

4th ANNUAL NIH BALTIMORE FELLOWS SYMPOSIUM

RECOGNIZING NHGRI, NIA & NIDA POSTDOCTORAL FELLOWS

2012



BRC Atrium • Friday Nov. 2, 2012

SAVE THE DATE!

FRIDAY, NOVEMBER 2nd, 2012

9:00am to 4:00pm

NIDA
NATIONAL INSTITUTE
ON DRUG ABUSE



National Human
Genome Research
Institute

Program schedule for the day

- 9am **Opening and Coffee** (Atrium)
- 9:30-10:00 **Skill Blitz:** Networking (Room 3C227)
Skill Blitz: Cover Letters (Room 3C211)
- 10:00-10:30 **Skill Blitz:** Transferrable Skills (Room 3C227)
Skill Blitz: Interviewing (Room 3C211)
- 10:30-11:30 **Research Talks by NIH Fellows**
(Rooms 3C227, 3C211, 3C219)
- 10:30-3:30 **Exhibitors from OITE, NIH Tech Transfer and UMUC**
(Atrium)
- 11:30 -1:00 **LAB FEUD Featuring Lab Trivia and Family-Feud-style Competition!**
- 1:00-1:30 **Skill Blitz** Activities to Enhance Your CV (Room 3C227)
Skill Blitz: Social Media and the Job Hunt (Room 3C211)
- 1:30-2:00 **Skill Blitz:** Advertising Yourself on Your CV (Room 3C227)
Skill Blitz: Managing Job Search Stress (Room 3C211)
- 2:00-3:00 **Research Talks by NIH Fellows**
(Room 3C227, 3C211, 3C219)
- 3:00-4:00 **Poster Session** (Atrium)
- 4pm **Wacky Data Contest Winner Announced**

“Skillz Blitz” Descriptions

These short sessions are designed to give you an overview of the skills required to mount a successful job search. These will be a fast paced, fun-filled way to start the day. Each session will be strictly limited to 25 minutes, with a five minute break. Presenters will give you the highlights of the topics, with ideas on how to follow up with additional resources. Speakers will be OITE staff. You will be able to choose three sessions from the following offerings:

Networking

You have met some terrific people today (or missed their session as you went to another.) Find out how to expand and maintain your network.

Transferrable Skills

How do you talk about the skills you already have or gain additional skills so employers see you as a competitive candidate?

Cover Letters

There are few simple rules for a cover letter. Make this part of your job package shine.

Interviewing

This session will help you navigate the interview process.

Activities to Enhance Your CV

You have heard many speakers talk about the importance of acquiring leadership skills or other non-lab skills today. Gather information on how to get these skills right here on campus.

Advertising Yourself on Your CV

The top-10 highlights on your job search documents.

Social Media and the Job Hunt

LinkedIn, Twitter, Facebook, and others: How can these tools advance your job search?

Managing Job Search Stress

Job searching can be stressful: deciding what you want to do, where you want to live, and how to manage it all. Come hear tips to navigate your career search while decreasing your stress level.

Poster Presentations

1 Shiliang (Steven) Zhang*



NIDA Cellular Neurobiology Branch

Ultrastructural and optogenetic evidence for dual neuronal signaling by dopamine neurons of the ventral tegmental area (VTA)

2 Morten Scheibye-Knudsen



NIA Laboratory of Molecular Gerontology

A high fat diet attenuates the phenotype of a mouse model of accelerated aging

3 Chandrika Canugovi*



NIA Laboratory of Molecular Gerontology

Endonuclease VIII-like 1 (NEIL1) promotes short-term spatial memory retention and protects from ischemic stroke-induced brain dysfunction and death in mice

4 Chien-Ying (James) Chuang



NIDA: Integrative Neuroscience Branch

Cocaine hijacks sigma-1 receptors from the ER to the nuclear membrane to interact with lamina complex: Effect on MeCP2 gene expression

5 Ines Tomas Pereira



NIA Laboratory of Experimental Gerontology

Neural network patterns of experience-dependent immediate early gene expression in a rat model of age-related memory impairment

6 Jennifer Illuzzi



NIA Laboratory of Molecular Gerontology

Structural and functional evaluation of population and tumor-associated APE1 variants

7 Lisa Russell



NIA Laboratory of Molecular Biology & Immunology

The ABCs of aging: SHM, CSR, and translocations

8 Kimberly Zanotti



NIA Laboratory of Molecular Biology & Immunology
Characterization of single-strand DNA breaks in VH genes during somatic hypermutation

9 Bo Zhang



NIA Laboratory of Experimental Gerontology
Selective lesions of the hippocampus in rhesus monkeys fail to affect performance across a battery of standard memory tasks

10 Sarah Rothman*



NIA Laboratory of Neurosciences
A53T α -synuclein Parkinson's disease model mice display early motor and anxiety symptoms, and aberrant sleep and monoamine neurotransmitter levels

11 Thomas Keck*



NIDA Molecular Targets and Medications Discovery Branch
New allosteric modulators of mGluR5 display therapeutic effects in rodent models of anxiety and drug addiction

12 Wei Peng



NIA Laboratory of Genetics
Using siRNA and gene-knockout methods to study function of an RNA topoisomerase in translation

13 Hideaki Yano



NIDA Molecular Targets and Medications Discovery Branch
Toward better understanding of G(s) coupling in catecholamine receptors

14 Jonathan Britt*



NIDA Cellular Neurobiology Branch
Glutamate input to the nucleus accumbens reinforces behavior and drives cocaine-induced locomotion

15 Auriel Willette



NIA Laboratory of Neurosciences

Steady-state glucose levels in the precuneus are differentially associated with glutamate and γ -aminobutyric acid concentrations

16 Seongjin Yu



NIDA Molecular Neuropsychiatry Branch

A non-invasive post-treatment strategy for stroke by intranasal delivery of cocaine- and amphetamine-regulated transcript

17 Kimberly Jacob*



NIA Laboratory of Molecular Biology & Immunology

Alzheimer's Disease-associated polymorphisms in human OGG1 alter catalytic activity and sensitize cells to DNA damage

18 Irene Avila



NIA Laboratory of Behavioral Neuroscience

Neural control of reaction time at the distribution level but not in single trials

19 Zhi, Zhang



NIA Laboratory of Neurosciences

Altered adult hippocampal neurogenesis in prenatal immune challenge model of schizophrenia

20 Je-Hyun Yoon



NIA Laboratory of Genetics

Scaffold function of long noncoding RNA HOTAIR in protein ubiquitination

21 Ingrid Tulloch



NIDA Molecular Neuropsychiatry Branch

Acute and multiple injections of methamphetamine induce differential expression of immediate early genes in the nucleus accumbens and midbrain of rats

22 Dong Wang



NIDA Behavioral Neuroscience Branch

Hippocampal control of the median raphe activity during ripple oscillation: A new circuitry for memory consolidation process?

23 Mingzhu Yin



NIA Laboratory of Genetics

Toward characterization of ion channels involved in sweat secretion

24 Huikun Wang



NIDA Cellular Neurobiology Branch

Cocaine inhibit GABA_B-receptor mediated current by activating 5HT_{1b} receptor and releasing endocannabinoid in ventral tegmental area dopaminergic neurons

25 Carlos Mejias-Aponte



NIDA Integrative Neuroscience Branch

Intravenous cocaine activates some while inhibits others interpeduncular nucleus neurons

26 Laura D'Ignazio



NIA Laboratory of Genetics

Involvement of Foxl2 and Lhx8 in the regulation of mouse germ cell survival

27 Comfort Boateng



NIDA Molecular Targets and Medications Discovery Branch

Novel nanoprobes for the dopamine transporter

28 Huiling Wang



NIDA Integrative Neuroscience Branch

Excitatory drive to VTA dopamine neurons by dorsal raphe

29 **Ross McDevitt***



NIDA Cellular Neurobiology Branch

Release of glutamate from serotonin terminals

30 **Ken Wakabayashi**



NIDA Behavioral Neuroscience Branch

Rapid, experience-dependent changes in nucleus accumbens glutamate release induced by intravenous cocaine in freely moving rats

31 **Rong Guo**



NIA Laboratory of Genetics

Identification of signaling pathways involved in the regulation of let-7 in ovarian cancer

32 **Magdalena Misiak**



NIA Laboratory of Molecular Gerontology

Mitochondrial Sirt3 attenuates DNA damage and modulates DNA repair in the aged mouse brain

33 **Heather Lucas**



NIA Molecular Dynamics Section

Copper-amyloid induced oxidative stress and protection of erythrocytes by polyphenols

34 **Faiza Benaliouad**



NIDA Behavioral Neuroscience Branch

Hypothalamic centers of feeding and reward

* indicates 2013 FARE Award Winner

PostDoc Talks

Session 1 • Room 3C227

Moderator: Sarah Rothman, Ph.D. (NIA)

10:30  **NIA: Sarah Rothman, Ph.D.***
(Laboratory of Neurosciences)
Mentor: Mark Mattson, Ph.D.
Neuronal expression of the A53T α -synuclein mutation causes clinically-relevant metabolic dysfunction in a mouse model of Parkinson's disease

10:50  **NIDA: Shiliang Zhang, Ph.D.***
(Neuronal Networks Section)
Mentor: Marisela Morales, Ph.D.
Ultrastructural and optogenetic evidence for dual neuronal signaling by dopamine neurons in the ventral tegmental area (VTA)

11:10  **NIA: Kimberly Jacob, Ph.D.***
(Laboratory of Molecular Biology and Immunology)
Mentor: Michele Evans, M.D.
Alzheimer's Disease associated polymorphisms in human OGG1 alter catalytic activity and sensitize cells to DNA damage

Session 1 • Room 3C211

Moderator: Ingrid Tulloch, Ph.D. (NIDA)

10:30  **NIDA: Michelle Jobes, Ph.D.***
(Treatment Section)
Mentor: Kenzie Preston, Ph.D.
Development and field testing of free software for motivational incentives - an empirically supported behavioral treatment for addiction

10:50  **NIA: Chandrika Canugovi, Ph.D.***
(Laboratory of Molecular Gerontology)
Mentor: Vilhelm Bohr, M.D., Ph.D.
NEIL1 promotes short-term spatial memory retention and protects from ischemic stroke-induced brain dysfunction and death in mice

11:10  **NIDA: Thomas Keck, Ph.D.***
(Medicinal Chemistry Section)
Mentor: Amy Hauck Newman, Ph.D.
Negative Allosteric modulators of mGluR5: Promising pharmacotherapeutics for drug abuse

Session 1 • Room 3C219

Moderator: Ross McDevitt, Ph.D. (NIDA)

- 10:30**  **NIA: Yaning Sun, Ph.D.***
(Laboratory of Experimental Gerontology)
Mentor: Sige Zou, Ph.D.
Cytochrome b5 reductase overexpression increases lifespan and oxidative stress resistance in fruit fly
- 10:50**  **NIDA: Carlos Mejias-Aponte, Ph.D.**
(Neuronal Networks Section)
Mentor Marisela Morales, Ph.D.
The interpeduncular nucleus: A new hub for substance of abuse
- 11:10**  **NIA: Evi Mercken, Ph.D.***
(Laboratory of Experimental Gerontology)
Mentor: Rafael de Cabo, Ph.D.
Skeletal muscle SIRT1 expression is essential for the beneficial effects of resveratrol and its protection against diet induced obesity

Session 2 • Room 3C227

Moderator: Ross McDevitt, Ph.D. (NIDA)

- 2:00**  **NIA: Ameer Taha, Ph.D.***
(Brain Physiology and Metabolism Section)
Mentor: Jagadeesh Rao, Ph.D.
Dietary omega-6 polyunsaturated fatty acid deficiency reduces lipopolysaccharide-induced changes in behavior sickness and brain arachidonic acid inflammatory response
- 2:20**  **NIDA: Ross McDevitt, Ph.D.***
(Synaptic Plasticity Section)
Mentor: Antonello Bonci, M.D.
Co-release of glutamate from the serotonergic terminals in the VTA and SNc
- 2:40**  **NIA: Jing Huang, Ph.D.***
(Laboratory of Molecular Gerontology)
Mentor: Michael Seidman, Ph.D.
Single molecular analysis of the encounter of replication forks with DNA interstrand crosslinks

Session 2 • Room 3C211

Moderator: Irene Avila, Ph.D. (NIA)

- 2:00**  **NIA: Lisa Russell, Ph.D.**
(Lab of Molecular Biology and Immunology)
Mentor: Patricia Gearhart, Ph.D.
The ABCs of aging
- 2:20**  **NIA: Kimberly Zanotti, Ph.D.**
(Laboratory of Molecular Biology and Immunology)
Mentor: Patricia Gearhart, Ph.D.
Characterization of single-strand DNA breaks in the immunoglobulin heavy-chain locus during somatic hypermutation
- 2:40**  **NIA: Morten Scheibye-Knudsen, M.D.**
(Laboratory of Molecular Gerontology)
Mentor: Vilhelm A. Bohr, M.D., Ph.D.
A high fat diet rescues the phenotype of a mouse model of accelerated aging

Session 2 • Room 3C219

Moderator: Sarah Rothman, Ph.D. (NIA)

- 2:00**  **NIDA: Chien Ying (James) Chuang, Ph.D.***
(Cellular Pathobiology Section)
Mentor: Tsung-Ping Su, Ph.D.
Cocaine hijacks Sig-1R from ER to nuclear envelope to regulate MeCP2 expression by interacting with nuclear lamin-associated proteins
- 2:20**  **NIA: Jennifer Illuzi, Ph.D.**
(Laboratory of Molecular Gerontology)
Mentor: David M. Wilson III, Ph.D.
Characterization of population and disease-associated variants of the multi-functional DNA repair protein APE1
- 2:40**  **NIDA: Comfort Baoteng, Ph.D.**
(Medicinal Chemistry Section)
Mentor: Amy Hauck Newman, Ph.D.
Novel nanoprobes for the dopamine transporter

* indicates 2013 FARE Award Winner

Presenters

Lori M. Conlan, Ph.D.

Director, OPS

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Dr. Conlon is trained as a biochemist, receiving her B.S. in biochemistry from Michigan State University and her Ph.D. in biochemistry and biophysics from Texas A&M University. She worked for several years as a postdoc at the Wadsworth Center, NYS Department of Health, before transitioning from the lab to focus on career issues for the next generation of scientists. Lori started as the director of the Science Alliance, an international career development program for graduate students and postdocs sponsored by the New York Academy of Sciences. She now is at the NIH in the Office of Intramural Training & Education, assisting the 4000 NIH postdocs in their personal career choices. She speaks at universities and institutions around the nation on career development topics for young scientists. Additionally, she volunteers as a board member for the National Postdoctoral Association (NPA).

Vio Conley, M.S.

Technology Transfer Specialist

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Vio Conley is the Technology Transfer Specialist at the NCI Technology Transfer Center's Competitive Service Center. She supports NIDA and a few labs at the NIA. She has been in the technology-transfer field for 12 years. She handles a variety of technology transfer related agreements for NIDA and NIA. She holds a Master of Science degree in Biotechnology Studies from the University of Maryland University College.

Nicole Darack Guyton, Ph.D.

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Dr. Darack-Guyton is the Technology Transfer Specialist. Dr. Darack-Guyton joined the NCI Technology Transfer Center's Competitive Service Center as a Technology Transfer Specialist in 2005. She joined the office as a Cancer Research Training Award Fellow and was hired as a full-time employee that same year. Nikki supports technology transfer related activities for NIA. She obtained her Ph.D. in biochemistry from Loyola University of Chicago with a focus on Notch family protein interactions.

Deb McLaughlin, Ph.D.

Natural Sciences, Biotechnology, Laboratory Management and Environmental Management Program Director
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Dr. McLaughlin is the Academic Program Director for Natural Sciences, Biotechnology, Laboratory Management, and Environmental Management in the Undergraduate School at UMUC. As Academic Program Director, Dr. McLaughlin is responsible for curriculum development, workforce alignment for the programs, oversight of the academic portion of the cooperative education internship, and hiring and training faculty. Before joining UMUC as a full-time program director, Dr. McLaughlin served UMUC as an adjunct professor and worked full-time as a research assistant professor in anatomy, physiology, and genetics at the Uniformed Services University of the Health Sciences (USUHS). Dr. McLaughlin is the author of several scientific publications, book chapters, and conference presentations. Dr. McLaughlin is an active member of the Society for Neuroscience, American Association for the Advancement of Science (AAAS), and the National Science Teachers Association (NSTA). Dr. McLaughlin earned her BS in physics from Clark College and her PhD from the University of North Carolina at Chapel Hill.

Phil Ryan, Ph.D.

Director, Student Services

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Dr. Ryan earned his bachelor's degree in biological sciences from the University of California, Davis in 2001. He spent two years working as a postbaccalaureate researcher at the UC Davis Cancer Center studying kinase signaling in androgen-independent prostate cancer cells. Phil joined the National Institutes of Health Graduate Partnerships Program (GPP) in collaboration with the George Washington University in the fall of 2003 to pursue his Ph.D in genetics. He worked under the mentoring of Dr. Stan Lipkowitz at the National Cancer Institute studying the regulation of ubiquitin ligases. In October 2008, he successfully defended his dissertation and began work as a postdoctoral fellow. During his postdoc, Phil did a detail in the NIH Office of Intramural Training & Education (OITE) working on a variety of projects. In September 2011, he joined the OITE full time working on summer intern programs, managing the Intramural AIDS Research Fellowship, and writing for and managing the OITE careers blog. He currently holds the position of Director of Student Services for the NIH GPP while maintaining his work within the OITE Career Service Center.

Robin Searles-Adenegan, Ph.D.

Assistant Academic Director, Natural Sciences and Environmental Management

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Professor Searles-Adenegan is the Assistant Academic Director for Natural Science and Environmental Management in the undergraduate school at the UMUC. In this capacity, Dr. Searles-Adenegan assists in overall functioning of the biotechnology, laboratory management, and environmental management programs. Prior to joining UMUC, Dr. Searles-Adenegan was a full-time adjunct instructor of biology at Morgan State University. Dr. Searles-Adenegan earned her BA in chemistry from Lincoln University (PA), and her MS and Ph.D in pharmacology from the Pennsylvania State University College of Medicine.

Acknowledgements

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Sarah Rothman, Ph.D. (NIA)

Co-chair

Ingrid Tulloch, Ph.D. (NIDA)

Co-chair

Ross McDevitt, Ph.D. (NIDA)

Stephen Heishman, Ph.D. (NIDA)

Mary Pfeiffer, Ph.D. (NIDA)

Arlene Jackson (NIA)

Taya Dunn (NIA)

Irene Avila, Ph.D. (NIA)

Jaron Lockett, Ph.D. (NIA)

John Delaney, Ph.D. (NIA)

Natasha Lugo-Escobar, Ph.D. (NIDA)

NIH Baltimore Fellows Symposium planning committee would like to congratulate this year's FARE winners and encourages all eligible Fellows to apply for the FARE competition next year.

Don't Forget

FELLOWS AWARD for RESEARCH EXCELLENCE 2014

Abstracts accepted starting mid-February 2013

Winners receive \$1000 towards conference travel

<https://www.training.nih.gov/felcom/fare>

