

SIXTH ANNUAL NIH GRADUATE STUDENT RESEARCH SYMPOSIUM  
**THE FACES OF TOMORROW'S SCIENCE**



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Graduate Partnerships Program  
Office of Intramural Training & Education  
National Institutes of Health  
U.S. Department of Health & Human Services

# | FOREWORD

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## WELCOME TO THE SIXTH ANNUAL NIH GRADUATE STUDENT RESEARCH SYMPOSIUM!

This annual Symposium is an opportunity to celebrate and highlight the wonderful scientific achievements of our NIH graduate students. As graduate students at the NIH, we belong to a world-leading institute of biomedical research, which provides unparalleled opportunities and resources. However, the key strength of our Graduate Partnerships Program (GPP) is you, the student. Our students come from 31 countries representing 119 universities. This diversity along with your dedication to graduate education is a key component to the GPP's success.

This has been exciting year as the community of NIH graduates students continues to grow. Building community is the major goal for the Graduate Student Council and, as such, we have incorporated this theme into today's Symposium. At the poster session, you will have the opportunity to contribute to an artistic memoir in which you can describe your experience as a NIH graduate student. The memoir will be displayed in the Graduate Student Lounge for all students to view in years to come.

This Symposium is a showcase of graduate student work representing all phases of the PhD, from beginning to completion of a graduate education at the NIH. To celebrate these various stages, we would like to highlight a few events we have planned for you. There are 105 students presenting their dissertation projects at the poster session, which includes a category highlighting research proposals from students who are beginning their dissertation studies. There will also be a ceremony honoring GPP students who recently graduated from their home university.

We are excited to welcome Dr. Francis Collins, M.D., PhD., NIH Director and a prominent physician-geneticist, as our opening keynote speaker. He is known for his leadership of the Human Genome Project in addition to his laboratory's landmark discoveries of disease-causing genes including those responsible for cystic fibrosis and Hutchinson-Gilford progeria syndrome. Further, Dr. Collins strongly supports graduate student education, and was awarded an Outstanding Mentor Award at this Symposium in 2007.

We are also honored to have Dr. Keith Yamamoto, PhD., Executive Vice Dean and Professor of Cellular and Molecular Pharmacology at the UCSF School of Medicine, as our plenary speaker. His active scientific interests include studying the mechanisms of signaling and gene regulation by intracellular receptors. Dr. Yamamoto brings an incredible breadth of science policy experience to the Symposium. He currently serves as Chairman of the Board of Life Sciences of the National Academy of Sciences, and is the newly appointed Chair of the Coalition for the Life Sciences, a group of non-profit organizations that advocate the advancement of basic biological research.

We have a great symposium planned and we hope you will enjoy the full day of events!

The 2009 Graduate Student Research Symposium Planning Committee

Kate Callahan, Georgetown University

Dan Crooks, Georgetown University

Tom Johnson, University of Cambridge

Pavitra Kannan, Karolinska Institutet

#### ACKNOWLEDGEMENTS

Thank you to Drs. Benoit Renvoise of NINDS and Chan-Ying Zheng of NIDCD and to FelCom for their support and participation in the poster competition. There are over 100 NIH post-docs and scientists judging this year's poster session! We would also like to thank the GSC, the GPP Partnership Directors, and the Post-baccalaureate IRTA Committee for their support of the Symposium and the graduate community. In addition, we thank the many NIH mentors that support graduate student research. We greatly appreciate all the support, opportunities, and training you provide. Congratulations to the students participating in this year's graduation ceremony. Be sure to stay in touch!

Finally, we would like to thank the amazing individuals in the GPP office for helping with every aspect of organizing this Symposium. With each passing year, the GPP continues to enhance the graduate experience here at the NIH. Thank you for your support, friendship, and enthusiasm! You make all that we do possible.

# PROGRAM OF EVENTS

8:45	<b>WELCOME</b>	<b>Sharon Milgram, Ph.D.</b> Director, OITE
9:00 – 9:30 <i>E1/E2</i>	<b>OPENING KEYNOTE</b>	<b>Francis Collins, M.D., Ph.D.</b> Director, NIH
9:30 – 11:00 <i>E1/E2</i>	<b>STUDENT ORAL PRESENTATIONS</b>	<b>Nancy Van Prooyen, Johns Hopkins University, NCI-CCR</b> HTLV-I p8 Protein Increases Viral Transmission via Downregulation of the Immunological Synapse and Induction of Tunneling Nanotubes  <b>Kerian Backus, University of Oxford, NIAID</b> Incorporation of Trehalose Analogs into Myobacterium Tuberculosis by Antigen 85: Novel Probes in Infection  <b>Sandra Chapman, Pennsylvania State University, NIAID</b> Forever Young: ROCK Inhibition Immortalizes Keratinocytes
11:00 – 12:40 <i>Atrium</i>	<b>POSTER SESSION I</b>	Poster #s 1-55
12:40 – 2:15 <i>Atrium</i>	<b>POSTER SESSION II</b>	Poster #s 56-105
2:30 – 3:45 <i>Auditorium</i>	<b>PLENARY ADDRESS AND DISCUSSION</b>	<b>Keith Yamamoto, Ph.D.</b> Executive Vice Dean, University of California, San Francisco School, of Medicine
3:45 – 4:00	<b>BREAK</b>	
4:00 – 5:00 <i>Auditorium</i>	<b>AWARDS CEREMONY</b>	<b>Outstanding Mentor Awards</b> Jennifer Lee, Ph.D. W. Marston Linehan, M.D. Keir Neuman, Ph.D.  <b>Recent Graduates Awards</b>  <b>NIH Graduate Student Research Award (NGSRA)</b>

# GPP GRADUATION AWARD RECIPIENTS

Student	IC	NIH Mentor	University, University mentor
<b>Muslimah Ali Najee-ullah</b> <i>Examining the Pathophysiology of Focal Dystonias Using Neuroimaging Techniques</i>	NINDS	Dr. Mark Hallett	Howard University
<b>Irene Avila</b> <i>Substantia Nigra Pars Reticulata Neuronal Activity During Bradykinesia and Levodopa-Induced Movements in a Rodent Model of Parkinson's Disease</i>	NINDS	Dr. Judith R. Walters	Arizona State University, Dr. Eddie Castañeda
<b>Taura Barr</b> <i>Gene Expression Profiling in Human Acute Ischemic Stroke</i>	NINR	Dr. Steven Warach Dr. Andrew Singleton	University of Pittsburgh, Dr. Yvette Conley
<b>Christina Bodner</b> <i>Phospholipid Binding of Human alpha-Synuclein: Implications for Native Function and Parkinson's Disease Pathology.</i>	NIDDK	Dr. Ad Bax	University of Cambridge, Dr. Christopher Dobson
<b>Ethan Bromberg-Martin</b> <i>The Role of Dopamine in Information-Seeking</i>	NEI	Dr. Okihide Hikosaka	Brown University
<b>Ching-Yu Cheng</b> <i>Genome-Wide Admixture Mapping of Obesity in African Americans</i>	NHGRI	Dr. Joan Bailey-Wilson	Johns Hopkins University
<b>Hoi Hung Cheung</b> <i>The Biological Role of DNA Methylation in Human Testicular Cancer</i>	NICHD	Dr. Owen Rennert	The Chinese University of Hong Kong, Dr. Wai-Yee Chan
<b>Megan Dennis</b> <i>Functional Characterization of the Dyslexia Candidate Gene KIAA0319</i>	NHGRI	Dr. Eric D. Green	University of Oxford , Dr. Anthony P. Monaco
<b>Stanimir Dulev</b> <i>Aspects of Regulation of Chromosomal Condensation and Segregation in Saccharomyces cerevisiae</i>	NICHD	Dr. Alexander Strunnikov	University of Plovdiv, Dr. Ivan Minkov
<b>Leah Ferrucci</b> <i>The Role of Meat, Meat Mutagens, Heme Iron, and Xenobiotic Metabolizing Genes in Neoplasia</i>	NCI-DCEG	Dr. Amanda J. Cross Dr. Barry I. Graubard Dr. Rashmi Sinha	Yale University, Dr. Susan T. Mayne, Dr. Xiaomei Ma
<b>Amrita Ghosh</b> <i>Retroviral vector targeting of constitutive and inducible genes and vector safety modifications: Implications for mechanisms of insertional oncogenesis in gene therapy</i>	NHGRI	Dr. Fabio Candotti	University of Medicine and Dentistry of New Jersey, Dr. Hua Zhu
<b>Derek E. Gildea</b> <i>Extra-toes Spotting (Xs): A Mouse Mutant Exhibiting Developmental Malformations and Disruption in Sonic Hedgehog Signaling</i>	NHGRI	Dr. Leslie G. Biesecker	The George Washington University
<b>Patricia Gonzales</b> <i>Proteomic Analysis of Human Urinary Exosomes</i>	NHLBI	Dr. Mark A. Knepper	University of Maryland, College Park, Dr. Nam Sun Wang
<b>Katherine M. Graef</b> <i>Functional Comparisons Between Human and Avian Influenza A Virus PB2 Proteins</i>	NIAID	Dr. Kanta Subbarao	University of Oxford, Dr. Ervin Fodor
<b>Sejin Han</b> <i>Bmi-1 collaborates with H-RAS to promote mammary tumorigenesis and metastasis</i>	NICHD	Dr. Sergey Leikin	University of Maryland, College Park Dr. Wolfgang Losert

Student	IC	NIH Mentor	University, University mentor
<b>Yukiko Hasumi</b>	NCI-CCR	Dr. W.Marston Linehan Dr. Laura S. Schmidt	Yokohama City University Graduate School of Medicine, Dr. N. Mizuki
<i>Analysis of Single Nucleotide Polymorphisms at 13 loci within the Transforming Growth Factor-induced Factor Gene Shows No Association with High Myopia in Japanese Subjects.</i>			
<b>Brenna Hill</b>	NIAID-VRC	Dr. Daniel Douek	The George Washington University
<i>HIV-specific CD8+ T Cell Clonality, Publicity and Function under Different Vaccination Modalities</i>			
<b>Giovanna Jaramillo Gutierrez</b>	NIAID	Dr. Carolina Barillas-Mury	Universite Libre de Bruxelles, Dr. Luc Vanhamme
<i>Identification and functional characterization of mosquito genes that affect Plasmodium development</i>			
<b>Rose-Marie Karlsson</b>	NIAAA	Dr. Andrew Holmes Dr. Jacqueline Crawley	Karolinska Institute, Dr. Markus Heilig
<i>Neuropeptide Y and Glutamate Transporter (GLAST) in Behavioral Models of Psychiatric Disorders</i>			
<b>Athena Keene</b>	NIDDK	Dr. Kenneth A. Jacobson	Johns Hopkins University
<i>The Use of Polyamidoamine (PAMAM) Dendrimers as a Method of Drug Delivery for Ligands to G Protein-Coupled Receptors (GPCRs)</i>			
<b>Edwin Lai</b>	NICHD	Dr. Karel Pacak	Georgetown University, Dr. Chris Albanese
<i>Molecular Characterization of Animal Models of Pheochromocytoma</i>			
<b>Ilya Monosov</b>	NEI	Dr. Kirk G. Thompson	Brown University, Dr. David L Sheinberg
<i>Primate frontal eye fields mediate spatial attention in covert visual search</i>			
<b>Sunni Mumford</b>	NICHD	Dr. Enrique F. Schisterman	University of North Carolina at Chapel Hill, Dr. Anna Maria Siega-Riz
<i>The Interplay Between Hormones, Lipids, and Dietary Intake: The BioCycle Study</i>			
<b>Gulcin Pekkurnaz</b>	NICHD	Dr. Joshua Zimmerberg	Ankara University, Dr. Asuman Sunguroglu
<i>The Loss of Membrane Asymmetry:from Sperm to Lipid Bilayers</i>			
<b>André Pilon</b>	NHGRI	Dr. David Bodine	The George Washington University
<i>Analysis of the Multiple Roles of the Erythroid Krüppel-Like Factor (EKLF) in Erythropoiesis</i>			
<b>Amrita Ghosh</b>	NHGRI	Dr. Fabio Candotti	University of Medicine and Dentistry of New Jersey, Dr. Hua Zhu
<i>Retroviral vector targeting of constitutive and inducible genes and vector safety modifications: Implications for mechanisms of insertional oncogenesis in gene therapy</i>			
<b>Tilman Rosales</b>	NHLBI	Dr. Jay R. Knutson	University of Maryland, College Park
<i>Applications of Multiphoton Imaging Techniques To The Study Of Protein Interactions</i>			
<b>Haris Saybasili</b>	NHLBI	Dr. Robert Lederman	Bogazici University, Dr. Cengizhan Ozturk, Dr. Ahmet Ademoglu
<i>Advanced Computational Tools for Real-Time MR Imaging</i>			
<b>Jennifer Schymick</b>	NIA	Dr. Bryan J. Traynor Dr.Andrew Singleton Dr. John Hardy	University of Oxford, Dr. Kevin Talbot, Dame Kay Davies
<i>The Genetics of Amyotrophic Lateral Sclerosis</i>			

## GPP GRADUATION AWARD RECIPIENTS

Student	IC	NIH Mentor	University, University mentor
<b>Kimberly Shafer-Weaver</b>	NCI-CCR	Dr. Arthur Hurwitz	The George Washington University <i>Provision of Antigen-Specific CD4+ T cells Prevents the Tolerization of CD8+ Tumor-Specific T cells in a Mouse Model of Prostate Cancer</i>
<b>Eugene Shenderov</b>	NIAID	Dr. Jonathan W. Yewdell Dr. Jack R. Bennink	University of Oxford, Dr. Vincenzo Cerundolo <i>In vivo and in vitro Studies of T-Cell Receptor-ligand-MHC Affinity and T-Cell Function</i>
<b>Charles Smith</b>	NIAMS	Dr. Alasdair Steven	University of Maryland, College Park <i>Scaffolding Mediated Virus Assembly: Visualization and Characterization of Bacteriophage T7 Scaffolding Protein</i>
<b>Lacey Taylor McCracken</b>	NIAID	Dr. Harlan D. Caldwell	University of Montana <i>Characterization of Chlamydia trachomatis Virulence Factors: Plasticity Zone Protein MACPF Domain Protein CT153 and Polymorphic Membrane Protein D</i>
<b>Brooke Tvermoes</b>	NIEHS	Dr. Jonathan H. Freedman	Duke University <i>The Use of Comparative Genomics to Investigate Mechanisms of Cadmium-Induced Transcription</i>
<b>Miriam Udler</b>	NHGRI	Dr. Elaine Ostrander	University of Cambridge, Dr. Douglas Easton <i>Fine-scale Mapping of Breast Cancer Susceptibility Loci</i>
<b>Tandis Vazin</b>	NIDA	Dr. William J. Freed	Royal Institute of Technology, Dr. Joakim Lundeberg <i>Generation of Dopaminergic Neurons from Human Embryonic Stem Cells</i>
<b>Philip Wang</b>	NIDCD	Dr. Robert J. Wenthold	University of Maryland, College Park <i>Molecular Mechanisms of Neuronal Development</i>
<b>Darawalee Wangsa</b>	NCI-CCR	Dr. Thomas Ried Dr. Kerstin Heselmeyer-Haddad	Karolinska Institutet <i>Molecular Profiling for Predicting Tumor Prognosis, Treatment Outcome and Progression of Squamous Cell Carcinoma</i>

# | SPEAKERS



OPENING COMMENTS

**FRANCIS S. COLLINS, M.D., PH.D., NIH DIRECTOR**

Francis S. Collins, M.D., Ph.D., was officially sworn in on Monday, August 17, 2009 as the 16th director of the National Institutes of Health (NIH). Dr. Collins was nominated by President Barack Obama on July 8, and was unanimously confirmed by the U.S. Senate on August 7.

Dr. Collins, a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the Human Genome Project, served as director of the National Human Genome Research Institute (NHGRI) at the NIH from 1993-2008. With Dr. Collins at the helm, the Human Genome Project consistently met projected milestones ahead of schedule and under budget. This remarkable international project culminated in April 2003 with the completion of a finished sequence of the human DNA instruction book.

In addition to his achievements as the NHGRI director, Dr. Collins' own research laboratory has discovered a number of important genes, including those responsible for cystic fibrosis, neurofibromatosis, Huntington's disease, a familial endocrine cancer syndrome, and most recently, genes for type 2 diabetes and the gene that causes Hutchinson-Gilford progeria syndrome.

Dr. Collins has a longstanding interest in the interface between science and faith, and has written about this in *The Language of God: A Scientist Presents Evidence for Belief* (Free Press, 2006), which spent many weeks on The New York Times bestseller list. He is the author of a new book on personalized medicine, *The Language of Life: DNA and the Revolution in Personalized Medicine* (HarperCollins, to be published in early 2010).

Dr. Collins received a B.S. in chemistry from the University of Virginia, a Ph.D. in physical chemistry from Yale University, and an M.D. with honors from the University of North Carolina at Chapel Hill. Prior to coming to the NIH in 1993, he spent nine years on the faculty of the University of Michigan, where he was a Howard Hughes Medical Institute investigator. He is an elected member of the Institute of Medicine and the National Academy of Sciences. Dr. Collins was awarded the Presidential Medal of Freedom in November 2007.

In a White House ceremony on October 7, 2009, Dr. Collins received the National Medal of Science, the highest honor bestowed on scientists by the United States government.



## PLENARY SPEAKER

**KEITH YAMAMOTO, PH.D., UNIVERSITY OF CALIFORNIA, SAN FRANCISCO**

Dr. Keith Yamamoto, Ph.D., is Professor of Cellular and Molecular Pharmacology and Executive Vice Dean of the School of Medicine at the University of California, San Francisco. He has been a member of the UCSF faculty since 1976, serving as Director of the PIBS Graduate Program in Biochemistry and Molecular Biology (1988-2003), Vice Chair of the Department of Biochemistry and Biophysics (1985-1994), Chair of the Department of Cellular and Molecular Pharmacology (1994-2003), and Vice Dean for Research, School of Medicine (2002-2003). Dr. Yamamoto's research is focused on signaling and transcriptional regulation by intracellular receptors, which mediate the actions of several classes of essential hormones and cellular signals; he uses both mechanistic and systems approaches to pursue these problems in pure molecules, cells and whole organisms. Dr. Yamamoto was a founding editor of *Molecular Biology of the Cell* and serves on numerous editorial boards and scientific advisory boards and national committees focused on public and scientific policy, public understanding and support of biological research, and science education; he chairs the Coalition for the Life Sciences (formerly the Joint Steering Committee for Public Policy) and for the National Academy of Sciences, he chairs the Board on Life Sciences. Dr. Yamamoto has long been involved in the process of peer review and the policies that govern it at the National Institutes of Health, serving as Chair of the Molecular Biology Study Section, member of the NIH Director's Working Group on the Division of Research Grants, Chair of the Advisory Committee to the NIH Center for Scientific Review (CSR), member of the NIH Director's Peer Review Oversight Group, member of the CSR Panel on Scientific Boundaries for Review, member of the Advisory Committee to the NIH Director, Co-Chair of the Working Group to Enhance NIH Peer Review, and Co-Chair of the Review Committee for the Transformational R01 Award. Dr. Yamamoto was elected as a member of the American Academy of Arts and Sciences in 1988, the National Academy of Sciences in 1989, the Institute of Medicine in 2003, and as a fellow of the American Association for the Advancement of Sciences in 2002.

## STUDENT ORAL PRESENTERS

**KERIAN BACKUS, UNIVERSITY OF OXFORD, NIAID**

Born in Seattle, Washington, Keriann Backus attended Brown University, completing a chemistry B.S. in 2007. As an undergraduate, she conducted chemistry research and was awarded a fellowship from Pfizer to support her research. Keri pursued a summer internship at Rockefeller University, where she created a fluorescent probe to study cell division. She also was a finalist for the McKnight prize in organic chemistry given by the University of Texas Southwestern Medical Center. She was a 2007 USA Today Academic All-star, recognized for her undergraduate achievements. She also was elected as a 2007 Rhodes Scholar and is currently pursuing a PhD in organic chemistry at Oxford University. She is part of the Oxford-NIH graduate partnership program and is jointly supervised by Professor Ben Davis at Oxford and Dr Clifton Barry at the NIH. Her Ph.D. project entails the development of novel, carbohydrate-based 18F-probes for PET imaging of tuberculosis. In addition to research, at Oxford she teaches a course in biological chemistry. Keriann's broader research interests encompass chemical biology and infectious disease research and treatment.

**SANDRA CHAPMAN, PENNSYLVANIA STATE UNIVERSITY, NIAID**

Sandra graduated from the University of California, Santa Barbara in 2001 with a B.A. degree in Economics. In the fall of 2004, Sandra began work on her graduate degree at Penn State University College of Medicine in the lab of Dr. Craig Meyers studying the complete life cycle of the Human Papillomavirus (HPV). In 2007, Sandra established a collaboration with Dr. Alison McBride and transferred to the NIH through the Graduate Partnership Program to continue her thesis research. Her current research focuses on understanding the immortalization process of keratinocytes, the natural host of HPV infections. Sandra presented her work at the 2009 DNA Tumor Virus Meeting at Oxford University.


**NANCY VAN PROOYEN, JOHNS HOPKINS UNIVERSITY, NCI**

Nancy graduated from Reed College in Portland, OR in 2003 with a BA in Biochemistry and Molecular Biology. After graduation, Nancy spent a year researching novel kinases associated with breast cancer at Oregon Health and Science University. In the fall of 2004, she entered Johns Hopkins University biology department and received a HHMI pre-doctoral fellowship. She joined Dr. Genoveffa Franchini's group in NCI-Vaccine Branch to work on the molecular biology of Human T-cell Leukemia/Lymphoma Virus-1 (HTLV-1). Her research focuses on non-structural viral proteins that enable the productive replication and spread of HTLV-1. She plans to graduate this upcoming spring.

## OUTSTANDING MENTOR AWARDS


**JENNIFER LEE, PH.D., NHLBI**

Jennifer began her independent research position in 2006 as a tenure-track investigator in the Laboratory of Molecular Biophysics at the National Heart, Lung, and Blood Institute, NIH. Her research is aimed at elucidating the molecular mechanisms of protein misfolding and amyloid formation, processes that have been implicated in a number of human diseases. Prior to joining the NIH intramural research program, she was a Beckman Senior Research Fellow at the Beckman Institute Laser Resource Center at the California Institute of Technology where she became interested in using fluorescence techniques to probe amyloidogenic protein conformation and dynamics. Jennifer obtained a Ph.D. in chemistry from Caltech in 2002 working in the lab of Harry Gray where she studied photochemical triggers and probes of metalloprotein folding. Jennifer has undergraduate degrees from the University of California at Berkeley in chemistry and economics.


**W. MARSTON LINEHAN, M.D., NCI**

W. Marston Linehan, M.D. is Chief of Urologic Surgery and the Urologic Oncology Branch, Center for Cancer Research, at the National Cancer Institute, National Institutes of Health, Bethesda, Maryland. He has had a long standing interest in identification of the genetic basis of cancer of the kidney. By studying patients and families with kidney cancer, his work has provided the basis for the development of new therapeutic strategies for the different types of kidney cancer based on understanding the molecular pathway of the specific cancer genes associated with the different types of kidney cancer. He and his colleagues have defined the methods for clinical management of kidney cancer associated with the hereditary forms of kidney cancer, von Hippel Lindau, Hereditary Papillary Renal Carcinoma and Birt Hogg Dubé syndrome and HLRCC.

Dr. Linehan has published more than 500 manuscripts, is a member of the Institute of Medicine of the National Academy of Science and is currently on the editorial board of 7 journals. He has received numerous honors, including the Joseph H. Burchenal Memorial Award for Outstanding Achievement in Clinical Cancer Research from the American Association of Cancer Research, the NIH Director's Award for discovery of the VHL (von Hippel Lindau) kidney cancer gene, and the Distinguished Contribution Award from the American Urological Association. He is Past-President of the Society of Urologic Oncology.


**KEIR NEUMAN, PH.D., NHLBI**

Keir grew up in Canada but moved to California to attend college. He received his BA in Physics and Applied Math from the University of California Berkeley in 1994. Keir spent an additional year in the Physics department working in the lab of Roger Falcone before starting his graduate work at Princeton. At Princeton he joined the lab of Steven Block where he used optical tweezers to study transcription. After a brief post-doc with Steve Block at Stanford, Keir joined the lab of David Bensimon and Vincent Croquette at the Ecole Normale Supérieure in Paris, France, where he used magnetic tweezers to study DNA topology and topoisomerases. In 2007 Keir joined the Laboratory of Molecular Biophysics in the NHLBI as a tenure track investigator.

| STUDENTS

## STUDENTS LISTED ALPHABETICALLY BY NAME

Poster No.	Last, First	I/C	University
92	Abraham, Brian	NHLBI	Boston University
102	Backus, Keriann	NIAID	University of Oxford
11	Barnitz, Tony	NIAID	University of Pennsylvania
81	Barr, Taura	NINR	University of Pittsburgh
56	Baxter Decker, Kimberly	NIDDK	Johns Hopkins University
34	Beauvais, Genevieve	NIDA	University Paris Descartes
82	Belgard, T Grant	NHGRI	University of Oxford
35	Bellay, Tim	NIMH	Brown University
12	Bettters, Dawn	NHLBI & NINR	University of Washington
93	Bhatia, Prateek	NIA	University of Sunderland, UK
57	Biddie, Simon	NCI-CCR	University of Bristol
58	Bricceno, Katherine	NINDS	The George Washington University
59	Callahan, Kathryn	NIDDK	Georgetown University
55	Cao, Vania	NIMH & NIAAA	Brown University
75	Case, Lindsay	NHLBI	University of North Carolina, Chapel Hill
36	Castellano, James	NIA	Mount Sinai Medical Center
37	Cea-Del Rio, Christian	NICHD	University of Valparaiso
60	Chakraborty, Arup	NCI	Texas Tech University
61	Chapman, Sandra	NIAID	Pennsylvania State University
62	Chen, Yang	NICHD	Peking University
1	Ciampa, Julia	NCI-DCEG	University of Oxford
13	Cleland, Sophia	NIAMS	The George Washington University
94	Connell-Albert, Yvette	NCI-CCR	George Mason University
2	Crooks, Dan	NICHD	Georgetown University
14	Durant, Lydia	NIAMS	University of Oxford
15	Edlich, Birgit	NIDDK	Martin Luther University
28	Fewkes, Natasha	NCI-CCR	University of Oxford
91	Figuroa, Mariel	NIAID	The George Washington University
3	Forcinito, Patricia	NICHD	Buenos Aires University, School of Pharmacy and Chemistry
63	Fufa, Temesgen	NCI-CCR	Howard University College of Medicine
16	Ghai, Mala	NHGRI	The George Washington University
17	Graves, Shawna	NIAID	University of Montana
38	Guez-Barber, Danielle	NIDA	Yale University
95	Hansen, Loren	NLM-NCBI	Boston University
103	Hanson, Sonya	NINDS	The University of Oxford
64	Hardin, Ashley	NHLBI	University of Maryland, College Park
65	Hasumi, Yukiko	NCI-CCR	Yokohama City University Graduate School of Medicine
39	Hayes, Lindsay	NICHD	Brown University
66	He, Yizhou	NCI-CCR	University of North Carolina at Chapel Hill
4	Herman, Khalisa	NICHD	University of Maryland College Park
40	Holighaus, Yvonne	NIMH	Philipps University Marburg, Germany
67	Holmes, Brad	NICHD	University of Cambridge
83	Huson, Heather	NHGRI	University of Alaska, Fairbanks
41	Hutchison, Emmette	NIA	Brown
42	Johnson, Thomas V.	NEI	University of Cambridge
96	Kainerstorfer, Jana	NICHD	University of Vienna, Austria
43	Kannan, Pavitra	NIMH	Karolinska Institutet
5	Karabanov, Anke	NINDS	Karolinska Institute
44	Kiselycznyk, Carly	NIAAA	Karolinska Institutet
45	Kwon, Deborah Y.	NINDS	Brown University

## STUDENT LISTED ALPHABETICALLY BY NAME

Poster No.	Last, First	I/C	University
68	Lee, Jeansun	NIAMS	University of Cambridge
46	Leoni, Renata	NINDS	University of Sao Paulo, Brazil
18	Li, Feng-Yen	NIAID	University of California, San Francisco
104	Luna, Augustin	NCI-CCR	Boston University
69	Masedunskas, Andrius	NIDCR	University of North Carolina at Chapel Hill
47	Panker, Stephanie Maxfield	NINDS	Georgetown University
6	Mayne, Elizabeth	NICHHD	University of Oxford
29	Mazor, Ronit	NCI-CCR	Tel Aviv University
97	Memmott, Regan	NCI-CCR	University of Cincinnati
105	Meyerson, Joel	NCI-CCR	University of Cambridge
19	Morrow, Angel N.	NIAID	Georgetown University
48	Morton, Russell A.	NIAAA	The George Washington University
84	Moshkovich, Nellie	NIDDK	University of Maryland
7	Mumford, Sunni	NICHHD	University of North Carolina
76	Musa, Shamsideen	NCI-CCR	University of Chicago
30	Naik, Shruti	NIAID	University of Pennsylvania
20	Nawaz, Fatima	NIAID	New York University
70	Nevado, Jose	NHLBI	University of the Philippines
31	Ng, Sinnie	NICHHD	The Chinese University of Hong Kong
98	Nguyen, Thao	NCI-CCR	University of Maryland, College Park
86	Nickerson, Michael	NCI-CCR	The George Washington University
21	Obara, Christopher	NIAID	Georgetown University
32	Oteng, Eugene	NIAID	University of Oxford
87	Owen, Ashley	NHGRI	Georgetown University
49	Palumbo, Sara	NIA	University of Pharmacology of Pisa, Italy
22	Perkins, Molly	NIAID-VRC	University of Oxford
99	Pfefferkorn, Candace	NHLBI	University of Maryland, College Park
77	Pouliot, Lynn M.	NCI-CCR	Georgetown University
8	Pujala, Avinash	NINDS	Brown University
88	Raza, M. Hashim	NIDCD	University of the Punjab, Lahore, Pakistan
100	Rosales, Tilman	NHLBI	University of Maryland, College Park
9	Schroeder, Jamie	NHLBI	University of Oxford
23	Sekhar, Vandana	NIAID	University of Maryland
53	Shaler, Claire	NINR	The University of Pittsburgh
78	Shao, Sichen	NICHHD	Johns Hopkins University
24	Shenderov, Kevin	NIAID	University of Oxford
71	Shive, Heather	NCI-CCR	University of Maryland
54	Shrestha, Saurav	NIMH	Karolinska Institute
72	Stagliano, Katie	NCI-CCR	George Washington
79	Stein, Erica	OD	The George Washington University
25	Steward-Tharp, Scott	NIAMS	University of Oxford
50	Stroth, Nikolas	NIMH	Philipps University Marburg, Germany
73	Szarama, Katherine	NIDCD	Karolinska Institutet
33	Thiboutot, Michelle	OD	Georgetown University
26	Van Prooyen, Nancy	NCI-CCR	Johns Hopkins University
89	Van Schaick, Jessica	NCI-CCR	The George Washington University
10	Vélez, Jorge I.	NHGRI	The George Washington University
27	Warfel, Jason	FDA-CBER	Georgetown University
74	Webster, Micah	NIDDK	Johns Hopkins University
80	Yan, Hangyi	NCI-CCR	Johns Hopkins University

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**STUDENT LISTED ALPHABETICALLY BY NAME**

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<b>Poster No.</b>	<b>Last, First</b>	<b>I/C</b>	<b>University</b>
51	Yang, Hongdian	NIMH	University of Maryland, College Park
90	Yardeni, Tal	NHGRI	Tel Aviv University
52	Zhu, Yibing	NINDS	Shanghai Second Medical University
101	Zwolak, Adam	NHLBI	New York University

# | POSTER TITLES

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POSTER TITLES

**POSTER NUMBER: 1**

**DERIVATION, EVALUATION AND APPLICATION OF A NOVEL MULTILOCUS METHOD FOR GENOME-WIDE ASSOCIATION STUDIES: IMPLICATIONS FOR ONCOGENIC POTENTIAL OF 8Q24**

*Julia Ciampa, Chris Holmes, Nilanjan Chatterjee*

Graduate Student Name: Julia Ciampa

NIH Institute-Center: NCI-DCEG

NIH Research Advisor: Dr. Nilanjan Chatterjee

Graduate University: University of Oxford

University Research Advisor: Dr. Chris Holmes

**POSTER NUMBER: 2**

**INVESTIGATING THE MECHANISM AND PATHOPHYSIOLOGY OF ISCU MYOPATHY**

*Crooks, D.R.; Haller, R.; Rouault, T.R.*

Graduate Student Name: Dan Crooks

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Tracey Rouault

Graduate University: Georgetown University

University Research Advisor: Dr. Cathy Wu

**POSTER NUMBER: 3**

**EFFECT OF NUTRITIONAL DEFICIENCY ON MOLECULAR MARKERS OF GROWTH PLATE SENESCENCE**

*P Forcinito, JCK Lui, KM Barnes, F Dominici and J Baron*

Graduate Student Name: Patricia Forcinito

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Jeffrey Baron

Graduate University: Universidad de Buenos Aires, Facultad de Farmacia y Bioquímica

(Buenos Aires University, School of Pharmacy and Biochemistry)

University Research Advisor: Dr. Fernando Dominici

**POSTER NUMBER: 4**

**REACTIVITY AND REARING INFLUENCE SOCIAL BUFFERING IN JUVENILE RHESUS MACAQUES**

*Herman, K.N., McLaughlin, S.M., Cummins, A., Delaney, D., Vaughan, K., Noble, P., Suomi, S.J., Winslow, J.T., and Nelson, E.E.*

Graduate Student Name: Khalisa Herman

NIH Institute-Center: NICHD

NIH Research Advisor: Drs. Stephen J. Suomi,

James T. Winslow, and Eric E. Nelson

Graduate University: University of Maryland, College Park

University Research Advisor: Dr. Nathan A. Fox

**POSTER NUMBER: 5**

**CHANGES IN THE POSTERIOR PARIETAL CORTEX — PRIMARY MOTOR CORTEX PATHWAY INDUCED BY MOTOR TRAINING**

*Anke Karabanov, Mark Hallett*

Graduate Student Name: Anke Karabanov

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Mark Hallett

Graduate University: Karolinska Institute

University Research Advisor: Dr. Mark Hallett Dr. Fredrik Ullén

**POSTER NUMBER: 6**

**DOPAMINE MODULATES PERSISTENT ACTIVITY, A NEURAL CORRELATE OF WORKING MEMORY**

*Elizabeth Mayne, Michael Kohl, Ed Mann, Chris McBain, & Ole Paulsen*

Graduate Student Name: Elizabeth Mayne

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Chris McBain

Graduate University: University of Oxford

University Research Advisor: Dr. Ole Paulsen

**POSTER NUMBER: 7**

**DIRECT EFFECTS OF DIETARY FIBER INTAKE ON LIPOPROTEIN CHOLESTEROL LEVELS IN PREMENOPAUSAL WOMEN**

*Mumford SL, Schisterman EF, Siega-Riz AM, Gaskins AJ, Whitcomb BW, Perkins NJ*

Graduate Student Name: Sunni Mumford

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Enrique F. Schisterman

Graduate University: University of North Carolina

University Research Advisor: Dr. Anna Maria Siega-Riz

**POSTER NUMBER: 8**

**MECHANISMS OF AFFERENT AND EFFERENT EVOKED LOCOMOTOR-LIKE ACTIVITY IN THE NEONATAL MOUSE SPINAL CORD**

*Avinash Pujala & Michael J. O'Donovan*

Graduate Student Name: Avinash Pujala

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Michael J. O'Donovan

Graduate University: Brown University

University Research Advisor: Drs. Diane Lipscombe & Barry Connors

**POSTER NUMBER: 9**

**TOPOLOGY ANALYSIS OF HYPOXIA'S METABOLIC EFFECTS USING MOTION COMPENSATION DURING HIGH RESOLUTION IN VIVO OPTICAL MICROSCOPY**

*James L. Schroeder, Merav Luger-Hamer, Randall Pursley, Peter Kellman, Robert S. Balaban*

Graduate Student Name: Jamie Schroeder

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Robert Balaban

Graduate University: University of Oxford

University Research Advisor: Dr. Kieran Clarke

**POSTER NUMBER: 10**

**FUNCTIONAL ACTIVITY QUANTIFICATION OF MUTATIONS IN THE HUMAN SIX3 GENE IN HOLOPROSENCEPHALY**

*Jorge I. Vélez, from [1] and [2] Sabina Domené, from [2] and [3] Erich Roessler, from [2] Benjamin Feldman, from [2] Maximilian Muenke, from [2] [1] GPP-NIH Graduate Student, Department of Statistics, The George Washington University, Washington DC, USA.*

Graduate Student Name: Jorge I. Vélez

NIH Institute-Center: NHGRI

NIH Research Advisor: Drs. Maximilian Muenke and Mauricio Arcos-Burgos

Graduate University: The George Washington University

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POSTER TITLES

**POSTER NUMBER: 11**

**PROTEIN KINASE A PHOSPHORYLATION ACTIVATES HIV-1 VPR CELL CYCLE ARREST**

*R. Anthony Barnitz, Fengyi Wan, Vinay Tripuraneni, Diane L. Bolton, and Michael J. Lenardo*

Graduate Student Name: Tony Barnitz

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Michael Lenardo

Graduate University: University of Pennsylvania

**POSTER NUMBER: 12**

**EXPANDED NATURAL KILLER CELLS ARE MORE SUSCEPTIBLE TO FAS MEDIATED KILLING WHEN COMPARED TO FRESH AND OVERNIGHT IL-2 ACTIVATED NATURAL KILLER CELLS**

*Dawn M. Betters, Aleah L. Smith, Maria Berg, Andreas Lundqvist, and Richard W. Childs*

Graduate Student Name: Dawn Betters

NIH Institute-Center: NHLBI and NINR

NIH Research Advisor: Dr. Richard Childs

Graduate University: University of Washington

University Research Advisor: Dr. Pamela Mitchell

**POSTER NUMBER: 13**

**CELLULAR MECHANISMS CONTRIBUTING TO THE CELL INTRINSIC DEFECT OF WISKOTT-ALDRICH SYNDROME PROTEIN (WASP) DEFICIENT CD4<sup>+</sup> T CELLS**

*Sophia Cleland and Dr. Richard Siegel*

Graduate Student Name: Sophia Cleland

NIH Institute-Center: NIAMS

NIH Research Advisor: Dr. Richard Siegel

Graduate University: The George Washington University

University Research Advisor: Dr. David Leitenberg

**POSTER NUMBER: 14**

**DIVERSE STAT3 TARGETS CONTRIBUTE TO T CELL PATHOGENICITY AND HOMEOSTASIS**

*Lydia Durant, Wendy T. Watford, Haydee L. Ramos, Lai Wei, Yuka Kanno, Arian Laurence, Hong-Wei Sun, Fiona Powrie, John O'Shea.*

Graduate Student Name: Lydia Durant

NIH Institute-Center: NIAMS

NIH Research Advisor: Dr. John O'Shea

Graduate University: University of Oxford

University Research Advisor: Prof. Fiona Powrie

**POSTER NUMBER: 15**

**DENDRITIC CELLS TRANSFECTED WITH HER2 ENCODING RNA REPLICONS INDUCE CROSS-PRESENTATION AND PROTECT MICE AGAINST TUMOR CHALLENGE**

*Birgit Edlich, Leah Hogdal, Sven-Erik Behrens, Barbara Rehermann*

Graduate Student Name: Birgit Edlich

NIH Institute-Center: NIDDK

NIH Research Advisor: Dr. Barbara Rehermann

Graduate University: Martin Luther University

University Research Advisor: Dr. Sven-Erik Behrens

**POSTER NUMBER: 16****INVESTIGATING SIGNALING DOWNSTREAM OF SLAM FAMILY MEMBERS CD84 AND LY108 IN THYMOCYTES AND ACTIVATED T CELLS**

*Mala Ghai\*<sup>^</sup>, Jennifer L. Cannons<sup>^</sup>, Pamela L. Schwartzberg<sup>^</sup> George Washington University\*, NHGRI/NIH<sup>^</sup>*

Graduate Student Name: Mala Ghai

NIH Institute-Center: NHGRI

NIH Research Advisor: Dr. Pam Schwartzberg

Graduate University: The George Washington University

University Research Advisor: Dr. David Leitenberg

**POSTER NUMBER: 17****INVESTIGATION OF S. AUREUS PVL EXPRESSION AND ACTIVITY DURING IN VITRO GROWTH**

*Shawna F. Graves, Binh A. Diep, Kevin R. Braughton, Scott D. Kobayashi, Adeline R. Whitney, Adam D. Kennedy, Henry F. Chambers, Micheal Otto, and Frank R. DeLeo*

Graduate Student Name: Shawna Graves

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Frank DeLeo

Graduate University: University of Montana

University Research Advisor: Dr. Jesse Hay

**POSTER NUMBER: 18****SEARCH FOR A MOLECULAR ETIOLOGY OF IDIOPATHIC CD4 LYMPHOPENIA**

*Feng-Yen Li, Jeremiah Davis, Netanya Sandler, Elias Haddad, Raffick Sekaly, Daniel Douek, Helen Su, Michael J. Lenardo*

Graduate Student Name: Feng-Yen Li

NIH Institute-Center: NIAID

NIH Research Advisor: Drs. Michael Lenardo and Helen Su

Graduate University: University of California, San Francisco

**POSTER NUMBER: 19****ROLE FOR ISGF3 IN THE ANTIVIRAL ACTIVITY OF INTERFERON-GAMMA**

*Angel N. Morrow, Hana Schmeisser, Takaya Tsuno, and Kathryn C. Zoon*

Graduate Student Name: Angel N. Morrow

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Kathryn C. Zoon

Graduate University: Georgetown University

**POSTER NUMBER: 20****A ROLE FOR THE GUT MUCOSAL HOMING RECEPTOR  $\alpha 4\beta 7$  IN HIV-1 TRANSMISSION**

*Fatima Nawaz, Claudia Cicala, Elena Martinelli, Jonathan P. McNally, Joseph Hiatt, Katija Jelacic, Nikita Patel, Katherine Block, Matilda Olajumoke Ogundare, Donald Van Ryk, Danlan Wei, Massimiliano Pascuccio, Anthony S. Fauci, and James Arthos*

Graduate Student Name: Fatima Nawaz

NIH Institute-Center: NIAID

NIH Research Advisor: Drs. James Arthos and Claudia Cicala

Graduate University: New York University

**POSTER NUMBER: 21****THE ROLE OF CCR2 IN MONOCYTE INFILTRATION OF THE CENTRAL NERVOUS SYSTEM DURING SEVERE WEST NILE VIRUS INFECTION**

*Christopher J. Obara, Jean K. Lim, and Phillip M. Murphy*

Graduate Student Name: Christopher Obara

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Phillip Murphy

Graduate University: Georgetown University

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POSTER TITLES

**POSTER NUMBER: 22**

**IMPACT OF GB VIRUS C (HEPATITIS G VIRUS) IN HIV-1 PATHOGENESIS**

*Molly Perkins, Danielle Himelfarb, Heather Edward, Jason Brenchley, Assan Jaye, Matthew Cotten, Jack Stapleton, Sarah Rowland-Jones, Andrew McMichael, Xiaoning Xu, Daniel Douek*

Graduate Student Name: Molly Perkins

NIH Institute-Center: NIAID-VRC

NIH Research Advisor: Dr. Daniel Douek

Graduate University: University of Oxford

University Research Advisor: Drs. Andrew McMichael and Xiaoning Xu

**POSTER NUMBER: 23**

**HITCHHIKING ON MITOTIC CHROMOSOMES; ANALYSIS OF THE HUMAN PAPILLOMAVIRUS TYPE-8 E2 GENOME TETHERING PROTEIN**

*Vandana Sekhar, Shawna C. Reed and Alison A. McBride*

Graduate Student Name: Vandana Sekhar

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Alison A McBride

Graduate University: University of Maryland

**POSTER NUMBER: 24**

**INFLAMMASOME ACTIVATION IS CRITICAL FOR COMPLETE FREUND'S ADJUVANT-INDUCED HELPER T CELL POLARIZATION**

*Kevin Shenderov, Dragana Jankovic, Dan Barber, Katrin Mayer, Giorgio Trinchieri, Vincenzo Cerundolo, and Alan Sher*

Graduate Student Name: Kevin Shenderov

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Alan Sher

Graduate University: University of Oxford

University Research Advisor: Dr. Vincenzo Cerundolo

**POSTER NUMBER: 25**

**A MOUSE MODEL OF HYPER-IGE SYNDROME (HIES)**

*Scott M. Steward-Tharp (1), Zhiyu Li (2), Susan Lim (2), Yuka Kanno (1), Nan Kuo (2), Wolfgang Resch (2), Arito Yamane (2), Hongwei Sun (3), Rafael Casellas (2), John J. O'Shea (1) (1) NIAMS/MIIB/LCBS, (2) NIAMS/LI/GI, (3) NIAMS/OST/BMDS*

Graduate Student Name: Scott Steward-Tharp

NIH Institute-Center: NIAMS

NIH Research Advisor: Drs. John J. O'Shea and Rafael Casellas

Graduate University: University of Oxford

University Research Advisor: Dr. Fiona Powrie

**POSTER NUMBER: 26**

**HTLV-I P8 PROTEIN INCREASES VIRAL TRANSMISSION VIA DOWNREGULATION OF THE IMMUNOLOGICAL SYNAPSE AND INDUCTION OF TUNNELING NANOTUBES**

*Nancy Van Prooyen, Vibeke Andresen, Heather Gold, Owen Schwartz, Steven Lockett, Prabhakar Gudla, and Genoveffa Franchini*

Graduate Student Name: Nancy Van Prooyen

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Genoveffa Franchini

Graduate University: Johns Hopkins University

**POSTER NUMBER: 27****RHO KINASE-DEPENDENT MYOSIN LIGHT CHAIN PHOSPHORYLATION MEDIATES ANTHRAX LETHAL TOXIN-INDUCED ENDOTHELIAL BARRIER DYSFUNCTION**

*Jason M. Warfel, Felice D'Agnillo*

Graduate Student Name: Jason Warfel

NIH Institute-Center: FDA-CBER

NIH Research Advisor: Dr. Felice D'Agnillo

Graduate University: Georgetown University

**POSTER NUMBER: 28****DOES IL-7 SIGNALING ON DENDRITIC CELLS REGULATE CD4<sup>+</sup> IMMUNE TOLERANCE IN THE GUT AND/OR TUMOR MICROENVIRONMENTS?**

*Natasha Fewkes, Crystal Mackall*

Graduate Student Name: Natasha Fewkes

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Crystal Mackall

Graduate University: University of Oxford

University Research Advisor: Dr. Fiona Powrie

**POSTER NUMBER: 29****PSEUDOMONAS EXOTOXIN PE38: TOOLS FOR THE GENERATION OF REDUCED IMMUNOGENIC IMMUNOTOXINS FOR CANCER IMMUNOTHERAPY**

*Mazor R., Vassall A.N., Benhar I., Pastan I.*

Graduate Student Name: Ronit Mazor

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Ira Pastan

Graduate University: Tel Aviv University

University Research Advisor: Prof. Itai Benhar

**POSTER NUMBER: 30****SKIN COMMENSAL MICROFLORA REGULATE CUTANEOUS IMMUNITY.**

*Shruti Naik, David Chou, Jason Hall, Nicolas Bouladoux, Yasmine Belkaid*

Graduate Student Name: Shruti Naik

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Yasmine Belkaid

Graduate University: University of Pennsylvania

University Research Advisor: Dr. Yasmine Belkaid

**POSTER NUMBER: 31****VIRAL INFECTION ALTERS MRNA EXPRESSION OF NUCLEAR HORMONE RECEPTORS (NRS) AND THEIR COREGULATORS IN MOUSE DENDRITIC CELLS (DCS)**

*Sinnie Sin Man Ng, Prafullakumar Tailor, Tsung-Hsien Chang, Keiko Ozato and Tomoshige Kino*

Graduate Student Name: Sinnie Ng

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Tomoshige Kino

Graduate University: The Chinese University of Hong Kong

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POSTER TITLES

**POSTER NUMBER: 32**

**APTAMER-BASED IDENTIFICATION OF STRUCTURALLY CONSERVED EPITOPES FOR VACCINES DIRECTLY TARGETING INTRAERYTHROCYTIC MALARIA PARASITES**

*Eugene K Oteng, Carole Long*

Graduate Student Name: Eugene Oteng

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Carole Long

Graduate University: University of Oxford

University Research Advisor: Dr. Chris Newbold

**POSTER NUMBER: 33**

**PROPOSAL FOR A NEW TREATMENT AGAINST CHIKUNGUNYA VIRUS**

Graduate Student Name: Michelle Thiboutot

NIH Institute-Center: OD

Graduate University: Georgetown University

**POSTER NUMBER: 34**

**THE DOPAMINE D1 ANTAGONIST, SCH23390, PROTECTS AGAINST THE TOXIC EFFECTS OF BINGE INJECTIONS OF METHAMPHETAMINE BY INHIBITING METH-INDUCED STRIATAL GENE EXPRESSION IN THE RAT.**

*Genevieve Beauvais, Subramaniam Jayanthi, Bruce Ladenheim, Michael T. McCoy, William H. Wood III, Jean Lud Cadet.*

Graduate Student Name: Genevieve Beauvais

NIH Institute-Center: NIDA

NIH Research Advisor: Drs. Jean Lud Cadet and Jayanthi Subramaniam

Graduate University: University Paris Descartes

University Research Advisor: Dr. Florence Noble

**POSTER NUMBER: 35**

**SELECTIVE SINGLE-NEURON PARTICIPATION IN NEURONAL AVALANCHES**

*Tim Bellay, Woodrow Shew, Dietmar Plenz*

Graduate Student Name: Tim Bellay

NIH Institute-Center: NIMH

NIH Research Advisor: Dr. Dietmar Plenz

Graduate University: Brown University

**POSTER NUMBER: 36**

**HIPPOCAMPAL HISTONE DEACETYLASE 2 LEVELS ARE COUPLED WITH AGE-RELATED SPATIAL MEMORY IMPAIRMENT**

*James F. Castellano<sup>1</sup>, Bonnie R. Fletcher, Surya Bhamidipaty, David H. Kim, Bennet Kelley-Bell, Evelyn Perez, Michela Gallagher, Peter R. Rapp*

Graduate Student Name: James Castellano

NIH Institute-Center: NIA

NIH Research Advisor: Dr. Peter Rapp

Graduate University: Mount Sinai Medical Center

**POSTER NUMBER: 37**

**NEUROCHEMICAL IDENTITY GOVERNS CHOLINERGIC PHENOTYPE ACROSS HIPPOCAMPAL BASKET CELL NETWORKS**

*C. Cea-Del Rio, J.J. Lawrence, L. Tricoire, F. Erdelyi, G. Szabo, and C.J. McBain*

Graduate Student Name: Christian Cea-Del Rio

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Chris McBain

Graduate University: University of Valparaiso

**POSTER NUMBER: 38**

**FLUORESCENCE ACTIVATED CELL SORTING: A NOVEL METHOD TO STUDY THE NEURONS SELECTIVELY ACTIVATED DURING COCAINE SENSITIZATION**

*Danielle Guez-Barber, Brandon K. Harvey, Christopher Cheadle, Marina R. Picciotto, Bruce T. Hope*

Graduate Student Name: Danielle Guez-Barber

NIH Institute-Center: NIDA

NIH Research Advisor: Dr. Bruce Hope

Graduate University: Yale University

University Research Advisor: Dr. Marina Picciotto

**POSTER NUMBER: 39**

**LINKING THE SHH AND GLI1 LINEAGES TO DOPAMINE NEURON DIVERSITY: DISCOVERING HOW THE SUBTYPES AND CIRCUITS ARE ESTABLISHED IN THE ADULT.**

*Lindsay Hayes, Mark Zervas, Sohyun Ahn*

Graduate Student Name: Lindsay Hayes

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Sohyun Ahn

Graduate University: Brown University

University Research Advisor: Dr. Mark Zervas

**POSTER NUMBER: 40**

**NON-CANONICAL PACAP SIGNALING TO THE STC-1 GENE: A POTENTIAL NEUROPROTECTIVE PATHWAY**

*Yvonne Holighaus, Tomris Mustafa and Lee Eiden*

Graduate Student Name: Yvonne Holighaus

NIH Institute-Center: NIMH

NIH Research Advisor: Dr. Lee E. Eiden

Graduate University: Philipps University Marburg, Germany

University Research Advisor: Prof. E. Weihe

**POSTER NUMBER: 41**

**POST-TRANSCRIPTIONAL REGULATION OF NEUROGENESIS BY MICRORNAS**

*Emmette R. Hutchison, Eitan Okun, Henriette van Praag, Mark P. Mattson*

Graduate Student Name: Emmette Hutchison

NIH Institute-Center: NIA

NIH Research Advisor: Dr. Mark P. Mattson

Graduate University: Brown University

**POSTER NUMBER: 42**

**LOCAL MESENCHYMAL STEM CELL TRANSPLANTATION CONFERS NEUROPROTECTION IN EXPERIMENTAL GLAUCOMA**

*Thomas V Johnson, Natalie D Bull, David P Hunt, Stanislav I Tomarev, Keith R Martin*

Graduate Student Name: Thomas V. Johnson

NIH Institute-Center: NEI

NIH Research Advisor: Dr. Stanislav Tomarev

Graduate University: University of Cambridge

University Research Advisor: Dr. Keith Martin

**POSTER NUMBER: 43**

**THE TRANSPORTER SELECTIVITY AND TRAPPING MECHANISM OF [<sup>11</sup>C]N-DESMETHYL-LOPERAMIDE PERMIT SPECIFIC IMAGING OF ABCB1 FUNCTION**

*Pavitra Kannan, Kyle Brimacombe, Sami Zoghbi, Jehi-San Liow, Andrew Taku, Victor Pike, Christer Halldin, Michael Gottesman, Robert Innis, Matthew Hall*

Graduate Student Name: Pavitra Kannan

NIH Institute-Center: NIMH

NIH Research Advisor: Drs. Robert Innis and Matthew Hall

Graduate University: Karolinska Institutet

University Research Advisor: Dr. Christer Halldin

**POSTER NUMBER: 44**

**CONSEQUENCES OF SELECTIVE CORTICOHIPPOCAMPAL GENE DELETION OF THE NMDA RECEPTOR NR2B SUBUNIT FOR STRESS-, ANXIETY- AND DEPRESSION-RELATED PHENOTYPES IN MICE**

*Carly L. Kiselycznyk, Jonathan L. Brigman, Andrew Holmes*

Graduate Student Name: Carly Kiselycznyk

NIH Institute-Center: NIAAA

NIH Research Advisor: Dr. Andrew Holmes

Graduate University: Karolinska Institutet

University Research Advisor: Dr. Per Svenningsson

**POSTER NUMBER: 45**

**SURVIVAL OF MOTOR NEURON PROTEIN DEGRADATION AND ITS EFFECT ON SPINAL MUSCULAR ATROPHY**

*Barrington Burnett, Deborah Kwon, Barrington Burnett, Kenneth Fischbeck*

Graduate Student Name: Deborah Y. Kwon

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Kenneth Fischbeck

Graduate University: Brown University

**POSTER NUMBER: 46**

**AGE-DEPENDENT REDUCTION IN CEREBROVASCULAR REACTIVITY TO CO<sub>2</sub> IN SPONTANEOUSLY HYPERTENSIVE RATS**

*Renata F. Leoni, Fernando F. Paiva, Draulio B. de Araujo, and Afonso C. Silva*

Graduate Student Name: Renata Leoni

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Afonso C. Silva

Graduate University: University of Sao Paulo - Brazil

University Research Advisor: Dr. Draulio Barros de Araujo

**POSTER NUMBER: 47**

**EFFECTS OF ANODAL TRANSCRANIAL DIRECT CURRENT STIMULATION ON THREE-DIMENSIONAL UPPER EXTREMITY TRAINING AFTER STROKE — PRELIMINARY DATA**

*Stephanie N. Maxfield Panker, Heidi M. Schambra, Sunbin S. Song, Alissa Fourkas, Leonardo G. Cohen*

Graduate Student Name: Stephanie Maxfield Panker

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Leonardo Cohen

Graduate University: Georgetown University

University Research Advisor: Dr. John VanMeter

**POSTER NUMBER: 48**

**CONSTITUTIVE AND AGONIST MODULATED INTERNALIZATION OF RECOMBINANT 5-HT3A RECEPTORS**

*Russell A. Morton, Tim G. Hales, and David M. Lovinger*

Graduate Student Name: Russell A. Morton

NIH Institute-Center: NIAAA

NIH Research Advisor: Dr. David Lovinger

Graduate University: The George Washington University

University Research Advisor: Dr. Tim Hales

**POSTER NUMBER: 49**

**MULTIPLE ENZYMES INVOLVED IN AA METABOLISM ARE DYNAMICALLY ALTERED IN SPECIFIC CELL TYPES IN THE MOUSE CORTEX DURING DEMYELINATION AND REMYELINATION IN THE CUPRIZONE MODEL**

*Sara Palumbo, Christopher D. Toscano, Laura Parente, Roberto Weigert, Francesca Bosetti*

Graduate Student Name: Sara Palumbo

NIH Institute-Center: NIA

NIH Research Advisor: Dr. Francesca Bosetti

Graduate University: University of Pharmacology of Pisa, Italy

**POSTER NUMBER: 50**

**THE NEUROPEPTIDE PACAP REGULATES THE RESPONSE TO METABOLIC AND PSYCHOLOGICAL STRESSORS AT MULTIPLE LEVELS OF THE STRESS AXIS**

*Nikolas Stroth, Lee E. Eiden*

Graduate Student Name: Nikolas Stroth

NIH Institute-Center: NIMH

NIH Research Advisor: Dr. Lee E. Eiden

Graduate University: Philipps University Marburg, Germany

University Research Advisor: Prof. Dr. Eberhard Weihe

**POSTER NUMBER: 51**

**PHASE SYNCHRONY OF NEURONAL DYNAMICS UNDERGOES A CRITICAL POINT OF A CONTINUOUS PHASE TRANSITION**

*Hongdian Yang, Woodrow Shew, Rajarshi Roy, Dietmar Plenz*

Graduate Student Name: Hongdian Yang

NIH Institute-Center: NIMH

NIH Research Advisor: Dr. Dietmar Plenz

Graduate University: University of Maryland, College Park

University Research Advisor: Dr. Rajarshi Roy

**POSTER NUMBER: 52**

**IMPACT OF INCREASED AXONAL MITOCHONDRIAL MOBILITY ON PATHOGENESIS OF SOD1 G93A ALS MOUSE MODEL**

*Yibing Zhu, Zuhang Sheng*

Graduate Student Name: Yibing Zhu

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Zuhang Sheng

Graduate University: Shanghai Second Medical University

**POSTER NUMBER: 53**

**A PROPOSED STUDY FOR THE INVESTIGATION OF THE PATHOPHYSIOLOGY AND GENE EXPRESSION OF DELIRIUM IN THE ICU.**

Graduate Student Name: Claire Shaler

NIH Institute-Center: NINR

Graduate University: The University of Pittsburgh

University Research Advisor: Dr. Rick Henker

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POSTER TITLES

**POSTER NUMBER: 54**

**IN VIVO AND IN VITRO MEASUREMENTS OF SEROTONINERGIC TRANSMISSION IN MONKEY BRAIN: EFFECTS OF REARING AND ANTIDEPRESSANT ADMINISTRATION.**

*Robert Innis, Per Svenningsson, James Winslow, Eric Nelson, Daniel Pine, Saurav Shrestha*

Graduate Student Name: Saurav Shrestha

NIH Institute-Center: NIMH

NIH Research Advisor: Drs. Robert Innis, Per Svenningsson, and Sanford Markey

Graduate University: Karolinska Institute

**POSTER NUMBER: 55**

**CHANGES IN FRONTAL CORTICAL CIRCUIT DYNAMICS DURING BEHAVIOR**

*Vania Cao, Kuan Wang, Rui Costa*

Graduate Student Name: Vania Cao

NIH Institute-Center: NIMH & NIAAA

NIH Research Advisor: Drs. Kuan Wang & Rui Costa

Graduate University: Brown University

**POSTER NUMBER: 56**

**INVESTIGATING THE MECHANISM OF FIM GENE ACTIVATION IN BORDETELLA PERTUSSIS**

*Kimberly Baxter Decker, Qing Chen, Philip Boucher, Scott Stibitz, Deborah Hinton*

Graduate Student Name: Kimberly Baxter Decker

NIH Institute-Center: NIDDK

NIH Research Advisor: Dr. Deborah M Hinton

Graduate University: Johns Hopkins University

**POSTER NUMBER: 57**

**THE TRANSCRIPTION FACTOR AP-1 DIRECTS NUCLEAR RECEPTOR BINDING TO CHROMATIN GENOME-WIDE**

*Biddie SC, John S, Sabo PJ, Thurman RE, Schiltz RL, Johnson TA, Sung MH, Vinson C, Stamatoyannopoulos JA and Hager GL*

Graduate Student Name: Simon Biddie

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Gordon L. Hager

Graduate University: University of Bristol

**POSTER NUMBER: 58**

**THE ROLE OF MUSCLE IN SPINAL MUSCULAR ATROPHY**

*Katherine Bricceno, Barrington Burnett, Terrence Partridge, Kenneth Fischbeck*

Graduate Student Name: Katherine Bricceno

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Kenneth Fischbeck

Graduate University: The George Washington University

University Research Advisor: Drs. Eric Hoffman and Terrence Partridge

**POSTER NUMBER: 59**

**STRUCTURE AND FUNCTION OF THE ORF1P FROM THE LINE-1 RETROTRANSPOSON**

*Kathryn Callahan, Charlie Jones, Alison Hickman, and Anthony Furano*

Graduate Student Name: Kathryn Callahan

NIH Institute-Center: NIDDK

NIH Research Advisor: Drs. Anthony Furano, Fred Dyda, and Alison Hickman

Graduate University: Georgetown University

University Research Advisor: Dr. Hiroshi Nakai

**POSTER NUMBER: 60****DETERMINATION OF THE SENSITIVITY OF LUNG CANCER CELLS TO ROMIDEPSIN COMBINED WITH SRC INHIBITORS**

*Arup R. Chakraborty, Robert Robey, Nathan L. Collie, Susan E Bates*

Graduate Student Name: Arup Chakraborty

NIH Institute-Center: NCI

NIH Research Advisor: Dr. Susan Bates

Graduate University: Texas Tech University

University Research Advisor: Dr. Nathan Collie

**POSTER NUMBER: 61****HUMAN KERATINOCYTES ARE IMMORTALIZED BY INHIBITION OF THE RHO KINASE, ROCK**

*Sandra Chapman, Xuefeng Liu, Richard Schlegel and Alison A. McBride*

Graduate Student Name: Sandra Chapman

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Alison McBride

Graduate University: Pennsylvania State University

University Research Advisor: Dr. Craig Meyers

**POSTER NUMBER: 62****INTRODUCTION OF LEGIONELLA PNEUMOPHILA LIDA WITH THE HOST CELL GTPASE RAB6**

*Yang Chen and Matthias Machner*

Graduate Student Name: Yang Chen

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Matthias Machner

Graduate University: Peking University

University Research Advisor: Dr. Yang Ke

**POSTER NUMBER: 63****THE HUMAN ELEVEN-NINETEEN LYSINE-RICH LEUKEMIA GENE (ELL) FORMS A MULTI-COMPONENT TRANSCRIPTION FACTOR COMPLEX CONTAINING P300 AND P-TEFB**

*Temesgen Fufa, Clay Wakano, Jung Byun, Cynthia Haggerty, Kojo Elenitoba-Johnson, Michael Thirman, and Kevin Gardner*

Graduate Student Name: Temesgen Fufa

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Kevin Gardner

Graduate University: Howard University College of Medicine

University Research Advisor: Dr. Carolyn Broome

**POSTER NUMBER: 64****DETERMINING THE ROLE OF DNA BENDING IN TOPOLOGY SIMPLIFICATION BY TYPE II TOPOISOMERASES**

*Ashley H. Hardin, Grace F. Liou, Neil Osheroff, Keir C. Neuman*

Graduate Student Name: Ashley Hardin

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Keir Neuman

Graduate University: University of Maryland, College Park

University Research Advisor: Dr. Dave Thirumalai

**POSTER NUMBER: 65**

**HOMOZYGOUS LOSS OF BHD CAUSES EARLY EMBRYONIC LETHALITY AND KIDNEY TUMOR DEVELOPMENT WITH ACTIVATION OF MTORC1 AND MTORC2**

*Yukiko Hasumi, Masaya Baba, Rieko Ajima, Hisashi Hasumi, Vladimir R. Valera, Mara E. Klein, Diana C. Haines, Maria J. Merino, Seung-Beom Hong, Terry P. Yamaguchi, Laura S. Schmidt, W. Marston Linehan*

Graduate Student Name: Yukiko Hasumi

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Drs. W. Marston Linehan and Laura S. Schmidt

Graduate University: Yokohama City University Graduate School of Medicine

**POSTER NUMBER: 66**

**AURA PHOSPHORYLATE P53 AND PROMOTE P53 DEGRADATION BY CUL4-VPRBP-BUB3 E3 UBIQUITIN LIGASE LICENSING CYTOKINESIS.**

*Yizhou Joseph He, Lucy Lu, Sarah Jackson, Yue Xiong and Terry Van Dyke*

Graduate Student Name: Yizhou He

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Terry Van Dyke

Graduate University: University of North Carolina at Chapel Hill

**POSTER NUMBER: 67**

**ANALYSIS OF EXTENSIVE RNA/DNA HYBRIDS IN THE REPLICATING MAMMALIAN MITOCHONDRIAL GENOME**

*J. Bradley Holmes, Jaakko L. O. Pohjoismäki, Ming-Yao Yang, Takehiro Yasukawa, Tricia J. Cluett, Aurelio Reyes, Steffi Goffart, Smaranda Willcox, Rachel E. Rigby, Andrew P. Jackson, Johannes N. Spelbrink, Jack D. Griffith, Robert J. Crouch, Howard T. Jaco*

Graduate Student Name: Brad Holmes

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Robert J. Crouch

Graduate University: University of Cambridge

University Research Advisor: Dr. Ian J. Holt

**POSTER NUMBER: 68**

**REGULATION OF FAS LIGAND INTRACELLULAR TRAFFICKING AND FUNCTION IN T LYMPHOCYTES**

*Jeansun Lee, Gillian Griffiths, and Richard Siegel*

Graduate Student Name: Jeansun Lee

NIH Institute-Center: NIAMS

NIH Research Advisor: Dr. Richard Siegel

Graduate University: University of Cambridge

University Research Advisor: Dr. Gillian Griffiths

**POSTER NUMBER: 69**

**GRANULE EXOCYTOSIS IN THE SALIVARY GLANDS OF LIVE MICE OCCURS VIA ACTO-MYOSIN ASSOCIATED FUSION EVENTS NOT INVOLVING COMPOUND EXOCYTOSIS**

*Andrius Masedunskas and Roberto Weigert*

Graduate Student Name: Andrius Masedunskas

NIH Institute-Center: NIDCR

NIH Research Advisor: Dr. Roberto Weigert

Graduate University: University of North Carolina at Chapel Hill

**POSTER NUMBER: 70****TGF-BETA SIGNALING INDUCES ENDOTHELIAL TO MESENCHYMAL TRANSITION DURING VASCULAR REMODELING IN A MURINE VEIN GRAFT MODEL**

*Jose Nevado Jr., Brian Cooley, Jason Mellad, Cynthia St. Hilaire, Hong San, Leilani E. Beltran, Andrew Wragg, Colin Berry, Jason C Kovacic and Manfred Boehm*

Graduate Student Name: Jose Nevado

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr Manfred Boehm

Graduate University: University of the Philippines

University Research Advisor: Dr. Cynthia P. Saloma

**POSTER NUMBER: 71****BRCA2 IN ZEBRAFISH GONADAL DEVELOPMENT**

*Shive HR1, West RR1, Embree LJ1, Sood R2, Hickstein DD1 1. Experimental Transplantation and Immunology Branch, National Cancer Institute, 2. Zebrafish Core Facility, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD*

Graduate Student Name: Heather Shive

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Dennis Hickstein

Graduate University: University of Maryland

University Research Advisor: Dr. Siba Samal

**POSTER NUMBER: 72****CONSTITUTIVELY ACTIVE STAT3 INDUCES NEOPLASIA IN MOUSE PROSTATE**

*Katherine Stagliano, Jami Willette-Brown, Arthur A. Hurwitz*

Graduate Student Name: Katie Stagliano

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Andy Hurwitz

Graduate University: The George Washington University

**POSTER NUMBER: 73****THYROID HORMONE MEDIATES FGFR3 SIGNALING IN THE DEVELOPING COCHLEA**

*Katherine B. Szarama, Chandrakala Puligilla, Nuria Gavara, Richard S. Chadwick, Matthew W. Kelley*

Graduate Student Name: Katherine Szarama

NIH Institute-Center: NIDCD

NIH Research Advisor: Drs. Richard S. Chadwick and Matthew W Kelley

Graduate University: Karolinska Institutet

**POSTER NUMBER: 74****AN UNEXPECTED ROLE FOR LATE GOLGI TRAFFICKING IN MAINTENANCE OF YEAST NUCLEAR SHAPE**

*Micah Webster, Joe Campbell, Orna Cohen-Fix*

Graduate Student Name: Micah Webster

NIH Institute-Center: NIDDK

NIH Research Advisor: Dr. Orna Cohen-Fix

Graduate University: Johns Hopkins University

**POSTER NUMBER: 75****CHARACTERIZATION OF INTEGRIN "PUFFS": A DYNAMIC SUBSET OF ECM-BOUND INTEGRINS IN ADHERENT TISSUE CELLS THAT ARE NOT ASSOCIATED WITH FOCAL ADHESIONS**

*Lindsay Case and Clare Waterman*

Graduate Student Name: Lindsay Case

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Clare Waterman

Graduate University: University of North Carolina at Chapel Hill

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POSTER TITLES

**POSTER NUMBER: 76**

**UNCOVERING THE MECHANISM OF VITAMIN D AND NSAID COMBINATION THERAPY IN PROSTATE CANCER**

*Shamsideen Musa, R. Scott Hudson, Tiffany Wallace, Tiffany Howe, Steves Tietcheu, Rick Kittles, Stefan Ambs*

Graduate Student Name: Shamsideen Musa

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Stefan Ambs

Graduate University: University of Chicago

University Research Advisor: Dr. Rick Kittles

**POSTER NUMBER: 77**

**MIR-181 OVER-EXPRESSION IN CISPLATIN RESISTANCE CELLS**

*Lynn M. Pouliot, Jean-Pierre Gillet, Matthew D. Hall, Ding-Wu Shen, Michael M. Gottesman*

Graduate Student Name: Lynn M. Pouliot

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Micheal Gottesman

Graduate University: Georgetown University

**POSTER NUMBER: 78**

**A NOVEL PATHWAY FOR THE TRANSLOCATION OF UNUSUALLY SMALL PROTEINS**

*Sichen Shao and Ramanujan S. Hegde*

Graduate Student Name: Sichen Shao

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Ramanujan S. Hegde

Graduate University: Johns Hopkins University

**POSTER NUMBER: 79**

**PDGF-C EXPRESSION IN MEDULLOBLASTOMAS**

*Erica V Stein, Huizhen Zhang, and Brian Rood*

Graduate Student Name: Erica Stein

NIH Institute-Center: OD

Graduate University: The George Washington University

University Research Advisor: Dr. Brian Rood

**POSTER NUMBER: 80**

**THE CROSSTALK BETWEEN 4T1 TUMOR CELLS AND MYELOID IMMUNE SUPPRESSOR CELLS (MISCS)**

*Hangyi Yan, Li Yang*

Graduate Student Name: Hangyi Yan

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Li Yang

Graduate University: Johns Hopkins University

**POSTER NUMBER: 81**

**INFLAMMATORY REGULATION AS A BIOMARKER OF ISCHEMIC STROKE DIAGNOSIS**

*Taura Barr, Yvette Conley, Allissa Dillman, Jinhui Ding, Steven Warach, Andrew Singleton, Mar Matarin*

Graduate Student Name: Taura Barr

NIH Institute-Center: NINR

NIH Research Advisor: Drs. Steven Warach and Andrew Singleton

Graduate University: University of Pittsburgh

University Research Advisor: Dr. Yvette Conley

**POSTER NUMBER: 82****TRANSCRIPTOME-WIDE FUNCTIONAL ANATOMY OF MOUSE CORTICAL LAYERING REVEALED THROUGH DEEP SEQUENCING**

*T Grant Belgard, Zoltan Molnar, Hatice Ozel Abaan, Tamara Sirey, Elliott Margulies, Chris Ponting*

Graduate Student Name: T Grant Belgard

NIH Institute-Center: NHGRI

NIH Research Advisor: Dr. Elliott Margulies

Graduate University: University of Oxford

University Research Advisor: Dr. Chris Ponting

**POSTER NUMBER: 83****THE ALASKAN SLED DOG; BREED AND PERFORMANCE ON A GENETIC LEVEL**

*Huson, Heather J., Parker, Heidi G., Runstadler, Jonathan, Ostrander, Elaine A.*

Graduate Student Name: Heather Huson

NIH Institute-Center: NHGRI

NIH Research Advisor: Dr. Elaine Ostrander

Graduate University: University of Alaska, Fairbanks

University Research Advisor: Dr. Jonathan Runstadler

**POSTER NUMBER: 84****HP1 RECRUITMENT IN THE ABSENCE OF ARGONAUTE PROTEINS IN DROSOPHILA**

*Nellie Moshkovich and Elissa P. Lei*

Graduate Student Name: Nellie Moshkovich

NIH Institute-Center: NIDDK

NIH Research Advisor: Dr. Elissa P. Lei

Graduate University: University of Maryland

University Research Advisor: Dr. David O'Brochta

**POSTER NUMBER: 86****EXOME AND TRANSCRIPTOME SEQUENCING OF HUMAN TUMORS AND TUMOR-DERIVED CELL LINES**

*Nickerson ML, McGee K, Gold B, Volfovsky N, Lawley C, Tran B, Smith M, Stewart C, Fredrikson K, Bouffard P, Boese B, Waldman F, Harkins T, Zbar B, Moore LE, Dean M*

Graduate Student Name: Michael Nickerson

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Michael Dean

Graduate University: The George Washington University

University Research Advisor: Drs. Mary Ann Stepp and Norman Lee

**POSTER NUMBER: 87****LOCAL AND DISTANT ELEMENTS REGULATE TISSUE-SPECIFIC EXPRESSION OF ANK-1 GENE TRANSCRIPTS**

*Nancy Seidel, Amanda Cline, Jolinta Lin, Andre Pilon, Jun Cheng, Lisa Garrett, Patrick Gallagher, David Bodine*

Graduate Student Name: Ashley Owen

NIH Institute-Center: NHGRI

NIH Research Advisor: Dr. David Bodine

Graduate University: Georgetown University

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**POSTER TITLES**

**POSTER NUMBER: 88**

**GENETIC STUDIES OF STUTTERING**

*M. Hashim Raza, Joseph Lukong, Sheikh Riazuddin and Dennis Drayna*

Graduate Student Name: M. Hashim Raza

NIH Institute-Center: NIDCD

NIH Research Advisor: Dr. Dennis Drayna

Graduate University: University of Punjab, Lahore, Pakistan

University Research Advisor: Dr. Sheikh Riazuddin

**POSTER NUMBER: 89**

**IDENTIFYING MODIFIER GENES OF MPNSTS IN THE NF1;P53CIS MOUSE MODEL OF NEUROFIBROMATOSIS TYPE 1.**

*Jessica Van Schaick, Keiko Akagi, Christina DiFabio, Robert Tuskan, Norman Lee, Karlyne Reilly*

Graduate Student Name: Jessica Van Schaick

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Karlyne Reilly

Graduate University: The George Washington University

University Research Advisor: Dr. Norman Lee

**POSTER NUMBER: 90**

**EVALUATION OF GENE THERAPY FOR HEREDITARY INCLUSION BODY MYOPATHY (HIBM) USING GNE-LIPOPLEX**

*Tal Yardeni, Carla Ciccone, Justin Poling, Lisa Vincent, Katherine Patzel, Shelley Hoogstraten-Miller, Theresa Ferrine, Daniel Darvish, Yair Anikster, John Nemunaitis, Phil Maples, Chris Jay, William A Gahl, Marjan Huizing*

Graduate Student Name: Tal Yardeni

NIH Institute-Center: NHGRI

NIH Research Advisor: Drs. William A. Gahl and Marjan Huizing

Graduate University: Tel - Aviv University

University Research Advisor: Dr. Yair Anikster

**POSTER NUMBER: 91**

**IN SEARCH OF NOVEL ANTIGENS FOR AN ANTI-HOOKWORM VACCINE: THE CEPHALIC AND ESOPHAGEAL GLANDS MAY HOLD THE KEY.**

*Mariel Figueroa and Jesus G. Valenzuela*

Graduate Student Name: Mariel Figueroa

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Jesus G. Valenzuela

Graduate University: The George Washington University

University Research Advisor: Dr. Peter J. Hotez

**POSTER NUMBER: 92**

**K-PEAD: THE KEGG PATHWAY ENRICHMENT ANALYSIS DATABASE**

*Brian Abraham, Lisa Pham*

Graduate Student Name: Brian Abraham

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Keji Zhao

Graduate University: Boston University

University Research Advisor: Drs. Eric Kolaczyk and Scott Schaus

**POSTER NUMBER: 93****IMMOBILIZED MEMBRANE BASED AFFINITY CHROMATOGRAPHY FOR STUDYING ABC TRANSPORTER – DRUG INTERACTIONS.**

*Prateek Bhatia, Ruin Moaddel and Irving W. Wainer*

Graduate Student Name: Prateek Bhatia

NIH Institute-Center: NIA

NIH Research Advisor: Dr. Irving W. Wainer

Graduate University: University of Sunderland, UK

University Research Advisor: Dr. John W. Lough

**POSTER NUMBER: 94****PI-103 AND TCN AS PROLIFERATIVE INHIBITORS OF THE RTK/PI3K/ATK SIGNALING PATHWAYS IN ASTROCYTOMAS**

*Yvette Connell-Albert, Demir Gursel, Robert Tuskan, Theonie Anastassiadis, Jessica Hawes, Jessica Van Schaick, and Karlyne Reilly.*

Graduate Student Name: Yvette Connell-Albert

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Karlyne Reilly

Graduate University: George Mason University

University Research Advisor: Dr. Ancha Baranova

**POSTER NUMBER: 95****SEQUENCE SPECIFIC CHROMATIN MODIFYING PROTEINS BINDING MOTIFS SHOW STRONG POSITIONAL PREFERENCES FOR POTENTIAL REGULATORY REGIONS.**

*Loren Hansen, Leonardo Mariño-Ramírez and David Landsman*

Graduate Student Name: Loren Hansen

NIH Institute-Center: NLM-NCBI

NIH Research Advisor: Dr. David Landsman

Graduate University: Boston University

**POSTER NUMBER: 96****QUANTITATIVE MULTI-SPECTRAL IMAGING OF SKIN CHROMOPHORES**

*Jana Kainerstorfer, Jason Riley, Franck Amyot, Victor Chernomordik, Hassan Moinuddin, Christoph Hitzenberger, Amir Gandjbakhche*

Graduate Student Name: Jana Kainerstorfer

NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Amir Gandjbakhche

Graduate University: University of Vienna, Austria

University Research Advisor: Dr. Christoph Hitzenberger

**POSTER NUMBER: 97****METFORMIN, AN ANTI-DIABETIC DRUG THAT MODULATES THE AMPK/MTOR PATHWAY, PREVENTS TOBACCO-CARCINOGEN INDUCED LUNG TUMORIGENESIS**

*Regan M. Memmott, Jose R. Mercado, Colleen R. Maier, Shigeru Kawabata, Stephen D. Fox, and Phillip A. Dennis*

Graduate Student Name: Regan Memmott

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Phillip A. Dennis

Graduate University: University of Cincinnati

**POSTER NUMBER: 98**

**TRIGGERED RELEASE VIA X-RADIATION BY GOLD EMBEDDED MAGNETIC SILICA NANOTUBES FOR TARGETED DRUG DELIVERY**

*Sung Kyoung Kim*<sup>1</sup>, *Gabriela Kramer-Marek*<sup>2</sup>, *Jacek Capala*<sup>2</sup> and *Sang Bok Lee*<sup>1</sup> Department of Chemistry and Biochemistry, University of Maryland (1) National Institutes of Health, National Cancer Institute, Bethesda, MD (2)

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Jacek Capala

Graduate University: University of Maryland, College Park

University Research Advisor: Dr. Sang Bok Lee

**POSTER NUMBER: 99**

**FLUORESCENT PROBES OF MEMBRANE-BOUND  $\alpha$ -SYNUCLEIN: INSIGHTS INTO THE ROLE OF MEMBRANES IN AGGREGATION**

*Candace M. Pfefferkorn and Jennifer C. Lee*

Graduate Student Name: Candace Pfefferkorn

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Jennifer C. Lee

Graduate University: University of Maryland, College Park

**POSTER NUMBER: 100**

**G-QUADRUPLEX FOLDING OBSERVED BY TWO PHOTON FLUORESCENCE CORRELATION SPECTROSCOPY AND DUAL TIME SCALE PHOTON CORRELATION**

*Tilman Rosales*(1), *Lesley Davenport*(2) and *Jay R. Knutson*(1). 1 Optical Spectroscopy Section, LMB, NHLBI, NIH, 2 Brooklyn College of CUNY, Dept. of Chemistry

Graduate Student Name: Tilman Rosales

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Jay R Knutson

Graduate University: University of Maryland, College Park

**POSTER NUMBER: 101**

**STRUCTURAL BASIS FOR ACTIN CAPPING PROTEIN SEQUESTRATION BY MYOTROPHIN (V1)**

*Adam Zwolak, Ikuko Fujiwara, John A. Hammer III, Nico Tjandra*

Graduate Student Name: Adam Zwolak

NIH Institute-Center: NHLBI

NIH Research Advisor: Dr. Nico Tjandra

Graduate University: New York University

**POSTER NUMBER: 102**

**INCORPORATION OF TREHALOSE ANALOGS INTO MYCOBACTERIUM TUBERCULOSIS BY ANTIGEN 85: NOVEL PROBES OF BACTERIAL INFECTION**

*Keriann Backus, Conor Barry, Helena Boshoff, Omar Boutureira, Mitul Patel, Francois D'Hooge, Seung Lee, Laura Via, Danielle Weiner, Kapil Tahlan, Ben Davis and Clifton Barry III.*

Graduate Student Name: Keriann Backus

NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Clifton E. Barry, III

Graduate University: University of Oxford

University Research Advisor: Prof. Benjamin G. Davis

**POSTER NUMBER: 103**

**STRUCTURAL AND FUNCTIONAL STUDIES OF A TRP CHANNEL TRANSMEMBRANE SENSORY DOMAIN**

*Graduate Student Name: Sonya Hanson*

NIH Institute-Center: NINDS

NIH Research Advisor: Dr. Kenton Swartz

Graduate University: University of Oxford

University Research Advisor: Prof. Mark Sansom

**POSTER NUMBER: 104**

**A SPECIFICATION FOR THE MOLECULAR INTERACTION MAP (MIM) NOTATION**

*Augustin Luna, Itir Karac, Mirit Aladjem, Kurt Kohn*

Graduate Student Name: Augustin Luna

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Mirit Aladjem

Graduate University: Boston University

**POSTER NUMBER: 105**

**STUDYING HIV-1 NEUTRALIZATION ESCAPE AND ITS PROTEOMIC PROFILE USING CRYO-ELECTRON TOMOGRAPHY AND QUANTITATIVE MASS SPECTROMETRY**

*Joel R Meyerson, John E Walker, Sriram Subramaniam*

Graduate Student Name: Joel Meyerson

NIH Institute-Center: NCI-CCR

NIH Research Advisor: Dr. Sriram Subramaniam

Graduate University: University of Cambridge

University Research Advisor: Prof. John Walker

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