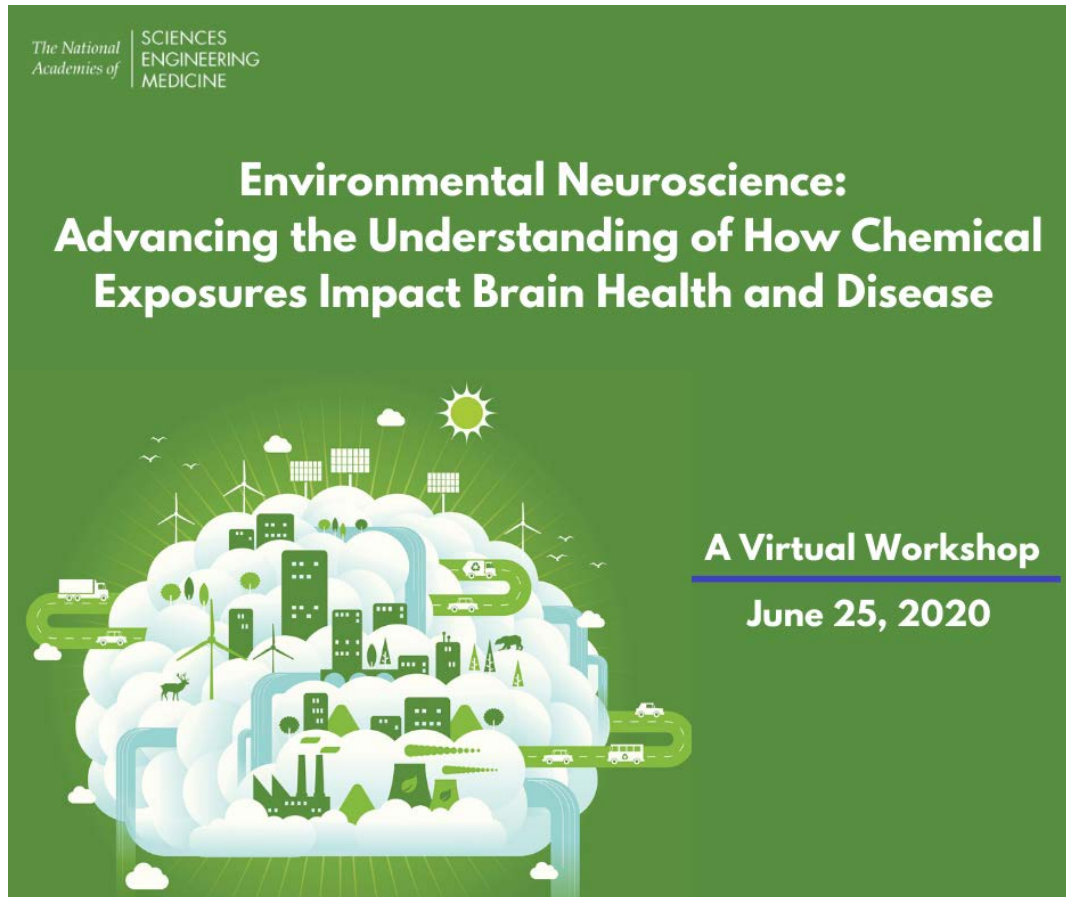


Session II: Biology of Toxicant Interaction with the Nervous System



Moderator: David A. Jett, Ph.D.
***Program Director National Institute of Neurological
Disorders and Stroke***
***Professor Adjunct of Chronic Disease and
Epidemiology, Yale School of Public Health***

Discussion Question

What is known about the biology of how “common” exposures to chemical and particulate toxicants might alter nervous system development or contribute to neurodegeneration?

Considerations

Evidence-based biological plausibility of chemical/toxicant exposures impacting on neurological diseases and disorders.

- Have specific mechanisms of toxicity been identified?
- How do the molecular cellular and changes caused by toxicants compare to what we already know about molecular/cellular changes observed in neurological diseases/disorders?
- Have gene/environment interactions been observed?
- Are there other factors beside the chemical exposure that influence the impact of toxicants on the brain?

Session Agenda

- 12:30-12:35 PM **Session overview**
David Jett, NIH/NINDS, Session moderator
- 12:35-12:50 PM ***Exploiting genetics to identify environmental risks for autism***
Mark Zylka, University of North Carolina, Chapel Hill
- 12:50-1:05 PM ***LRRK2 Activation as a Common Mechanism of Environmental Toxicant-Induced Parkinson's Disease***
J. Timothy Greenamyre, University of Pittsburgh
- 1:05-1:20 PM ***Environmental Gerogens in the AD Exposome: Air pollution & Cigarettes***
Caleb Finch, University of Southern California
- 1:20-2:15 PM Panel Discussion and Q&A including 3 speakers plus panelists:

Helena Hogberg, Johns Hopkins University
Tomás Guilarte, Florida International University