

## 2015 Society of Toxicology Meeting

**PDA Special Events at the Annual SOT Meeting in Sunny San Diego March 22–26!**

**Annual Postdoctoral Luncheon  
Tuesday, March 24 at 12:00 Noon  
(Ticket required)**

All postdoctoral scholars are invited to a casual luncheon organized by the PDA. The Best Postdoctoral Publication award recipients will be recognized and career development-themed door prizes given away. The current PDA Board will review the year's accomplishments and the new officers for 2015–2016 will be introduced. Postdoctoral scholars reserve a ticket for \$10 when they register for the Annual Meeting.

**Poster Tours for Trainees  
March 23–25**

Time Varies by Group. Please consider participating and take the opportunity to network through this one hour event! Meet at the Poster Tour Board on the lobby level of the Convention Center

### Best Postdoctoral Publication Awards

The SOT Postdoctoral Assembly presents the Best Postdoctoral Publication Awards (BPPA) each year at the Annual Meeting to recognize outstanding published works in the field of toxicology accomplished by members in formal mentored postdoctoral traineeships. Applications were eligible this year if papers were published between October 1, 2013, and September 30, 2014. Out of the outstanding pool of applicants three recipients were selected. Applications



near the @SOT Center 15 minutes prior to tour start time. Participants may sign up at the Student/Postdoc Mixer on Sunday, March 22 at the Poster Tour Board.

**Chat with an Expert  
March 23–26**

**Hosted by the Graduate Student Leadership Committee**

Time Varies by Group. Meet at the Chat with an Expert Board on the lobby level of the Convention Center near the @SOT Center. Participants may continue sign up at the Student/Postdoc Mixer on Sunday, March 22 at the Chat with an Expert Poster.

were reviewed by the Postdoctoral Assembly Board and outside reviewers with matching scientific expertise using the NIH conflict of interest, confidentiality, and nondisclosure rules. The 2015 awards will be presented during the Postdoctoral Luncheon at the 54th Annual Meeting in San Diego, California, Tuesday, March 24 at noon. Please be sure to come by, enjoy the luncheon and congratulate the recipients! More about the recipients follows on Page 2.

### 2014–2015 SOT PDA Board

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## Best Postdoctoral Publication Award Recipients

Dr. Yong Ho Kim works in the Cardiopulmonary and Immunotoxicology Branch (CIB) of the US Environmental Protection Agency in North Carolina. CIB mostly focuses on toxicology studies that assess the impact of environmental exposure on the cardiopulmonary and immune systems of healthy animals and animal models of susceptibility. Of several research projects in CIB, Dr. Kim is currently responsible for assessing the comparative toxicity and mutagenicity of emissions from different fuels and combustion conditions commonly seen in wildfires. His recent study shows that coarse and ultrafine particles from a peat fire in North Carolina were, on a mass basis, more toxic to the lung and heart than particles obtained after the fire was extinguished. Dr. Kim hopes that his research will improve understanding of the hazards attributed to coarse versus fine particles, and keep communities safe and healthy by reducing risk associated with exposure to wildfire smoke.



Dr. John Clarke is currently a postdoctoral fellow in the Pharmacology and Toxicology Department at the University of Arizona in Tucson, Arizona. He received his BS in biology from Brigham Young University-Idaho and his PhD in Molecular and Cellular Biology from Oregon State University. Dr. Clarke's current research interests in the laboratory of Dr. Nathan Cherrington involve investigating how altered xenobiotic transporter expression in liver diseases can (1) contribute to the occurrence of adverse drug reactions and (2) alter exposures to and toxicities from toxic substances. Dr. Clarke's professional goal is to continue investigating xenobiotic toxicities as a member of the faculty at an academic research institution.



Dr. Christina Powers received her BA in Biopsychology from Agnes Scott College and her PhD in Pharmacology and Toxicology from Duke University. While at Duke she investigated the potential developmental neurotoxicity of silver and silver nanoparticles using *in vitro* and *in vivo* models. She then carried out her postdoctoral studies in the National Center for Environmental Assessment (NCEA) at the US Environmental Protection Agency (EPA). Her work with NCEA spanned several areas, including the Comprehensive Environmental Assessment (CEA) and Integrated Risk Information System (IRIS) programs. Her work with CEA included contributing to the case study on Nanoscale Silver in Disinfectant Spray, leading the development of the CEA application on multi-walled carbon nanotubes in flame retardant textiles, as well as developing materials that detail the application of CEA to nanomaterials and other emerging materials. Her work with the IRIS program included serving on two workgroups (neurotoxicity; reproductive and developmental), as well as leading mode of action work on the inorganic arsenic assessment. Most recently, Dr. Powers began a Physical Scientist position in the Air Quality Modeling Center in EPA's Office of Transportation and Air Quality.



## ***PDA Board Members Elected for 2015–2016***

### **Congratulations!**

**Vice Chair: Gabriel Knudsen**

**Secretary: Tongde Wu**

**Treasurer: Samantha Snow**

**Councilor: Eugene Gibbs-Flournoy**

**Councilor: Kari Sant**

The results of the January PDA election have been released. More information on the officers can be found on the PDA webpage.

We also congratulate Kathryn Page (2014–2015 Vice Chair) on her new industry position! In 2015–2016, Councilor Caitlin Murphy will take on the role of Chair as Kathryn's Postdoc is completed. We wish the 2015–2016 Board all the best as they assume their new leadership roles on May 1st.

## ***Upcoming Spring 2015 PDA-Hosted Webinar***

**Chaired by Karin Streifel, SOT PDA Secretary**

**Maximizing your Postdoc to Land the Ideal Permanent Position: What Search Committees are Seeking across Employment Sectors**

Forethought and preparation for the career transition is essential for postdocs to sell themselves and obtain an interview. How to sell your experiences and be a successful candidate are specific to each career track, as well as each position. Generalizing the three major sectors (academia, government, industry), we planned this webinar to discuss career transition strategies for postdocs including how to be competitive for full-time employment, how to navigate across job sectors, and what to expect during a formal interview.

**Industry: Tao Wang, Novartis (Confirmed)**

**Academia: Pamela Lein, UC-Davis (Confirmed)**

**Government: John Lipscomb, USEPA (Invited)**

**Webinar Date/Time to Be Announced**

## ***Thinking Ahead to Future Years!***

**2017 Joint GSLC and PDA SOT Annual Meeting Session Proposal**

The PDA submits scientific and career development proposals for consideration for the Annual Meeting.

Have an idea for a scientific proposal, career development theme, or a potential speaker?

Email ideas to Caitlin at [cmurph@austin.utexas.edu](mailto:cmurph@austin.utexas.edu)

## ***The Professional and Personal Life of a Postdoctoral Fellow: Is it Possible to Get a Balance?***

***Teresa Palacios-Hernandez, PhD***

***Postdoctoral Representative, Hispanic Organization of Toxicologists***

It is a fact that, during the development of a postdoctoral fellowship, the expectations of the scholar are huge. Because the postdoctoral scholars are starting their careers, it is necessary that they produce as many publications as possible. It has been estimated by Nature.com that the average hours a postdoc works per week is around 50–60, more than a typical employee in the United States or the United Kingdom. The time spent in the laboratory could increase depending on the goals and requirements of the postdoctorate's research. In almost all cases it is unavoidable, to work long hours to achieve a prestigious and excellent record to continue our career, without putting aside our personal life. Yet a balance is fundamental to continue our lives in both places.

During life as a Postdoctoral scholar, it is very common to hear from family and friends the phrases such as “you need to recover your time,” “you need to pay attention to your personal issues,” and “you really need to take a break.” As our fellowships continue to grow and we acquire more responsibilities, it becomes worse. It is very common during a postdoctoral fellowship to start personal projects of our own such as establishing a life with a partner, expecting a new baby, or even maintaining a stable and healthy family. At the same time, we are developing our own research projects and, moreover, are looking for a permanent position. Additionally, we could also be looking for a complementary position to increase our salary such as an adjunct professorship. No one said that it was going to be easy.

The real balance comes when we finally accept the challenge, taking on all the

responsibilities mentioned with humility and happiness. All the tasks that we need to do force us to prioritize and organize our time, if we want to be successful. Having a family makes it even more challenging to be sure that our career and work-related activities don't consume all aspects of our lives. Both sides should be in equilibrium, and we really need to be clear that the problems on one side will negatively affect the other side. Other advice that could work in our postdoctoral position and in our lives as employees is to establish a level of work that we are prepared to sustain for the rest of our lives as researchers in industry or academy. But the most important thing that we need to do, is to maintain our optimism and enthusiasm. It is very common at this stage to be disappointed when things are not working in the manner that we wish, and the stress levels in our daily lives could detonate complicated situations that can affect our humor and health. Our response to this kind of situation is crucial, because it underpins success to a great extent. When we begin to master the stress in a way that increases our confidence and independence, most of our aims will be reachable. We just need to remember that our personal goals and our efforts will be rewarded very soon.

Supporting links and articles:

<http://blogs.nature.com/naturejobs/2011/04/01/are-long-working-hours-inevitable-for-postdocs>

<http://www.apa.org/gradpsych/2014/01/family.aspx>

[http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2013\\_03\\_06/caredit.a1300035](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2013_03_06/caredit.a1300035)

## Reforming the “Invisible” Postdoc

By Ashwini Phadnis-Moghe, PhD

Postdoctoral Representative, Immunotoxicology Specialty Section

The definition of a postdoc as some of us may know or as agreed upon by the National Academy of Sciences, the National Postdoctoral Association and the National Science Foundation (NSF) is an individual who has received a doctoral degree (or equivalent) and is engaged in a temporary and defined period of mentored advanced training to enhance the professional skills and research independence needed to pursue his or her chosen career path.” Reality for some is far from this statement. Hence, the NAS publishes reports to highlight postdoc issues and provides a systematic plan that calls for reforming the postdoctoral system. Their most recent report, published in December 2014, titled “The Postdoctoral Experience Revisited” is a continuum in the series of reports published since 1969.

Fourteen years later, the recent report states that the sources of uneasiness for the past 14 years are still the same. Only for a minority of postdocs does the system seem to work well. They receive good mentoring and achieve independence in research by contributing to or by writing their own grants, publishing in top-tier journals and ultimately moving on to a tenure track academic position within five years. In addition, the postdoctoral experience is widely different across universities, national laboratories, or industry. Also, there is a stark difference between the number of postdoctoral researchers and available tenure-track academic positions. The problem lies at the graduate school level, where sometimes a postdoc is advertised as the next logical step upon obtaining a PhD. This report also states, despite several calls for documentation, the outcomes data on postdoctoral researchers in the United States is quite “foggy.” On the positive side, the period since 2000 has seen several advances in the treatment of postdoctoral researchers namely, the

development of MyIDP by AAAS, increase in the number of universities with an office of postdoctoral affairs, and an increase in the number of surveys.

The recommendations in this report apply mainly for postdoctoral researchers in an academic university setting as they are the largest component of the population of postdocs. Industry postdocs and postdocs at national laboratories do not face the same multitude of problems. In the current report, the committee, chaired by Dr. Gregory Petsko, Weill Cornell Medical College, New York, has highlighted five aspects of the postdoctoral experience that need to be mandated.

1. **Period of Service:** Postdoctoral appointments should total no more than 5 years in duration, barring extraordinary circumstances.
2. **Title and Role:** The title of postdoctoral researcher should be applied to only those people who are receiving advanced training in research. In many cases, technicians, research assistant professors, or staff scientists can appropriately fill positions occupied by postdoctoral researchers.
3. **Career development:** The postdoctoral position should not be viewed as a default step after completion of a PhD. Graduate schools should make graduate students aware of the wide variety of career paths available for PhD recipients.
4. **Compensation and benefits of employment:** Salaries of postdoctoral researchers should be increased to reflect qualification; NIH should raise NRSA starting salary to \$50,000 (2014 dollars) and adjust it annually for inflation and cost of living expenses.
5. **Mentoring:** Postdoctoral researchers should be given opportunities that encourage researchers to seek advice from multiple advisors in addition to their immediate supervisor.

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## Reforming the “Invisible” Postdoc, continued

**6. Data Collection:** The NSF should serve as the primary curator for establishing and updating a database that track postdoctoral researchers, including non-academic and foreign-trained postdoctoral researchers.

The report ends by stating that the recommended reforms should be coordinately implemented by the funding agencies in addition to help from universities, institutions and professional societies. The path forward needs to recognize the roles of postdoctoral researchers and a

postdoc cannot simply serve as a stopgap in an individual’s career path. One can only hope that these recommendations are acted upon and awareness, acceptance and solutions to the issues at hand are sought sooner.

References:

National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, *The Postdoctoral Experience Revisited*, Washington, DC: The National Academies Press, 2014.

### 2015 SOT Meeting Networking Opportunities

- **Student/Postdoc Mixer: March 22 7:30 PM–9:00 PM**  
Ballroom 20D
- **Poster Tours for Trainees**
- **Chat with an Expert**
- **Postdoctoral Luncheon: March 24 12:00 Noon–1:15 PM**  
Ballroom 5

If you haven’t already signed up for [Poster Tours](#) or [Chat with an Expert](#) be sure to do so at the Mixer!

### 2015 SOT Career Resources

- **SOT Online Job Bank:** <https://www.toxicology.org/ai/newcrad/>  
**Be sure to update your CV and visibility settings before the meeting!**
- **Mentor Match: the online SOT mentoring program**  
<http://www.toxicology.org/ai/newcrad/mentormatch.asp>
- **Education-Career Development Sessions**  
**Room 7 at the Annual Meeting Monday and Wednesday!**  
**See p. 7–8 of the Post-y and the Annual Meeting App to find relevant sessions.**

## Education and Career Development Sessions

### Adaptive Leadership: Anticipating, Initiating, and Responding to Change

**Monday, March 23, 12:10 PM to 1:30 PM Room 7**

**Chairpersons: Brinda Mahadevan and Hollie Swanson**

- Introduction to Session, Hollie I. Swanson, University of Kentucky, Lexington, KY.
- Introduction of Speakers, Brinda Mahadevan, Abbott Laboratories, Columbus, OH.
- Undertaking a Range of Activities and Adapting to Changes for the Future in Academia As a Thought Leader, a Communicator, and Teacher. Hollie I. Swanson, University of Kentucky, Lexington, KY.
- The Lesson of the Oak Tree and the Reed: Adapting to Change in a Corporate Research Environment. Lois D. Lehman-McKeeman, Bristol-Myers Squibb Company, Princeton, NJ.
- The Impact of Change in the Government (US FDA) and Its Global Influence on Regulatory Science and Career Development. William Slikker Jr., US FDA-NCTR, Jefferson, AR.
- Fostering Change in Developing a Strong Interdependent Relationship between CROs and Pharmaceutical Companies. Shawn Heidel, Covance Inc., Greenfield, IN.

### Challenges in the Life Cycle of a Toxicologist

**Monday, March 23, 2:00 PM to 4:45 PM Room 7**

**Chairpersons: Tina Levine and William Brock**

- Introduction from Tina E. Levine, Retired, Arlington, VA.
- The Nuts and Bolts of Getting Hired As a Government Toxicologist. Tina E. Levine, Retired, Arlington, VA.
- Taking the Leap: Myths and Realities of Starting Your Career As an Industry Toxicologist. Jeffrey S. Moffit, FORUM Pharmaceuticals, Inc., Watertown, MA.
- Mid-Career Challenges and Opportunities for the Toxicologist. Drew Badger, Amgen, Inc., Thousand Oaks, CA.
- Improving Your Work/Life Satisfaction. Donna J. Dean, Association for Women in Science, Hedgesville, WV.
- Challenges for the Late-Career Toxicologist. William Allaben, University of Arkansas Medical Center, Little Rock, AR.

### What Toxicologist Do You Wanna Be? The Role of Toxicologists across Diverse Organizations

**Wednesday, March 25, 12:00 Noon to 1:20 PM Room 7**

**Chairpersons: Sudheer Beedanagari and Erica Bruce**

- Role of Toxicologists in the Pharmaceutical/Biotechnology Industry. Raja Mangipudy, Bristol-Myers Squibb Company, New Brunswick, NJ.
- Role of Toxicologists in an Academic and/or Research Institute. Erica D. Bruce, Baylor University, Waco, TX.
- Role of Toxicologists in the Cosmetic Industry. Thomas A. Re, L'Oreal USA, Clark, NJ.
- Role of Toxicologists in a Federal Organization. Chandramallika (Molly) Ghosh, US FDA, Silver Spring, MD.
- Role of Toxicologists in the Nutrition Industry. Brinda Mahadevan, Abbott Nutrition, Columbus, OH.

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## Education and Career Development Sessions, continued

### Crafting High-Impact Manuscripts: The Process from Hypothesis through Review and Publication

Wednesday, March 25, 4:30 PM to 5:50 PM Room 7

Chairpersons: Caitlin Murphy and Karin Streifel

Hosted by PDA

- Introduction to Crafting High-Impact Manuscripts: Questions from Trainees. Caitlin Murphy, University of Texas at Austin, Austin, TX.
- Crafting a High-Impact Manuscript. Gary W. Miller, Emory University, Atlanta, GA.
- The Role of Associate Editor. Dana Dolinoy, University of Michigan, Ann Arbor, MI.
- Maintaining Scholarly Productivity in Nonacademic Careers. Lois D. Lehman-McKeeman, Bristol-Myers Squibb Company, Princeton, NJ.
- Science on Science: Publishing in Top-Tier Journals. Marcia McNutt, Science magazine, Washington, DC.

### Symposium Session: Safety Assessment Approaches for Product Development

#### Alternative Models to Study Classical Toxicants: A Mechanistic View

Tuesday, March 24, 9:00 AM to 11:45 AM Ballroom 6D

Chairperson(s): Kathryn E. Page and Monica R. Langley

Hosted by PDA and GSLC

- Introduction from Kathryn E. Page, UC Berkeley, Berkeley, CA.
- Multidimensional Rapid-Throughput Screening of ToxCast Chemicals Using the Embryonic Zebrafish. Lisa Truong, US EPA-ORD, Research Triangle Park, NC.
- A Zebrafish Model of PCB Developmental Neurotoxicity. Galen Miller, University of California Davis, Davis, CA.
- Identification and Characterization of Molecular Modulators of MeHg-Induced Toxicity in the Genetic Model *C. elegans*. Natalia VanDuyn, ORISE Research Participant, Durham, NC.
- 3D Models and 'Omics Approaches to Study Pathways of Developmental Neurotoxicity. David Pamies, Johns Hopkins University, Baltimore, MD.
- Modern Techniques and an Old Mystery: Exploring Mechanisms of Ozone Adaptation. Emma Bowers, University of North Carolina at Chapel Hill, Chapel Hill, NC.
- Functional Genomics Approach in Yeast Identifies Mechanisms of Trichloroethylene Toxicity. Vanessa De La Rosa, University of California Berkeley, Berkeley, CA



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