



Society for Risk Analysis  
New England Chapter

2017-2018 Event Series  
MEETING ANNOUNCEMENT

Insights into PFAS Toxicity from Recent Research  
and from Previously Undisclosed Documents

Dr. Philippe Grandjean  
University of Southern Denmark  
Harvard School of Public Health

Development of PFAS Guidelines

Dr. Wendy Heiger-Bernays  
Boston University School of Public Health

**Wednesday June 13, 2018 from 5:30-7:30pm**

Refreshments: 5:30 pm – 6:00 pm

Presentations: 6:00 pm – 7:00 pm

Discussion: 7:00 – 7:30 pm

**Location**

Health Effects Institute  
75 Federal Street, #1400  
Boston, MA

Please RSVP by **June 8<sup>th</sup>** to Rebecca DeVries ([Rebecca.DeVries@erg.com](mailto:Rebecca.DeVries@erg.com))



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## About the Presentations

### **Dr. Grandjean's Presentation:**

Perfluorinated alkyl substances (PFAS) have been in use for over sixty years. These highly stable substances were at first thought to be virtually inert and of low toxicity. From the late 1970s, PFAS were detected in blood samples from exposed workers, in the general population, in wildlife, and later also in community water supplies that now seems to affect millions of people. Toxicity information slowly emerged on perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Industry-commissioned studies in monkeys already showed immunotoxicity and systemic toxicity in 1978, although not released to the USEPA until 2000; other evidence came to light in connection with a law suit earlier this year. Prospective cohort studies have identified immunotoxicity and endocrine disruption risks. Carcinogenicity and hepatotoxicity also appear to be relevant risks at prevalent exposure levels. Existing U.S. drinking water limits are based on animal tests and may be 100-fold too high to protect consumers. As risk evaluations assume that untested effects do not require regulatory attention, the greatly underestimated health risks from PFAS exposures illustrate the public health implications of assuming safety of incompletely tested industrial chemicals.

### **Dr. Heiger-Bernays' Presentation:**

PFAS are in the public spotlight because rapidly expanding evidence indicates widespread human exposure and toxicity at these levels, highlighting the inadequacy of the pre-market testing requirements for chemicals. The majority of the focus remains on exposure via drinking water, although the full extent of exposure is unknown. In May 2016, the USEPA established a drinking water health advisory level for two of the most studied PFAS - PFOA and PFOS. As the federal health advisory is unenforceable, states have either adopted it, established their own health advisories or regulatory levels, or have not issued rules at all while some states have expanded the application of the USEPA values to other PFAS. In this session, we will examine the differences in the toxicological basis and methodologies used in the risk-based development of PFAS guidelines in the US and internationally, with a brief examination of the status of the toxicological literature including data from high-throughput toxicological analyses.



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## About the Presenters

**Philippe Grandjean, MD, DMSc** is Professor of Environmental Medicine at the University of Southern Denmark and Adjunct Professor of Environmental Health at Harvard T.H.Chan School of Public Health in Boston. His main research interests are in environmental epidemiology, in particular adverse health effects of developmental exposures to environmental chemicals. Grandjean's book "Only one chance - and How to Protect the Brains of the Next Generation" was published by Oxford University Press in 2013, and it has since been translated into French ("Cerveaux en danger") and Danish. In 2002, Grandjean and Dr. David Ozonoff became founding Editors-in-Chief of the open-access journal Environmental Health. Since 2013, he has been a member of European Environment Agency's scientific committee. In 2004, he received the 'Mercury madness award' for excellence in science in the public interest, from eight US environmental organizations, in 2012 the Science Communication Award from the University of Southern Denmark, in 2015 the Bernardino Ramazzini Award, and in 2016 the John R. Goldsmith Award from International Society for Environmental Epidemiology. Most recently, Grandjean served as health expert for the State of Minnesota in a law suit against a local company due to environmental dissemination of PFAS.

**Wendy Heiger-Bernays, Ph.D.** is Clinical Professor of Environmental Health at the Boston University (BU) School of Public Health where she applies her expertise in molecular toxicology to questions about the health risk of consumer and industrial chemicals on people's health. As Research Translation Core leader of the BU Superfund Research Program, her research and teaching include a focus on effective ways to translate findings from the laboratory to multiple audiences. In 2015-2016, she was an American Association for the Advancement of Science (AAAS) Science and Technology Fellow hosted in the USEPA Office of Science Coordination and Policy, working in the Endocrine Disrupting Screening Program. She has served on EPA's Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Science Advisory Panel, National Drinking Water Advisory Council (NDWAC) and SAB Workgroups and she currently serves as a member of the Massachusetts DEP Waste Site Advisory Committee, the Toxics Use Reduction Institute's Science Advisory Board and as chair of her local board of health.



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## GETTING TO THE EVENT

Directions to the Health Effects Institute can be found at: <https://www.healtheffects.org/directions>

### **From the MBTA Subway (on foot):**

The office is two blocks north of South Station, connecting you to the Red Line, Silver Line, and the Commuter Rail. Two blocks to our west is Downtown Crossing, connecting to the Red and Orange Lines. Three blocks to our west is Park Street, connecting to the Green Line. (See the map of the downtown Boston area subway system.)

### **Driving Directions:**

#### From Logan Airport

Take the Sumner Tunnel to I-93 South; then follow the directions below for From Points North. With light traffic, this is a ten-minute trip; at busier times, such as Friday evenings, plan on an hour. The Silver Line bus connects Logan International Airport to South Station, which is two blocks from our office. (See the street map to make your way from South Station to our offices.)

#### From Points North

From points north of Boston, take I-93 South into the city. After entering the Central Artery Tunnel, stay to your right, following signs for Exit 23/Purchase Street and South Station. Take the Purchase Street exit and drive southwest on Purchase Street until you come to Summer Street. Turn right onto Summer Street, and take the first right onto High Street. Then take your first left onto Federal Street. There is a public garage that abuts 75 Federal Street on the left. (See the street map for additional details.)

#### From Points South

From points south of Boston, take I-93 North into the city. Take the South Station exit, staying to the right for the ramp to downtown Boston/Kneeland Street. At the end of the ramp, take a left onto Kneeland Street. Drive west along Kneeland Street and take your third right onto Lincoln Street. Drive north on Lincoln Street for 4-5 blocks until you come to Summer Street. At Summer Street, take a right and then an immediate left onto High Street. Follow the directions above from High Street to our offices.

#### From Points West

Take the Mass. Pike (I-90) east to Exit 24 A-B-C. Exit to the left, following the signs for I-93/South Station/Quincy. Take Exit 24-A to South Station, staying to the right for the ramp for downtown Boston/Kneeland Street. At the end of the ramp, take a left onto Kneeland Street. Follow the directions above from Kneeland Street to our offices.