



# YOUR HEALTH & THE ENVIRONMENT

News from the University of Rochester Environmental Health Sciences Center

Summer 2018

## Welcoming a New Center Director: B. Paige Lawrence, PhD

After a yearlong national search, Mark Taubman, M.D., dean of the School of Medicine and Dentistry and CEO of the University of Rochester Medical Center, named B. Paige Lawrence, Ph.D., as the new chair of the Department of Environmental Medicine. Lawrence, who has been a faculty member in the department for 12 years and has directed the Rochester Toxicology Program for the past 6 years, officially began her post on August 1, 2017. In December 2018, Lawrence also became Director of the EHSC.



Center Director, B. Paige Lawrence, PhD

Lawrence was recently named a Fellow of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society. She earned an undergraduate degree in biology and chemistry from Skidmore College and a Ph.D. in Biochemistry, Molecular, and Cell Biology at Cornell University. She received specialized training in immunology and toxicology during a post-doctoral fellowship at Oregon State University. In addition to leading a well-funded research program, she is well known for her commitment to education and mentoring. She has also received several mentoring awards, and serves regularly on national committees that focus on graduate education, career development, and mentoring.

## In This Issue

### Page 1

- Welcoming a New Center Director: B. Paige Lawrence, PhD

### Page 2

- Rahman Speaks at Community Event

### Page 3

- Community Advisory Board Meeting

### Page 4

- Bernie Weiss, PhD

### Page 6

- Lake Ontario and Public Health

### Page 7

- Annual Toxicology Retreat
- Honoring Dr. Cory-Slechta

### Page 8

- COEC Air Sensor Stories Workshop Now Live

### Page 9

- Tox Student Awards and Updates



## Rahman Invited To Speak at Tobacco 21 Forum

On March 21st, Irfan Rahman, Ph.D. participated in the Kick Butts Day Point of Sale & Tobacco 21 Forum at Rochester's Thomas P Ryan Recreation Center. The event was organized by the American Lung Association's Monroe County Smoking and Health Action Coalition (SHAC) to address tobacco's impact on youth and the community as well as evidence-based policy solutions.

The goals of this forum were to develop knowledge that will more fully equip community members and leaders to create healthier and safer approaches to protecting local populations from the dangers of tobacco use by improving awareness of the interconnectedness between tobacco-related influences: social, economic, public health, and youth-based impacts. The Smoking and Health Action Coalition learned of Rahman's research on the health effects of vaping through the EHSC's Community Advisory Board and asked him to share his knowledge in the context of changes in tobacco advertising and smoking policies.

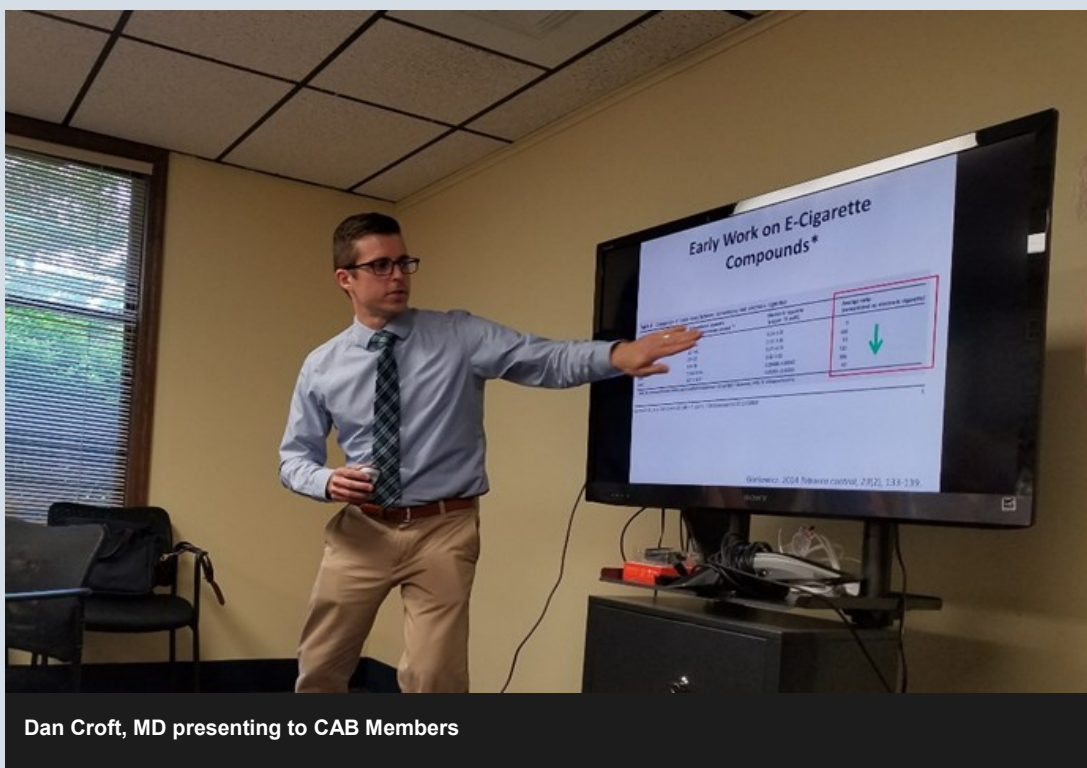
Rahman's talk, "Local Youth Impact & E-cigarette Usage" focused on the chemical composition of e-juices (vaping fluids) and their potential health effects.

## Croft Speaks on E-Cigarettes at May 2018 Community Advisory Board Meeting

Dan Croft, M.D., MPH, Senior Instructor in Pulmonary and Critical Care Medicine at the University of Rochester Medical Center, was the guest presenter for the Community Advisory Board Meeting held at the American Lung Association on May 29<sup>th</sup>, 2018.

Dr. Croft spoke about “The intersection of evidence and policy: E-Cigarettes.” He focused on public health concerns related to e-cigarette use, particularly by teenagers. Croft also explored the challenges of regulating such a rapidly evolving industry.

Croft has worked with Phil Hopke, PhD, on a study exploring the relationship between air quality in the Rochester region and biomarkers of cardiovascular disease. He is currently studying the associations between air quality and respiratory infection.



Dan Croft, MD presenting to CAB Members



## Remembering Professor Emeritus Bernie Weiss

Bernard “Bernie” Weiss, Ph.D., professor emeritus of Environmental Medicine and Developmental & Behavioral Pediatrics, passed away on January 22 at the age of 92.

Weiss was a monumental and beloved figure in the scientific community, and helped found a field of research that tracks the impact of toxic chemicals on human behavior. His research sparked national discussions about the dangers of artificial food dyes, pesticides, and chemicals in plastics. He often advocated for better policies to protect the public.

As recently as 2015, Weiss participated in a national debate over the safety of food dyes which the Food and Drug Administration had declared safe. Citing studies that showed an association between children ingesting food dyes and hyperactivity, Weiss supported a ban. Several large manufacturers, including Kraft, announced they would remove artificial food coloring such as Yellow No. 5 and Yellow No. 6 from its macaroni and cheese, replacing the dyes with natural ingredients such as turmeric and paprika.

Into the final years of his career, Weiss sat on advisory boards that review data and make recommendations about dioxin, metals, dental amalgams, the environmental conditions on NASA spacecraft, and air quality aboard commercial airplanes. Up to about two years ago, he could be found in his lab several days a week, happy to offer consultation and support to other researchers. A scientific paper he co-authored is in the process of being published.

*Remembering Professor Emeritus Bernie Weiss Continued from Page 4*

Deborah Cory-Slechta, Ph.D., trained as a postdoc in his lab. "Many of the issues Bernie began to address thirty or forty years ago are still major issues in the field today," she said. "He moved issues forward with creativity and foresight and his legacies will be with the field for a long time to come."

When asked for an autobiographical statement for the journal *Neurotoxicology* forty years ago, Weiss wrote: "We are all gamblers. We scheme to conquer chance, to beguile it into surrender, to lull it into forgiveness. In the end, it subdues us; but without malice, and at times to our advantage. Like other lives, mine has been hostage to random collisions... Neurotoxicology will continue to be an adventure as long as its practitioners remain adventurers."

Weiss is survived by his children, Wendy (Les) Calkins and Tom (Debra) Weiss; grandchildren, Zachary (Sara), Nicole, William, Emily (Marcelo); brother, Leonard (Sandra); beloved partner, Marti Willit; nieces and nephews.

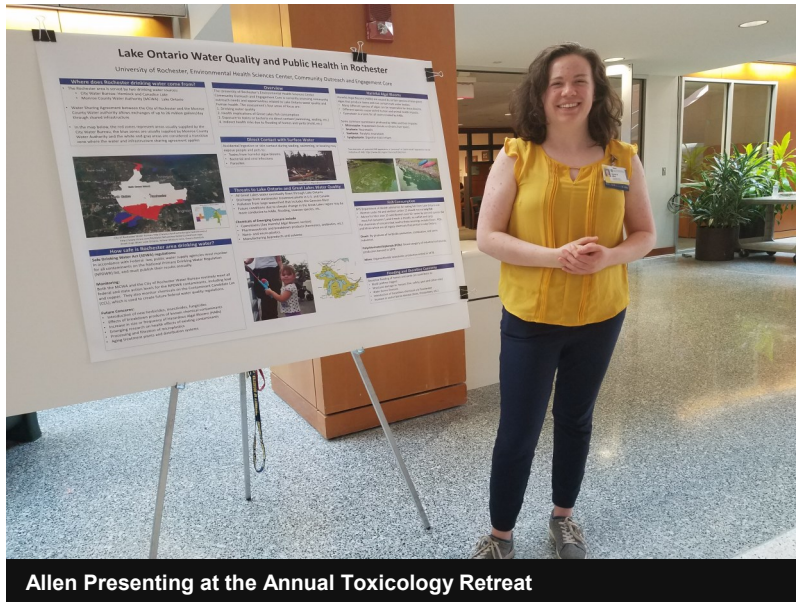
The Bernard Weiss Endowment Fund was established by the University of Rochester Department of Environmental Medicine in 2014 to provide support for outstanding graduate students and post docs in the department. For more information, see: <https://www.urmc.rochester.edu/environmental-medicine/weiss-endowment-fund.aspx>

*Adapted from obituary by Susanne Pallo, University of Rochester Medical Center and published in "@Rochester" January 25, 2018.*

# Lake Ontario Water Quality and Human Health

COEC research assistant Rachel Allen spent several months this spring identifying opportunities for research, analysis, and outreach related to the connections between surface water quality and human health in the Rochester region. She explored four pathways by which Lake Ontario can impact human health: drinking water, recreational contact, local fish consumption, and direct or indirect effects of flooding.

Ms. Allen's major product was a report summarizing drinking water sources, current status, and potential future threats. Her research focused primarily on characterizing the two drinking water sources that serve the majority of the region's population: Lake Ontario and Hemlock Lake. She also identified potential future threats including microplastics and Harmful Algal Blooms.



In addition, Ms. Allen explored needs for community engagement around surface water quality and human health. She attended a number of related community events, including the Genesee River Valley Summit and Nature Days at the Public Market, where she presented a poster on her work. She interviewed environmental agencies and interest groups to learn about their existing educational efforts.

To better understand community knowledge and concerns, Ms. Allen worked with the Monroe County Stormwater Coalition and Causewave Community Partners, who are currently updating a public survey about surface water quality. Ms. Allen researched, adapted, and created new questions to better characterize the public's knowledge and concerns about water quality human health. These survey responses may help inform future community engagement around these issues.

# Toxicology Training Program Annual Retreat Keynote Lecture:

The keynote speaker for the May 2018 Toxicology Training Program Annual Retreat was Mark E. Hahn Ph.D., Senior Scientist in the Biology Department at Woods Hole Oceanographic Institution.

Hahn's presentation, "Models to mechanisms: Evolutionary toxicology and the intersection of human and environmental health," explored how chemicals can influence evolutionary processes and how evolutionary relationships can inform the design and interpretation of studies to understand mechanisms of toxicity.

His long-term research has studied evolved resistance to dioxin-like chemicals in populations of an estuarine fish experiencing multi-generational exposure to PCBs and related chemicals.



Hahn explored the various roles of the aryl hydrocarbon receptor signaling pathway in the mechanisms of differential sensitivity to PCBs and discussed how this research may inform our understanding of chemical impacts on both wildlife and humans. Mark Hahn received his Ph.D. in our Toxicology program in 1987, under the mentorship of Tom Gasiewicz.



## Honoring Dr. Cory-Slechta

Deborah Cory-Slechta, Ph.D. served as acting chair of the Department of Environmental Medicine and Director of the EHSC from 2016-2018. Faculty and staff in the department and center, are deeply grateful to Dr. Cory-Slechta for her dedication and excellent leadership.

Cory-Slechta, received the Lifetime Achievement Award in Graduate Education during the Spring 2018 commencement ceremony.



## Air Sensor Stories Workshop

The University of Rochester COEC partnered with University of North Carolina at Chapel Hill, University of Texas Medical Branch, Columbia University, and WeAct for Environmental Justice, to develop a new workshop to help diverse audiences understand the potential of user-friendly air particle sensors to address communities' air quality questions and concerns. This workshop provides a basic introduction to the sources, regulations, and health effects of fine particulate matter (PM<sub>2.5</sub>), an overview of the many user-friendly models of air particle sensors on the market, and an interactive “Action Plan” activity to help participants apply what they have learned to a real problem. Optional interactive activities are provided to help participants explore key concepts and how air particle sensors work. The workshop is designed to take between 1 and 3 hours, depending on how many hands-on activities are integrated. Interested persons can register on the EHSC: COEC website for materials to use to address their personal air quality exposure concerns. This project was supported by a collaborative supplement grant from the National Institute of Environmental Health Sciences.

**Environmental Health Sciences Center: Community Outreach and Engagement Core**

Home [UBMC / EHSC / Community Outreach and Engagement Core \(COEC\) / Air Sensor Stories Workshop / Workshop Materials](#) [Make a Gift](#)

News and Publications

Community Advisory Board

Community Projects and Partnerships

Faculty and Staff

K-12 Education: Life Sciences Learning Center

**Air Sensor Stories Workshop**

### Air Sensor Stories Workshop Materials

To avoid having to register again, **please bookmark this page!**

Below is the PowerPoint version of the workshop presentation making it easier for you to edit the presentation with your organization's information and local data. Also there is a participant feedback form that can be used to evaluate your session as well as a presenter feedback form that can be used to share your experience as a facilitator with us.

Please use the following materials for your own needs but we ask that you clearly make attributions to the partners involved in the development of these materials.

- [Air Sensor Stories Workshop Presentation \(PowerPoint\)](#): This 40-slide PowerPoint presentation includes brief presenter notes for each slide. Slide notes also include suggested discussion questions and interactive activities that can be used to support programming. ([Air Sensor Stories Workshop Presentation PDF](#))
- [Air Sensor Stories Workshop Facilitator Guide](#): This guide provides instructions on how to prepare to facilitate a workshop, access local air quality data, prepare materials and set-up the room along with optional interactive sensor activities.
- [Action Plan Worksheets](#): This legal-sized handout uses a graphic to guide participants to think through how they might use an air sensor to address their personal questions or concerns. The second side of this Action Plan provides additional information on the varied features of different kinds of air particle sensors.
- [Air Quality Index Handout](#): This handout provides participants with a copy of EPA's Air Quality Index (AQI) scale for reference throughout the presentation as well as brief explanation of the AQI and [airnow.gov](#) website.
- [Air Sensor Stories Workshop Participant Feedback Form](#): A template facilitators may wish to use or modify to solicit feedback from their presenters.
- [Air Sensor Stories Workshop Facilitator Feedback Form](#): We welcome feedback on these materials and how they have been used! Please complete this form and return it to: [COEC@urmc.rochester.edu](mailto:COEC@urmc.rochester.edu).



# Congratulations!

## Toxicology Training Program Students Awarded Doctorates

Claire McCarthy (6/17)  
Shannon Lacy (6/17)  
Jennifer Judge (6/17)  
Mike Rudy (9/17)  
Lisa Prince (11/17)  
Elissa Wong (2/18)  
Parker Duffney (2/18)  
Jessica Meyers (4/18)

## Toxicology Training Program Students Awarded Master of Science Degree

Jasmine Reed (11/17)  
Timothy Smyth (11/17)

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View this newsletter and past newsletters at [www.urmc.rochester.edu/environmental-health-sciences/coec/news-publications.aspx](http://www.urmc.rochester.edu/environmental-health-sciences/coec/news-publications.aspx)

## Toxicology Training Program Student and Post-Doc Award

TOX 558 Participation Award:

MacGregor Award for Best poster for 1st year  
MacGregor Award for Best Overall Poster  
MacGregor Award for Best Presentation  
Infurna Award (student)  
Infurna Award (Postdoc)  
Neuman Award  
Weiss Award

Keith Morris-Schaffer  
Jakob Gunderson  
Catherine Burke  
Sarah Latchney, PhD  
Elissa Wong  
Thivanka Muthumalage, PhD  
Candace Wong and Kelly Hanson  
Brian Palmer and Katrina Jew

