

The NICHD Connection

November 2015

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Former Fellow Follow-up with Dr. Valerie Virta, Scientific Editor

Interview by Payal Ray, PhD

Dr. Valerie Virta served as a postdoctoral fellow in Dr. Tom Sargent's lab from February 2011 to June 2014. During her time at the NICHD, she studied the evolution of BMP signal regulation in fish jaw development. She stepped away from the bench and now works as a Scientific Editor with the National Library of Medicine. Dr. Virta kindly answered a few questions about her new career:

What does your current position entail?

I am a Scientific Editor with the PubMed Health web service in the National Center for Biotechnology Information at the National Library of Medicine. I am a contractor rather than a federal employee. My position is with Medical Science and Computing. Two main aspects of my job balance each other and constitute my mission, which is to help make systematic reviews* more accessible to the public.

Primarily, I curate and assess systematic reviews for their possible inclusion in PubMed Health. This consists of a lot of quiet research at my desk, being on the computer, and reading and analyzing systematic reviews and the material related to them. I then compose internal memos and reports to keep track of my progress and the conclusions I reach. It is not unlike keeping a lab notebook; only it is more formalized and intended for audiences besides me.

The other major aspect of my job is attending meetings and serving as a liaison between different groups. I spend a lot of time learning from other people both in terms of procedures as well as listening to their concerns and



Dr. Valerie Virta holding a 3D-printed model of a polio virus (photo provided by Dr. Virta).

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Letter from the Editor

How often do you learn something new? As a scientist, you probably learned something new this morning—like your protein of interest doesn't do anything you thought it did, and you'll have to start over on a new hypothesis, and how are you going to tell your PI, and what about that poster you were supposed to make for that conference next month, and...oops, I digress. But you get the point. Science is the business of learning something new.

In line with this thought, [we follow up with former fellow Dr. Valerie Virta](#), scientific editor with the National Library of Medicine. Her job is to learn about wide-ranging topics so that she can review and analyze systematic reviews for inclusion in PubMed Health. Check out Dr. Payal Ray's Q&A with Dr. Virta to learn about this unique career opportunity.

For our less-experienced trainees who are learning something new by the hour, [postbac Ashley Charest introduces the JoVE Science Education Database](#), a useful resource that provides a visual way to explore unfamiliar laboratory techniques and topics. Senior researchers may like it too if they plan to incorporate a new

research method into their work. Thanks to a subscription purchased by the NIH Library, you can explore the database free of charge—just use your NIH email account to login.

Even the [November announcements and events](#) are about learning something new. The Individual Development Plan (IDP) workshop with Dr. Yvette Pittman on November 16 will help you learn something about yourself, an important first step when considering career options. For postdocs who recently joined our institute, the NICHD postdoc orientation is—you guessed it!—a meeting to learn something new about the resources and opportunities available to you as an NICHD fellow.

Now go, read, and at the risk of sounding redundant, learn something new!

Your Editor in Chief,
Shana R. Spindler, PhD

Do you want to volunteer for the newsletter but are too nervous to write an article? Don't be! The only type of writing we can't work with is no writing at all. Go ahead; send your ideas to Shana.Spindler@gmail.com.

Former Fellow Follow-up with Dr. Valerie Virta (continued from page 1)

answering questions. I then may write emails distilling these meetings for my supervisors and other interested parties.

When and where did you learn about this career field?

It was an unusual process. I learned about my new field each step of the way: from my boss as I was told about the posted job, during the interview process, once I had accepted the position, and as I was getting oriented; and I continue to learn more about it every day.

Frankly, I was ignorant about evidence-based medical research because it is a relatively new field. Only recently have basic scientists become aware that systematic review methodology applies to current concerns about reproducibility of experimental results. However, I have since realized that systematic reviews and their methodology are important for patients, doctors, researchers, policy makers, insurance and health care administrators, public health agencies, and many other stakeholders—and that's just in the medical field.

How did you find this particular job?

I found this job through networking. I can't emphasize enough how important networking is. Even if you are not actively searching for a job, it is wise to consider every professional interaction, and perhaps some social interactions, as potential interviews—they may well be!

Please describe the application/hiring process. Did it take a long time?

I did not realize that I had been interviewing for my position until my current boss told me about a posted job opening at the company. In retrospect, I would say that I had probably been considered as a possible candidate for several months (I am sure others were, as well). This is what I mean when I say you never know when you are interviewing. What I thought were networking-type questions turned out to be a subtle assessment of whether I had an appropriate skill set and would be a good fit. After all, I could have not been told about the opening, and I would not likely have found it myself in the places I was looking for jobs.

The opening was posted for about a week. I interviewed within a couple of weeks of

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applying for the job, and got the offer a couple of weeks after that. I did not actually start the job for another six weeks because I wanted to finish a detail I was doing at the very end of my postdoctoral fellowship.

What's your typical day like?

I am able to set my own hours and usually arrive between 8 and 9 a.m. First, I check my email and reply to urgent messages and consider if my schedule for the day needs to be adjusted. I make sure I am prepared for any meetings I have that day. I am usually working on at least one longer-term project, so I will focus on that for a while. I often spend my lunch hour eating with a friend, and only rarely do I need to skip lunch. In the afternoon, I prepare whatever needs to be done for the next meeting I need to go to, or continue working on one of my larger projects.

With that said, I remain flexible in case a coworker needs help or my boss wants me to do something that wasn't already on my list. I usually leave between 4 and 5 p.m., and rarely do I need to work in the evenings or on weekends.

There is a balance I strike between meetings and the work associated with those and my longer-term projects. Time management is important so that I can actually make progress on something important that I may not get asked about for weeks or months at a time. It's a flexible routine and I enjoy the opportunity to always learn while serving the public.

Did you do anything in particular at the NICHD to prepare you for your career transition?

I did many things at NICHD to prepare for my career transition, beginning with attending the NICHD Fellows' Retreat as well as the NIH-wide Career Symposium. When I heard speakers that interested me, I asked for their contact information and if I could arrange an informational interview. Although this was intimidating at first, people generally say yes, so it got easier. In addition to networking at every opportunity, I took career development courses that interested me from the OITE. If there is one thing I wish I had begun earlier, it was that. Employers want to know that you have put thought and effort into a career transition and that you are ready to embrace a new career. In addition, I learned many "soft" skills that helped me in my bench research.

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I also did a detail in the Program Office at NICHD. If a detail is something you would like to pursue, I would recommend starting the process as soon as you know that, because it takes a long time to arrange. I had a wonderful experience and it helped me realize I definitely wanted to go into administration.

What aspects of laboratory work will translate well into this career field?

Time management, effective self-assessment, skillful communication, willingness to experiment and learn (also when something is not working), creativity, focus, and discipline all translate well into my new field. It really helps that keeping track of what I've been doing has become second nature because of my many years of research experience.

What are some of the future career options for someone in your position?

There are several directions I can go: I can transition to an administrative position elsewhere at the NIH or a different government agency, or at a medical school or university. I could move further into the field of systematic reviews and evidence-based research. As our group grows, I could enter management,

or I could use the skills I gain here to transition to a management position elsewhere. A lot of options are available to me now that weren't before, so I keep an open mind.

Do you have any advice for fellows who are thinking about pursuing similar opportunities?

It's easy to fall into a trap of thinking you have become over-specialized and there aren't many fun, intellectually stimulating, and well-remunerated positions outside academia. This is simply not true! The first thing to do is some self-examination: what got you into science? What do you like and dislike about what you do? What are characteristics of your ideal job? Use your answers to chart a course in learning new skills, networking, informational interviewing, and generally answering the door when new opportunities knock. I say this because our team is small and what I do is very specialized, so I can't give more specific advice about my field. I am trying to give general advice that will help you on your journey.

If you'd like to learn more about Dr. Virta's career, feel free to contact her at virtav@ncbi.nlm.nih.gov.

***Editor's Note:** A systematic review is a piece of writing that compiles high quality clinical trial and research results pertaining to a focused clinical question. The systematic review is an important component to evidence-based medicine.

Thoughts of a Postbac: Learning New Techniques

By Ashley Charest

How many times have you been reading a journal article with an unfamiliar technique, and the methods section does not give sufficient information for you to replicate the technique in your own future experiments? Or maybe you want to learn how to do something new, and the manual isn't as clear as you would like. Or perhaps you just simply learn best through visual methods. Wouldn't it be superb if there were something that was specifically geared toward students and trainees? Fortunately, there is a source that can remedy all of these dilemmas: the [Journal of Visual Experiments](#), better known as *JoVE*.

JoVE's visual format is designed to accomplish two major goals: to reduce the problem of poor reproducibility in science disciplines, and to diminish the time and demanding nature of new techniques. Scientists work under the guidance of *JoVE*'s resident videographers to create visually stunning

and simple step-by-step videos about a specific topic or technique. Each video is about two to ten minutes long with current researchers performing scientific protocols while giving articulate verbal instructions. *JoVE* hosts two sections: the peer-reviewed journal and the [JoVE Science Education Database](#).

JoVE delves into specialized techniques and is subdivided into biology, neuroscience, immunology and infection, medicine, bioengineering, chemistry, behavior, environment, and developmental biology. It is especially useful for well-trained, advanced scientists who seek in-depth information about a technique of interest.

But what about those of us who are just starting out? *JoVE* Science Education Database is geared more towards students or scientists with a basic understanding of the scientific material they wish to understand (this especially means intramural trainees!). The

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Thoughts of a Postbac: Learning New Techniques (continued from page 6)

database is subdivided into basic biology, advanced biology, psychology, chemistry, and environmental sciences.

Since I am a postbac trainee myself, I decided to try out *JoVE* Science Education. I use electrophysiology to study potassium channels in HEK cells and mouse hippocampal slices in Dr. Dax Hoffman's lab. As such, I do not have a large background in human behavior studies. *JoVE* Science Education has an entire section dedicated to cognitive psychology. One that I found particularly interesting was the video on dichotic listening, a behavior test used to study lateralization of perception of speech. Now I feel that I have a better understanding of at least one variation of psychological testing. The beauty of *JoVE* is that you can not only get your feet wet with the basics, but also dive in if you choose.

JoVE is accessible for students and researchers at any education level. The site is well organized and easy to use with videos on almost any imaginable scientific protocol. In fact, *JoVE* published its 4000th video in 2014. The next time you need to watch a protocol performed in the lab setting, check out [JoVE](#). You can also keep up with them on [Facebook](#) and [Twitter](#).

Dr. Catherine Spong on Careers in Research

Dr. Catherine Spong, the new acting director for the NICHD, participated in a Q&A for a recent issue of the **NICHD Director's Update**. The final question related to students and fellows pursuing careers in research. Check out what she had to say regarding the next generation of biomedical researchers, a pertinent topic to this newsletter's audience.

Excerpt from the October 2015 Director's Update:

Q: NICHD makes significant investments in programs to train the next generation of biomedical researchers. How do you think the job has changed since you started out, and what advice do you have for students and fellows today who are interested in careers in research?

A: I started my research career at a time when the payline [on grants] was relatively generous. Researchers could launch new initiatives nearly every year, and failures were tolerated because they were not taking away from another opportunity. Now, funding is more competitive, but students and fellows should not be discouraged. It seems to me that we are even more invested in their success. Numerous initiatives, ideas, and concepts have been developed to support trainees, such as expansion of NICHD's K12 programs, the loan repayment programs, and the K99-R00 grant mechanism. All of these opportunities have helped to train our basic researchers and physician scientists and to fill critical knowledge gaps in several scientific disciplines.

I also think senior researchers are eager to mentor and support younger investigators now more than ever. In addition, with technology advances we now have the ability to accomplish long distance mentoring in real time, allowing people to advance collaborative projects even if they are thousands of miles apart.

I encourage all people who are interested in research careers to pursue their passion; there is nothing more rewarding than going to work with joy each morning and having fun pursuing scientific questions that are critical and exciting.



*Dr. Catherine Spong
(photo courtesy of NICHD)*

November Announcements

AN OPPORTUNITY TO SERVE YOUR INTRAMURAL NICHD COMMUNITY

The Office of Education is forming an advisory committee, and we are seeking several dedicated fellows to help us develop and initiate academic support programs for the institute. Both domestic and visiting fellows are needed. We want to achieve a broad representation, culturally and academically, so we can address the needs of all our trainees at NICHD. We are planning monthly lunchtime meetings, starting in January 2016, which will allow us to exchange ideas and informally discuss ways we can enhance and tailor the training experience within the NICHD intramural program.

Some potential topics for our committee are how to:

- » Increase the participation for training activities
- » Expose fellows to various careers in science
- » Identify teaching opportunities, and internal and external research funding mechanisms
- » Establish a structure for sharing scientific and career resources within the institute

Please contact Yvette Pittman at yvette.pittman@nih.gov by December 1 if you are interested in joining the committee. After the group is established, we can select a day and time that works with everyone's schedule.

November Events

MONDAY, NOVEMBER 16, 12 – 1:30 PM

Individual Development Plan (IDP) Workshop
Led by Yvette Pittman, PhD

For postdocs, graduate students, and postbacs who are interested in the PhD track. An IDP is a must-have item that can guide you into a fulfilling and productive career. Learn about how IDPs help you to set personal goals and identify careers paths that align with your interests and values. With interactive group exercises, we will discuss the importance of self-assessment while taking a closer look at the “myIDP” site, which is an online portal that helps PhD scientists create an IDP.

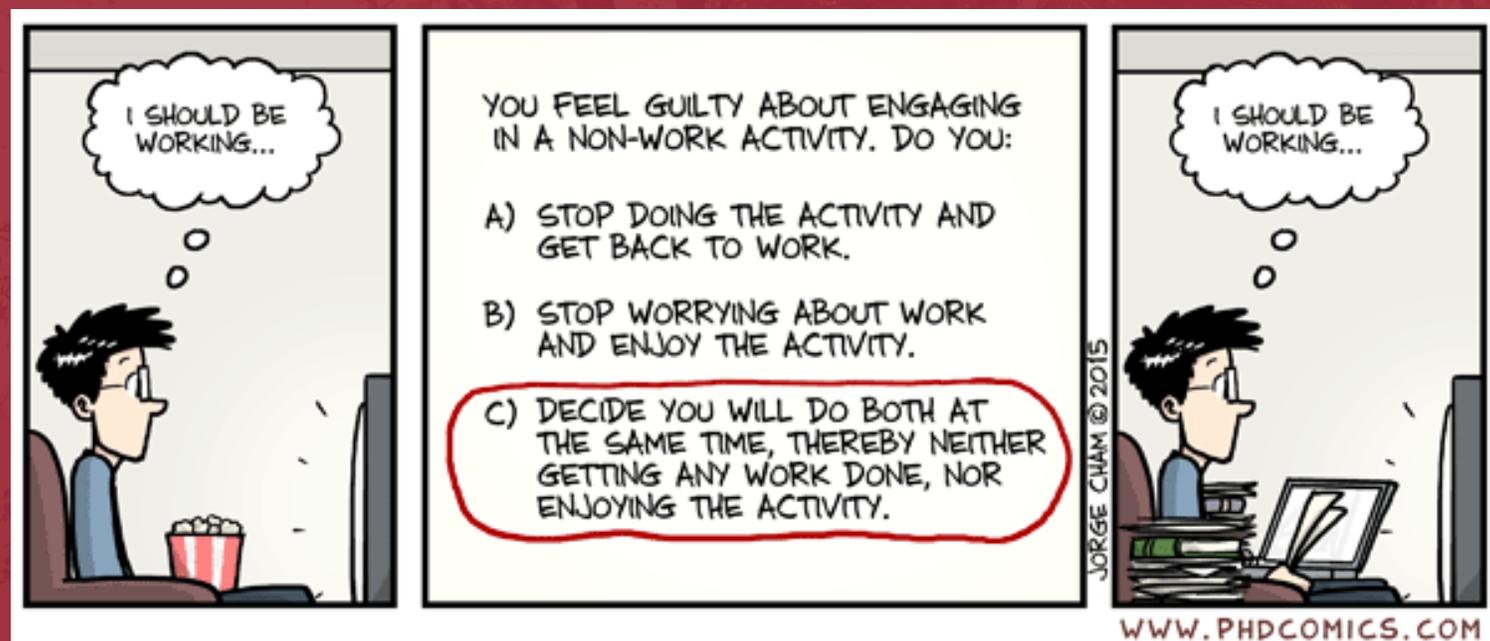
Please contact Yvette Pittman (pittmanyv@mail.nih.gov) to register.

FRIDAY, NOVEMBER 20, 10 – 11:30 AM

NICHD Postdoc Orientation
Building 31, room 2A48

Led by the NICHD Office of Education, the orientation will highlight both NICHD and NIH-wide intramural resources for postdoc fellows. Topics will include career-planning tools, grant opportunities for fellows, ideas for presenting your science locally, and the core facilities available to you. We will share information about key programs to support your professional development, complementing the mentored experience you will have at the bench. Don't miss this opportunity to meet fellows from other research areas and different buildings on campus.

PhD Comics



<http://phdcomics.com/comics/archive.php?comid=1827>

