secretion: Sending a message or garbage into the neighborhood?*
Washington College (Maryland)
Preceptor: Dr. Erez Eitan

8-PM. Benjamin Cortese
*The Benefit of More Information: Improvement in Sensitivity and Specificity of Tissue Classification by MRI Through Sequential Addition of Variables*
Syracuse University (New York)
Preceptor: Dr. Richard Spencer

9-PM. Kaivalya Deshpande
*Dissociating Perceptual Decision from Motor Response using a Delayed Response Task in Mice*
University of Michigan (Michigan)
Preceptors: Dr. Alessandro Scaglione, Dr. Shih-Chieh Lin

10-PM. Nwamaka Ejiogu
*Brain Activity In People With Genetic Risk for Alzheimer's Disease*
Marriotts Ridge High School (Maryland)
Preceptor: Dr. Lori Beason-Held

11-PM. Hailey Zie Evans
*Neurological Function and Physical Performance: Insights from the BLSA*
Barnard College of Columbia University (New York)
Preceptor: Dr. Eleanor Simonsick

12-PM. Joaquin Gallegos
*Effect of oxygen concentration on the activation of primary human T-cells.*
University of Colorado Denver | Anschutz Medical Campus (Colorado)
Preceptors: Dr. Paritosh Ghosh, Mrs. Rachel Munk

13-PM. Sabrina Gross
*Requirements of SKN-1 isoforms for AIY neuron morphology*
McDaniel College (Maryland)
Preceptors: Mr. Mark Wilson, Dr. Simonetta Camandola

14-PM. Ashley Hagaman
*Capturing longitudinal trajectories of depression and associated mortality late in life: Findings from the Health, Aging, and Body Composition Study*
Arizona State University (Arizona)
Preceptors: Dr. Rachel Murphy, Dr. Tamara Harris

15-PM. Royce J Hamilton
DNA Repair Deficiency Increases Alzheimer's Related Neurodegeneration
Clark Atlanta University (Georgia)
Preceptors: Dr. Peter Sykora, Dr. Vilhelm Bohr

16-PM. Allegra Hawkins
Thrombospondin 1 and 2 Downregulate Connective Tissue Growth Factor (CTGF) and Endothelin-1 and affect Ovarian Follicle Development and Survival
Massachusetts Institute of Technology (Massachusetts)
Preceptors: Dr. Emanuele Pelosi, Dr. David Schlessinger

17-PM. Nnejiuwa Ibe
Pathogenic missense mutations in Cockayne syndrome B gene cause mislocalization and reduced stability of the encoded protein.
California State University, Long Beach (California)
Preceptors: Dr. Teruaki Iyama, Dr. David M Wilson III

18-PM. Celia Islam
Study RAGE ligand-induced NF-κB p65 post-translational modifications and implications on arterial aging
George C. Marshall High School (Virginia)
Preceptors: Dr. Li Lin, Dr. Ji Min Kim, Dr. Edward Lakatta

19-PM. Irfan Khan
Age-Associated Cyclopurine Lesions Corrected by Nucleotide Excision Repair Block DNA Unwinding by the Xeroderma Pigmentosum Group D Helicase (XPD) in a Unique Manner Distinct from other DNA Helicases
University of Maryland College Park (Maryland)
Preceptors: Dr. Avvaru Suhasini, Dr. Taraswi Banarjee, Mr. Joshua Sommers, Dr. Robert Brosh

20-PM. Srisha Kotlo
The Effect of Calcium on Age-Associated Changes in Rate and Rhythm Variability in Pacemaker Cells Isolated from Young and Old Mice
Illinois Mathematics and Science Academy (Illinois)
Preceptors: Dr. Syevda Sirenko, Dr. Yael Yaniv, Dr. Edward Lakatta

21-PM. Haleigh Larson
Is Age Really but a Number? A Look into the Degenerative Function of B-cells with Age.
Fargo South High School (North Dakota)
Preceptors: Dr. Lisa Russell, Dr. Patricia Gearhart
22-PM. Ashley Lawrence  
*Cortisol Exposure Mediation of Age Related Changes in Brain Volume and Function*  
University of Notre Dame (Indiana)  
Preceptors: Dr. Susan Resnick, Mr. Yang An

23-PM. Jessie M. Levin  
*Purification and Analysis of Wild Type and ATPase-Deficient Twinkle Mitochondrial DNA Helicase*  
William Penn Charter School (Pennsylvania)  
Preceptors: Dr. Sanjay Kumar Bharti, Mr. Joshua A. Sommers, Dr. Robert M. Brosh

24-PM. Clarence Manuel  
*Investigating the effects of the NIA and WIS restriction diets on Liver Physiology and Function*  
Saint Johns University (New York)  
Preceptors: Dr. Sarah Mitchell, Dr. Rafael deCabo, Dr. Michel Bernier

25-PM. Matthew Martindale  
*Discovering Transcriptional Alterations in Mitochondrial Diseases*  
Bel Air High School (Maryland)  
Preceptors: Dr. Morten Scheibye-Knudsen, Dr. Vilhelm Bohr

26-PM. Xiaofan Mi  
*Role of histone lysine methyltransferase Ezh2 in CD8 T cell activation-induced proliferation*  
Wayne State University (Michigan)  
Preceptors: Dr. Guobing Chen, Dr. Nan Ping Weng

27-PM. Nina Modanlo  
*Associations of Insulin Resistance and Regional Glucose Uptake in Cognitively Normal Elderly, and patients with MCI or AD*  
Johns Hopkins University (Maryland)  
Preceptors: Dr. Auriel Willette, Dr. Mark Mattson, Dr. Dimitrios Kapogiannis

28-PM. Bryan Monroe  
*A Novel Assay to Discern the Role of B Cells in Atherosclerosis*  
The College of William and Mary (Virginia)  
Preceptors: Dr. Kimberly Zanotti, Dr. Robert Maul, Dr. Patricia Gearhart

29-PM. Jacqueline Nguyen  
*Therapeutic potentials of DPP-4 inhibitors in a rat model of Parkinson’s disease induced by 6-hydroxydopamine*  
University of California, Berkeley (California)  
Preceptors: Dr. Yazhou Li, Dr. Nigel Greig
30-PM. Noah Nichols
*LRRK2 G2019S Mutation screening using neurox array: A Quality control study*
Wesleyan University (Connecticut)
Preceptors: Dr. Andrew Singleton, Dr. Dena Hernandez, Mrs. Sampath Arepalli, Mr. Christopher Letson

31-PM. Paapa Nyanin
*Development of Septal Inputs to The Dentate Gyrus of Adult Brains*
Brown University (Rhode Island)
Preceptors: Dr. Henriette van Praag, Mr. Ben Peterson, Dr. Carmen Vivar

32-PM. Diego Rodriguez
*BCR-induced down-reulation of genes; kinetics + mechanisms*
Universidad de Puerto Rico (Puerto Rico)
Preceptors: Dr. Amit Singh, Dr. Ranjan Sen

33-PM. Mathavi Sankar
*Investigating the Potential Interaction of GIT2 and Stratifin in a Novel Model of Aging*
Centennial High School (Maryland)
Preceptors: Dr. Sana Siddiqui, Dr. Stuart Maudsley, Dr. Bronwen Martin

34-PM. Cesar Suarez
*PARK16 Locus In Parkinson's Disease: SLC41A Variant Screening In Patients and Controls*
Gaithersburg High School (Maryland)
Preceptors: Dr. Dena Hernandez, Mr. Christopher Letson, Mrs. Sampath Arepalli, Mr. Connor Edsall

35-PM. Monica Tong
*Altered mTOR Signaling in the Postmortem Frontal Cortex of Alzheimer's Disease Patients*
University of Maryland Baltimore County (Maryland)
Preceptor: Dr. Jagadeesh Rao

36-PM. Rebeca Vergara Greeno
*DNA Polymerase Beta Regulates Neurogenesis and Neuronal Energy Metabolism.*
Johns Hopkins University (Maryland)
Preceptors: Dr. Magdalena Misiak, Dr. Mark Mattson, Dr. Vilhelm Bohr

37-PM. Semaj Wallace
*The influence of Poverty Status and Race on Depressive Symptoms among Urban-Dwelling Adults*
Elizabeth City State University (North Carolina)
Preceptors: Dr. Alan Zonderman, Dr. Michele Evans, Dr. Alyssa Gamaldo, Mrs. Jessica Mcneely
38-PM. Helen Wang  
*Development of an Inducible GCamp6 Reporter: A New Optogenetic Method of Calcium Sensing*
Centennial High School (Maryland)  
Preceptors: Dr. Huaibin Cai, Dr. Chengsong Xie

39-PM. Kathy Wang  
*The Role of MFG-E8/Medin in the Secretory Phenotype of Vascular Smooth Muscle Cells*
Mount Hebron High School (Maryland)  
Preceptors: Mr. Richard Telljohann, Dr. Mingyi Wang

40-PM. Henry Wu  
*The effects of the MFGE8 protein on cellular proliferation*
Friends School of Baltimore (Maryland)  
Preceptors: Dr. Mingyi Wang, Dr. Kimberly Raginski, Dr. Richard Telljohann

41-PM. Emily Zagorski  
*Inventing Novel Fluorescent Compounds which Induce Mitochondrial DNA Cross-Links*
Drexel College of Medicine (Pennsylvania)  
Preceptor: Dr. Morten Scheibye-Knudsen

42-PM. Nancy Zhang  
*Complex spatial and non-spatial maze learning in the APP/PS1xNrf2KO mouse model of Alzheimer's disease*
Glenelg County School (Maryland)  
Preceptors: Mr. Devin Wahl, Mr. Edward Spangler, Dr. Rafael de Cabo

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

43-PM. Mohammed Akbar  
*Deletion of CYP2E1 ameliorates binge ethanol and systemic lipopolysaccharide-induced acute lung injury*
Richard Montgomery High School (Maryland)  
Preceptor: Dr. Mohamed Abdelmegeed

44-PM. Zaid Bilgrami  
*Preparation of Nanodiscs Containing Recombinant CB2 Receptor in a Lipid Environment*
Rice University (Texas)  
Preceptors: Dr. Silvia Locatelli-Hoops, Dr. Alexei Yeliseev, Dr. Klaus Gawrisch
45-PM. Eileen Holovac  
*Cannabidiol Attenuates Cardiac Dysfunction, Oxidative Stress, and Cell Death in Doxorubicin Induced Cardiomyopathy*  
University of Rhode Island (Rhode Island)  
Preceptors: Dr. Partha Mukhopadhyay, Dr. Pal Pacher

46-PM. Miguel Mendez  
*Development of a Mouse Model of Alcohol Seeking in C57Bl6J Mice*  
University of California, Davis (California)  
Preceptors: Dr. Anna Radke, Dr. Andrew Holmes

47-PM. John Shin  
*Analyzing swimming behavior of a rescued mutant zebrafish*  
Long Reach High School (Maryland)  
Preceptors: Dr. Fumihito Ono, Dr. Meghan Mott

48-PM. Zichen Wang  
*Intestinal STAT3 protects hepatic injury in alcoholic liver diseases*  
Winston Churchill High School (Maryland)  
Preceptors: Dr. Ogyi Park, Dr. Bin Gao

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

49-PM. Christian Anthony  
*Defining the Interaction Between the Small Protein YneM and the PitA Transporter*  
Walla Walla Community College (Washington)  
Preceptors: Mr. Hanbo Wang, Dr. Gisela Storz

50-PM. Aileen Baecker  
*Adipokines and the risk of gestational diabetes: A systematic review*  
University of California, Los Angeles (California)  
Preceptors: Dr. Cuilin Zhang, Dr. Wei Bao

51-PM. Dylan Barbera  
*Reduced muscle excitability causes a homeostatic increase in synaptic BMP activity*  
The Pennsylvania State University (Pennsylvania)  
Preceptors: Dr. Mikolaj Sulkowski, Dr. Mihaela Serpe

52-PM. Alexis Blight  
*Neuronal imaging of Neimann Pick Type C mouse brains*  
Washington and Lee University (Virginia)
53-PM. Sarah Boutom
Analyzing Membrane-bound versus Cytoplasmic Clathrin Concentrations
University of Michigan - Ann Arbor (Michigan)
Preceptors: Dr. Ralph Nossal, Dr. Dan Sackett, Dr. Anand Banerjee

54-PM. Michael Branham
fNIRS devices [NICHD]: determining neural activity in the Prefrontal Cortex of the Autistic Brain.
University of Maryland, College Park (Maryland)
Preceptors: Mrs. Afrouz Azari, Dr. Amir Gandjbakhche

55-PM. Jenn Chen
Study of E. coli Overexpression for Mitochondrial Membrane Proteins Involved in Iron Regulation
University of Michigan - Ann Arbor (Michigan)
Preceptors: Dr. Eric Christenson, Dr. Anirban Banerjee

56-PM. Le Chen
Prediction of Preeclampsia during Pregnancy Using Longitudinal Copeptin Measures
Gallaudet University (District of Columbia)
Preceptors: Dr. Aiyi Liu, Dr. Paul Albert

57-PM. Katerina Christodoulides
Investigations into cAMP - specific phosphodiesterase 8B's role as an essential regulator of Leydig cell steroidogenesis
University of Maryland, College Park (Maryland)
Preceptor: Dr. Eva Szarek

58-PM. Brandon Chu
The Conditional Knockout of a Kinase Anchor Protein 13, AKAP13, in Bone
Poolesville High School (Maryland)
Preceptors: Ms. Tiffany Chu, Mrs. Maravet Baig-Ward, Dr. James Segars

59-PM. Amira Collison
Generating Cell-Type-Specific Drivers for Studying Drosophila Visual Circuits
University of Maryland - College Park (Maryland)
Preceptors: Dr. Chun-yuan Ting, Dr. Chi-hon Lee

60-PM. Preston Cotnoir
Perceptions of Illusory Contours in Adults and Infants: An Eye Tracking Study
Duke University (North Carolina)
61-PM. Mary Kate Cronin  
_Effect of reduced T cell receptor signaling potential on T cell proliferation_  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Paul Love, Dr. Amy Palin, Dr. SuJin Hwang, Ms. Jan Lee

62-PM. St. Clair Detrick-Jules  
_Investigation of Fibroblast Growth Factor 21 Expression During Mitochondrial Energy Deficiency in Muscle Cells_  
Washington Latin Public Charter School (District of Columbia)  
Preceptors: Dr. Tracey Rouault, Dr. Dan Crooks

63-PM. Katheryne Downes  
_Prelabor Cesarean Delivery and Future Risk of Placenta Previa_  
University of Maryland - College Park (Maryland)  
Preceptors: Dr. Katherine Laughon, Dr. Lindsey Sjaarda, Dr. Stefanie Hinkle, Dr. Paul Albert

64-PM. Neil Dubey  
_Advances in Semen Analysis Used in Epidemiological Research_  
George Washington University School of Medicine (District of Columbia)  
Preceptors: Dr. Kerri Kissell, Dr. Sunni Mumford, Dr. Enrique Schisterman

65-PM. James Eaglesham  
_Investigating Human Protein Binding Partners of Legionella pneumophila Virulence Proteins using a High Throughput Assay_  
Cornell University (New York)  
Preceptors: Dr. Kimberly Decker, Dr. Matthias Machner

66-PM. Stanley Ewala  
_Analyzing the function of ATP7A in a treatment-responsive patient with Menkes Disease._  
Williams College (Massachusetts)  
Preceptors: Dr. Stephen Kaler, Dr. Reina Haddad

67-PM. Becca Gittleson  
_Measuring Processed Food Intake: Challenges and Utility_  
Denison University (Ohio)  
Preceptors: Dr. Tonja Nansel, Dr. Leah Lipsky, Dr. Virginia Quick, Ms. Sabrina Mathenia

68-PM. Mariya Grygorenko  
_Association between Depressive Symptoms and Measures of Sleep Quality in Adolescent Girls_  
The University of Texas at Austin (Texas)
Preceptors: Dr. Jack Yanovski, Dr. Lauren Shomaker

69-PM. Daniel Gutierrez  
*Investigation of the properties and consequences of a transgene induced Polycomb domain*  
Connecticut College (Connecticut)  
Preceptors: Dr. Judith Kassis, Dr. Sandip De

70-PM. Chen Han  
*Proteins that externalize and bind phosphatidylinerine*  
Thomas S. Wootton Highschool (Maryland)  
Preceptors: Dr. Elena Zaitseva, Dr. Kamran Melikov, Dr. Eugene Zaitsev, Dr. Leonid Chernomordik

71-PM. Victoria Huang  
*ACTH stimulates melanocortin receptor associated protein (MRAP) transcription in the adrenal through cyclic-AMP mediated activation of PKA and MAP kinase pathways*  
Johns Hopkins University (Maryland)  
Preceptors: Dr. Greti Aguilera, Ms. Lorna Smith

72-PM. Vincent Huang  
*Investigating Protein Kinase A's role in mitochondrial metabolism in white adipose tissue*  
University of California, Los Angeles (California)  
Preceptors: Dr. Constantine Stratakis, Dr. Edra London

73-PM. Susan Jin  
*Measuring Agreement between Physician Groups in the Diagnosis of Endometriosis*  
Yale University (Connecticut)  
Preceptors: Dr. Zhen Chen, Dr. Aiyi Liu

74-PM. Benjamin Juan  
*What Environmental Conditions Stimulate Transposon Activity in the Fission Yeast?*  
Pima County Community College (Arizona)  
Preceptors: Dr. Parmit Singh, Dr. Henry Levin

75-PM. Emmanuel Katsigiannakis  
*Generation of a Mouse Model with Tamoxifen Inducible PRKAR1A Knockout in Collagen 2A Expressing Cells*  
Wootton High School (Maryland)  
Preceptors: Dr. Paraskevi Salpea, Dr. Constantine Stratakis

76-PM. Kunal Khurana  
*Cellular Roles of the RanBP2 Protein*  
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. Mary Dasso, Dr. Sarine Markossian

77-PM. Samuel Knecht
Effect of Glucocorticoids on ACTH Secretion and POMC Transcription in Rat Primary Cultures of Anterior Pituitary Cells
St. Mary's College of Maryland (Maryland)
Preceptors: Dr. Greti Aguilera, Mr. Qiong Deng

78-PM. Barry Liang
Dual embryonic origins of functionally distinct hippocampal-OLM cells revealed by differential 5-HT3aR expression.
St. Mary's College of Maryland (Maryland)
Preceptor: Dr. Chris McBain

79-PM. Sarah Livengood
Identification of the Role of Dynamin in Macrophage Fusion
DeSales University (Pennsylvania)
Preceptors: Dr. Evgenia Leikina, Dr. Santosh Verma, Dr. Leonid Chernomordik

80-PM. Emily Ma
Targeting frog intestinal stem cell-associated genes using engineered Tal-effector nucleases (TALEN) to characterize gene function in vivo
Richard Montgomery High School (Maryland)
Preceptors: Dr. Yunbo Shi, Dr. Liezhen Fu

81-PM. Karthik Meiyappan
Immunofluorescence Analysis of Brains from Mice with Conditional Mutations of the Receptor Tyrosine Kinase ErbB4.
Interlake Senior High School (Washington)
Preceptors: Dr. Irina Karavanov, Dr. Andres Buonanno

82-PM. Tyler Moeller
Engineering Photoconvertible Fusion Proteins to Monitor Intracellular Collagen Trafficking
University of Pennsylvania (Pennsylvania)
Preceptors: Dr. Sergey Leikin, Ms. Lynn Mirigian

83-PM. Anwar Ogunsanya
Is Combgap Required for the Recruitment of Polycomb Group Proteins in Drosophila
Prince Georges County Community College (Maryland)
Preceptors: Dr. Payal Ray, Dr. Judy Kassis, Dr. Sandip De, Mr. Daniel Gutierrez
84-PM. Linda Okai
*Phenotype of children and adolescents with Melanocortin 3 Receptor Thr6Lys + Val81Ile genotype*
University of Maryland, School of Medicine (Maryland)
Preceptors: Dr. Jack Yanovski, Dr. Roya Sherafat-Kazemzadeh

85-PM. Ekiomoado Olumese
*Developmental Origins of Smooth Muscle Cells in Zebrafish*
Poolesville High School (Maryland)
Preceptors: Dr. Brant Weinstein, Dr. Amber Stratman, Mr. Daniel Castranova

86-PM. Marcia Oursler
*Mapping of Respiratory Health Outcomes in the United States in relation to Tobacco Smoke and Indoor Burning of Solid Fuels*
East Tennessee State University (Tennessee)
Preceptors: Dr. Megan Quinn, Dr. William Martin

87-PM. Abigail Paulson
*Evidence that perichondrial cells are derived from chondrocytes*
The University of Alabama (Alabama)
Preceptors: Dr. Ola Nilsson, Mr. Michael Chau

88-PM. Alexandros Pavlakis
*KCNJ5 Mutations in Aldosterone Producing Adenomas*
Georgetown Day School (District of Columbia)
Preceptors: Dr. Paraskevi Xexouki, Dr. Constantine Stratakis

89-PM. Courtney Pickworth
*Binge Eating Among Adolescent Girls At-Risk for Type 2 Diabetes*
Albion College (Michigan)
Preceptors: Dr. Jack Yanovski, Dr. Lauren Shomaker

90-PM. Elizabeth Pogrebojniak, William Stutzman
*Longitudinal Analysis of the Relationships Between Changes in Thyroid Axis Hormones, Resting Energy Expenditure, and Obesity in Children*
College of William and Mary (Virginia), University of Maryland (Maryland)
Preceptors: Dr. Jack Yanovski, Ms. Amanda Krause, Ms. Nicole Sedaka

91-PM. Carmyn Polk
*Behavioral phenotype of A-Kinase Anchor Protein 13 Haploinsufficient Mice and Conditional Knockout in Heart*
Wellesley College (Massachusetts)
Preceptors: Ms. Kimberlyn Baig, Dr. James Segars

92-PM. Katherine Potocka
Bmp Signaling is Required for Sprout Initiation During Angiogenesis
Georgetown University (District of Columbia)
Preceptors: Dr. Shlomo Krispin, Dr. Brant Weinstein

93-PM. Courtney Ramsey
Computational and Experimental Analysis of Legionella pneumophilia E3 Ligases
Jackson State University (Mississippi)
Preceptors: Dr. Matthias Machner, Dr. Yi-Han Lin

94-PM. Ankita Reddy
The Presence of a Gender-Specific Pattern of Developing Pheochromocytoma/Paraganglioma in SDHB Mutation Patients with Pheochromocytoma/Paraganglioma
Richard Montgomery High School (Maryland)
Preceptors: Dr. Karel Pacak, Dr. Tamara Prodanov, Ms. Victoria Martucci

95-PM. Torri Roark
Probing the Interactions of the Hofmeister Series of Anions with Lipid Membranes Using Ion Channels and Dynamic Light Scattering
Indiana University Purdue University Indianapolis (Indiana)
Preceptors: Dr. Oscar Teijido Hermida, Dr. Horia Petrache, Dr. Tatiana Rostovtseva, Dr. Sergey Bezrukov

96-PM. Christina Savvides
Genome Wide Screening for Carney Triad Candidate Genes.
Phillips Exeter Academy (New Hampshire)
Preceptors: Dr. Fabio Faucz, Dr. Constantine Stratakis

97-PM. Maya Shimony
The effect of fructose and sweetened beverages on liver function in healthy, premenopausal women.
George Washington University (District of Columbia)
Preceptors: Dr. Sunni Mumford, Dr. Karen Schliep, Dr. Katherine Ahrens, Dr. Lindsey Sjaarda

98-PM. Sahib Sohal
Role of Gonadotropin-Regulated Testicular RNA Helicase (GRTH/DDX25) in Ubiquitin-Proteasome-Heat Shock Protein Signaling Networks of Mouse Testis
Langley High School (Virginia)
Preceptors: Dr. Maria Dufau, Dr. Chon-Hwa Tsai-Morris, Dr. Raghu Kavarthapu
99-PM. Dexter Thomas
Associations among forms of sexual attraction and electronic bullying
Westminster College (Utah)
Preceptors: Dr. Ashley Brooks-Russell, Dr. Denise Haynie, Dr. Ronald Iannotti

100-PM. Gabriel Vasconcelos
Regulation of Protein Phosphatase 1 (PP1) Activity by Viral Proteins
Walter Johnson High School (Maryland)
Preceptors: Dr. Margarito Rojas, Dr. Thomas Dever

101-PM. Rachel Waldman
Using chemical inhibitors to probe the role of c-met in collective migration of the zebrafish lateral line primordium
Maret School (District of Columbia)
Preceptors: Dr. Ajay Chitnis, Dr. Damian Dalle Nogare, Mr. Jeffrey Head

102-PM. Robert Wang
Analysis of Phosphorylation-related Complexes of Human UDP-Glucuronosyltransferase-1A1
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. Nikhil Basu, Dr. Ida Owens, Ms. Mousumi Basu, Dr. Sirsendu Jana

103-PM. Bianca Williams
Ocular abduction abnormalities in patients with WAGR syndrome
Geisel School of Medicine at Dartmouth College (New Hampshire)
Preceptors: Dr. Wadih Zein, Dr. John Butman, Dr. Brian Brooks, Dr. Joan Han

104-PM. Daniel Woo
Sedentary Behavior and Cognitive Function in Children: Is there a connection?
Howard Community College (Maryland)
Preceptors: Dr. Britni Belcher, Dr. David Berrigan, Dr. Jack Yanovski

105-PM. Andrew Yang
An examination of transposon integration sites in relation to nucleosome occupancy in fission yeast
Carleton College (Minnesota)
Preceptors: Dr. Caroline Esnault, Dr. Henry Levin

National Institute on Drug Abuse (NIDA)

106-PM. Mennwa Abouelatta
Regulation of TET Protein Expression by Methamphetamine: Their Potential Role of Methamphetamine-Induced Gene Expression in the Rat Nucleus Accumbens
Brunswick High School (Maryland)
107-PM. Frederik Agvald
_Dio-myc-PSD95 as a Marker of Dendritic Spines on Activated Neurons in Transgenic c-fos Cre Rats_
Howard Community College (Maryland)
Preceptors: Dr. Bruce Hope, Dr. Fabio Cruz

108-PM. Jason Alejo
_Comparison of Different MALDI Matrices for Lipid Analysis_
The Calhoun High School (New York)
Preceptors: Dr. Amina Woods, Dr. Shelley Jackson, Dr. Ludovic Muller, Ms. Kathrine Baldwin

109-PM. Feaven Berhe
_Effects of Cannabinoid antagonists on Heroin self-administration_
The Lakeside School (Washington)
Preceptors: Dr. Charles Schindler, Dr. Leigh Panlilio, Dr. Steven Goldberg, Mr. Eric Thorndike

110-PM. Samuel Besse
_In vitro voltammetric comparison of dopamine function in rats following self-administration of cocaine and the "bath salt" 3,4-methylenedioxyxymethamphetamine (MDPV)_
Catonsville High School (Maryland)
Preceptors: Dr. Carl Lupica, Dr. Alex Hoffman, Dr. Augustin Zapata

111-PM. Grace Blair
_In search for a causal role of dopamine in prediction of fear._
University of North Carolina at Chapel Hill (North Carolina)
Preceptors: Dr. Mihaela Iordanova, Dr. Geoffrey Schoenbaum

112-PM. Angelique Brellenthin
_Dual inhibition of the dopamine transporter and sigma receptors by CM699 affects cocaine reinforcement_
University of Wisconsin-Madison (Wisconsin)
Preceptors: Dr. Gianluigi Tanda, Dr. Jonathan Katz

113-PM. Laura Chen
_Effects of beta-caryophyllene, a FDA-approved cannabinoid CB2 receptor agonist, on cocaine, nicotine and alcohol self-administration behavior in rats._
River Hill High School (Maryland)
Preceptors: Dr. He Yi, Dr. Guo-Hua Bi, Dr. Eliot Gardner, Dr. Zheng-Xiong Xi

114-PM. Sergiu Costinas
_Determining the effect of synthetic cannabinoids on body temperature in rats_
115-PM. Zachary Fusfeld  
_Heterogeneity of Microglia Within the Basal Ganglia_  
Johns Hopkins University (Maryland)  
Preceptors: Dr. Lindsay DeBiase, Dr. Antonello Bonci

116-PM. Mizan Gaillard  
_Suppression of methamphetamine self-administration in rats by histamine_  
Sidwell Friends School (District of Columbia)  
Preceptors: Dr. Yavin Shaham, Dr. Daniele Caprioli

117-PM. Stephanie Golub  
_The Role of Cadherin 13 (CDH13) in Mouse Models of Attention Deficit Hyperactivity Disorder_  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. George Uhl, Dr. F. Scott Hall

118-PM. Makel Guice  
_Behavioral comparison of cocaine and the "bath salt" 3,4-methylenedioxyxpyrovalerone (MDPV) in an animal model of self administration_  
Eastside High School (Georgia)  
Preceptors: Dr. Carl Lupica, Dr. Augustin Zapata, Dr. Alexander Hoffman

119-PM. Isobel Hawes  
_Key time points for interactions between microglia and synapses in developing reward circuitry_  
The Science and Mathematics Academy (Maryland)  
Preceptors: Dr. Lindsay de Biase, Dr. Antonello Bonci

120-PM. Sydney Hawkins  
_The Default Mode Network in a Rat Model of Neurocognitive Aging_  
James Irwin Charter High School (Colorado)  
Preceptors: Dr. Jessica Ash, Dr. Hanbing Lu, Dr. Elliot Stein

121-PM. Camille Hines  
_Methamphetamine self-administration and cognition-related genes in the rat hippocampus_  
Stevenson University (Maryland)  
Preceptors: Dr. Ingrid Tulloch, Dr. Jean Lud Cadet

122-PM. Keenan Hope  
_Effects of Serotonin Releasing Drug Fenfluramine on Memory and Fear_  
University of Maryland, Baltimore County (Maryland)
123-PM. Kennedy Johnson  
*Behavioral characterization of CSMD1 knockout mice*  
The Baldwin School (Pennsylvania)  
Preceptors: Dr. Jana Drgonova, Dr. George Uhl

124-PM. Aysha Jones  
*Both cannabinoid CB1 and CB2 receptors underlie the classical tetrad effects of delta9-THC and WIN55212-2 in mice*  
Western High School (Maryland)  
Preceptors: Dr. Zheng-Xiong Xi, Dr. Eliot Gardner, Ms. Xiao-Fei Wang

125-PM. Tiffany Kan  
*Effects of Methamphetamine Self-Administration on the Expression of Neurotrophic Factors in the Rat Dorsal Striatum*  
River Hill High School (Maryland)  
Preceptors: Dr. Irina Krasnova, Dr. Jean Cadet

126-PM. India Kawata  
*Effects of the serotonin-releasing agent fenfluramine on body temperature and aversion in mice*  
Centennial High School (Maryland)  
Preceptor: Dr. Ross McDevitt

127-PM. Kristine Keller, Kathleen Robens  
*Effect of Nicotine on Cognition in People with Schizophrenia and with or without Drug Dependence*  
University of Maryland (Maryland), Towson University (Maryland)  
Preceptors: Dr. Bill Kowalczyk, Dr. Carol Myers, Dr. Stephen Heishman

128-PM. Shannon Kelly  
*Effects of (+)CYY 477-1, a VMAT2 Inhibitor, on Methamphetamine-Induced Locomotor Stimulation and Self-Administration*  
Salisbury University (Maryland)  
Preceptor: Dr. Jonathan Katz

129-PM. Deima Koko  
*Regional distribution of GFP expression in methamphetamine-injected transgenic cfos-GFP rats*  
Hinsdale South High School (Illinois)  
Preceptor: Dr. Bruce Hope
130-PM. Max Lenowitz
*Examination of Aripiprazole for Prevention of Cocaine Relapse in Methadone-Maintained Patients*
The Pennsylvania State University (Pennsylvania)
Preceptors: Dr. Kenzie Preston, Dr. Bill Kowalczyk

131-PM. Jonathan Na
*Effects of methamphetamine Self-Administration on the mRNA expression of Corticotrophin-releasing Factor (CRF) and Urocortin in the Rat Frontal Cortex*
Boston College (Massachusetts)
Preceptors: Dr. Oscar Torres, Dr. Jean Lud Cadet

132-PM. Daniel Nemirovsky
*Dopamine release in nucleus accumbens in response to reward- and state-prediction errors*
Park School of Baltimore (Maryland)
Preceptors: Dr. Mike McDannald, Mr. Aaron Mirenzi, Dr. Josh Jones, Dr. Geoffrey Schoenbaum

133-PM. Josh Newman
*Noninvasive AAV delivery to rat striatum using focused ultrasound and microbubbles.*
University of Virginia (Virginia)
Preceptors: Dr. Brandon Harvey, Mr. Doug Howard

134-PM. Laura Newman
*Neural Activity in Basolateral Amygdala Reflects Real-Time Expectations for Reward*
Boston College (Massachusetts)
Preceptors: Dr. Geoffrey Schoenbaum, Dr. Frederica Lucantonio

135-PM. Oluwaseyi Omonijo
*Effects of acute and chronic Methamphetamine exposure on striatal Tet protein expression in the rat*
Towson High School (Maryland)
Preceptors: Dr. Jean Lud Cadet, Dr. Subramaniam Jayanthi

136-PM. Shai Porat
*Structural integrity of the uncinate fasciculus as a predictor of relapse in cocaine-addicted individuals*
University of Central Florida (Florida)
Preceptors: Dr. Meredith McHugh, Dr. Elliot Stein, Dr. Bryon Adinoff

137-PM. Ethan Roth
*Food-seeking behavior and afferent projections to the tenia tecta of the rat: Co-localization of c-Fos and Fluorogold*
University of Pittsburgh (Pennsylvania)
Preceptor: Dr. Satoshi Ikemoto

138-PM. Regina Sealey
Social and Physical Disorder and the Activity Space of Poly-Drug Users
Stevenson University (Maryland)
Preceptors: Dr. Kenzie Preston, Dr. Ashley Kennedy, Dr. David Epstein

139-PM. Christopher Sibley
Design and synthesis of orthosteric and allosteric synthons for the dopamine D3 receptor
Virginia Tech (Virginia)
Preceptors: Dr. Amy Newman, Dr. Vivek Kumar

140-PM. Alexander Simafranca
Altered Brain Network Interactions While Fasting
Kamehameha High School Kapalama Campus (Hawaii)
Preceptors: Dr. Hong Gu, Dr. Elliot Stein

141-PM. Sharon Smith
In Search of Novel Dopamine D2 and D3 Receptor Ligands
Anne Arundel Community College (Maryland)
Preceptors: Dr. Thomas Keck, Dr. Amy Newman

142-PM. Anthony Spearman
The Effects of Transfection on Endoplasmic Reticulum Stress in SH-SY5Y Cells
Whitney M. Young Magnet High School (Illinois)
Preceptors: Dr. Mark Henderson, Dr. Brandon Harvey, Ms. Lowella Fortuno

143-PM. Ray St. John
Whole brain mapping of monosynaptic inputs to ventral tegmental area glutamate neurons
Illinois State University (Illinois)
Preceptors: Dr. David Root, Dr. Carlos Mejias-Aponte, Dr. Marisela Morales

144-PM. Shivani Talwar
The major population of dorsal raphe neurons innervating the VTA contains vesicular glutamate transporter 3
Eastern Regional High School (New Jersey)
Preceptors: Dr. Marisela Morales, Dr. Huiling Wang

145-PM. Meghan Thorndike
Effects of Standard ADHD Treatments on Attention in Mice Assessed with a 5-Choice Serial Reaction-Time Task
University of Michigan (Michigan)
Preceptors: Dr. Jonathan Katz, Mrs. Dawn French-Evans

146-PM. Tochi Unegbu-Ogbonna  
*The Effects of Methamphetamine and Food Self-Administration on the striatal expression of Stress-Related Genes and their Receptors*  
Cinnaminson High School (New Jersey)  
Preceptors: Mr. Bruce Ladenheim, Dr. Irina Krasnova, Dr. Jean Cadet

147-PM. Guang Yang  
*Impact of Transcranial Magnetic Stimulation on Resting State Networks: A Pilot Study on Adults with Nicotine Addiction*  
University of California: San Diego (California)  
Preceptors: Dr. Yuzheng Hu, Dr. David Gorelick, Dr. Yihong Yang

National Insitute of Mental Health (NIMH)

148-PM. Vanya Aggarwal  
*Arterial Function and Migraine*  
Saint Bonaventure University (New York)  
Preceptor: Dr. Kathleen Merikangas

149-PM. Katherine Albrecht  
*Impact of long-term experience on face neurons in monkey inferotemporal cortex*  
University of California, San Diego (California)  
Preceptors: Dr. David McMahon, Dr. David Leopold

150-PM. Kingsley Asiedu  
*Recognition Memory: Influence of the Cholinergic System in the Perirhinal Cortex*  
University of Cincinnati (Ohio)  
Preceptors: Dr. Janita Turchi, Dr. Richard Saunders, Dr. Mortimer Mishkin

151-PM. Omobolanle Ayo-Ani  
*Auditory Recognition Memory in Non-Human Primates*  
Carnegie Mellon University (Pennsylvania)  
Preceptors: Dr. Richard Saunders, Dr. Mortimer Mishkin

152-PM. Katherine Baldwin  
*How simultaneous multislice acquisitions affect fMRI data quality*  
University of Wisconsin-Madison (Wisconsin)  
Preceptors: Dr. Daniel Handwerker, Dr. Javier Gonzalez-Castillo, Dr. Vinai Roopchansingh, Dr. Peter Bandettini
153-PM. Johannes Bang  
*Medical comorbidity of pediatric services*  
Walter Johnson High School (Maryland)  
Preceptor: Dr. Kathleen Merikangas

154-PM. Elizabeth Clayton  
*Use of Course of Life Questionnaire to assess developmental milestones in healthy young adults and patients with cancer: What is normal?*  
Wesleyan University (Connecticut)  
Preceptors: Dr. Joyce Chung, Dr. Lisa Horowitz, Ms. Diana Nora

155-PM. Eric Czinn  
*Morphing Emotional Expressions*  
University of Maryland, College Park (Maryland)  
Preceptors: Dr. Harma Meffert, Dr. James Blair

156-PM. Thomas Donoghue  
*RNA-Sequencing Discovers Novel, Brain-Expressed Genes*  
Poolesville High School (Maryland)  
Preceptors: Dr. Nirmala Akula, Dr. Francis McMahon

157-PM. Jennifer Megan Fredericks  
*Reversible Lesions: The Inducible Silencing of Neurons*  
Montgomery Community College (Maryland)  
Preceptors: Dr. Mark Eldridge, Dr. Richard Saunders

158-PM. Evan Giangrande  
*Association of Brain Structure and Cognitive Performance in Subjects with Schizophrenia, their Siblings, and Healthy Controls*  
Georgetown University (District of Columbia)  
Preceptor: Dr. Dwight Dickinson

159-PM. Carolyn Gigot  
*In the Eye of the Beholder: Pupil Response and Memory*  
Harvard University (Massachusetts)  
Preceptors: Dr. Christopher Baker, Dr. Sue-Hyun Lee

160-PM. David Hershkowitz  
*Parcellation of the Intraparietal Sulcus*  
Brown University (Rhode Island)  
Preceptors: Dr. Karen Berman, Dr. Shane Kippenhan, Mr. Nick Turner
161-PM. Adam Horin  
*Neurophysiological responses to verbally induced placebo analgesia*  
Purdue University (Indiana)  
Preceptors: Dr. Monique Ernst, Dr. Daniel Pine, Dr. Christian Grillon, Dr. Luana Colloca

162-PM. Sindhura Kolachana  
*Dysfunctions of Mitochondria in Schizophrenia*  
Thomas Jefferson High School for Science and Technology (Virginia)  
Preceptors: Dr. Zheng Li, Dr. Jun Zhao

163-PM. Dora Lin  
*Potentiating Effects of Lithium Treatment on Anti-depressive Effects of Ketamine in a Mouse Model of Stress*  
University of Chicago (Illinois)  
Preceptors: Dr. De-Maw Chuang, Dr. Chi-tso Chiu

164-PM. Daniel Liu  
*Synthesis of pegylated derivatives of THK523 as candidate PET radioligands for imaging of tauopathies*  
Winston Churchill High School (Maryland)  
Preceptors: Dr. Lisheng Cai, Mr. Bryan Hurtle

165-PM. Jonae Lloyd  
*Childhood Onset Schizophrenia Probands and Siblings: Degrees of Illness*  
University of Pittsburgh (Pennsylvania)  
Preceptor: Mr. Peter Gochman

166-PM. Monica Mehta  
*Acute but not chronic stress alters the density and phenotype of microglia in stress-responsive brain regions*  
The George Washington University (District of Columbia)  
Preceptors: Dr. Michael Lehmann, Dr. Miles Herkenham

167-PM. Archana Narasimhan  
*Seeing What You Do Not See: The Underlying Neuroanatomy Responsible for blindsight*  
The University of Texas at Austin (Texas)  
Preceptors: Dr. Richard Saunders, Dr. David Leopold, Mr. David Yu

168-PM. Jonathan O'Rawe  
*Neural Substrates of Auditory Memory in the Macaque Monkey*  
Stony Brook University (New York)  
Preceptors: Dr. Mortimer Mishkin, Dr. Richard Saunders
169-PM. Meghana Patel
*Modulation of Tyrosine Hydroxylase mRNA Levels in the Axon*
Poolesville High School (Maryland)
Preceptors: Dr. Noreen Gervasi, Dr. Barry Kaplan

170-PM. Rory (Roderic) Pettigrew
*Anti-anhedonic effects of Ketamine and Riluzole add-on in M.D.D*
George Washington University (District of Columbia)
Preceptors: Dr. Ameli Rezvan, Mr. Neil Lally, Dr. Carlos Zarate, Mr. Dave Luckenbaugh

171-PM. Meghna Ramaswamy
*Understanding Neuronal Circuitry in Macaque Monkeys*
University of Maryland, College Park (Maryland)
Preceptor: Dr. Kadharbatcha Saleem

172-PM. Melanie Robins
*An fMRI Study of Self Recognition in Monkeys*
City College of San Francisco (California)
Preceptors: Dr. Ning Liu, Mr. William Li, Dr. Leslie Ungerleider

173-PM. Rhea Sharma
*Interactive Effects of Tolcapone and Catechol-O-methyltransferase (COMT) Val158Met Polymorphism on Mood*
Thomas Jefferson High School for Science and Technology (Virginia)
Preceptors: Dr. José Apud, Mr. Nicholas Fogleman

174-PM. Hakyung Shin
*RNA-Sequencing Reveals Differential Expression of Extended 3'-UTRs in the Brain Transcriptome of Bipolar Disorder*
Massachusetts Institute of Technology (Massachusetts)
Preceptors: Dr. Francis McMahon, Dr. Nirmala Akula

175-PM. Devon Shook
*Variance Decomposition for Many-Session fMRI*
American University (District of Columbia)
Preceptors: Dr. Javier Gonzalez-Castillo, Dr. Thomas Nichols, Dr. Peter Bandettini

176-PM. Sarah Siddiqui
*The effects of speech anticipation on cardiovascular reactivity and memory*
University of Maryland (Maryland)
Preceptors: Dr. Christian Grillon, Dr. Katye Vytal
177-PM. Tracey Stonebridge
*Potential Criteria for the Welfare Assessment of Macaca mulatta and Callithrix jacchus*
Kansas State University College Of Veterinary Medicine (Kansas)
Preceptors: Dr. James Raber, Dr. Arthur MacLarty

178-PM. Chetan Supanekar, Danielle Pratt
*Simple reaction time as a predictor of general cognitive ability in individuals with schizophrenia, their unaffected siblings compared to healthy controls.*
Oakton High School (Virginia), University Of Pittsburgh (Pennsylvania)
Preceptor: Ms. Joann Berkson

179-PM. Jennifer Weinstein
*Effect of Social Stress on Working Memory Performance and Defensive Responding*
The University of Maryland (Maryland)
Preceptor: Dr. Katherine Vytal

180-PM. Allison Wyner
*Activation of amygdalar gamma-Aminobutyric acid neurons by pharmacogenetic methods modulates pain and anxiety*
Walt Whitman High School (Maryland)
Preceptors: Dr. Ted Usdin, Dr. Eugene Dimitrov

181-PM. Susan Yang
*Cognition and exercise*
Boston College (Massachusetts)
Preceptor: Dr. Kathleen Merikangas

182-PM. Cynthia Zhang
*Determinants and Correlates of Adolescent Sleep Patterns*
Clarksburg High School (Maryland)
Preceptor: Dr. Kathleen Merikangas

National Institute of Neurological Disorders and Stroke (NINDS)

183-PM. Bryce Adams
*Analysis and Triage of Putative D2 Dopamine Receptor Modulators Discovered via High-Throughput Screening*
The University of Findlay (Ohio)
Preceptors: Dr. Benjamin Free, Dr. David Sibley

184-PM. Rianna Albers
*Functional Connectivity Analysis of Cognitive Network in Parkinson's Disease*
South Dakota State University (South Dakota)
Preceptor: Dr. Takaaki Hattori

185-PM. Robert Allen
*Development of Automatic Lesion Load Algorithm for use in EAE Marmoset Spinal Cord*
Washington University in St. Louis (Missouri)
Preceptors: Dr. Pascal Sati, Dr. Martina Absinta, Dr. Daniel Reich

186-PM. Roy Anderson, Jr.
*Analyzing the Sequence Effect in Parkinson's Disease*
Prince George's Community College (Maryland)
Preceptor: Dr. Sule Tinaz

187-PM. Aaron Artiles
*Determinants of the Alcohol Effect in Patients with Essential Tremor*
Boston College (Massachusetts)
Preceptors: Dr. Dietrich Haubenberger, Dr. Silvina Horovitz

188-PM. Devin Bageac
*Differential Roles of Primary Motor Cortex and Dorsolateral Prefrontal Cortex in Probabilistic Category Learning*
The George Washington University (District of Columbia)
Preceptors: Dr. Leonora Wilkinson, Mr. Adam Steel, Dr. Eric Wassermann

189-PM. Samuel Bara-Garcia, Hannah Allison
*Cytoarchitectural mapping of embryonic rat central nervous system using multiplex immunohistochemistry*
Walter Johnson High School (Maryland), St. Michael High School (Arizona)
Preceptor: Dr. Dragan Maric

190-PM. Akeem Borom
*Aging Related Changes in Morphology in Neuronal Mitochondria*
The University of Alabama (Alabama)
Preceptors: Dr. Natalia Morsci, Dr. Zuhang Sheng

191-PM. Mason Brown
*Residual Tumor Volume and Survival Following Re-operation for Recurrent Glioblastoma*
Indiana University School of Medicine (Indiana)
Preceptors: Mr. Nino Mihatov, Mr. Michael Shen, Dr. John Park

192-PM. Alec Calac
*Activity Deprivation Alters Olfactory Bulb Size: An MRI Study*
University of Arizona (Arizona)
Preceptors: Dr. Nikorn Pothayee, Dr. Alan Koretsky

193-PM. Breanna Caruso  
*Digital Droplet PCR for Precise Quantification of Human T-Lymphotropic Virus I*  
Colgate University (New York)  
Preceptor: Dr. Steven Jacobson

194-PM. Alexa Ciesinski  
*Immune-Neuronal Interactions in the Olfactory Epithelium during Viral Clearance*  
Wake Forest University (North Carolina)  
Preceptors: Dr. Ashley Moseman, Dr. Dorian McGavern

195-PM. Pauline Dmitriev  
*D539N mutation detected in the ODD domain of HIF2A in a patient with paraganglioma and congenital polycythemia*  
Bucknell University (Pennsylvania)  
Preceptors: Dr. Zhengping Zhuang, Dr. Chunzhang Yang

196-PM. Amauche Emenari  
*Web-Based System for Labeling of 3D Electron Microscopy Connectome Data*  
Boston University (Massachusetts)  
Preceptors: Mr. Amarendra Yavatkar, Dr. Yang Fann, Dr. Kevin Briggman

197-PM. Katherine Eyring, Gailyn Gabriel  
*Characterization of high gamma cortical oscillations during L-dopa-induced dyskinesias in an animal model of Parkinson’s disease*  
Wellesley College (Massachusetts), Thomas S. Wootton High School (Maryland)  
Preceptors: Dr. Judith Walters, Dr. Kristin Dupre

198-PM. Yilin Feng  
*Establishment of an Inducible Cell Line for Screening of HIV-1 Tat-Targeting Drugs*  
Dulaney High School (Maryland)  
Preceptors: Dr. Avindra Nath, Dr. Wenxue Li, Ms. Richa Tyagi

199-PM. Samantha Frank  
*MEG Source Localization: A comparison of multiple techniques to surgical seizure focus localization in patients with medical refractory epilepsy*  
Colgate University (New York)  
Preceptors: Dr. Sara Inati, Dr. William Theodore

200-PM. Mae Gillespie  
*Glutamatergic modulation of Dopamine signaling affects the process of reward-motivated learning*
The George Washington University School of Medicine and Health Sciences (District of Columbia)
Preceptors: Dr. Mary Anne Hutchison, Dr. Wei Lu

201-PM. Kedar Grama
Comprehensive Computational Analysis of Tissue Remodeling in the Rat Brain After Ischemic Injury
University of Houston (Texas)
Preceptor: Dr. Dragan Maric

202-PM. Benjamin Haner
Significance of Human T-cell Lymphotropic Virus Type I/II Seroindeterminate Western Blot: Analysis by Digital Droplet PCR
University of Wisconsin - Madison (Wisconsin)
Preceptor: Dr. Steve Jacobson

203-PM. Kaitlyn Haskie
Cloning and purification of human Cytosolic Phospholipase A2 (cPLA2) and its phosphorylation by Cdk5/p35 and Cdk5/p25
Saint Michael Indian School (Arizona)
Preceptor: Mr. Raymond Fields

204-PM. Rogerio Huang
A High-Throughput Genome-wide RNAi Screen Identifies Novel Modifiers of Survival Motor Neuron (SMN) Protein Levels
University of Michigan (Michigan)
Preceptors: Dr. Kenneth Fischbeck, Dr. Eveline Arnold, Dr. Barrington Burnett

205-PM. Cherella Hughes
Purification and Neurological Implications of HIV-Tat
Fort Lewis College (Colorado)
Preceptors: Dr. Joseph Steiner, Ms. Muzna Bachani

206-PM. Savannah Jensen
Mapping Channelrhodopsin Expression on Interhemispheric Projection Neurons for Optogenetics
Red Cloud High School (South Dakota)
Preceptors: Dr. Xin Yu, Dr. Joelle Hillion, Dr. Alan Koretsky

207-PM. Rohan Katipally
DTI Analysis of Cerebro-Ponto-Cerebellar Pathways in Pseudobulbar Affect
Brown University (Rhode Island)
Preceptors: Dr. Avner Meoded, Dr. Mary Kay Floeter

208-PM. Hope Kean  
*Binding of MAGUK family proteins to Neuroligin 1*  
Winston Churchill High School (Maryland)  
Preceptors: Dr. Marc Lussier, Mr. Kyle O'Gilvie, Mr. Michael Bemben, Dr. Katherine Roche

209-PM. Gregory Keating  
*An Investigation of Founder Effects and Genetics in Chiari I Malformation*  
University of Wisconsin-Madison (Wisconsin)  
Preceptors: Dr. John Heiss, Dr. Frederick Cantor, Mr. Juan Carlos Vera

210-PM. Jaron Kee  
*Impact of Current Direction on Short Latency Intracortical Facilitation (SICF)*  
University of New Mexico (New Mexico)  
Preceptor: Dr. Nivethida Thirugnanasambandam

211-PM. Matthew Kellman  
*Long-range tracing of individual axons through the mouse brain*  
Walt Whitman High School (Maryland)  
Preceptors: Dr. Kevin Briggman, Ms. Boma Fubara

212-PM. Garland Kennedy  
*Quantification of Spines on Dopamine Neurons in the Substantia Nigra*  
Landon School (Maryland)  
Preceptors: Dr. Travis Hage, Dr. Zayd Khaliq

213-PM. Dayoung Ko  
*Assessment of LNA antisense oligonucleotides for allele-specific silencing of a dominant COL6A3 mutation as a therapy against UCMD*  
Duke University (North Carolina)  
Preceptors: Dr. Veronique Bolduc, Dr. Yaqun Zou, Dr. Carsten Bonnemann

214-PM. Ochan Kwon  
*Imaging Endogenous PSD-95 MAGUKs in Hippocampal Neurons*  
Wake Forest University (North Carolina)  
Preceptor: Dr. Xiaobing Chen

215-PM. Winston Liu  
*Quantifying spinal cord cross-sectional area in HTLV-1 associated myelopathy/tropical spastic paraparesis and multiple sclerosis*  
University of Maryland (Maryland)
216-PM. Graham Lobel
Contribution of PAT Proteins to VHL Hemangioblastoma Phenotype
Haverford College (Pennsylvania)
Preceptor: Dr. Marsha Merrill

217-PM. Adam Lowet, Dan Holmqvist
Mutations in the Intracellular Cavity of Shaker K+ Channels Alter the Kinetics of N-type Inactivation
Walt Whitman High School (Maryland), Harvard University (Massachusetts)
Preceptors: Mr. Angel de la Cruz Landrau, Dr. Miguel Holmgren

218-PM. Breonna Mabry
Establishing Neuropsychological Measures to Test Corpus Callosum Integrity in Patients with Multiple Sclerosis
Hampshire College (Massachusetts)
Preceptors: Ms. Emily Wood, Dr. Daniel Reich

219-PM. Paras Minhas
Examining Adult Neurogenesis and Interneuron Population in Dentate Gyrus lacking Glutamatergic Input.
University of Pittsburgh (Pennsylvania)
Preceptors: Dr. Xinglong Gu, Dr. Wei Lu

220-PM. Arthur Morrissette
Changes in Resting State Connectivity in Primary Lateral Sclerosis
Emory University (Georgia)
Preceptors: Dr. Mary Kay Floeter, Dr. Stephen Gotts

221-PM. Bryan Mosher, Mohammad Tariq
Role of Transient Receptor Potential (TRP) channels in respiratory motor pattern generation
University of Alaska (Alaska), Georgia State University (Georgia)
Preceptors: Ms. Justine Chia, Dr. Hidehiko Koizumi, Dr. Ruli Zhang, Dr. Jeffrey Smith

222-PM. David Nai
Morphological Cerebellar Changes in a Case of Episodic Ataxia Type 4
Iowa State University of Science and Technology (Iowa)
Preceptors: Dr. Pritha Ghosh, Dr. Mark Hallett, Dr. Abhik Ray-Chaudhury

223-PM. Danielle Novick
The Effect of Odorant Exposure on the Turnover of Olfactory Sensory Neurons
University of Maryland, College Park (Maryland)
224-PM. Simone Oliver
Differentiation of mouse induced pluripotent stem cells to microglia-like cells
South River High School (Maryland)
Preceptors: Dr. John Park, Mr. Michael Shen, Mr. David Ichikawa, Dr. Hetel Pandya

225-PM. Sharon Ong
Serotonin 1A receptor PET in new onset epilepsy
Johns Hopkins University (Maryland)
Preceptor: Dr. William Theodore

226-PM. Madison Orlow
New Resveratrol Analogs as Novel Neuroprotectants
Woodson High School (Virginia)
Preceptors: Dr. Joe Steiner, Mr. Mark Vaal

227-PM. Meredith Pasmantier
Pseudobulbar affect in primary lateral sclerosis and amyotrophic lateral sclerosis
The George Washington University School of Medicine and Health Sciences (District of Columbia)
Preceptors: Dr. Mary Kay Floeter, Dr. Avner Meoded

228-PM. Sara Patterson
Effects of Musashi1 in Zebrafish Retinal Development: Disruption of UV Cone Mosaic and Electroretinographic Sensitivity
Dickinson College (Pennsylvania)
Preceptor: Dr. Ralph Nelson

229-PM. Katherine Pogrebniak
Imaging the Cortical Myelination Pattern and Investigating its Correlation with Clinical Disability in Multiple Sclerosis
Princeton University (New Jersey)
Preceptors: Dr. Govind Nair, Dr. Daniel Reich

230-PM. Preethi Reddy
Overexpression of p25, truncated fragment of p35, Cdk5 activator causes AD like phenotypes in mice and are rescued by TFP5
Saint Louis University (Missouri)
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Shimony, Maya .......................... 97-PM
Shin, Hakyung .......................... 174-AM
Shin, John .......................... 47-PM
Shook, Devon .......................... 175-PM
Shores, Kevin .......................... 150-LCH
Shou, Carol .......................... 126-AM
Shou, David .......................... 11-LCH
Shukur, Nebiyu .......................... 151-LCH
Si, Nancy .......................... 152-LCH
NATCHER CONFERENCE CENTER POSTER LOCATIONS

Posters are located in the Outer Lobby, Atrium, Lower Level Lobby, Conference Room E1/E2, and Conference Room G as indicated above.

NIH Summer Research Program Poster Day 2013 is organized by the Office of Intramural Training & Education, National Institutes of Health.