8TH ANNUAL

NIH GRADUATE STUDENT RESEARCH SYMPOSIUM

THE FACES OF TOMORROW'S SCIENCE

January 11, 2012 / 9am-4pm Natcher Conference Center

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

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

FOREWORD

WELCOME TO THE EIGHTH ANNUAL NIH GRADUATE STUDENT RESEARCH SYMPOSIUM

The annual NIH Graduate Student Research Symposium is a cornerstone of the Graduate Partnerships Program (GPP) and graduate student life at the NIH. Now in its 8th year, the Symposium is poised to continue the longstanding tradition of showcasing the highest level graduate student research GPP students have to offer. The Symposium continues to be a celebration of our work and an exchange of experiences and expertise.

The vibrant graduate student community at the NIH comprises over 500 students representing more than 100 universities from around the world. The Symposium is one of the major conduits by which we graduate students are able to showcase our research accomplishments. The event has grown significantly over the years, and this year, we have 127 students presenting posters. Graduate students represent work from nearly all NIH institutes and centers and encompass all stages of graduate research from new proposals to dissertation projects. These posters are the backbone of the Symposium as they allow us to share our interests and accomplishments with the larger NIH community.

We would be remiss to not recognize the Office of Intramural Training and Education (OITE) for their ceaseless assistance. It is with their unwavering support that we are able to present twelve \$1,000 travel awards to the best poster presentations at this year's Symposium. Over the history of the Symposium, these awards have helped GPP students gain invaluable experiences and allowed them to present their work to audiences around the world.

In addition to the poster presentations, we have arranged for notable speakers to share their work and visions with us. We are pleased to have Dr. Harold Varmus, M.D., Nobel Laureate, former Director of the NIH, and current Director of the National Cancer Institute to give our opening address. Dr. Varmus is one of the original architects of the GPP, and his insights into science and graduate student education will be inspiring to us all. This year's keynote address will be given by Dr. Paolo Sassone-Corsi, Ph.D., Director of the Center for Epigenetics and Metabolism at the School of Medicine of the University of California at Irvine. His work on the molecular mechanisms for the regulation of gene expression is highly relevant to a wide variety of scientific disciplines. In addition, graduate students Jessica Keffer, Feng-Yen Li, Jaime Ross, and Jason Chang Yi have been selected from a competitive pool of candidates to present their thesis research.

To celebrate those who have graduated from their respective partner schools this past calendar year, Dr. Sharon Milgram, Director of OITE, and Dr. Michael Gottesman, Deputy Director for Intramural Research, will be presenting recent graduates with a certificate in honor of their accomplishment. Additionally, we will honor three outstanding mentors who were nominated by their students in recognition of the guidance they have received during their tenure at NIH.

The theme for this year's Symposium is "The Faces of Tomorrow's Science." We thank the GPP graduate students who are these faces for exhibiting their outstanding research, the visitors to our Symposium who interact and exchange ideas with the graduate students, and the supporters of our journeys through graduate school who have given us advantageous opportunities in this trek toward Tomorrow and its Science.

The 8th Annual NIH Graduate Student Research Symposium Planning Committee

Brian Abraham, Boston University / NHLBI Vania Cao, Brown University / NIMH Lindsay Case, University of North Carolina at Chapel Hill / NHLBI Jessica Keffer, Georgetown University / NIDDK Deborah Kwon, Brown University / NINDS Augustin Luna, Boston University / NCI Lynn Pouliot, Georgetown University / NCI

ACKNOWLEDGEMENTS

We would like to acknowledge Dr. Phil Ryan and Dr. Shauna Clark for organizing and spearheading the Symposium poster session. This is a large task with many student posters, and we are grateful for their initiative and organizational skills. We would also like to thank all of the postdoctoral fellow and staff scientist judges; without you, we would not be able to have a poster competition. Our heartfelt appreciation also goes to the Graduate Student Council (GSC), the GPP Partnership Directors, the NIH Fellows Committee (FelCom), and the Post-baccalaureate IRTA Committee for their support of the symposium and the graduate community. Furthermore, we would like to thank the Office of Intramural Training and Education (OITE) for providing the travel awards, and the Foundation for Advanced Education in the Sciences (FAES) for providing lunch and refreshments. Kristen Perkins and Alexis Boyd, current co-chairs of the GSC, spent many long hours reading all the Outstanding Mentor Awards, and their dedication allowed us to honor three fantastic mentors today, and for that, they deserve our gratitude. In addition, we would also like to thank all the NIH mentors, who support graduate student research on a daily basis. We may be the "faces of tomorrow's science", but without our mentors, we wouldn't be able to do our science today. Congratulations to the students participating in this year's graduation ceremony. Best of luck to you all—we look forward to hearing about your future accomplishments!

Finally, we would like to thank Dr. Philip Wang, Dr. Pat Phelps, Dr. Sharon Milgram, and all the amazing individuals in the OITE Office for helping with every aspect of organizing this symposium. With each passing year, the GPP leadership continues to enhance the graduate experience here at the NIH. Thank you for your support, friendship, and enthusiasm in making this the best graduate program in the world. Finally, we would like to acknowledge all of the graduate student participants – this symposium is for you.

EIGHTH ANNUAL NIH GRADUATE STUDENT RESEARCH SYMPOSIUM PROGRAM OF EVENTS

8:45 ROOM E1/E2	WELCOME	Sharon L. Milgram, Ph.D. Director, OITE
9:00 – 9:30 ROOM E1/E2	OPENING ADDRESS	Harold E. Varmus, M.D. Director, NCI
9:30 – 11:00 ROOM E1/E2	STUDENT ORAL PRESENTATIONS	Jessica Keffer, Georgetown University, NIDDK Inhibition of FtsZ by a Novel Antibacterial Compound
		Jason Chang Yi, University of North Carolina at Chapel Hill, NHLBI Actin Retrograde Flow and Acto-Myosin II Arc Contraction Drive Receptor Cluster Dynamics at the Immunological Synapse in Jurkat T Cells
		Feng-Yen Li, University of California, San Francisco, NIAID Loss of Magnesium Transporter 1 Leads to a Novel Human Primary Immunodeficiency with T Cell Activation Defect
		Jaime Ross, Karolinska Institutet, NIDA Natural Substances Counteract Prematurely Aging Phenotypes in mtDNA Mutator Mice
11:00 – 1:30	LIGHT REFRESHMENTS	
11:00 – 12:15 ATRIUM AND BALCONIES	POSTER SESSION I	Odd numbered posters presenting
12:30 – 1:45 ATRIUM AND BALCONIES	POSTER SESSION II	Even numbered posters presenting
2:00 - 3:00	POSTER SESSION II	Paolo Sassone-Corsi, Ph.D.
RUTH L. KIRCHSTEIN		Donald Bren Professor Department of Biological Chemistry
AUDITORIUM		University of California, Irvine
3:00 – 4:00 RUTH L. KIRCHSTEIN	AWARDS CEREMONY	Graduation Ceremony: Certificates presented by: Sharon L. Milgram, Ph.D., Director, OITE
AUDITURIUM		Michael M. Gottesman, M.D., Deputy Director, OIR
		Richard S. Chadwick, Ph.D.
		Qing Lan, Ph.D., M.P.H. Gisela Storz, Ph.D.
		NIH Graduate Student Research Awards (NGSRAs)

GPP GRADUATION AWARD RECIPIENTS

Student	IC	NIH Mentor	University, University Mentor
Dawn M. Betters In Vitro Expanded Natural K NK Cells	NINR iller (NK) Cells A	Dr. Richard W. Childs, Are More Susceptible to Fas Mec	University of Washington diated Apoptosis Compared to Fresh or Overnight IL-2 Activated
Molly Gallogly Bright	NINDS	Dr. Jeff Duyn	University of Oxford, Prof. Peter Jezzard
Novel Methods for Characte	prisation of Cere	brovascular Reactivity using Ma	agnetic Resonance Imaging
Kathryn E. Callahan	NIDDK	Dr. Anthony V. Furano	Georgetown University
Structure and Function of th	ne First Open Re	eading Frame (ORF1) Protein Enc	coded by the Human LINE-1 Retrotransposon
Yan Chen	NIAID	Dr. Tian Jin	Nanjing Medical University, Dr. Steven Yan Cheng
The Molecular Mechanism o	f Tumor Suppre	essor Sufu Regulated by Shh Sig	gnaling and its Biological Roles
Julia Grant Ciampa	NCI-DCEG	Dr. Nilanjan Chatterjee	University of Oxford, Dr. Chris Holmes
Multilocus Approaches to th	ne Detection of L	Disease Susceptibility Regions: 1	Methods and Applications
Lisheng Dai	NICHD	Dr. Maria L. Dufau	Jilin University, Dr. Jiabao Zhang
Regulation of Testis-specific	c miRNA-469 by	y GRTH/DDX25 Controls Male G	Term Cells Development
Julien Debbache Implications of post-transcri melanocyte lineage	NINDS iptional modific	Dr. Heinz Arnheiter ations in the regulation of MITF	Université Rennes 1, Dr. Marie-Dominique Galibert activity in vivo: A crucial transcription factor for the
Kimberly Baxter Decker	NIDDK	Dr. Deborah Hinton	Johns Hopkins University
Multiple, Independent Regu	latory Mechanis	sms Ensure Success in Bordetel	Ia pertussis Pathogenesis
Sandra Elaine Dillahunt	NIAMS	Dr. Juan Rivera	Howard University, Dr. Ana Olivera
The Sphingosine Kinase-Spi	hingosine-1-Pho	osphate Axis in Mast Cell Regul	ation
Lâle Evsen The Role of Sox2 in Inner Ea	NIDCD r Development	Dr. Doris K. Wu	University of Maryland, College Park, Dr. Arthur N. Popper
Temesgen D. Fufa	NCI	Dr. Kevin Gardner	Howard University College of Medicine
The RNA Polymerase II Elong	gation Factor EL	L: Mechanism of Action and its	Cross-Regulation by Leukemogenic Oncoproteins
Carolyn M. Graybeal Stress Modulation of Cognit	NIAAA ive Flexibility	Dr. Andrew Holmes	Brown Univerisity
Loren Hansen	NLM	Dr. David Landsman	Boston University
Computational Analysis of C	Thromatin Featu	res Associated with Transcriptic	on and Recombination in Yeast
Ashley Harris Hardin	NHLBI	Dr. Keir Neuman	The University of Maryland, College Park, Dr. Devarajan Thirumalai
Using Single Molecule Tech	niques to Deter	mine the Mechanism of DNA To	apology Simplification by Type IIA Topoisomerases
Angelo Kolokithas	NIAID	Dr. Leonard (Pug) Evans	University of Montana
The Glycosylated Gag Protei	n of a Murine Le	eukemia Virus Counteracts Muri	ne APOBEC3

GPP GRADUATION AWARD RECIPIENTS

Student	IC	NIH Mentor	University, University Mentor
Edina Komlodi-Pasztor	NCI	Dr. Tito Fojo	Semmelweis University, Dr. Andras Varadi
The Importance of Intracell	Jular Trafficking	in Cancer Cells and in Treatmen	t
Stephanie Guzik Lendrum	NHLBI	Dr. James R. Sellers	UNC Chapel Hill
Drosophila melanogaster N	1yosin-18 Repre	sents a Highly Divergent Molec	ular Motor with Actin Tethering Properties
Renata Ferranti Leoni	NINDS	Dr. Afonso C. Silva	University of Sao Paulo, Dr. Draulio Barros de Araujo
Cerebral Perfusion Assessn	nent in Animal N	Models of Hypertension Using A	rterial Spin Labeling
In Portuguese: Avaliação da	a perfusão sang	üínea cerebral em modelos anir	nais de hipertensão utilizando Arterial Spin Labeling
Jian Li	NIAID	Dr. Xin-zhuan Su	Xiamen University, Dr. Xin-zhuan Su
Development of a Linkage I	Map and Mappii	ng Loci Linked to Growth-Relate	ed Virulent Phenotype in Plasmodium Yoelii
Jin Liang Exploration of the Molecula Expression Profiling Technic	NIDCD nr Mechanisms I ques	Dr. Shawn M. Burgess nvolved in Inner Ear Hair Cell Re	University of Maryland, College Park, Dr. Arthur N. Popper egeneration in Adult Zebrafish with High-throughput Gene
Uri Manor	NICHD	Dr. Bechara Kachar	Johns Hopkins University
Dynamic Regulation of Ste	reocilia Length I	by Unconventional Myosins and	I Their Actin-Regulatory Cargo
Ellene Hera Mashalidis	NIAID	Dr. Clifton Barry, III	University of Cambridge, Prof. Chris Abell
Structural and functional s	tudies of a nove	I class of oxidoreductases in My	cobacterium tuberculosis
Ines Tomas Pereira	NIA	Dr. Peter R Rapp	Mount Sinai School of Medicine
Multiple Memory Systems	in a Rat Model c	f Neurocognitive Aging	
Candace M. Pfefferkorn	NHLBI	Dr. Jennifer C. Lee	University of Maryland, College Park
The Yin and Yang of Amylo	bids: Insights fro	om alpha-Synuclein and the Pn	nel17 Repeat Domain
Muhammad Hashim Raza	NIDCD	Dr. Dennis Drayna	University of the Punjab, Lahore, Pakistan
Genetic Studies on Stutter	ing Families		Dr. Sheikh Riazuddin Shaheen N. Khan
Paraskevi Salpea	NICHD	Dr. Bruce H. Howard	University of Athens, Greece, Dr. Thomae Sourlingas
The study of the Impact of a	Acetylation and	Methylation in the Chromatin F	Remodeling during Aging
Vandana Sekhar	NIAID	Dr. Alison A McBride	University of Maryland, Dr. Leslie Pick
Characterization of the Inte	eraction of the F	Iuman Papillomavirus Type 8 E.	2 Genome Tethering Protein with Host Chromosomes
Tristan Michael Sissung	NCI	Dr. William D. Figg	The George Washington University, Dr. Bernard Bouscarel
Genetic Factors That Alter t	he Pharmacody:	namics of Antineoplastic Agent	is Independent of Alterations in Plasma Pharmacokinetics
Hongdian Yang	NIMH	Dr. Dietmar Plenz	University of Maryland College Park, Dr. Rajarshi Roy
Principles of Information Pl	rocessing in Net	uronal Avalanches	
Tal Yardeni Sialic Acid in Health and Di	NHGRI sease: Molecula	Dr. Marjan Huizing Dr. William A. Gahl r, Cellular, Pathological and Thei	Tel - Aviv University, Dr. Yair Anikster rapeutic Aspects

GPP GRADUATION AWARD RECIPIENTS

Student	IC	NIH Mentor	University, University Mentor	
Shi Yin	NIAAA	Dr. Bin Gao	Anhui Medical University, Dr. Jilong Shen	
STAT1/3 Signaling Contributes to the Effects of Interleukin 10/22 and NKT Cells on Liver Regeneration after Partial Hepatectomy				

Lei ZhuNIBIBDr. Xiaoyuan (Shawn) ChenJilin University, Dr. Xuexun FangInvestigation of MMPs Targeting Peptide Probe for Tumor Imaging

SPEAKERS



OPENING ADDRESS

HAROLD E. VARMUS, M.D.

Harold Varmus, co-recipient of the Nobel Prize for studies of the genetic basis of cancer, became Director of the National Cancer Institute on July 12, 2010, after 10 years as President of Memorial Sloan-Kettering Cancer Center and six years as Director of the National Institutes of Health. He is a member of the U.S. National Academy of Sciences and the Institute of Medicine and is involved in several initiatives to promote science and health in developing countries. The author of over 350 scientific papers and five books, including a recent memoir titled *The Art and Politics of Science*, he was a co-chair of President Obama's Council of Advisors on Science and Technology, was a co-founder and Chairman of the Board of the Public Library of Science, and chaired the Scientific Board of the Gates Foundation Grand Challenges in Global Health.



KEYNOTE SPEAKER

PAOLO SASSONE-CORSI, PH.D.

Paolo Sassone-Corsi is a Donald Bren Professor at the University of California, Irvine, where he is Director of the Center for Epigenetics and Metabolism. He is also an External Member of the Max-Planck Institute, Germany. Paolo Sassone-Corsi is an internationally recognized leader in the field of genetics and cell biology. After earning his PhD in Italy, he has spent time in France and at the Salk Institute (San Diego, CA). He started his research group in Strasbourg, France, where he was Director of Research, before moving back to California in 2006. Early in his career, he became fascinated by the world of DNA and gene expression, a field that was beginning to be unraveled at the time, and that he felt had to embody all fundamental facets of cellular and organismal physiology. His research on the regulation of gene expression has been essential to elucidate a remarkable variety of molecular mechanisms, all highly relevant to the fields of endocrinology, neuroscience, metabolism and cancer. All organisms adapt to the environment by readjusting their physiology and metabolism. This "plasticity" includes chromatin remodeling and epigenetic reprogramming and leads to changes in the activity of genes. Epigenetic processes demonstrate that there is much more to the genome than DNA sequence, permitting plasticity beyond the double helix. The work by Paolo Sassone-Corsi during the past 20 years has been influential and trend-setting, leading to many awards, including the EMBO Gold Medal, the highest recognition for a European molecular biologist. He has been also awarded the Charles-Leopold Meyer Prize of the Academie des Sciences (Paris), the Edwin Astwood Award and the Roy O. Greep Award of the Endocrine Society (USA), the CNRS Medal (France), the Grand Prix Bettencourt for Medical Research and the Endocrine Prize of the Ipsen Foundation.

STUDENT ORAL PRESENTERS



JESSICA KEFFER

Jessica graduated summa cum laude from Coastal Carolina University with a B.S. in both Marine Science and Biology. Her first independent research projects were an Honors Thesis investigating the effect of atrazine, a common herbicide, on sea urchin development, and a Research Experience for Undergraduates at the Hawai'i Institute of Marine Biology working towards the development of a subunit vaccine for the marine parasite, Cryptocaryon irritans, better known as Marine Ich. She then joined the Georgetown-NIH Graduate Partnership Program, where she is now in the Department of Biochemistry and Molecular & Cellular Sciences at Georgetown, and the Laboratory of Bioorganic Chemistry within NIDDK. A common passion throughout her work has been the study of marine organisms, and her thesis work in the lab of Dr. Carole Bewley revolves around the discovery of new natural product compounds derived from marine organisms, their potential therapeutic uses, and mechanism of action.



JASON CHANG YI

Jason graduated from the University of California at Davis with a B.S. in biology, and began his scientific career at Penn State University, where he analyzed iron levels in brain sections of anemic rats. He then moved to Chicago to work in the life sciences industry, and managed product quality control for multinational companies such as Nalco and Abbott. In 2006, Jason joined the partnership program between University of North Carolina - Chapel Hill and NIH. Under the guidance of Dr. John A. Hammer at the laboratory of cell biology (NHLBI), his research focus has been on the role of cytoskeletal proteins during immunological synapse formation in T cells. Jason thanks Dr. Hammer and Dr. Xufeng Wu for their continued support and mentorship.



FENG-YEN LI

Feng-Yen graduated summa cum laude from Princeton University in 2005 with an AB degree in Molecular Biology and subsequently enrolled in the MD/PhD program at UCSF. For her senior thesis research at Princeton, she provided the first crystal structure of a tandem death-effector-domain protein (MC159) involved in modulating apoptosis. She came to the NIH in 2008 to complete her payback year for the NIH Undergraduate Scholarship Program for Students from Disadvantaged Backgrounds and as well as her PhD thesis research in the laboratory of Mike Lenardo at NIAID. For her thesis, she identified the etiology of an novel human primary immunodeficiency, which revealed an unexpected second messenger role for magnesium in T cell signaling and a novel target for T cell immunomodulation.



JAIME ROSS

Jaime Ross, a native of southern Vermont, began her scientific career as an undergraduate researcher at St. Lawrence University in Upstate New York, where she became interested in the effects of pharmacological inhibition of glial cells on memory acquisition in the conscious rat. After receiving her undergraduate degree in neuroscience and fine arts in 2003, Jaime came to the NIH; and as a post-baccalaureate IRTA fellow, she studied mechanisms of agrin-induced formation of filopodia in embryonic neuronal cultures. She then joined the NIH – Karolinska Institutet Graduate Partnerships Program in 2006. Under the supervision of Dr. Barry J. Hoffer at NIDA and Professor Lars Olson at the Karolinska, Jaime is currently studying how mtDNA mutations may translate to age-related functional changes and diseases in the CNS. Recently, Jaime published findings that high brain lactate is a biomarker of the aging process, arguing for the use of proton magnetic resonance spectroscopy as a noninvasive strategy for monitoring, possibly even predicting, aging phenotypes. Jaime plans to continue her quest to understand the relationship between mitochondrial damage and changes in metabolism during the aging process.

OUTSTANDING MENTOR AWARDS



RICHARD S. CHADWICK, PH.D.

Dr. Chadwick received B.S. and M.S. degrees from Cornell University. He received his Ph.D. from Stanford University in 1971, where he studied light scattering phenomena in blood. Dr. Chadwick joined the engineering faculty at the Technion Israel Institute of Technology in 1971 where he began his studies on cochlear mechanics. He moved to UCLA as an assistant professor in 1975 where he continued this work with Julian Cole. Dr. Chadwick joined the Bioengineering and Instrumentation Branch at NIH in 1980, where he began research in cardiovascular dynamics, and then moved to the NIDCD as a Senior Investigator in 1996. He is an elected fellow of the American Institute of Medical and Biological Engineering. Dr. Chadwick's laboratory is studying the biomechanics of cochlear fine-tuning.



QING LAN, PH.D., M.P.H.

Dr. Lan received her MD at Weifang Medical University, China; her PhD in molecular epidemiology at the Chinese Academy of Preventive Medicine in Beijing as part of a joint training program with the United States Environmental Protection Agency and University of North Carolina at Chapel Hill; and her MPH at Johns Hopkins University. Her long-standing research focus has been on molecular epidemiologic studies of populations exposed to well-defined classes of chemical compounds that are known or suspected occupational and environmental carcinogens, including polycyclic aromatic hydrocarbons, benzene, formaldehyde, and trichloroethylene. She has used cross-sectional studies of healthy populations exposed to suspect carcinogens to understand mechanism of action and genetic risk factors for intermediate endpoints; nested case-control studies within prospective cohorts to study the relationship between exposure and intermediate endpoint biomarkers and risk of cancer; and population-based case-control studies to evaluate gene-environment interactions for cancer. She has worked in particular on the study of lung cancer and hematopoietic malignancies, two classes of tumors with distinct links to occupational and environmental agents.



GISELA STORZ, PH.D.

Gisela Storz is the Deputy Chief of the Cell Biology and Metabolism Program of NICHD. She received her Ph.D. from the University of California, Berkeley, and then carried out postdoctoral work at the National Cancer Institute and Harvard Medical School. For many years, a major focus of her group was the study of the bacterial and fungal responses to oxidative stress and redox-sensitive transcription factors. Her lab made the exciting discovery that the activity of the E. coli transcription factor OxyR is regulated by reversible disulfide bond formation, establishing a paradigm for redox-sensing proteins. As a result of the serendipitous detection of the peroxide-induced OxyS RNA, one of the first small, regulatory RNAs to be discovered, work in her lab shifted to the genome-wide identification of small RNAs. The pioneering characterization of many of these small RNAs revealed that they are integral to most regulatory circuits in bacteria. Recently, work in the Storz lab has extended to the detection and characterization of proteins of less than 50 amino acids, another class of molecules that is overlooked by traditional methods of investigation. Dr. Storz has had the pleasure of mentoring 24 summer students, 16 postbaccalaureate students and now 2 graduate students, in addition to many postdoctoral fellows.

STUDENTS

STUDENTS LISTED ALPHABETICALLY BY NAME

Poster No.	Last, First	IC	University
14	Abraham, Brian	NHLBI	Boston University
40	Alstott, Jeffrey	NIMH	University of Cambridge
6	Arem, Hannah	NCI-DCEG	Yale School of Public Health
112	Arizpe, Joseph	NIMH	University College London
26	Bogen, Dominik	NCI	Medical University of Vienna
103	Boyd, Alexis	NIAID	The George Washington University
39	Bricceno, Katherine	NINDS	The George Washington University
42	Cao, Vania	NIMH	Brown University
30	Carter, Rayna	NIMH	Brown University
5	Case, Lindsay	NHLBI	University of North Carolina at Chapel Hill
23	Case, Chanelle	NCI	The George Washington University
57	Chandler, Randy	NHGRI	The George Washington University
1	Chen, Inn-Inn	NCI	University of Oxford
41	Chun, Lani	NINDS	Johns Hopkins University
64	Crooks, Dan	NICHD	Georgetown University
8	Danaher, Michelle	NICHD	University of Maryland, Baltimore County
25	Do, Thao	NCI	University of Oxford
19	Druz, Aliaksandr	NIDDK	Johns Hopkins University
75	Dutta, Mala	NHGRI	The George Washington University
47	Ene, Chibawanye	NCI	Cambridge University, U.K
91	Eyheramonho, María	NIAID	Universidad de Buenos Aires
65	Fares, Joanna	NCI	Georgetown University
80	Felts, Lynn	NICHD	University of Texas Medical Branch
71	Figueroa, Mariel	NIAID	The George Washington University
105	Fowler, Cedar	NIAID	University of Cambridge
59	Gary, Joy	NCI	Michigan State University
114	Ghinia, Miruna	NEI	"Babes Bolyai" University Cluj Napoca
27	Giano, Michael	NCI	University of Delaware
4	Gindin, Yevgeniy	NCI	Boston University
35	Gudmundsdottir, Bjorg	NCI	University of Iceland
81	Han, Sungpil	NINDS	Pusan National University
37	Hanisch, Jesse	NHGRI	Georgetown University
110	Hauser, David	NIA	Brown University
126	Himes, Sarah	NIDA	University of Maryland, Baltimore
73	Hu, Xintao	NIAID	Chinese Center for Disease Control and Prevention
78	Huang, Peng	NIBIB	Shanghai Jiao Tong University
93	Introini, Andrea	NICHD	University of Milan
12	Johansson, Cecilia	NIDCD	Karolinska Institutet
83	Johnson, Matthew	NIAID	Georgetown University
31	Kaltcheva, Maria	NCI	Johns Hopkins University
54	Kane, Anna	NICHD	Brown University
111	Keffer, Jessica	NIDDK	Georgetown University

STUDENT LISTED ALPHABETICALLY BY NAME

Poster No.	Last, First	IC	University
92	Kim, Christopher	NCI-DCEG	Yale University
85	Kole, Abhi	NIAID	University of Oxford
32	Kotlyanskaya, Lyudmila	NINDS	University of North Carolina at Chapel Hill
95	Kugler, David	NIAID	John Hopkins University
3	Kwon, Deborah	NINDS	Brown University
96	Lastwika, Kristin	NCI	The George Washington University
120	Lee, Rachel	NCI	University of Maryland - College Park
77	Leibovitch, Emily	OD	The George Washington University
7	Lewis, Abasha	NIDA	Johns Hopkins University
109	Li, Feng-Yen	NIAID	University of California San Francisco
9	Litwin, Tamara	NHLBI	University of Cambridge
33	Liu, Chang	NIEHS	University of Illinois at Urbana-Champaign
43	Liu, Xiaozhuo	NICHD	The Chinese University of Hong Kong
16	Luna, Augustin	NCI	Boston University
68	Lynn, Geoffrey	NIAID	University of Oxford
56	Maggi, Pietro	NINDS	University of Florence. Florence, Italy
10	Mandal, Siddhartha	NIEHS	University of North Carolina at Chapel Hill
44	Mayse, Jeffrey	NIA	Johns Hopkins University
67	Mazor, Ronit	NCI	Tel Aviv University
61	Medhi, Darpan	NCI	The University of Sheffield
117	Mehedi, Masfique	NIAID	University of Manitoba
97	Mendez Rios, Jorge	NIAID	University of Maryland
11	Meyerson, Joel	NCI	University of Cambridge
49	Mishra, Pravin	NCI	The George Washington University
99	Mita Mendoza, Neida	NIAID	Center for Research and Advanced Studies of the
			National Polytechnic Institute, CINVESTAV, Mexico
118	Nadarajah, Sheeba	NINR	University of Maryland
119	Nawaz, Fatima	NIAID	New York University
121	Obara, Christopher	NIAID	Georgetown University
82	Okpodu, Samelia	NEI	Howard University
101	Oteng, Eugene	NIAID	University of Oxford
53	Owen, Ashley	NHGRI	Georgetown University
51	Parpart, Sonya	NCI	Georgetown University
34	Perkins, Kristen	NINDS	Brown University
55	Platt, James	NIDDK	Cardiff University
98	Pluchino, Kristen	NCI	Oxford University
21	Pouliot, Lynn	NCI	Georgetown University
13	Pressler, Heather	NCI	Johns Hopkins University
46	Pujala, Avinash	NINDS	Brown University
63	Rees, Matthew	NHGRI	University of Oxford
102	Robinson, Mattie	NHLBI	Johns Hopkins University
36	Ross, Jaime	NIDA	Karolinska Institutet

STUDENT LISTED ALPHABETICALLY BY NAME

Poster No.	Last, First	IC	University
50	Ross, Jermaine	NINDS	Brown University
86	Sajgo, Szilard	NEI	Babes-Bolyai University
45	Salpea, Paraskevi	NICHD	University of Athens
2	Saybasili, Ayse	NHLBI	Istanbul Technical University, Turkey
38	Sewal, Angila	NIA	Mount Sinai School of Medicine
116	Shaffer, Kelly	NINDS	Karolinska Institute
122	Shapiro, Jenna	NICHD	University of Cambridge
58	Shrestha, Saurav	NIMH	Karolinska Institute
108	Sim, Malcolm	NIAID	Imperial College London
18	Simmons, John	NCI	Georgetown University
70	Sonmez, Cem	NCI	University of Delaware
87	Spencer, Sean	NIAID	University of Pennsylvania
104	Stagliano, Katie	NCI	The George Washington University
107	Stein, Erica	NCI	The George Washington University
69	Stepp, Wesley	NIAID	Georgetown University
22	Sturgill, David	NIDDK	University of Maryland
76	Sukumaran, Madhav	NICHD	Cambridge University
79	Swafford, Austin	NIAID	University of Cambridge
72	Swierczewska, Maggie	NIBIB	Stony Brook University
84	Tan, Irene	OD	The Johns Hopkins University
100	Tang, Zhewei	NCI	East China Normal University
48	Tejeda, Hugo	NIDA	University of Maryland, Baltimore School of Medicine
113	Thomason, Maureen	NICHD	Georgetown University
90	Thompson, Bethtrice	NCI	Howard University
62	Todaro, Alyssa	CC	University of Maryland
106	Tosh, Kevin	NIAID	Georgetown University
94	Vaz, Juliana	NIAAA	Federal University of Rio de Janeiro
124	Venkatesh, Madhvi	NCI	University of Oxford
66	Weathers, Judah	NIMH	Oxford University
20	Wei, Chih-Hsuan	NLM	National Cheng Kung University, Taiwan, R.O.C.
15	Wesolowska, Natalia	NCI	Johns Hopkins University
60	Wood, Emily	NINDS	Johns Hopkins University School of Medicine
74	Xing, Ruijun	NIBIB	Peking University
29	Yi, Jason Chang	NHLBI	University of North Carolina at Chapel Hill
24	Yin, Shi	NIAAA	Anhui Medical Univeristy
115	Yin, Xuefeng	NICHD	Peking University
88	Younts, Caitlin	NICHD	Johns Hopkins University
17	Zhang, Shaofei	NICHD	The Chinese University of Hong Kong
28	Zhang, Shile	NCI	Boston University
89	Zhao, Roseanne	NHGRI	University of Cambridge
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CHARACTERIZING THE STEPWISE DIFFERENTIATION OF ES CELL-DERIVED HEMANGIOBLASTS TO HEMATOPOIETIC CELLS

Inn-Inn Chen, Giovanna Tosato, and Catherine Porcher Graduate Student Name: Inn Inn Chen NIH Institute-Center: NCI NIH Research Advisor: Dr. Giovanna Tosato Graduate University: University of Oxford University Research Advisor: Dr. Catherine Porcher

POSTER NUMBER: 2

XMT VS. GPU: COMPARISON OF MANY-CORES ON IRREGULAR MEMORY ACCESS PATTERN

Ayse B. Saybasili and Bernard R. Brooks Graduate Student Name: Ayse B. Saybasili NIH Institute-Center: NHLBI NIH Research Advisor: Dr. Bernard R. Brooks Graduate University: Istanbul Technical University, Turkey University Research Advisor: Dr. Emre Harmanci

POSTER NUMBER: 3 THE E3 UBIQUITIN LIGASE MIND BOMB 1 UBIQUITINATES AND PROMOTES THE DEGRADATION OF SURVIVAL OF MOTOR NEURON PROTEIN

Deborah Y. Kwon, Maria Dimitriadi, Casey Cable, Anne Hart, Ajay Chitnis, Kenneth H. Fischbeck, and Barrington G. Burnett Graduate Student Name: Deborah Y. Kwon NIH Institute-Center: NINDS NIH Research Advisor: Dr. Kenneth H. Fischbeck Graduate University: Brown University University Research Advisor: Dr. Anne Hart

POSTER NUMBER: 4 GENE METHYLATION NETWORKS IN BREAST CANCER

Sarah Anzick, Bob Walker, Sean Davis, Jack Zhu, Mark Sherman, Jonine Figueroa, and Paul Meltzer Graduate Student Name: Yevgeniy Gindin NIH Institute-Center: NCI NIH Research Advisor: Dr. Paul Meltzer Graduate University: Boston University University Research Advisor: Dr. Simon Kasif

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Lindsay Case and Clare Waterman Graduate Student Name: Lindsay Case NIH Institute-Center: NHLBI NIH Research Advisor: Clare Waterman Graduate University: University of North Carolina

ENERGY BALANCE AND ENDOMETRIAL CANCER RISK IN A POPULATION-BASED CASE-CONTROL STUDY

Hannah Arem, Marian Neuhouser, Melinda L. Irwin, Lingeng Lu, Brenda Cartmel, Harvey Risch, and Herbert Yu Graduate Student Name: Hannah Arem

NIH Institute-Center: NCI-DCEG NIH Research Advisor: Dr. Melinda L. Irwin Graduate University: Yale School of Public Health University Research Advisor: Dr. Melinda L.Irwin

POSTER NUMBER: 7

TARGETING OF ANTI-APOPTOSIS GENES TO ORGANELLES IN MAMMALIAN CELLS

Abasha Lewis, Teuro Hayashi, Tsung-Ping Su, and Michael J. Betenbaugh Graduate Student Name: Abasha Lewis NIH Institute-Center: NIDA NIH Research Advisor: Dr. Tsung-Ping Su Graduate University: Johns Hopkins University University Research Advisor: Dr. Michael J. Betenbaugh

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Anindya Roy, Zhen Chen, Sunni L. Mumford, and Enrique F. Schisterman Graduate Student Name: Michelle R. Danaher NIH Institute-Center: NICHD NIH Research Advisor: Dr. Enrique F. Schisterman Graduate University: University of Maryland, Baltimore County University Research Advisor: Dr. Anindya Roy

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Tamara Litwin, Jiuya He, Helen Cooper, Jerome Boyd-Kirkup, Keir Neuman, and Ian Holt Graduate Student Name: Tamara Litwin NIH Institute-Center: NHLBI NIH Research Advisor: Dr. Keir Neuman Graduate University: University of Cambridge University Research Advisor: Dr. Ian Holt

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Siddhartha Mandal, Pranab K. Sen, and Shyamal D. Peddada Graduate Student Name: Siddhartha Mandal NIH Institute-Center: NIEHS NIH Research Advisor: Dr. Shyamal D. Peddada Graduate University: University of North Carolina at Chapel Hill University Research Advisor: Dr. Pranab K. Sen

3D ELECTRON MICROSCOPY OF MITOCHONDRIAL ARCHITECTURE IN HEALTHY AND DISEASED CELLS

Joel R. Meyerson, John E. Walker, and Sriram Subramaniam Graduate Student Name: Joel R. Meyerson NIH Institute-Center: NCI NIH Research Advisor: Dr. Sriram Subramaniam Graduate University: University of Cambridge University Research Advisor: Dr. John E. Walker

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Cecilia A. M. Johansson and Richard Chadwick Graduate Student Name: Cecilia A. M. Johansson NIH Institute-Center: NIDCD NIH Research Advisor: Dr. Richard Chadwick Graduate University: Karolinska Institutet

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Heather M. Pressler, Tristan M. Sissung, Douglas K. Price, and William D. Figg Graduate Student Name: Heather M. Pressler NIH Institute-Center: NCI NIH Research Advisor: Dr. William D. Figg Graduate University: Johns Hopkins University

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Brian J. Abraham, Kairong Cui, Qingsong Tang, and Keji Zhao Graduate Student Name: Brian J. Abraham NIH Institute-Center: NHLBI NIH Research Advisor: Dr. Keji Zhao Graduate University: Boston University

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Natalia Wesolowska, and Yikang S. Rong Graduate Student Name: Natalia Wesolowska NIH Institute-Center: NCI NIH Research Advisor: Dr. Yikang S. Rong Graduate University: Johns Hopkins University

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A COMPUTATIONAL MAMMALIAN CIRCADIAN CLOCK MODEL WITH CONNECTIONS TO THE DNA DAMAGE RESPONSE

Augustin Luna, Geoffrey B. McFadden, Kurt W. Kohn, and Mirit I. Aladjem Graduate Student Name: Augustin Luna NIH Institute-Center: NCI NIH Research Advisor: Dr. Mirit I. Aladjem Graduate University: Boston University

A NOVEL ROLE FOR THE IMPORTIN- α coexporter protein CAS in post-mitotic nuclear envelope assembly

Shaofei Zhang and Mary Dasso Graduate Student Name: Shaofei Zhang NIH Institute-Center: NICHD NIH Research Advisor: Dr. Mary Dasso Graduate University: the Chinese University of Hong Kong

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John K. Simmons, Aleksandra M. Michalowski, Jyoti Patel, Patrick Sullivan, Bih-Rong Wei, R. Mark Simpson, W. Michael Kuehl, Lihui Ou, Natasha J. Caplen, Shuling Zhang, Ola Landgren, and Beverly A. Mock

Graduate Student Name: John K. Simmons NIH Institute-Center: NCI NIH Research Advisor: Dr. Beverly A. Mock Graduate University: Georgetown University

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Aliaksandr Druz, Joseph Shiloach, and Michael Betenbaugh Graduate Student Name: Aliaksandr Druz NIH Institute-Center: NIDDK NIH Research Advisor: Dr. Joseph Shiloach Graduate University: Johns Hopkins University University Research Advisor: Dr. Michael Betenbaugh

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SR4GN: A SPECIES RECOGNITION SOFTWARE TOOL FOR GENE NORMALIZATION

Chih-Hsuan Wei, Hung-Yu Kao, and Zhiyong Lu Graduate Student Name: Chih-Hsuan Wei NIH Institute-Center: NLM NIH Research Advisor: Dr. Zhiyong Lu Graduate University: National Cheng Kung University, Taiwan, R.O.C. University Research Advisor: Dr. Hung-Yu Kao

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Lynn M. Pouliot, Matthew D. Hall, and Michael M. Gottesman Graduate Student Name: Lynn M. Pouliot NIH Institute-Center: NCI NIH Research Advisor: Dr. Michael M. Gottesman Graduate University: Georgetown University

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David Sturgill, Leonard Rabinow, Marie-Laure Samson, John Malone, and Brian Oliver Graduate Student Name: David Sturgill NIH Institute-Center: NIDDK NIH Research Advisor: Dr. Brian Oliver Graduate University: University of Maryland

DEPLETION OF SPINDLE POLE PROTEIN, CKAP2, INCREASES CHROMOSOMAL INSTABILITY IN COLORECTAL CANCER CELLS

Chanelle Case, Danny Wangsa, Dan Sackett, Thomas Ried, and Jordi Camps Graduate Student Name: Chanelle M. Case NIH Institute-Center: NCI NIH Research Advisor: Dr. Thomas Ried Graduate University: George Washington University University Research Advisor: Dr. Norman Lee

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Shi Yin, Hua Wang, and Bin Gao Graduate Student Name: Shi Yin NIH Institute-Center: NIAAA NIH Research Advisor: Bin Gao Graduate University: Anhui Medical University University Research Advisor: Jilong Shen

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STRUCTURAL STUDIES OF MUSCLE CELL DIFFERENTIATION USING CORRELATIVE 3D ELECTRON MICROSCOPY

Thao Do, Jeffrey Spector, Stefania Dell'Orso, Kedar Narayan, Alison Noble, Stefan Stranick, Vittorio Sartorelli,

and Sriram Subramaniam Graduate Student Name: Thao Do NIH Institute-Center: NCI NIH Research Advisor: Dr. Sriram Subramaniam Graduate University: University of Oxford University Research Advisor: Dr. Alison Noble

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COMBINING WHOLE EXOME AND TRANSCRIPTOME SEQUENCING WITH SYNTHETIC LETHAL SIRNA SCREENING TO DEVELOP NOVEL COMBINATIONAL THERAPIES FOR PATIENTS WITH NEUROBLASTOMA

Dominik Bogen, Rajesh Patidar, David Azorsa, Young K. Song, Hongling Liao, Catherine Tolman, Peter Johansson, Xinyu Wen, Jianbin He, Jianjun Wang, Tom Badgett, Jun Wei, and Javed Khan

Graduate Student Name: Dominik Bogen NIH Institute-Center: NCI NIH Research Advisor: Dr. Javed Khan Graduate University: Medical University of Vienna University Research Advisor: Dr. Peter Ambros

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Michael C. Giano and Joel P. Schneider Graduate Student Name: Michael C. Giano NIH Institute-Center: NCI NIH Research Advisor and University Advisor: Dr. Joel P. Schneider Graduate University: University of Delaware

TRANSCRIPTOME SEQUENCING ANALYSIS REVEALS MYCN REGULATED ALTERNATIVE SPLICING IN STAGE 4 NEUROBLASTOMA

Shile Zhang, Tom C. Badgett, Jun S. Wei, Young K. Song, Peter Johansson, Catherine House, Jianbin He, Xinyu Wen, and Javed Khan Graduate Student Name: Shile Zhang NIH Institute-Center: NCI NIH Research Advisor: Dr. Javed Khan Graduate University: Boston University University Research Advisor: Dr. Eric Kolaczyk

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ACTIN RETROGRADE FLOW AND ACTO-MYOSIN II ARC CONTRACTION DRIVE RECEPTOR CLUSTER DYNAMICS AT THE IMMUNOLOGICAL SYNAPSE IN JURKAT T CELLS

Jason Chang Yi, Xufeng S. Wu, Travis Crites, and John A. Hammer III Graduate Student Name: Jason Chang Yi NIH Institute-Center: NHLBI NIH Research Advisor: Dr. John A. Hammer III Graduate University: University of North Carolina at Chapel Hill

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IMMATURE ADULT-BORN NEURONS MODULATE GLUCOCORTICOID RECEPTOR EXPRESSION IN RESPONSE TO STRESS Rayna M. Carter and Heather A. Cameron

Graduate Student Name: Rayna M. Carter NIH Institute-Center: NIMH NIH Research Advisor: Dr. Heather A. Cameron Graduate University: Brown University

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Maria M. Kaltcheva, Sangeeta Pajni-Underwood, and Mark Lewandoski Graduate Student Name: Maria M. Kaltcheva NIH Institute-Center: NCI NIH Research Advisor: Dr. Mark Lewandoski Graduate University: Johns Hopkins University

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Stephanie Nowotarski, Edward Giniger, and Mark Peifer Graduate Student Name: Lucy Kotlyanskaya NIH Institute-Center: NINDS NIH Research Advisor: Dr. Edward Giniger Graduate University: University of North Carolina at Chapel Hill University Research Advisor: Dr. Mark Peifer

OVARY ORGANOGENESIS: A DYNAMIC PROCESS INVOLVING CELL MIGRATION AND CELL FATE SPECIFICATION

Chang Liu and Humphrey H-C Yao Graduate Student Name: Chang Liu NIH Institute-Center: NIEHS NIH Research Advisor: Dr. Humphrey H-C Yao Graduate University: University of Illinois at Urbana-Champaign

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USING IPSC TO MODEL THE NEUROLOGICAL PHENOTYPE OF ALPHA-DYSTROGLYCANOPATHIES

Kristen Z. Perkins, Christopher Grunseich, and Carsten G. Bönnemann Graduate Student Name: Kristen Z. Perkins NIH Institute-Center: NINDS NIH Research Advisor: Dr. Carsten G. Bönnemann Graduate University: Brown University

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Bjorg Gudmundsdottir and Jonathan R. Keller Graduate Student Name: Bjorg Gudmundsdottir NIH Institute-Center: NCI NIH Research Advisor: Dr. Jonathan R. Keller Graduate University: University of Iceland University Research Advisor: Professor Gudmundur H. Gudmundsson

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Oksana Gavrilova, David J. Bernard, Marina S. Lee, Kevin Bishop, Jun Cheng, Raman Sood, David M. Bodine, Lawrence C. Brody, and Francis S. Collins Graduate Student Name: Jesse J. Hanisch NIH Institute-Center: NHGRI NIH Research Advisors: Drs. Francis Collins and Lawrence Brody Graduate University: Georgetown University

TEMPORAL DYNAMICS OF EPIGENETIC MODIFICATIONS INDUCED BY WATER MAZE TRAINING

Angila S. Sewal, Bennett Kelley-Bell, Surya Bhamidipaty, James F. Castellano, David H. Kim, Evelyn J. Perez, Bonnie R. Fletcher, and Peter R. Rapp Graduate Student Name: Angila S. Sewal NIH Institute-Center: NIA NIH Research Advisor and University Advisor: Dr. Peter R. Rapp Graduate University: Mount Sinai School of Medicine

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THE HDAC INHIBITOR TSA DOWN REGULATES EXPRESSION OF ATROGENES IN SPINAL MUSCULAR ATROPHY MICE

Katherine Bricceno, Charlotte Sumner, Kenneth H. Fischbeck and Barrington G. Burnett Graduate Student Name: Katherine Bricceno NIH Institute-Center: NINDS NIH Research Advisor: Dr. Kenneth H. Fischbeck Graduate University: The George Washington University University Research Advisor: Dr. Eric P. Hoffman

POSTER NUMBER: 40 NEURONAL AVALANCHES IN THE BEHAVING MONKEY

Jeff Alstott, Ed Bullmore, and Dietmar Plenz Graduate Student Name: Jeff Alstott NIH Institute-Center: NIMH NIH Research Advisor: Dr. Dietmar Plenz Graduate University: University of Cambridge University Research Advisor: Dr. Ed Bullmore

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BOTH D2L AND D2S DOPAMINE RECEPTOR ISOFORMS ARE ABLE TO FORM FUNCTIONAL HETEROMERIC COMPLEXES WITH THE D1 DOPAMINE RECEPTOR

Lani S. Chun, R. Benjamin Free, Trevor B. Doyle, and David R. Sibley *Graduate Student Name: Lani S. Chun*

NIH Institute-Center: NINDS NIH Research Advisor: Dr. David R. Sibley Graduate University: Johns Hopkins University

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Vania Y. Cao, Rui M. Costa, and Kuan H. Wang Graduate Student Name: Vania Y. Cao NIH Institute-Center: NIMH NIH Research Advisor: Dr. Kuan H. Wang Graduate University: Brown University

MODELING AUTISM SPECTRUM DISORDERS USING IPSC-DIFFERENTIATED NEURONS

Xiaozhuo Liu, Hoi-Hung Cheung, Vanessa Baxendale, Mark Ziats, Margarita Raygada, and Owen M. Rennert Graduate Student Name: Xiaozhuo LIU NIH Institute-Center: NICHD NIH Research Advisor: Dr. Owen M. Rennert Graduate University: The Chinese University of Hong Kong University Research Advisors: Professor Wai-Yee Chan and Professor Kwok-Pui Fung

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Jeffrey D. Mayse, Michela Gallagher, and Shih-Chieh Lin Graduate Student Name: Jeffrey D. Mayse NIH Institute-Center: NIA NIH Research Advisor: Dr. Shih-Chieh Lin Graduate University: Johns Hopkins University University Research Advisor: Dr. Michela Gallagher

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Valya R. Russanova, Tazuko H. Hirai, Thomae G. Sourlingas, and Bruce H. Howard Graduate Student Name: Paraskevi Salpea NIH Institute-Center: NICHD NIH Research Advisor: Dr. Bruce H. Howard Graduate University: University of Athens University Research Advisor: Dr. Thomae G. Sourlingas

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THE NEURAL MECHANISMS OF FICTIVE LOCOMOTION EVOKED BY STIMULATION OF SENSORY AFFERENTS AND MOTONEURONS IN THE NEONATAL MOUSE SPINAL CORD

Avinash Pujala and 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: Dr. Barry Connors

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Chibawanye I. Ene, Lincoln A. Edwards, Svetlana Kotliarova, and Maggie Cam Graduate Student Name: Chibawanye I. Ene NIH Institute-Center: NCI NIH Research Advisor: Dr. Howard A. Fine Graduate University: Cambridge University, U.K

BASOLATERAL AMYGDALA INPUTS ATTENUATE RESPONSES TO HIPPOCAMPAL AND ASSOCIATIVE TEMPORAL CORTICAL STRUCTURES IN THE PREFRONTAL CORTEX

Toni S. Shippenberg and Patricio O'Donnell Graduate Student Name: Hugo A. Tejeda NIH Institute-Center: NIDA NIH Research Advisor: Dr. Toni S. Shippenberg Graduate University: University of Maryland, Baltimore School of Medicine University Research Advisor: Dr. Patricio O'Donnell

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Theresa Guo, Raza Zaidi, Sean Davis, Kapil Bharti, Heinz Arnheiter, Robert L. Walker, Paul Meltzer and Glenn Merlino Graduate Student Name: Pravin J. Mishra NIH Institute-Center: NCI NIH Research Advisor: Dr. Glenn Merlino Graduate University: The George Washington University

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Thomas Brody, Mukta Kundu, Alexander Kuzin, and Ward F. Odenwald Graduate Student Name: Jermaine L. Ross NIH Institute-Center: NINDS NIH Research Advisor: Dr. Ward F. Odenwald Graduate University: Brown University

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Sonya Parpart, Stephanie Roessler, Fei Dong, Vinay Rao, Christopher Loffredo, and Xin Wei Wang Graduate Student Name: Sonya Parpart NIH Institute-Center: NCI NIH Research Advisor: Dr. Xin Wei Wang Graduate University: Georgetown University University Research Advisor: Dr. Christopher Loffredo

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Graduate Student Name: Mark N. Ziats NIH Institute-Center: NICHD NIH Research Advisor: Dr. Owen Rennert Graduate University: University of Cambridge University Research Advisor: Dr. Azim Surani

BARRIER INSULATORS DEFINE AN ACTIVE CHROMATIN DOMAIN AT THE ERYTHROID ANKYRIN-1 PROMOTER

Laurie A. Steiner, Nancy E. Seidel, Amanda P. Cline, Clara Wong, Lisa J. Garrett, Patrick G. Gallagher, and David M. Bodine Graduate Student Name: Ashley O. Yocum

NIH Institute-Center: NHGRI NIH Research Advisor: Dr. David M. Bodine Graduate University: Georgetown University University Research Advisor: Dr. Mitchell Jung

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Anna Kane, Hui Wang, Emma Karey, Cheol Lee, and Sohyun Ahn Graduate Student Name: Anna Kane NIH Institute-Center: NICHD NIH Research Advisor: Dr. Sohyun Ahn Graduate University: Brown University

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James L. Platt, Nick A. Kent, Adrian J. Harwood and Alan R. Kimmel Graduate Student Name: James L. Platt NIH Institute-Center: NIDDK

NIH Research Advisor: Dr. Alan R. Kimmel Graduate University: Cardiff University University Research Advisor: Dr. Adrian J. Harwood

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Pietro Maggi, Elizabeth Sweeney, Maria I. Gaitán, Emily Leibovitch, Justin Senseney, Colin Shea, Steve Jacobson, Afonso C. Silva, and Daniel S. Reich Graduate Student Name: Pietro Maggi NIH Institute-Center: NINDS NIH Research Advisor and University Research Advisor: Dr. Daniel S. Reich Graduate University: University of Florence. Florence, Italy

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Graduate Student Name: Randy J. Chandler NIH Institute-Center: NHGRI NIH Research Advisor: Dr. Charles P. Venditti Graduate University: The George Washington University University Research Advisor: Dr. Hiroki Morizono

PET IMAGING OF SEROTONINERGIC SYSTEM IN MONKEYS: EFFECTS OF MATERNAL SEPARATION, AND CHRONIC FLUOXETINE TREATMENT DURING DEVELOPMENT

Saurav Shrestha, Jeih-San Liow, Robert Gladding, Victor W. Pike, Pam L. Noble, James T. Winslow, Eric E. Nelson,

Per Svenningsson, Stephen J. Suomi, Daniel S. Pine, and Robert B. Innis

Graduate Student Name: Saurav Shrestha

NIH Institute-Center: NIMH

NIH Research Advisor: Dr. Robert Innis

Graduate University: Karolinska Institutet

University Research Advisor: Dr. Per Svenningsson

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Gary, J., Zhang, S., Tran, D., Michalowski, A. and Mock, B.A. Graduate Student Name: Joy Gary NIH Institute-Center: NCI NIH Research Advisor: Dr. Beverly Mock Graduate University: Michigan State University University Research Advisor: Dr. Matti Kiupel

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INVESTIGATING AXONAL DAMAGE IN MULTIPLE SCLEROSIS BY DIFFUSION TENSOR SPECTROSCOPY AT 7T

Emily T. Wood, Itamar Ronen, Aranee Techawiboonwong, Craig K. Jones, Peter B. Barker, Daniel Harrison, Peter Calabresi, and Daniel S. Reich Graduate Student Name: Emily T. Wood NIH Institute-Center: NINDS NIH Research Advisor: Dr. Daniel S. Reich Graduate University: Johns Hopkins University School of Medicine

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VDE CATALYZED HOMOLOGOUS RECOMBINATION DURING MEIOSIS IN A COLD SPOT IS REMINISCENT OF MITOSIS

Darpan Medhi, Alastair S. H. Goldman and Michael Lichten Graduate Student Name: Darpan Medhi NIH Institute-Center: NCI NIH Research Advisor: Dr. Michael Lichten Graduate University: The University of Sheffield University Research Advisor: Dr. Alastair S. H. Goldman

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Alyssa Todaro and Gwenyth R. Wallen Graduate Student Name: Alyssa Todaro NIH Institute-Center: CC NIH Research Advisor: Dr. Gwenyth R. Wallen Graduate University: University of Maryland

PHENOTYPIC, CELLULAR, AND KINETIC CORRELATION OF RARE CODING VARIANTS IN THE HUMAN GLUCOKINASE REGULATORY PROTEIN

Matthew G. Rees, David Ng, Sarah Ruppert, Clesson Turner, Nicola L. Beer, Amy J. Swift, Mario A. Morken, Jennifer E. Below, Ilana Blech, NISC Comparative Sequencing Program, James C. Mullikin, Mark I. McCarthy, Leslie G. Biesecker, Anna L. Gloyn, Francis S. Collins

Graduate Student Name: Matthew G. Rees NIH Institute-Center: NHGRI NIH Research Advisor: Dr. Francis S. Collins Graduate University: University of Oxford University Research Advisor: Dr. Anna L. Gloyn

POSTER NUMBER: 64 ABERRANT IRON HOMEOSTASIS, INCREASED FATTY ACID UPTAKE, AND ACTIVATION OF KETOGENESIS IN MUSCLE TISSUE OF ISCU MYOPATHY PATIENTS

Thane Natarajan, Hongzhan Huang, Chuming Chen, Manik C. Ghosh, Ronald G. Haller, Wing-Hang Tong, Cathy Wu, and Tracey A. Rouault 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

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Joanna Fares, Linda Wolff, and Juraj Bies Graduate Student Name: Joanna Fares NIH Institute-Center: NCI NIH Research Advisor: Dr. Linda Wolff Graduate University: Georgetown University

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THE DEVELOPMENT OF NEURAL CIRCUITRY MEDIATING RESPONSE FLEXIBILITY IN BIPOLAR DISORDER

Judah D. Weathers, Melissa Brotman, Christen Deveney, Cate Haring, Daniel Pine, and Ellen Leibenluft

Graduate Student Name: Judah D. Weathers NIH Institute-Center: NIMH NIH Research Advisor: Dr. Ellen Leibenluft Graduate University: Oxford University University Research Advisor: Professor Guy Goodwin

POSTER NUMBER: 67

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Jaime Eberle, Aaron N Vassall, Richard Beers, Itai Benhar and Ira Pastan Graduate Student Name: Ronit Mazor NIH Institute-Center: NCI NIH Research Advisor: Dr. Ira Pastan Graduate University: Tel Aviv University University Research Advisor: Prof. Itai Benhar

POLYMER CONJUGATES OF TOLL-LIKE RECEPTOR LIGANDS AS VACCINE ADJUVANTS

Richard Laga, Kerry Fisher, Leonard Seymour, Robert Seder

Graduate Student Name: Geoffrey M. Lynn NIH Institute-Center: NIAID NIH Research Advisor: Dr. Robert Seder Graduate University: University of Oxford University Research Advisor: Dr. Leonard Seymour

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HOW TO HALT A HIJACKING: UNDERSTANDING THE ROLE OF INTRINSIC NUCLEAR DEFENSE PROTEINS DURING HPV INFECTION

Wesley H. Stepp, Jordan Myers, and Alison A. McBride Graduate Student Name: Wesley H. Stepp NIH Institute-Center: NIAID NIH Research Advisor: Dr. Alison A. McBride Graduate University: Georgetown University University Research Advisor: Dr. John L. Casey

POSTER NUMBER: 70 BACTERIAL EXPRESSION OF A SELF-ASSEMBLING PEPTIDE THAT CAN UNDERGO HYDROGELATION

Cem Sonmez and Joel P. Schneider Graduate Student Name: Cem Sonmez NIH Institute-Center: NCI NIH Research Advisor and University Research Advisor: Dr. Joel P. Schneider Graduate University: University of Delaware

POSTER NUMBER: 71

BIOCHEMICAL CHARACTERIZATION OF ACTMP1, A PUTATIVE TISSUE INHIBITOR OF METALLOPROTEASES SECRETED BY THE PARASITIC HOOKWORM, ANCYLOSTOMA CANINUM

Mariel Gindin, Jesus G. Valenzuela, and Peter J. Hotez Graduate Student Name: Mariel Gindin 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: 72

CARBON NANOTUBES AS CANCER TARGETED, INTRACELLULAR ACTIVATABLE PROBES

Magdalena Swierczewska, Ki Young Choi, Seulki Lee, and Xiaoyuan Chen

Graduate Student Name: Magdalena Swierczewska NIH Institute-Center: NIBIB NIH Research Advisor: Dr. Xiaoyuan Chen Graduate University: Stony Brook University University Research Advisor: Dr. Mary Frame

CHARACTERIZATION AND ANALYSIS OF POLYCLONAL SERA DERIVED FROM HIV-1-INFECTED INDIVIDUALS IN CHINA

Xintao Hu,Lan Wu, Xueling Wu, Sijy O'Dell, Xuejun Chen, John R.Mascola, Kunxue Hong, Zhi-yong Yang, Yiming Shao and Gary J. Nabel Graduate Student Name: Xintao Hu NIH Institute-Center: NIAID NIH Research Advisor: Dr. Gary J. Nabel Graduate University: Chinese Center for Disease Control and Prevention University Research Advisor: Dr. Yiming Shao

POSTER NUMBER: 74

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Rui J. Xing, Jin Xie, Maria Aronova, GuoF. Zhang, Ning Guo, Xing L. Huang, Xiao L. Sun, Gang Liu, L. H. Bryante, Ashwinkumar Bhirde, Amy Liang, Yang L. Hou, Richard D. Leapman, Shou H. Sun and Xiao Y. Chen Graduate Student Name: Rui J. Xing NIH Institute-Center: NIBIB NIH Research Advisor: Dr. Xiao Y. Chen Graduate University: Peking University University Research Advisor: Dr. Yang L. Hou

POSTER NUMBER: 75 LY108, A DYNAMIC THYMOCYTE RECEPTOR WHOSE ISOFORM EXPRESSION AND SIGNALING IS RELATED TO DEVELOPMENT OF AUTOIMMUNITY

Mala Dutta, Zachary Kraus, Pam Schwartzberg Graduate Student Name: Mala Dutta NIH Institute-Center: NHGRI NIH Research Advisor: Dr. Pam Schwartzberg Graduate University: The George Washington University University Research Advisor: Dr. Dave Leitenberg

POSTER NUMBER: 76

DECODING AMPA RECEPTOR ASSEMBLY AND DYNAMICS AT THE ATOMIC LEVEL

Madhav Sukumaran, Maxim Rossmann, Andrew C. Penn, Dmitry B. Veprintsev, and Ingo H. Greger Graduate Student Name: Madhav Sukumaran NIH Institute-Center: NICHD NIH Research Advisor: Dr. Chris J. McBain Graduate University: Cambridge University University Research Advisor: Dr. Ingo H. Greger POSTER NUMBER: 77

EFFECTS OF HHV-6A INFECTION IN THE COMMON MARMOSET

Emily C. Leibovitch, Jillian E. Wohler, Maria I. Gaitan, Pietro Maggi, Erin Harberts, Kelsey Motanic, Giovanna Brunetto,

Afonso C. Silva, Daniel S. Reich, and Steven Jacobson Graduate Student Name: Emily C. Leibovitch NIH Institute-Center: NINDS NIH Research Advisor: Dr. Steven Jacobson Graduate University: The George Washington University University Research Advisor: Dr. David Leitenberg

FOLIC ACID-CONJUGATED SILICA-MODIFIED GOLD NANORODS FOR X-RAY/CT IMAGING-GUIDED TARGETING DUAL-MODEL ENHANCED RADIATION THERAPY AND PHOTO-THERMAL THERAPY

Peng Huang, Jing Lin, Daxiang Cui, and Xiaoyuan(Shawn) Chen

Graduate Student Name: Peng Huang

NIH Institute-Center: NIBIB NIH Research Advisor: Dr. Xiaoyuan(Shawn) Chen Graduate University: Shanghai Jiao Tong University University Research Advisor: Dr. Daxiang Cui

POSTER NUMBER: 79

AUTOANTIBODIES AGAINST INSULIN MEASURED BY ELECTROCHEMILUMINESCENCE PREDICTS INSULITIS SEVERITY AND DISEASE ONSET IN NON-OBESE DIABETIC MICE AND CAN DISTINGUISH HUMAN TYPE 1 DIABETES STATUS

Austin D.-E. Swafford, Bernice Lo, Kimberly A. Shafer-Weaver, Lawrence F. Jerome, Luba Rakhlin, Douglas R. Mathern, Conor A. Callahan, Ping Jiang, Lucy J. Davison, Helen E. Stevens, Carrie L. Lucas, Jill White, Reid von Borstel, John A. Todd, and Michael J. Lenardo *Graduate Student Name: Austin D.-E. Swafford NIH Institute-Center: NIAID*

NIH Research Advisor: Dr. Michael J. Lenardo Graduate University: University of Cambridge

University Research Advisor: Dr. John A. Todd

POSTER NUMBER: 80

TARGETING AUTOPHAGIC DEGRADATION OF MISFOLDED PROCOLLAGEN IN THE AMISH MOUSE MODEL OF OSTEOGENESIS IMPERFECTA

Lynn Felts, Elena Makareeva, Ed Mertz, and Sergey Leikin Graduate Student Name: Lynn Felts NIH Institute-Center: NICHD NIH Research Advisor: Dr. Sergey Leikin Graduate University: University of Texas Medical Branch University Research Advisor: Dr. Darren Boehning

POSTER NUMBER: 81

NEUROIMMUNOLOGICAL FINDINGS FROM PATIENTS WITH MULTIPLE SCLEROSIS BY FLOW CYTOMETRIC IMMUNOPHENOTYPING OF CEREBROSPINAL FLUID AND BLOOD

SungPil Han, Alan D. Salgado, Tariq B. Alfahad, and Bibiana Bielekova Graduate Student Name: SungPil Han NIH Institute-Center: NINDS NIH Research Advisor: Dr. Bibiana Bielekova Graduate University: Pusan National University University Research Advisor: Dr. Saeock Oh

POSTER NUMBER: 82 FUNCTIONAL CHARACTERIZATION OF PRICKLE 2, A CORE PLANAR CELL POLARITY PROTEIN, IN MOUSE RETINA

Samelia Okpodu, Chunqiao Liu, Alexander Bassuk, Helen May-Simera, Vinit B. Mahajan, Werner Graf, Anand Swaroop, and Tiansen Li Graduate Student Name: Samelia Okpodu NIH Institute-Center: NEI NIH Research Advisor: Dr. Tiansen Li Graduate University: Howard University University Research Advisor: Dr. Werner Graf

TYPE I INTERFERON INDUCED BY RARE-SEROTYPE ADENOVIRUS VACCINE VECTORS HAS MULTIPLE EFFECTS ON T CELL IMMUNOGENICITY

Matthew J. Johnson, Costas Petrovas, Jason G.D. Gall, Elias K. Haddad, Rafick P. Sekaly, Robert A. Seder, and Richard A. Koup Graduate Student Name: Matthew J. Johnson NIH Institute-Center: NIAID NIH Research Advisor: Dr. Richard A. Koup Graduate University: Georgetown University

POSTER NUMBER: 84

SMALL PROTEINS MEDIATE A CHECKPOINT TO PROGRESS THROUGH A BACTERIAL DEVELOPMENTAL PROGRAM

Irene S. Tan, Sarah E. Ebmeier, Katie Rose Clapham, and Kumaran S. Ramamurthi Graduate Student Name: Irene S. Tan NIH Institute-Center: NCI NIH Research Advisor: Dr. Kumaran S. Ramamurthi Graduate University: The Johns Hopkins University

POSTER NUMBER: 85

ACCELERATED T CELL MEDIATED COLITIS IN THE ABSENCE OF TYPE I INTERFERON SIGNALING

Abhi Kole, Jianping He, Aymeric Rivollier, Danielle Silveira, Kazuya Kitamura, Kevin Maloy, and Brian Kelsall Graduate Student Name: Abhi Kole

NIH Institute-Center: NIAID NIH Research Advisor: Dr. Brian Kelsall Graduate University: University of Oxford University Research Advisor: Dr. Kevin Maloy

POSTER NUMBER: 86

SINGLE CELL ANALYSIS OF EARLY RETINAL GANGLION CELL DEVELOPMENT

Szilard Sajgo, Miruna Ghinia, and Tudor C. Badea Graduate Student Name: Szilard Sajgo NIH Institute-Center: NEI NIH Research Advisor: Dr. Tudor C. Badea Graduate University: Babes-Bolyai University University Research Advisor: Dr. Octavian Popescu

POSTER NUMBER: 87 GASTROINTESTINAL EOSINOPHILS REGULATE MUCOSAL CD4+ T CELL RESPONSES AND ARE CONTROLLED BY THE DIETARY METABOLITE RETINOIC ACID

Jason Hall, John Grainger, Shruti Naik, and Yasmine Belkaid Graduate Student Name: Sean P. Spencer NIH Institute-Center: NIAID NIH Research Advisor: Dr. Yasmine Belkaid Graduate University: University of Pennsylvania

POSTER NUMBER: 88 ESTABLISHING A GRADIENT OF WNT ACTIVITY IN THE ZEBRAFISH LATERAL LINE PRIMORDIUM Caitlin M. Younts and Ajay B. Chitnis

Graduate Student Name: Caitlin M. Younts NIH Institute-Center: NICHD NIH Research Advisor: Dr. Ajay B. Chitnis Graduate University: Johns Hopkins University

POSITIVE AND NEGATIVE SIGNALING THROUGH SLAM RECEPTORS REGULATE SYNAPSE ORGANIZATION AND THRESHOLDS OF CYTOLYSIS

Fang Zhao, Jennifer Cannons, Mala Dutta, Gillian Griffiths, and Pamela Schwartzberg Graduate Student Name: Fang R Zhao NIH Institute-Center: NHGRI NIH Research Advisor: Dr. Pamela Schwartzberg Graduate University: University of Cambridge University Research Advisor: Dr. Gillian Griffiths

POSTER NUMBER: 90 IN-DEPTH ANALYSIS OF CHROMATIN MODIFICATIONS AND CHARACTERIZATION OF IPS CELLS-DERIVED MESENCHYMAL STEM CELLS

Bethtrice Thompson, Lars Grontved, Lyuba Varticovski, and Gordon Hager Graduate Student Name: Bethtrice Thompson NIH Institute-Center: NCI NIH Research Advisor: Dr. Lyuba Varticovski Graduate University: Howard University University Research Advisor: Dr. Clarence Lee

POSTER NUMBER: 91 WHOLE EXOME SEQUENCING (WES) APPLIED TO A FAMILY AFFECTED BY FULMINANT HEPATIC FAILURE (FHF) DUE TO HEPATITIS A VIRUS (HAV)

María B. Eyheramonho, Yu Zhang, Nadia Hussein, Graciela Saieg, Helen Su, and Sergio D. Rosenzweig Graduate Student Name: María Belén Eyheramonho NIH Institute-Center: NIAID NIH Research Advisor: Dr. Sergio D. Rosenzweig Graduate University: Universidad de Buenos Aires

POSTER NUMBER: 92

INDOOR COAL SMOKE EXPOSURE, TOBACCO USE, AND LUNG CANCER RISK IN XUANWEI, CHINA Robert Chapman, Wei Hu, Xingzhou He, H. Dean Hosgood, Larry Z. Liu, Hong Lai, Linwei Tian, Wei Chen,

Nathaniel Rothman, and Qing Lan Graduate Student Name: Christopher Kim NIH Institute-Center: NCI-DCEG NIH Research Advisor: Dr. Qing Lan Graduate University: Yale University University Research Advisor: Dr. Yawei Zhang

POSTER NUMBER: 93 HIV-1 AND REACTIVATED COINFECTING HERPESVIRUSES REARRANGE THE CYTOKINE NETWORK IN SEMEN OF INFECTED INDIVIDUALS

Andrea Introini, Andrea Lisco, Arshi Munawwar, Christophe Vanpouille, Jean-Charles Grivel, Sarman Singh, and Leonid Margolis Graduate Student Name: Andrea Introini NIH Institute-Center: NICHD NIH Research Advisor: Dr. Leonid Margolis

Graduate University: University of Milan

University Research Advisor: Dr. Luisa Ottobrini

CURRENT SUICIDE RISK DURING THE FIRST TRIMESTER OF PREGNANCY AND SOCIAL, PSYCHIATRIC AND NUTRITIONAL RISK FACTORS: A COHORT STUDY OF LOW INCOME WOMEN FROM RIO DE JANEIRO, BRAZIL

Juliana S. Vaz, Fernanda Rebelo, Antonio E. Nardi, Gilberto Kac, and Joseph R. Hibbeln

Graduate Student Name: Juliana S. Vaz NIH Institute-Center: NIAAA NIH Research Advisor: CAPT Joseph R. Hibbeln Graduate University: Federal University of Rio de Janeiro University Research Advisor: Dr. Gilberto Kac

POSTER NUMBER: 95

THE ENDOGENOUS GLUCOCORTICOID RESPONSE PLAYS A CRITICAL IMMUNOREGULATORY ROLE DURING TOXOPLASMA GONDII INFECTION BY PREVENTING T CELL MEDIATED LETHALITY

Paul R. Mittelstadt, John Ashwell, Alan Sher, and Dragana Jankovic

Graduate Student Name: David G. Kugler NIH Institute-Center: NIAID NIH Research Advisor: Dr. Alan Sher Graduate University: John Hopkins University

POSTER NUMBER: 96

B7-H1 EXPRESSION IN LUNG CANCER IS ASSOCIATED WITH ACTIVE PI3K PATHWAY SIGNALING: A POSSIBLE LINK OF IMMUNE ESCAPE AND ONCOGENESIS

Kristin J. Lastwika, Willie Wilson 3rd, and Phillip A. Dennis Graduate Student Name: Kristin J. Lastwika NIH Institute-Center: NCI NIH Research Advisor: Dr. Phillip A. Dennis Graduate University: The George Washington University

POSTER NUMBER: 97 IDENTIFICATION OF NOVEL GENES ASSOCIATED WITH SPREADING AND HOST-RANGE FOR THE MODIFIED VACCINIA ANKARA

Jorge D. Mendez-Rios, Craig A. Martens, Stephen F. Porcella, Bernard Moss Graduate Student Name: Jorge D. Mendez-Rios NIH Institute-Center: NIAID NIH Research Advisor: Dr. Bernard Moss Graduate University: University of Maryland

POSTER NUMBER: 98

COLLATERAL SENSITIVITY AS A STRATEGY AGAINST CANCER MULTIDRUG RESISTANCE

Kristen M. Pluchino, Matthew D. Hall, Andrew S. Goldsborough, Richard Callaghan, and Michael M. Gottesman *Graduate Student Name: Kristen M. Pluchino*

NIH Institute-Center: NCI NIH Research Advisor: Dr. Michael M. Gottesman Graduate University: Oxford University University Research Advisor: Dr. Richard Callaghan

SIGNIFICANT ASSOCIATIONS BETWEEN INCREASED PLASMA UA LEVELS AND SYSTEMIC ENDOTHELIAL ACTIVATION AND DAMAGE BIOMARKER LEVELS IN MALIAN CHILDREN WITH PLASMODIUM FALCIPARUM MALARIA, AND IN VITRO ENDOTHELIAL CELL ACTIVATION BY P. FALCIPARUM-DERIVED UA, SUGGEST A MAJOR ROLE OF UA IN MALARIA PATHOGENESIS

Neida K. Mita-Mendoza, Tatiana M. Lopera-Mesa, Saibou Doumbia, Drissa Konaté, Mory Doumbia, Jennifer Anderson, Seidina A. S. Diakité, Karim Traoré, Diana L. Van de Hoef, Ababacar Diouf, Michael P. Fay, Leopoldo Santos-Argumedo, Ana Rodriguez. and Mahamadou Di

Graduate Student Name: Neida K. Mita-Mendoza NIH Institute-Center: NIAID

NIH Research Advisor: Dr. Rick M. Fairhurst

Graduate University: Center for Research and Advanced Studies of the National Polytechnic Institute, CINVESTAV, Mexico University Research Advisor: Dr. Leopoldo Santos-Argumedo

POSTER NUMBER: 100 A NOVEL SINGLE-DOMAIN HUMAN MONOCLONAL ANTIBODY TARGETING MESOTHELIN FOR CANCER THERAPY

Zhewei Tang, Mingqian Feng, Min Qian, and Mitchell Ho Graduate Student Name: Zhewei Tang NIH Institute-Center: NCI NIH Research Advisor: Dr. Mitchell Ho Graduate University: East China Normal University University Research Advisor: Dr. Min Qian

POSTER NUMBER: 101

APTAMER-BASED DISCOVERY OF A CONSERVED MALARIAL RED CELL PROTEIN

Eugene K. Oteng, Chris Newbold, and Carole A. Long Graduate Student Name: Eugene K. Oteng NIH Institute-Center: NIAID NIH Research Advisor: Dr. Carole A. Long Graduate University: University of Oxford University Research Advisor: Dr. Chris Newbold

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THERAPEUTIC GENE DELIVERY WITH HUMAN T-CELL LYMPHOTROPIC VIRUS VECTOR SYSTEM Matoya A. Robinson, Naoya Uchida, and John F. Tisdale

Graduate Student Name: Matoya A. Robinson NIH Institute-Center: NHLBI NIH Research Advisor: Dr. John F. Tisdale Graduate University: Johns Hopkins University

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QUIESCENT RESPONSE OF HUMAN LANGERHANS' CELLS TO FILARIAL PARASITES SUGGESTS A METHOD OF IMMUNE EVASION USED BY FILARIAE AND OTHER SKIN-TRANSITING HELMINTHS

Alexis Boyd, Vivornpun Sanprasert, Melissa Law, Yuanyuan Wang, Damien Chaussabel, Thomas B. Nutman, and Roshanak Tolouei Semnani *Graduate Student Name: Alexis Boyd NIH Institute-Center: NIAID*

NIH Research Advisor: Dr. Thomas B. Nutman

Graduate University: The George Washington University

University Research Advisor: Dr. Paul Brindley

INVESTIGATION OF THE USE OF FOXO3-EXPRESSING DCS TO INDUCE T CELL TOLERANCE AND LESSEN DISEASE SEVERITY IN AN ANIMAL MODEL OF MULTIPLE SCLEROSIS

Katherine. E.R. Stagliano, Stephanie K. Watkins, and Arthur A. Hurwitz

Graduate Student Name: Katherine E.R. Stagliano NIH Institute-Center: NCI NIH Research Advisor: Dr. Arthur A. Hurwitz Graduate University: The George Washington University University Research Advisor: Dr. David Leitenberg

POSTER NUMBER: 105 EXPLORING TOLL-LIKE RECEPTORS AND CILIARY FUNCTION UTILIZING PRIMARY RESPIRATORY CELL CULTURES

Cedar J. Fowler, Rhonda E. Colombo, Andrea Henkel, Heather Root, Clare E. Bryant, Kenneth N. Olivier, and Steve M. Holland Graduate Student Name: Cedar J. Fowler NIH Institute-Center: NIAID NIH Research Advisor: Dr. Steve Holland Graduate University: University of Cambridge University Research Advisor: Dr. Clare E. Bryant

POSTER NUMBER: 106

GIARDIA INFECTION ELICITS SPECIFIC LYMPHOCYTE IMMUNE RESPONSE IN MICE

Kevin W. Tosh and Steven M. Singer Graduate Student Name: Kevin W. Tosh NIH Institute-Center: NIAID NIH Research Advisor: Dr. Brian Kelsall Graduate University: Georgetown University University Research Advisor: Dr. Steven Singer

POSTER NUMBER: 107 CD47 IS A NOVEL PLAYER IN NLRP3-DEPENDENT INFLAMMASOME ACTIVATION

Erica V. Stein, Dhammika Navarathna, Thomas W. Miller, Kevin Shenderov, Kelly Ivins-O'Keefe, David D. Roberts Graduate Student Name: Erica V. Stein

NIH Institute-Center: NCI NIH Research Advisor: Dr. David D. Roberts Graduate University: The George Washington University University Research Advisor: Dr. David Leitenberg

POSTER NUMBER: 108

NATURAL KILLER CELL REGULATION BY HLA-C AND MULTIPLE SCLEROSIS

Malcolm J. W. Sim, Daniel M. Altmann, Rosemary J Boyton, and Eric O. Long Graduate Student Name: Malcolm J. W. Sim NIH Institute-Center: NIAID NIH Research Advisor: Dr. Eric O. Long Graduate University: Imperial College London University Research Advisor: Dr. Rosemary J. Boyton

LOSS OF MAGNESIUM TRANSPORTER 1 LEADS TO A NOVEL HUMAN PRIMARY IMMUNODEFICIENCY WITH T CELL ACTIVATION DEFECT

Feng-Yen Li, Benjamin Chaigne-Delalande, Chrysi Kanellopoulou, Jeremiah C. Davis, Helen F. Matthews, Daniel C. Douek, Jeffrey I. Cohen, Gulbu Uzel, Helen C. Su, Michael J. Lenardo Graduate Student Name: Feng-Yen Li NIH Institute-Center: NIAID NIH Research Advisor: Dr. Michael J. Lenardo Graduate University: University of California San Francisco

POSTER NUMBER: 110

INSIGHTS INTO THE FUNCTION OF THE PARKINSON'S DISEASE PROTEIN DJ-1

David N. Hauser and Mark R. Cookson Graduate Student Name: David N. Hauser NIH Institute-Center: NIA NIH Research Advisor: Mark R. Cookson Graduate University: Brown University

POSTER NUMBER: 111 INHIBITION OF FTSZ BY A NOVEL ANTIBACTERIAL COMPOUND

Jessica L. Keffer, Alberto Plaza and Carole A. Bewley Graduate Student Name: Jessica L. Keffer NIH Institute-Center: NIDDK NIH Research Advisor: Dr. Carole A. Bewley Graduate University: Georgetown University

POSTER NUMBER: 112

THE ROLE OF MELATONIN AND SLOW WAVE SLEEP IN MEMORY CONSOLIDATION AND NEURAL PLASTICITY

Joseph Arizpe, Chris I. Baker, and Vincent Walsh Graduate Student Name: Joseph Arizpe NIH Institute-Center: NIMH NIH Research Advisor: Dr. Chris Baker Graduate University: University College London University Research Advisor: Dr. Vincent Walsh

POSTER NUMBER: 113 MCAS: A SMALL RNA THAT REGULATES MOTILITY AND BIOFILM FORMATION IN RESPONSE TO DECREASED NUTRIENT AVAILABILITY IN ESCHERICHIA COLI

Maureen K. Thomason, Fanette Fontaine, Nicholas De Lay, Gisela Storz Graduate Student Name: Maureen K. Thomason NIH Institute-Center: NICHD NIH Research Advisor: Dr. Gisela Storz Graduate University: Georgetown University

DUAL RECOMBINASE DEPENDENT CONDITIONAL KNOCK-IN REPORTER STRATEGY FOR THE STUDY OF DEVELOPMENT AND FUNCTION OF RETINAL GANGLION CELLS

Melody Shi, Szilard Sajgo, and Tudor Badea Graduate Student Name: Miruna Ghinia NIH Institute-Center: NEI NIH Research Advisor: Dr. Tudor Badea Graduate University: "Babes Bolyai" University Cluj Napoca University Research Advisor: Dr. Octavian Popescu

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A SMALL MEMBRANE PROTEIN THAT CONNECTS MAGNESIUM AND PHOSPHATE SENSING IN ESCHERICHIA COLI

Xuefeng Yin, Errett C. Hobbs, and Gisela Storz Graduate Student Name: Xuefeng Yin NIH Institute-Center: NICHD NIH Research Advisor: Dr. Gisela Storz Graduate University: Peking University

POSTER NUMBER: 116

IN VIVO MRI TRACKING OF MPIO-LABELED MICROGLIA IN A MURINE GLIOMA MODEL

Kelly Shaffer, Jeeva Munasinghe, Tatjana Atanasijevic, Hellmut Merkle, Dragan Maric, Michael Shen, Andrea Sedlock, Alan Koretsky, Robert Harris, and John Park Graduate Student Name: Kelly Shaffer NIH Institute-Center: NINDS NIH Research Advisor: Dr. John K. Park Graduate University: Karolinska Institutet University Research Advisor: Dr. Robert Harris

POSTER NUMBER: 117 CHARACTERIZATION OF EBOLA VIRUS TRANSCRIPTIONAL EDITING

Thomas Hoenen, Travis Taylor, Stacy Ricklefs, Steve Porcella, and Heinz Feldmann Graduate Student Name: Masfique Mehedi NIH Institute-Center: NIAID NIH Research Advisor and University Research Advisor: Dr. Heinz Feldmann Graduate University: University of Manitoba

POSTER NUMBER: 118

A PHENOMENOLOGICAL APPROACH TO PSYCHO-SOCIO-SPIRITUAL HEALING IN CARDIAC REHABILITATION PATIENTS

Sheeba R. Nadarajah, Ann Berger, Perry Skeath, Sue A. Thomas, and Debra Wiegand Graduate Student Name: Sheeba R. Nadarajah NIH Institute-Center: NINR NIH Research Advisor: Dr. Ann Berger Graduate University: University of Maryland University Research Advisors: Dr. Sue A. Thomas and Dr. Debra Wiegand

THE HIV-1 ENVELOPE PROTEIN MIMICS MADCAM-1 AND VCAM IN BINDING TO INTEGRIN- $\alpha 4\beta 7$

Fatima Nawaz, Shreya Shrestha, James Knox, Veronica Wright, Julia Chang, Catherine Schwing, Joseph Hiatt, Mayrel Perez, Donald Van Ryk, Danlan Wei, Katija Jelicic, Anthony Fauci, Claudia Cicala and James Arthos *Graduate Student Name: Fatima Nawaz*

NIH Institute-Center: NIAID NIH Research Advisor: Dr. James Arthos Graduate University: New York University University Research Advisor: Dr. Susan Zolla-Pazner

POSTER NUMBER: 120

ANALYSIS OF COLLECTIVE FORCES INVOLVED IN EPITHELIAL SHEET MIGRATION

Rachel Lee, Michael Weiger, Christina Stuelton, Carole Parent, and Wolfgang Losert Graduate Student Name: Rachel M. Lee NIH Institute-Center: NCI NIH Research Advisor: Dr. Carole A. Parent Graduate University: University of Maryland - College Park University Research Advisor: Dr. Wolfgang Losert

POSTER NUMBER: 121 INVESTIGATING THE MOLECULAR BASIS FOR THE CELL-TYPE DEPENDENCE OF ANTIBODY-MEDIATED NEUTRALIZATION OF FLAVIVIRUSES

Christopher J. Obara, Kimberly A. Dowd, and Ted C. Pierson Graduate Student Name: Christopher J. Obara NIH Institute-Center: NIAID NIH Research Advisor: Dr. Ted C. Pierson Graduate University: Georgetown University University Research Advisor: Dr. R. Padmanabhan

POSTER NUMBER: 122 DEVELOPMENT OF A HYDROGEL-BASED IN VITRO MODEL TO STUDY THE EFFECTS OF CAMP SIGNALING ON COLLAGEN AND EXTRACELLULAR MATRIX FORMATION AND STRUCTURE

Jenna M. Shapiro, Sergey Leikin, Pamela Robey, Michelle L. Oyen, Constantine A. Stratakis Graduate Student Name: Jenna M. Shapiro NIH Institute-Center: NICHD NIH Research Advisor: Dr. Constantine A. Stratakis Graduate University: University of Cambridge University Research Advisor: Dr. Michelle L. Oyen

POSTER NUMBER: 124 STRUCTURAL, FUNCTIONAL AND COMPUTATIONAL STUDIES OF SIGNAL TRANSDUCTION IN BACTERIAL CHEMOTAXIS

Madhvi J. Venkatesh, Judith P. Armitage, and Sriram Subramaniam

Graduate Student Name: Madhvi J. Venkatesh

NIH Institute-Center: NCI

NIH Research Advisor: Dr. Sriram Subramaniam

Graduate University: University of Oxford

University Research Advisor: Dr. Judith P. Armitage

DO ANTIRETROVIRAL DRUG AND METABOLITE MECONIUM CONCENTRATIONS IN IN UTERO EXPOSED NEONATES UNINFECTED WITH HIV BETTER REFLECT ADVERSE DEVELOPMENTAL OUTCOMES THAN MATERNAL ANTIRETROVIRAL HISTORIES?

Katherine Tassiopoulos, Deborah Kacanek, Rohan Hazra, Nicolette Borek, Kenneth Rich, and Marilyn A. Huestis, for the Pediatric HIV/AIDS Cohort Study (PHACS) Graduate Student Name: Sarah K. Himes NIH Institute-Center: NIDA NIH Research Advisor: Dr. Marilyn A. Huestis Graduate University: University of Maryland, Baltimore University Research Advisor: Dr. Marilyn A. Huestis

POSTER NUMBER: 127

INVOLVEMENT OF TRANSDUCER OF REGULATED CREB ACTIVITY (TORC) IN ACTH INDUCED REGULATION OF STEROIDOGENIC ACUTE REGULATORY PROTEIN (STAR) TRANSCRIPTION IN THE ADRENAL

Lorna Smith, Victoria Poon, Mark Olah, Ying Liu, and Greti Aguilera

Graduate Student Name: Lorna Smith NIH Institute-Center: NICHD

NIH Research Advisor: Dr. Greti Aguilera Graduate University: University of Bristol, UK

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