Approval for “Outside” Activities
By Yvette Pittman, PhD

As intramural trainees, there are various professional activities outside of NIH that are valuable to your career development and do not take away from your commitments in the lab. For example, having the opportunity to teach a course for FAES or at a local university, or speak at a meeting for your PI. It is important to know that these “outside” activities must be approved by your PI, and in some cases, documentation will need to be reviewed and approved by the Scientific Director, Dr. Stratakis. As an international fellow with a J-1 visa, it is important to remember that your primary role for being in the U.S. is to train in biomedical research in the lab, so careful review is needed.

There are specific guidelines for non-FTE trainees found on the NIH Ethics website. They are designed to facilitate a conversation between you and your PI before the activity is initiated.

A comprehensive chart on the above website illustrates particular activities that are appropriate and those that are not permitted for intramural fellows. The chart also provides the specifics of what is needed for approval. If an opportunity comes your way, it is important to discuss with your PI the nature of the activity, hours involved, potential for conflicts of interest, and if applicable, the amount of financial compensation. Subsequently, documentation is required where you must complete and submit the trainee review form to your PI for approval, which can be obtained from the website above. Note: Visiting fellows are not permitted to accept compensation outside of NIH without consulting with the Division of International Services (DIS) since other documentation may be necessary. In these cases, your administrative officer (AO) needs to be involved in the process, as well.

If you have any questions about the approval process, please contact Brenda Hanning (hanningb@mail.nih.gov) or Yvette Pittman (yvette.pittman@nih.gov) in the Office of Education.
Letter from the Editor

As we continue deeper into the summer, much of this month’s issue is in continuation from June. If you missed the June issue, you can grab it from the newsletter archives at http://newsletter.nichd.nih.gov.

Last month we presented an interesting opportunity to volunteer with the Health Education Outreach program. This month, Dr. Yvette Pittman guides you to the proper sources for obtaining approval for these “outside” activities.

The coverage of the Ninth Annual NICHD Fellows Retreat continues with commonly asked questions from the career table discussions along with participants’ answers. If you missed the retreat or couldn’t get to all of the tables, this is a must read!

We also continue our coverage of NICHD awardees with the 2013 Mentors of the Year winners and the NICHD-selected postbac poster award recipients. Check out a few excerpts from the mentor nominations along with the postbacs’ winning research summaries, and be sure to give them all well-deserved congratulations.

As always, don’t forget to visit the announcements, including more NICHD award winners, and the July events.

Your Editor in Chief,
Shana R. Spindler, PhD

Questions, Comments, Ideas? Please contact me at Shana.Spindler@gmail.com.
Career Discussions from the Ninth Annual Fellows Retreat

Several former NICHD fellows joined the Ninth Annual Fellows Retreat to share their career experiences with retreat attendees. For those who were unable to attend the retreat this year (or for those in attendance who would like a nice recap), the former fellows have graciously submitted the three most-common questions they received along with their answers.

AARTHI ASHOK, PHD, TEACHING IN ACADEMIA
Dr. Ashok teaches undergraduates at the University of Toronto and organizes undergraduate research projects.

Q: What was the most important document that you prepared for submission for your current job?
A: The teaching philosophy and a letter succinctly describing teaching interests and accomplishments.

Q: What type of teaching experiences did you avail of when at the NIH?
A: I co-taught a course for postbacs that was coordinated through the Office of Education at NICHD (Brenda Hanning). I would also recommend looking for adjunct teaching roles at local universities like University of Maryland and Georgetown.

Q: Where did you look for ads when on the job market?
A: I looked everywhere I could think of! Especially the websites of HigherEdJobs, the ASCB jobs site, and all of the online postings of prominent scientific journals like Science, Nature and Cell. I also requested friends and colleagues to alert me to any teaching-centered jobs that they came across. Spreading the word can be really helpful.

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MARK BAYFIELD, PHD, RESEARCH IN ACADEMIA

Dr. Bayfield holds a principal investigator position at York University in Toronto, Canada. He teaches, leads his own research group, and has experience on the hiring panel.

Q: What are the three most important things an academic research-stream search committee looks at when deciding whom to interview?
A: (From my recent experience on a search committee):
1. CV (with an emphasis on publications)
2. Cover letter (should be well written with summary of training, major research findings, and a brief statement about future independent research directions)
The committee will look at teaching experience and research statements but only after the application receives a "pass" on those previous items.

Q: What is the required level of publication to be considered?
A: Different universities probably have different criteria (higher research profile = higher requirement) but this is from my experience: Generally an application with two first-author publications from the postdoc in strong journals, along with hopefully some middle author papers in there and some evidence of productivity in the Ph.D. will be considered sufficient to be a strong candidate that will receive consideration. The two papers do not have to be Cell/Science/Nature, but these obviously don’t hurt. They should at least be in generally well-known and respected journals, and the higher the better. Two first-author papers in upper tier journals were viewed as better than one paper in Cell/Science/Nature. Strong papers from PhD studies are also a plus but if the two first-author papers from the postdoc aren’t there yet, the CV generally won’t be in the range that gets an interview.

Q: When/how do you look for jobs?
A: Job ads generally appear in August/Sept with start dates the following summer or fall. You need to look (a) at the back of journals, all the big ones as well as the smaller ones in your field, and (b) online, on the journal websites (i.e., naturejobs; sciencecareers) as well as certain websites dedicated to academic job postings (i.e., Chronicles of Higher Ed, higheredjobs.com for smaller schools, and in Canada all the academic jobs are posted on UniversityAffairs.ca. You need to do your homework and see where the jobs are posted for where you want to go).

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Career Discussions from the Ninth Annual Fellows Retreat
(continued from page 4)

JOHN BOHANNON, PHD, SCIENCE JOURNALIST
Dr. Bohannon is a science journalist who has written for Science Magazine, Discover Magazine, and Wired Magazine. He is also the creator of the famous “Dance Your PhD” contest.

Q: How did you switch from lab science to science writing?
A: It was a fluke. I decided to take a short break after my PhD to try something different before diving into a molecular biology postdoc. I did a news internship at Science's offices in Cambridge, UK. I never looked back.

Q: Isn’t it risky taking a break from the traditional scientific career path?
A: People generally assume that taking a year off to do anything will fatally compromise your scientific career. I don’t think that’s true. The opposite is true. Getting jobs in science and academia is largely social network-driven. As long as you keep those social connections with colleagues and collaborators, you’re fine. And life will be more interesting.

Q: Do you miss lab science?
A: Nope.

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Career Discussions from the Ninth Annual Fellows Retreat
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CHERYL BOLINGER-MILES, PHD, INDUSTRY

Dr. Bolinger-Miles has spent over a year at a synthetic bio lab as a gene designer. A fun fact about her: “I love Ohio State Football! Go Bucks!”

Q: How did you find your job?
A: I found the posting for my current position on www.careerbuilder.com. While it is best to search for jobs directly on each company’s website, I found that many smaller companies advertise positions through general job search sites or through recruiters such as Aerotek or Kelly Scientific.

Q: What skills do you think helped you get hired?
A: My technical RNA and molecular biology skill set fit specifically into the position for which I was hired, which was of course important. Since most molecular biologists have a generally similar set of technical skills, I think it was very helpful that I had gained experiences at NIH outside the lab. While at NIH I served on multiple NIH fellows committees, did a detail in the NICHD science policy office, and became involved in specific interest groups. Each of these experiences allowed me to gain valuable “soft” skills, which I cited in my resume along with my technical background. The ability to communicate and work well with a team of people from different backgrounds and a having a willingness to go outside one’s comfort zone are critical skills in industry, so I think it was useful to be able to demonstrate these things using my NIH experience.

Q: Do you have any resume tips?
A: After several weeks into my job search, I found that the standard cover letter and resume format I was using were dated and did not sound very sincere. I reviewed many current articles from job search sites and Science Careers to completely overhaul both of these documents. The most important thing I changed was to throw out the traditional “Goal Statement” and replace it with a "Summary of Qualifications". This summary is a very brief statement with the most important things that you want to get across to the prospective employer, knowing that you only have a few seconds to grab their attention. After I did this, I started to get interviews.

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Career Discussions from the Ninth Annual Fellows Retreat  
(continued from page 6)

ANDREA MCCOLLUM, PHD, GOVERNMENT  
Dr. McCollum works at the U.S. Patent & Trade Office where she examines applications in biological sciences.

Q: **What does a patent examiner do?**  
A: At the U.S. Patent and Trademark Office, Patent Examiners review patent applications to determine if they comply with basic rules and legal requirements. Examiners research the subject matter claimed in patent applications, and communicate their findings on the patentability of applications to inventors or patent practitioners.

Q: **How did I find this job?**  
A: I was not sure about which career path I wanted to follow, so I started by conducting informational interviews with people from lots of different careers to determine which careers might be a good fit. These interviews sparked my interest in patent work, which motivated me to take the FAES course: Intellectual Property and Patent Prosecution for Scientists. I eventually applied directly to an advertised position through the website [www.usajobs.gov](http://www.usajobs.gov).

Q: **What skills are needed?**  
A: The ideal candidate would have a good attention to detail, a high level of flexibility, and a willingness to learn. Examiners will see applications from many different scientific fields, so they need to be able to quickly process an application that may be barely related to the science they have previously seen. Additionally, examining patents is a high-paced environment, and there is an expectation that a certain number of patents will be reviewed each pay period. Excellent time management and organizational skills help an examiner deal with the fast pace necessary for the high turnaround requirement.

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Career Discussions from the Ninth Annual Fellows Retreat (continued from page 7)

MARGARET OCHOCINSKA, PHD, GOVERNMENT (NIH)
Dr. Ochocinska works in the extramural division of the National Institute of Neurological Disorders and Stroke. She is also a member of the NIH Philharmonia Orchestra.

Q: How did your postdoctoral experience prepare you for your current position?
A: I learned key management skills as a postdoctoral fellow, including managing people, multiple projects, animal core facilities, and forming collaborations within and outside of NIH. I also took advantage of the OITE office and the many courses and opportunities offered to intramural postdoctoral fellows.

Q: How did you make the transition?
A: Informational interviews were key for making the transition. Through the OITE I was able to better define my passion and career aspirations. This was critical for participating in targeted informational interviews that were in line with my goal of becoming a catalyst for the translational research pipeline.

Q: What is your typical day like?
A: My role is similar to that of a scientific consultant where I do not have a typical day but rather I have multiple projects and deadlines with multiple stakeholders. My projects are focused around the mission and vision of the Office of Translational Research and how we can help integrate and reshape the larger translational research community. I participate in numerous meetings, workshop planning committees, attend seminars and conferences, and report back to the directors in helping to shape and improve programs according to working group recommendations.

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JOAQUIN VILLAR, PHD, INDUSTRY
Dr. Villar is a senior scientist-review analyst at GeneDx, a small company in genetic testing.

Q: Define a typical day?
A: As soon as I get to work I sign-in on my computer, prepare a coffee, and start reviewing cases. My job is to make sure there are no errors during the test performed. Therefore, if I encounter any kind of problem with a case my job is to fix it.

Q: Are you happy and/or if I have a better quality of life?
A: My quality of life has improved since I don’t have to work on the weekends. It is true that we don’t have the breaks you can have when you work at a lab and that some days are hectic because of the volume of work, but, in general, I am very happy.

Q: How did you get your current job?
A: My company favors employee referrals so before the job is posted online the company sends an email to their employees. Therefore, it really helps if you know somebody there. I had a friend working at the company who told me about the job. I applied and was called for an interview. A week later they made an offer.
Presenting NICHD’S Award-Winning Postbac Researchers

Many of our postbac fellows participated in Postbac Poster Day on May 1, 2013. Again for 2013, the institute selected the three top postbac poster presentations of our institute judged by NICHD postdocs. The judging criteria were based on the fellow’s knowledge of the lab’s research, the fellow’s ability to describe the project clearly, and the design and layout of the poster, highlighting hypothesis-driven questions.

The three "best postbac poster" winners for 2013 are:
» Oghomwen Igiesuorobo (the lab of Dr. Mihaela Serpe)
» Joshua Lee (the lab of Dr. Dax Hoffman)
» Amy Ton (the lab of Drs. Karl Pfeifer and Heiner Westphal, mentored by Dr. Kevin Francis)

Read below to learn more about their award-winning research.*

INTERNALIZATION PATHWAY OF KV4.2
By Joshua A. Lee
Mentor: Dr. Dax Hoffman

Kv4.2, a voltage-gated potassium channel, critically regulates synaptic plasticity and integration in the hippocampus, a region in the brain involved in learning and memory. Stimulation of hippocampal neurons leads to internalization of Kv4.2 from the cell membrane into intracellular compartments. My project aims to uncover the internalization pathway of Kv4.2 upon depolarization of the neuron and associated proteins used to direct Kv4.2 once internalized.

Thus far, I have shown interactions between Kv4.2 and ubiquitin, a small protein that targets other proteins for degradation or recycling. I have also found that Kv4.2 interacts with Nedd4-2, a ubiquitin ligase that attaches ubiquitin to its target protein. These results suggest that Kv4.2 is regulated by ubiquitin signaling, a phenomenon that is well characterized in other protein systems.

I am also aiming to visually colocalize Kv4.2 with markers of other well-understood cellular pathways. Collective with my previous findings, this will elucidate the protein dynamics of Kv4.2 that underlie synaptic strength, and ultimately, learning and memory.

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STUDIES ON SYNAPSE ASSEMBLY AT THE DROSOPHILA NEUROMUSCULAR JUNCTION

By Oghomwen Igiesuoro
Mentor: Dr. Mihaela Serpe

The *Drosophila* neuromuscular junction (NMJ) is a glutameric synapse similar in composition and physiology to mammalian AMPA/Kainate central synapses. Fly NMJs are large, unique, and identifiable, and could be easily accessible for optical and electrophysiological analyses. We use this genetic system to study how ionotropic glutamate receptors (iGluRs) are trafficked and stabilized at postsynaptic specializations.

We have recently identified *Drosophila* neto, a highly conserved gene, required for iGluRs synaptic clustering and functioning. neto null animals are completely paralyzed and die as late embryos with no detectable iGluR clusters at their NMJ. The *neto* locus encodes for two isoforms that can individually rescue the *neto* null mutant. Yet both isoforms are required for synapse function. Why?

To test the individual role of Neto isoforms we generated isoform specific mutants and examined their NMJ synapses. I recorded spontaneous miniature potentials and evoked excitatory junctional potentials from muscle 6 of third instar larvae. I found that Neto-B-deprived NMJs have reduced postsynaptic sensitivity but normal evoked potentials due to robust presynaptic compensatory response. NMJs with truncated Neto-B had normal excitability, but appeared immature, with increased number of synaptic contacts. These data indicate that Neto-B function is required in later stages of synapse development.

**NOTE FROM THE EDITOR:** Amy Ton received a best poster award from both OITE and NICHD judges. Please find her research summary in last month’s issue of *The NICHD Connection* (Volume 4, Issue 36).
2013 Mentors of the Year Announced

The NICHD Mentor of the Year Award is an opportunity to recognize individuals whose mentoring has made a difference in someone’s life at NIH. The two mentoring award categories are fellows and investigators. Nominations were invited from all trainee groups in NICHD, and each nominator had to write a statement, on which the selection committee based its decisions. The selection committee included NICHD clinical and postdoctoral fellows, graduate students, and postbac fellows.

For the fellow mentoring award, there were two finalists for this award:

» Dr. Sarine Markossian, nominated by a research volunteer, Kunal Khurana
» Dr. Schuyler van Engelenberg, nominated by a graduate student, Alex Ritter

The fellow Mentor of the Year winner is Dr. Schuyler van Engelenberg.

For the investigator award, there were three finalists for this award:

» Dr. Herny Levin, nominated by a postbac fellow, Steeplehen Hung
» Dr. Mary Dasso, nominated by several postdoc fellows and a graduate student: Sarine Markossian, Ming-Ta Lee, Min Mo, Michael Zhang, and Maria Lyanguzova
» Dr. Forbes Porter, nominated by a postdoctoral fellow, Kevin Francis

The investigator Mentor of the Year winner is Dr. Mary Dasso.

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2013 Mentors of the Year Announced
(continued from page 12)

EXCERPTS FROM DR. VAN ENGELENBERG’S NOMINATION:
“As a member of the scientific community within our branch of NICHD, Dr. van Engelenberg is outstanding, but it is in the context of personal mentorship that he really shines…

“Dr. van Engelenberg is a very dedicated and meticulous researcher, and he takes the time to make sure his experiments are done right. His mentoring style is characterized by the same dedication and care—even if he is approached with a question while he is busy at the bench, he will use his first available moment to provide a detailed and enthusiastic response…

“The range of advice that Dr. van Engelenberg offers is very broad, and he has personally helped me to assess what sort of career might be best for me and how best to pursue it…

“Dr. van Engelenberg is a rare individual who epitomizes all of the characteristics of a great mentor: knowledge, creativity, supportiveness, accessibility, and enthusiasm.”

EXCERPTS FROM DR. DASSO’S NOMINATION:
“Dr. Dasso has a distinctive ability to produce independent young researchers with minds of their own. First, she puts the time and the effort to clearly state and share her knowledge and experience about the project involved but also thoroughly listens to our ideas during our weekly meetings. Second, because she is a determined and an avid learner herself, the environment in her laboratory strongly promotes personal growth…

“Dr. Dasso is genuinely interested in the professional development of her postdoctoral trainees. She strongly encourages her fellows to undertake activities away from the bench that will help them build the careers that they choose to pursue. For example, I am currently one of few NICHD fellows who are developing and will be teaching a cell biology course at University of Maryland. Dr. Dasso was very supportive of me to undertake such a side project and encouraged me to pursue it when I was having doubts that it might take away precious time from my lab work.”
Letter to the Editor

In regard to the 2013 NIH Career Symposium held May 14, 2013:

I appreciated the advice from panelists who discussed scientific support opportunities in industry. The panelists included two field application specialists and one scientific writer whose responsibilities included writing protocols and manuals for Qiagen.

1) The most important advice was to network. Use LinkedIn to your advantage and find out the hiring manager at target companies to ask for a meeting. One of the panelists got his current job after meeting the hiring manager in person and convincing him of his ability to do the job. Sometimes, doing an informational interview may help you get the proverbial “foot in the door,” so do not shy away from using this important job search tool. Often, the person you speak with may not have a job opening at that moment, but if you show interest in a particular position, they may contact you if that position opens up. Also, when conducting informational interviews, be specific as to what kind of position you are interested in.

2) Attend as many conferences and meetings as you can. If you are interested in a Field Application Scientist position, for example, try to give talks and presentations, as this will convince the company that you can talk to people and explain your data.

3) If you are interested in a writing career, take advantage of the many opportunities at NIH, including membership on the Fellows Editorial Board, writing for the NIH Catalyst, or writing for your institute’s newsletter.

Last but not the least, remember that getting the right job takes time, so start early.

-Payal Ray

One interesting session in the career symposium focused on science education. We heard from Ben Durbin-Thaler about his adventure in starting up the non-profit BioBus, a traveling laboratory that travels to schools to teach children about science. It was encouraging to hear about such a fresh and original approach to furthering science education.

-Megan Sampley
NEW FELLOWSHIP OPPORTUNITY FOR KOREAN POSTDOCTORAL RESEARCHERS

Application deadline is July 31, 2013!

Under a new bilateral partnership between NIH and the Korea Health Industry Development Institute (KHIDI), a new Postdoctoral Researcher Fellowship has been created. The Korean Visiting Scientist Training Award (KVSTA) Fellowship provides a two-year stipend to Korean postdoctoral researchers who currently are undertaking or will undertake postdoctoral research at an NIH intramural lab. Research training fields include all fields related to biomedical and behavioral research at NIH, such as cancer, brain and neurological disease, cardiovascular, metabolic, allergy and chronic respiratory disease, reproductive and perinatal disease.

Applicants must meet the following criteria: 1) Be a Korean citizen or permanent resident of Korea; 2) Received at least one degree in Korea; 3) Obtained a doctoral degree, equivalent to a Ph.D., within the previous five years as of December 1, 2013; and 4) Meet the eligibility requirements for NIH’s Intramural Visiting Fellow Program. Applications are submitted directly to KHIDI and reviewed by a scientific panel composed of senior Korean scientists.

Up to 16 Fellowships, but possibly fewer depending on application quality and funding availability, will be awarded by KHIDI. As part of the application package, the applicant must submit a recommendation letter from the applicant’s sponsoring NIH lab host/mentor indicating that the invitation to come to the lab is not contingent upon receipt of a KVSTA Fellowship award and that the NIH mentor is committed to funding the scientist for at least two years, whether or not the award is granted. KHIDI plans to contribute approximately $1.4 million over two years in support of the KVSTA Fellowship.

For further information, please go to: http://www.fic.nih.gov/Programs/Pages/korea-visiting-scientists.aspx or direct inquiries to Tina Chung, MPH, Program Officer, Fogarty International Center; phone: (301) 496-4784, email: Tina.Chung@nih.gov.

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July Announcements
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Nichd Postdoctoral Fellow Dr. Kevin Francis Takes First Place!

A very big congratulations to Dr. Kevin Francis on his first place poster win at the NIH Center for Regenerative Medicine (CRM)/Stem Cell Interest Group (SCIG) Stem Cell Research Symposium. His poster, titled “Role for cholesterol/Wnt interactions in balancing pluripotency and neural differentiation,” received top honors at the two-day event held May 30-31, 2013.

Kevin Francis’ website can be found here: https://science.nichd.nih.gov/confluence/display/~franciskr

Save the Date! Summer Poster Day Is Thursday, August 8

If you would like to participate in summer poster day, please contact Yvette Pittman at yvette.pittman@nih.gov. Registration deadline is Tuesday, July 9 at 5:00 pm.

July Events

Wednesday, July 10, 3 – 5 PM
Speakers to include:
» Rohan Hazra, M.D. (MPIDB): We Learned This in Kindergarten — Share Everything and Play Fair
» Steven Hirschfeld, M.D., Ph.D. (NCS): NCS Data Sharing -More Than You Could Ever Imagine
» Jennifer Weck, Ph.D. (DESPR): Theory vs. Practice: Reality of Data Sharing
» Regina Bures, Ph.D. (PDB): Making Data Science Sexy

6100 Executive Blvd., 5th floor Conference Room

Thursday, July 25, 2013, 10 AM – 12 Noon
“21st Century Networking: LinkedIn and Beyond”
Led by Scott Morgan

Note there are 25 spots available for this workshop, if you would like to attend, please send Yvette Pittman (yvette.pittman@nih.gov) an email.
Stuff we knew when we were little but forgot when we grew up.

**More Wisdom from my 3 Year Old**

- **Dance for no reason**
- **If you're unhappy, let people know.**
- **If you're tired, take a nap.**
- **Follow your own instructions**
- **Draw, even if you can't draw.**
- **Dream big.**

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