Panel Member Bios

Robert Mason, Ph.D. (Panel Chair)
Professor, University of Connecticut
Robert Mason is a professor in the Department of Marine Sciences at the University of Connecticut and has a joint appointment in Chemistry. He has been conducting mercury research for the last 30 years with a focus on atmospheric and aquatic mercury biogeochemistry and bioaccumulation at the base of the food chain. His studies have covered marine, coastal and freshwater ecosystems, examining the chemical transformations, with a focus on the factors influencing air-water and sediment-water exchange of all forms of mercury. Mason's research is aimed at understanding the factors influencing the bioavailability of mercury for methylation, methylmercury bioaccumulation into organisms, and sources and sinks in the environment. His research covers field studies, laboratory manipulation experiments and computer modeling. He is an author on more than 150 peer-reviewed papers and book chapters focused on mercury and is the author of a book on the environmental chemistry of metals. Mason has graduated more than 20 graduate students (13 PhD students). In addition to his academic pursuits, Mason has been involved in policy and has provided scientific advice and expertise to federal, state and local agencies, and to industry related to contamination and other mercury issues. He has been involved in producing technical reports for the United Nations Minamata Convention on Mercury and reports for other policy platforms.

Brian Branfireun, Ph.D. (Lead Author)
Professor, Western University
Dr. Branfireun studies the hydrology, ecology and biogeochemistry of wetland-dominated environments from the Canadian sub-arctic to the sub-tropics of Mexico. Dr. Branfireun's research program is strongly field oriented, using the latest approaches to measure environmental processes. He also directs a modern laboratory facility in the BIOTRON Institute for Experimental Climate Change Research at Western University to study speciated trace metals in the environment such as mercury and arsenic.

Carl Mitchell, Ph.D.
Associate Professor, University of Toronto
Dr. Carl Mitchell is an environmental scientist and Associate Professor in the Department of Physical and Environmental Sciences at the University of Toronto. He earned his PhD in Physical Geography from the University of Toronto in 2007. He directs an active research program at the intersection of the hydrological and biogeochemical sciences, with a focus on mercury cycling. He and his research group have published more than 50 peer-reviewed journal articles on topics such as mercury methylation, mercury cycling in wetlands, and the development of passive sampling methods. Dr. Mitchell's latest projects include investigating how forestry practices impact mercury cycling in the boreal landscape and assessing the release of gaseous mercury from degrading permafrost in Canada's Arctic. He also currently serves the scientific community as Vice-President of the Canadian Geophysical Union.

Cynthia Gilmour, Ph.D.
Principle Investigator, Senior Scientist Smithsonian Environmental Research Center
Dr. Gilmour is a biogeochemist with extensive experience studying mercury transport and transformation at multiple scales (from the molecular to the ecosystem level) and in laboratory and field settings. Her research group studies the biogeochemistry of mercury in the environment, with an emphasis on the microbial mercury methylation process in sediments and soils. Major research has included studies of: mercury in the Florida Everglades, Chesapeake Bay and the adjoining continental shelf; the METAALICUS whole-watershed mercury addition study at the Experimental Lakes Area in Ontario; recent field trials of activated carbon as a potential remediation tool for mercury-contaminated sediments and soils; and most recently, the development and testing of molecular tools to assess the distribution and activity of microbial mercury methylation genes (*hgcAB*) in nature. She has published more than 100 research papers in the subject area, including papers on the influence of sulfate on mercury methylation, the isolation and characterization of mercury-methylating microbes, and the bioavailability of mercury for microbial methylation. Her lab maintains an extensive collection of mercury-methylating microbes. Dr. Gilmour has served on a number of advisory boards including the EPA Science Advisory Board, the San Francisco Bay Mercury Studies Program, Chesapeake Bay Program's Scientific and Technical Advisory Board, and the technical committees for the International Conferences on Mercury as a Global Pollutant.

Curtis Pollman, Ph.D.
Chief Scientist and CEO, Aqua Lux Lucis, Inc.
Dr. Pollman is currently the CEO of Aqua Lux Lucis, Inc. and adjunct research professor in the Department of Geological Sciences at the University of Florida. He also holds a position as Chief Science Officer for Nclear, Inc., which is a start-up venture seeking to commercialize the applications of a novel synthetic calcium silicate mineral for treating water and wastewater. He obtained his Ph.D. in environmental engineering sciences from the University of Florida in 1983 where he specialized in aquatic chemistry and limnology. Dr. Pollman has been involved in various research projects relating to mercury cycling in the environment, including the Everglades, since 1994. This research spanned his tenure with as a Principal Scientist with Tetra Tech's Research & Development Division between 1995 and 2006, where he led the Florida Atmospheric Mercury Study (FAMS) and participated in modifications to the Mercury Cycling Model (MCM) and its subsequent application to the Florida Everglades. Between 2005 and 2007, he served as the CEO and Chief Scientist for Frontier Geosciences, Inc. (FGS), a small, highly specialized laboratory that was recognized as one of the pre-eminent commercial laboratories in the world analyzing mercury and other trace elements at ambient concentrations in natural waters. Dr. Pollman left Frontier Geosciences in late 2007 to form Aqua Lux Lucis with the expressed goal of conducting applied research and analysis to help inform decision makers devise environmental policy and strategies with a more robust understanding of the likely outcomes and uncertainties. This work includes using deterministic and statistical models to elucidate processes governing response variable dynamics in complex systems, and using these models as tools to contextualize and help resolve complex environmental problems.