

The NICHD Connection

May 2017

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Maximizing Both NIH-wide and NICHD Professional Development Resources

By Suna Gulay, PhD and Yvette Pittman, PhD

This article began as an informal chat about taking advantage of training activities at the NIH. Whether that means enhancing your science communication skills or learning how to teach a college course, we want our fellows to grow professionally and be ready for the competitive job market.

Here, we summarized some of programs and activities sponsored by the NIH-wide Office of Intramural Training and Education ([OITE](#)) and NICHD-specific Office of Education ([OE](#)). We encourage you to explore these valuable resources from both offices.

GRANT WRITING

Writing a fundable research proposal is—unequivocally—a required skill for scientists. Employers from a wide range of job opportunities admire grant-writing success. Both OITE and OE offer training activities for grant writing, and we are sharing them with you in order of intensity.

OITE's **Grant Writing 101** workshop presents a broad overview of the grant application process and the basis of what it entails to write a research grant. It introduces different types of grants and the main sections required for a submission, plus insight into the peer-review process. Grant writing enthusiasts are then encouraged to contact their institutes' intramural training offices for further guidance.

The NICHD Office of Education offers several grant writing workshops through the year. First, our half-day workshop, in collaboration with four other institutes, "**Write Winning NIH Grant Proposals**" always receives high reviews from fellows. It addresses both the practical and conceptual aspects that are important to the proposal writing process while going through the detailed NIH format, comparing examples that represent good and bad writing. Attendees will even receive the "**Grant Writer's Workbook**"—an invaluable, up-to-date reference tool for those who intend to write NIH grants.

In a smaller group setting, another workshop OE offers is "**Developing and Evaluating Specific Aims.**" Participants will have the opportunity to have their first draft of a specific aims page reviewed and critiqued.

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Letter from the Editor

Thank you to all who attended the 13th Annual Fellows Retreat! Don't worry if you missed the event or didn't get to attend all of the career tables. Check back next month for the top three questions from each round table career discussion, and we'll publish the full retreat recap in July.

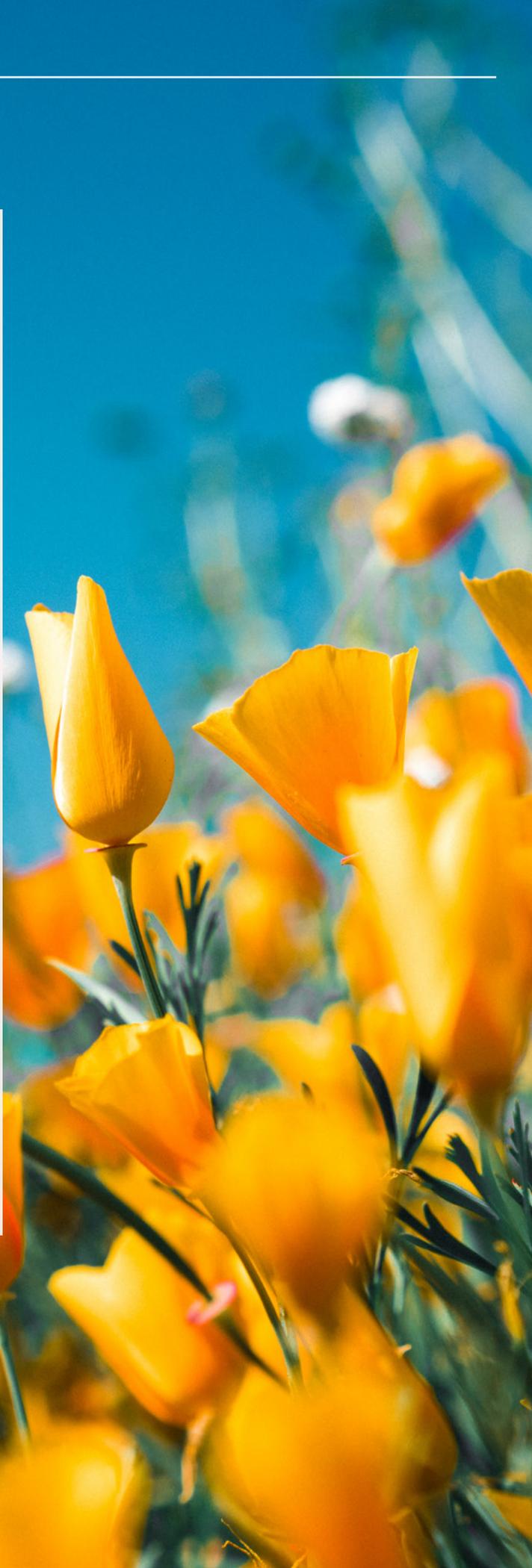
Until then, we take a look at several training resources on campus. Drs. Yvette Pittman and Suna Gulay break down the Office of Intramural Training and Education (OITE) and NICHD Office of Education [career development programs](#). If you've ever been confused about the differences between the two training resources, this article is for you. You'll learn about the benefits of both offices and how their programs complement each other. Dr. Gülcan Akgül adds to the mix by focusing on several [programs that help visiting fellows](#) specifically.

Continue reading for a recap of the February [NICHD Exchange meeting](#), our [Three-minute-Talk finalists and semi-finalists](#), and a diverse list of upcoming career development opportunities in our [announcements](#) and [events](#) section.

On a final note, please let us know if you have any recent publications that you'd like us to share in the newsletter. We love communicating what you've been up to!

Your Editor in Chief,
Shana R. Spindler, PhD

Please send all questions and ideas to our editor at Shana.Spindler@gmail.com. Thanks!



Maximizing Both NIH-wide and NICHD Professional Development Resources

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Lastly, sponsored by OE, several fellows will be able to attend an intensive three-week “**NIH Grant Writing**” course, where they can start to write their grants, receive feedback on their drafts, and even conduct their own mock study section. The mock study section provides an in-depth look into the peer review process and how reviewers score NIH grantees.

In summary, the OITE workshop provides the necessary introduction to writing a grant, while the NICHD workshops focus on encouraging you to write and offer specific guidance for you through the entire application process.

COLLEGE TEACHING

If you are interested in an academic career and/or will be teaching an undergraduate science course in your future, gaining experience during your postdoctoral training is a must. Both OITE and OE offer training activities on how to prepare your application materials for a faculty position and how to design a college-level course.

OITE offers an introductory two-hour seminar on pedagogy and curriculum development, extending to a 9-week online course “**Scientists Teaching Science.**” In addition to the course being helpful in forming your own teaching philosophy, attendees learn about Bloom’s taxonomy and how to use it to establish course objectives, exam questions, visual aids, and an entire syllabus.

To complement this activity, the OE offers an in-class workshop series “**College Teaching for the 21st Century**” every summer. This class goes deeper into how to plan a course, reinforces Bloom’s taxonomy, and most importantly, teaches attendees about various activities that trigger active learning, as well as different methods of assessments. NICHD trainees have a chance to enhance their teaching skills while learning about course planning and execution.

ANNUAL MEETINGS

Both OITE and OE have annual meetings in the spring with a strong focus on networking and the various career paths for scientists.

OITE’s Career Symposium is a one-day event in which the attendees have the chance to learn about many different career tracks through question and answer sessions with panels of NIH alumni employed in various sectors. The event also

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Maximizing Both NIH-wide and NICHD Professional Development Resources

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includes short sessions called “Skill Blitzes,” providing tips on different aspects of the job application and interview processes.

The **NICHD’s Annual Fellows Retreat** is a one-day event in downtown Washington, DC. It has a career focus but also contributes to the graduate and postdoctoral training experience in other ways, such as offering the opportunity to present your work to a broad scientific audience. Career discussions with NICHD alumni happen around a table with small groups, allowing for more interactions between fellows and the alumni.

To summarize, the OITE Career Symposium is a great way to learn about multiple career options with experienced NIH alumni, and the Annual NICHD Fellows Retreat allows exposure to scientific advances within the institute plus small-group career discussions with former NICHD fellows.

CAREER SERVICES

In addition to the workshops and activities detailed above, OITE and OE offer in-person career services, in a one-on-one setting, to discuss any aspect of your training. All fellows, including postbacs, have the opportunity to meet with career counselors in both offices. The OITE has specialized personnel in different career tracks who you can meet. At the NICHD OE, Dr. Yvette Pittman has an open door policy, where you can chat about topics from changing career paths to advice for interview preparation. She holds a weekly “Resume Hour” meeting for fellows who would like to review their C.V., resume, or cover letter with her.

Through the combined resources of the OITE and OE, you have a unique opportunity to receive multiple perspectives on education and career development. Take some time and familiarize yourself with both offices. They both share the same goal—to maximize your training at the NIH.

A FEW MUST-DO'S

- [Create an OITE account](#)
- Learn how to find the [OITE upcoming events](#)
- Learn how to make an appointment with the [career services center](#)

Please note, incoming NICHD fellows are automatically added to the appropriate trainee listservs within the institute. You can always contact Dr. Yvette Pittman (yvette.pittman@nih.gov) directly to be added to our list if you are not receiving emails.

OPPORTUNITIES TO SERVE AT THE NIH

- [Fellows Committee](#) and subcommittees
 - The list of FelCom officers and subcommittee chairs: https://www.training.nih.gov/felcom_officers_and_committee_chairs
 - Contact committee chairs directly for opportunities
- [NIH OITE Annual Career Symposium, Planning Committee](#)
 - Contact Lori Conlan (conlanlo@mail.nih.gov) for more information
- [NICHD Fellows Advisory Committee](#)
 - Contact Yvette Pittman (yvette.pittman@nih.gov) for more information
- [NICHD Annual Fellows, Retreat Planning Committee](#)
 - Contact Yvette Pittman (yvette.pittman@nih.gov) for more information

Resources for Visiting Fellows at the NIH

By *Gülcan Akgül, PhD*

Being a visiting fellow at the NIH, or in the United States per se, is similar to being Alice in Wonderland. Many of us come to this country from all over the world, which means that physical differences and strong accents follow us around. Just as Alice grows and shrinks in size and is perceived as odd by Wonderland inhabitants, foreign scientists may struggle with their own apparent differences. When Alice started her journey in Wonderland, she also started questioning her being “Alice” and tried to make sense of the reasoning used by the inhabitants of the new place.

Lewis Carroll, who was a mathematician himself, formalized Alice’s struggle with her self in Wonderland and its logic/madness with the following passage:

Let me see:

four times five is twelve,

and four times six is thirteen,

and four times seven is

–oh dear! I shall never get to twenty at that rate!

To the unfamiliar observer, the logic is nonsense. But if you know a bit about base notation, you can make sense of the calculation! I have found several resources that help foreign scientists make a smooth and easy transition as they make sense of their new “Wonderland.”

One great workshop offered by the Office of Intramural Training and Education (OITE) is the “[English Communication for Visiting Scientists](#).” During the two-day workshop, participants discuss communication strategies for interviews and work environments. The workshop explores United States culture and etiquette, putting conversational tips into a cultural context. Writing professional emails and preparing a Three-minute Talk about your project are other skills you can learn during the workshop.

Another workshop series that I personally attended and highly recommend is the “Workplace Dynamics Series” by Dr. Lori Conlan. The first four sessions concentrate on knowing your own communication and work style, after which you learn about other personality types. Dr. Conlan offers tips about cooperative communication with

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Resources for Visiting Fellows at the NIH *(continued from page 5)*

colleagues and how to navigate through conflicts successfully. In the last session, “Diversity in a Multicultural Society,” OITE Director Dr. Sharon Milgram addresses the differences in our diverse backgrounds and personal and cultural histories. She encourages discussions about how non-foreign fellows might perceive different expressions and how misunderstandings can occur. It is a very dynamic setting, and I certainly believe that all scientists, irrespective of their country of origin, should attend this session at least once.

The [Visiting Fellows Committee \(VFC\)](#) is another body comprised of volunteer fellows who work together with OITE to organize scientific and social events. The VFC programs help visiting fellows learn English as it is used in daily life and in the scientific world, understand the rules and regulations of taxes, and manage relationships and conversations in a professional setting, to name just a few goals.

The VFC social club helps visiting fellows interact with each other outside the lab while enjoying life in Maryland. VFC-organized activities range from hiking in Rock Creek Park to Wizards games at the Verizon Center. The VFC also cooperates with country support groups, such as the Italian, Indian, etc. groups, that are formed independently by the volunteer efforts of fellows. The [country support groups](#) and their representatives are beneficial for newcomers as they navigate the “to-do’s” of professional and daily life, like finding an apartment or getting a driver’s license.

Just as Alice met a colorful cast of characters during her adventures through Wonderland, there are plenty of guides and resources to make your NIH fellowship a fantastic experience.

NICHD Exchange Recap: The Impact of Environmental Exposures on Human Health

By Shana R. Spindler, PhD

How can you protect yourself and others from harmful substances? Some answers are obvious, like don't swim in industrial waste. Beyond that, it becomes complicated. Should you wear sunscreen to protect your skin from UV rays, or avoid chemicals that make sunscreen effective? How about plastics? Fragrances? Flame-retardants?

Dr. Germaine M. Buck Louis has worked on this problem—specifically the role of environmental influences on reproduction—for 30 years. For the past two decades, she has focused on endocrine disruptors and currently serves as a senior investigator and Director of the Division of the Intramural Population Health Research. She began the NICHD Exchange meeting, “The Impact of Environmental Exposures on Human Health,” with a sampling of research in the field.

“Endocrine disruptors are an equal opportunity exposure,” Dr. Louis quipped. “Exposures are low...but they're chronic and continual.”

To understand endocrine disruptor impacts, researchers measure these chemicals in each person and correlate chemical levels with disease presence or pregnancy outcomes. “A lot of the research is very new, and some of it is very crude,” cautioned Dr. Louis. For example, the estrogen-related disease Endometriosis has received a lot of attention from the research community, but the findings have been confusing and sometimes conflicting.

While it's tempting to think about the effect of endocrine disruption on pregnancy as a female issue, Dr. Louis spent a significant portion of her talk convincing the audience that males play a role too. The LIFE study (Longitudinal Investigation of Fertility and Environment) has provided evidence that males serve as a driving factor in time-to-pregnancy. For example, male lead exposure is a factor of comparable magnitude to female age in relation to a woman's ability to become pregnant. The work highlights the need to ensure both genders are represented in population-based fertility studies.

Dr. Dave Siegel, Program Director for Biodefense Research in the Obstetric and Pediatric Pharmacology and Therapeutics Branch, continued the meeting with his presentation: “Overview of the effects of select toxin exposure on the developing fetus and child.”

The growing fetus is exposed to many of the same environmental toxins as the

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Dr. Germaine M. Buck Louis
PHOTO: JEREMY SWAN



Drs. Diana Bianchi and Constantine Stratakis
PHOTO: JEREMY SWAN

NICHD Exchange Recap

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mother, and changes in mom's metabolism during pregnancy can affect toxin levels in the body. Once the baby is born, the child's smaller size reduces the amount of toxin exposure required for an effect. Combined, these factors may have important outcomes. For example, children have an increased risk of Autism Spectrum Disorder (ASD) and Developmental Delay (DD) when living near farms applying organophosphate pesticides.

Nerve agents, such as those used during chemical warfare, are chemically similar to organophosphate pesticides. Following chemical attacks with a probable nerve agent in Moadamyah, Syria, researchers found increased miscarriage rates with head and spinal cord defects in the baby. Those findings underscore the importance of understanding environmental effects during pregnancy, when underlying physiological events may amplify the effects of chemical exposure.

In the final presentation of the event, Dr. Regina Bures of the NICHD Extramural Program examined measurement issues when assessing environmental impact on reproduction and developmental health. In her talk, "Moving targets: Population considerations of measuring environmental exposures," she emphasized the ethical issues and complicating factors that impact the field.

Dr. Bures highlighted how researchers must remain sensitive to intentional dosing versus observation. For example, if a study offers a reward for living near pesticides, would the family have participated in the study without the reward? Environmental exposure studies, therefore, must turn to natural experiments, such as an economic recession, policy changes, and man-made or natural disasters.

Other complicating factors include the reality that human environments vary and people are mobile—potentially moving several times over the course of a study. Taking into account these naturally occurring variables is essential for accurate interpretation of data. To learn more about current population-based longitudinal studies, check out the Panel Study of Income Dynamics ([PSID](#)), the National Longitudinal Survey [NLSY79](#), and the [Fragile Families and Child Well-being study](#).

What was the take-away from the event? Research findings give cause for concern, and are cautionary but not yet conclusive. The main message being: do what you can to limit one's toxin exposure. A few practical tips offered during the question and answer session included: don't microwave in plastic; be cognizant of potential heavy metals in your environment; and stay up-to-date with current research.

Awareness and materials change are not foolproof though: for those of you who look for 'BPA-Free' labels on your plastics, its replacement, BPS, may be far more toxic.



Dr. Dave Siegel

PHOTO: JEREMY SWAN



Dr. Regina Bures

PHOTO: JEREMY SWAN

Congratulations to the 2017 TmT Finalists and Semifinalists

The Three-minute Talks (TmT) competition is an annual science communication program during which fellows learn how to explain their research, in three minutes or less, in a way that's meaningful to a broad scientific audience. We are excited to announce the 2017 finalists and semifinalists:

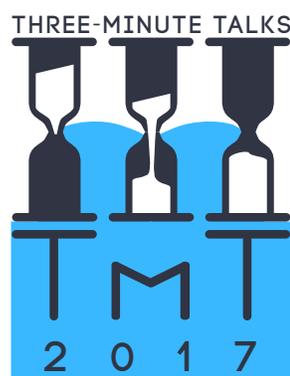
FINALISTS:

Miranda Broadney (Clinical Fellow, Yanovski)
Afrouz Anderson (Postdoc, Gandjbakhche)
Neda Sadeghi (Postdoc, Basser)
Arup Chakraborty (Research Fellow, DePamphilis)
Hadis Dashtestani (Graduate Student, Gandjbakhche)

SEMIFINALISTS:

Shane Chen (Postdoc, Dasso)
Pushpanathan Muthuirulan (Postdoc, Lee)
Eric Cheng (Postdoc, Machner)

Our five finalists will participate in the final competition event on **Thursday, June 29, from 1 to 3 p.m.**, in Lipsett Amphitheater, with fellows from NHGRI and NIDCR. Mark your calendars now! More information to follow.



Stay Updated with the NICHD Wiki Calendar

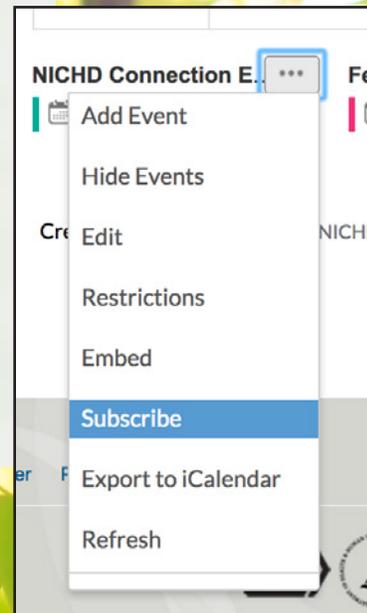
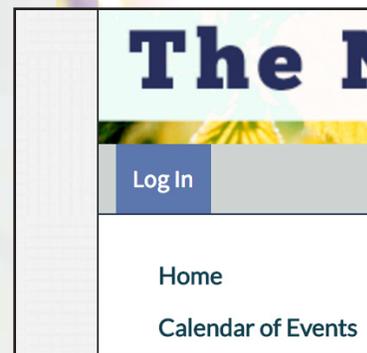
Looking for upcoming seminars and workshops at NIH to bolster your professional development? Browse *The NICHD Connection's* calendar of events to find up-to-date listings of meetings and informational sessions of all kinds, from networking to grant writing to scientific publishing. Never miss a seminar again!

The calendar of events can be found at <https://science.nichd.nih.gov/confluence/display/newsletter/Calendar>.

To subscribe to the calendar, first log in to the newsletter site by clicking the "Log In" link at the top left.

On the calendar page, scroll to the bottom and click the three dots next to the calendar name, then click "Subscribe."

Copy the provided URL. Specific tutorials for subscribing to various calendar apps can be found here: <https://confluence.atlassian.com/teamcal/subscribe-to-and-from-team-calendars-273285883.html>



NICHD Connection Events	
General	Add to Outlook, iCal or other calendar applications by copying the link below and following the instructions .
Event Types	
Restrictions	https://science.nichd.nih.gov/confluence/rest/calendar-servi
Embed	
Subscribe	Note: This subscription link is private. If you've accidentally shared your subscription link, you should reset it .



NICHD Earth Day Crew. Left to right: Nicholas Johnson, Elena Ghanaim, Katherine Gillis, Debbie Clay, Mahua Mukhopadhyay, Zelia Worman, Ann (daughter of Ling Yi), Ajay Sharma



Life Outside Lab 2017 Take Your Child to Work Day/Earth Day

APRIL 27, 2017

PHOTOS BY JEREMY SWAN



A future scientist looks at locust brains at the "What's that smell? Insects help scientists understand our sense of smell" event



"The Drunken Brain" with Dr. Dennis Twombly



A service dog in training! Very fluffy, but no petting while he's on the job!



"Bones: What Are They Made Of?" with Shakib Omari (Leikin Lab)

Life Outside Lab 2017 Take Your Child to Work Day/Earth Day

APRIL 27, 2017

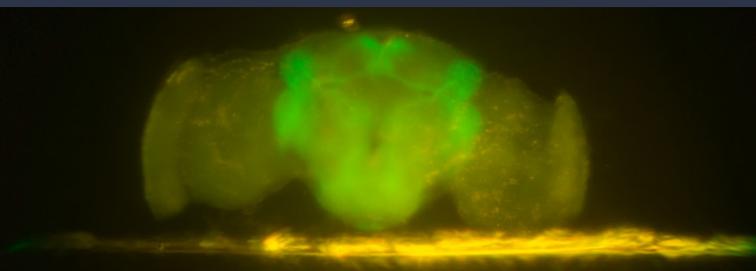
PHOTOS BY JEREMY SWAN



"Bones: What Are They Made Of?" with Laura Gorrell (Leikin Lab)



Another young scientist-in-the-making at the "What's that smell?" event



A locust brain at "What's that smell? Insects help scientists understand our sense of smell"

May Announcements

MENTOR NOMINATIONS DUE MONDAY, MAY 8

Don't miss this opportunity to recognize an individual in the Division of Intramural Research (DIR) whose mentoring has made a difference in your life at the NIH!

Information about the NICHD's two annual intramural Mentor of the Year Awards, one for a **fellow** and one for an **investigator** is located on the [NICHD Fellows wiki](#). Please submit your nomination form and a 500-word (maximum) narrative electronically to Dr. Yvette Pittman at yvette.pittman@nih.gov. The submission deadline is **Monday, May 8**.

Contact the Office of Education if you have any questions about the nomination instructions and selection process.

FAES SEEKING FACULTY FOR BIO, BIOCHEM, AND GEN CHEM

The FAES Graduate School at NIH seeks faculty for

- » Biology 101 – Introductory Biology
- » Biology 385 – Biology of Aging
- » Biochemistry 325 – Principles of Protein Structure
- » Chemistry 101/102 – General Chemistry I & II

If you are interested, please send your CV including prior teaching experience to:

Biology courses

FAES Director of Academic Programing, Kristza Miner (krisztina.miner@nih.gov)

FAES Dean, Connie Noguchi (connie.noguchi@gmail.com)

FAES Biology Department Chair, Debbi Hinton (dhinton1234567890@gmail.com)

Biochemistry/Chemistry courses

FAES Biochemistry and Chemistry Department Chairs, Mitchell Ho (homi@mail.nih.gov) and Daron Freedberg (daron_freedberg@verizon.net)

For more information about the FAES Graduate School at the NIH, you can contact Kriszta Miner (krisztina.miner@nih.gov) or visit the FAES website at <http://www.faes.org>.

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May Announcements

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ENHANCE YOUR COLLEGE TEACHING SKILLS THIS SUMMER

The Annual Lilly Conference on Evidence-based Teaching and Learning

June 1-4, 2017

This summer in Bethesda!

If you are considering a teaching career, this conference may be a great fit for you! The mission of the Lilly Conference is to provide a forum to share and model a scholarly approach to teaching and learning that reports quality student learning outcomes while promoting professional development of faculty.

Conference participants include faculty and administrators at various stages in their academic careers. They come from across the United States, representing nearly every discipline found in higher education. This is an opportunity for faculty to discuss, critique, and improve teaching and learning within their campuses. The meeting offers a variety of sessions so that participants can match their learning preferences to the presentation formats: 100-minute workshops, 50-minute sessions, 20-minute discussions, traditional plenary addresses, 30-minute round table discussions, and poster sessions.

For more information about the conference, visit <http://www.lillyconferences-md.com>

Please contact Dr. Yvette Pittman (yvette.pittman@nih.gov) if you are interested in attending. Last year, the Office of Education sponsored four NICHD postdocs to attend.

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May Announcements

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TRAINING SCIENTISTS AS PROJECT MANAGERS

The Office of Education will sponsor up to five NICHD fellows and graduate students to participate in a two-day training on project management. If you are interested, please contact Dr. Yvette Pittman (yvette.pittman@nih.gov) by **Friday, June 23**.

Please be sure your mentor supports your attendance since it requires two full days away from the lab.

More information about the FAES course is below:

BioTech 71 | Project Management Training for Scientists | 2-Day Training
September 26-27

Instructor: [Mary Kay Pedigo](#)

Course Description

Project management is the application of knowledge, skills, tools, and techniques to a broad range of activities in order to meet the requirements of the particular project. These results are defined in terms of four factors: cost, schedule, performance, and scope. Cost is the budget allocated to the project, schedule is the timeline for the project's deliverables, scope is the magnitude of the job, and performance has to do with how well the team members do their work.

This two-day course provides a comprehensive introduction to the essential aspects of project management for scientists. The course will draw on relevant case studies, and prepare participants to apply learning from the course in their organizations. Specifically, the course covers the following key areas:

1. Introduction to Project Management
2. Project Lifecycle
3. Initiation Phase
4. Introduction to Planning Phase – The Project Plan
5. Creating the Budget
6. Project Manager Responsibility vs. Team's Responsibility
7. Risk and Change Management

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May Announcements

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SAVE THE DATE: SUMMER GRANT WRITING WORKSHOP, JULY 13

“Write Winning NIH Grant Proposals”

Thursday, July 13, 2017

9:00 a.m. - 1:30 p.m.

This workshop will address both practical and conceptual aspects that are important to the proposal writing process. Attendees will receive the “Grant Writer’s Workbook” – an invaluable, up-to-date reference tool for those who intend to write NIH grant proposals. It includes various topics, from how to prepare a compelling Specific Aims page to which review criteria are most important.

If you would like to register, please email Dr. Yvette Pittman at yvette.pittman@nih.gov.

There are only 25 slots for NICHD fellows.

May Events

THURSDAY, MAY 4, 9:30 AM – 3:00 PM

Postbac Poster Day 2017
Natcher Conference Center (Building 45)

Postbac Poster Day provides an opportunity for Postbacs to share the research they have been conducting at the NIH and at the same time develop their communication and networking skills. For more information, visit https://www.training.nih.gov/postbac_poster_day.

MONDAY, MAY 15, 2:00 PM

Grant Writing Training Session for 2017 IRF Applicants
For all prospective applicants
Bldg. 31, conference room 2A48 (A-wing, 2nd floor)

DIR is launching a competitive research funding opportunity for NICHD postdoctoral, visiting, and clinical fellows—the [Intramural Research Fellowships](#) (IRFs). The application deadline is **August 1, 2017**.

The training session will cover various components of an NIH grant, details about the application and review processes, and tips on preparing a full application. *Attendance at this training session is a requirement for submission.*

WEDNESDAY, MAY 24, 3:30 – 4:30 PM

Postbac Farewell Social Event
Building 31, Room 2A48

All NICHD postbacs are welcome! We want to celebrate your accomplishments and applaud you all on your acceptances into professional school. This is a great opportunity for you to network with each other. We will raffle off a few gifts from the NIH store, enjoy some tasty deserts, and announce our three 2017 Postbac Poster Day winners for the Institute.

Please let Dr. Yvette Pittman know if you plan to attend (yvette.pittman@nih.gov).