

## Societal consequences of mercury pollution

KEY QUESTION: What are the socioeconomic and cultural costs of mercury pollution?

## BALLROOM A

## Health Effects of Methylmercury and Inorganic Mercury I

Moderators: Glenn Rice, USA; Alan Stern, New Jersey Department of Environmental Protection, USA

1:20 PM

S-730: Characteristics of Somatosensory Disturbance of Residents in the Methylmercury-Polluted Area

Shigeru Takaoka (Presenting Author)

1:40 PM

S-987: Low Level Methylmercury Exposure and Neurobehavioral Assessment among Canadian Fish Consumers

Nadia Abdelouahab (Presenting Author), Claire Vanier, Marie Baldwin, Donna Mergler

2:00 PM

S-1378: Selenium as a Potential Protective Factor against Mercury Developmental Neurotoxicity

Anna L. Choi (Presenting Author), Esben Budtz-Jørgensen, Poul J. Jørgensen, Pál Weihe, Philippe Grandjean

2:20 PM

S-890: Mercury in Breast Milk—A Health Hazard for Infants in Gold Mining Areas?

Beate Lettmeier (Presenting Author), Stephan Boese-O'Reilly, Gustav Drasch

2:40 PM

S-877: Mercury Intoxicated Children in Small Scale Gold Mining Areas

Stephan Boese-O'Reilly (Presenting Author), Beate Lettmeier, Gustav Drasch

3:00 PM

S-632: Health Risk Assessment among Mother and Child Residents Living Near an Abandoned Mercury Mine: A Toxic Legacy

Ana Trinidad Rivera (Presenting Author)

## Health Effects of Methylmercury and Inorganic Mercury II

Moderators: Patricia McCann, Minnesota Department of Health, USA; Megumi Yamamoto, National Institute for Minamata Disease, Japan

4:00 PM

S-1057: Relationship between Fish Intake and Serum Fatty Acid Profiles: A Community-Based Study in Quebec, Canada

Aline Philibert (Presenting Author), Claire Vanier, Nadia Abdelouahab, Laurie Chan, Donna Mergler

4:20 PM

S-471: Blood Selenium and Mercury Relation in the Brazilian Amazon

Mélanie Lemire (Presenting Author), Donna Mergler, Myriam Fillion, Carlos José Sousa Passos, Jean Rémy Davée Guimarães, Robert Davidson, Marc Lucotte

4:40 PM

S-904: Glutathione Level after Long-Term Occupational Elemental Mercury Exposure

Alfred B. Kopal (Presenting Author), Marija Prezelj, Mladen Krsnik, Alenka Briski, Milena Horvat, Darija Gibicar, Josko Osredkar

5:00 PM

S-906: Increase of the Renal Excretion of Organo-Mercury Compounds like Methylmercury by DMPS (2,3-Dimercapto-1-Propanesulfonic Acid, Dimaval®)

Gustav Drasch (Presenting Author), Sven Illig, Stephan Boese-O'Reilly

5:20 PM

S-992: An Estimate of the Population Variability in the Relationship between Cord Blood Mercury and Maternal Methylmercury Intake

Alan Stern (Presenting Author)

## BALLROOM B

## S-SA-1: Air Surface Exchange of Mercury in Terrestrial Ecosystems

Organizers: Mae Gustin, University of Nevada-Reno, USA; Frank Marsik, University of Michigan, USA; Daniel Obrist, University of Basel, Switzerland  
Moderator: Frank Marsik

1:20 PM

S-702: Air-Surface Exchange of Mercury in Terrestrial Ecosystems

Mae Gustin (Presenting Author), Frank Marsik, Daniel Obrist

1:40 PM

S-1461: A Kinetic Model for Mercury Emissions from Soils

Enno Bahlmann (Presenting Author), Ralf Ebinghaus

2:00 PM

S-1345: Laboratory Studies on the Re-Emission Potential of Mercury from Different Snow Packs: The Effect of Solar Radiation, Temperature and Snow Composition

Enno Bahlmann, Christophe Ferrari (Presenting Author), Ralf Ebinghaus

2:20 PM

S-287: Inter Annual and Intra Annual TGM Concentrations and Fluxes at the Bay St-Francois Wetlands

Laurier Poissant (Presenting Author), Martin Pilote, Hong Zhang, Philippe Constant, Conrad Beauvais

2:40 PM

S-1507: Are We Doing a Good Job of Quantifying the Net Deposition of Mercury to Ecosystems?

Vincent St.Louis (Presenting Author), Jennifer Graydon, Jane Kirk

3:00 PM

S-347: Environmental Controls on Mercury Flux from Ecosystem Components at Different Temporal Scales

Jelena Stamenkovic (Presenting Author), Mae Gustin, Daniel Obrist, John Arnone, Dale Johnson, Paul Verburg

## S-EB-3: Defining, Measuring and Investigating 'Reactive' or 'Bioavailable' Mercury in Environmental Studies

Organizers: Mark Marvin-DiPasquale, US Geological Survey; Britt Hall, University of Regina, Canada  
Moderators: Mark Marvin-DiPasquale and Britt Hall

4:00 PM

S-1011: International Solid Phase Mercury Speciation Exercise (ISPMSE): Introduction and Preliminary Results

Nicolas Bloom (Presenting Author), Anne Bollen, Michelle Briscoe, Gwendy Hall, Milena Horvat, Chris Kim, Brenda Lasorsa, Mark Marvin-DiPasquale, Jennifer Parker

4:20 PM

S-348: Speciation and Bioavailability of Mercury in EPA-Approved KO71 Plant Waste (Gypsum) from the Chlor-Alkali Industry

Nicolas Bloom, Jennifer Parker (Presenting Author)

4:40 PM

S-404: Ecosystem Investigations of Benthic Methylmercury Production: A Tin-Reduction Approach for Assessing the Inorganic Mercury Pool Available for Methylation

Mark Marvin-DiPasquale (Presenting Author), Britt D. Hall, John R. Flanders, Nicolas Ladizinski, Jennifer L. Agee, Le H. Kieu, Lisamarie Windham-Myer

5:00 PM

S-875: Does "Reactive Hg" Really Have Any Meaning?

Carl Lamborg (Presenting Author), Chad Hammerschmidt, William Fitzgerald

5:20 PM

S-789: Is Reactive Mercury a Good Indicator of the Bioavailability of Mercury to Bacteria?

John W. M. Rudd (Presenting Author), Carol A. Kelly, Nicolas S. Bloom, Morris H. Holoka



PANEL CHAIR: Edward Swain, USA

PANELISTS: Paul Jakus, USA; Frank Lupi, USA; Peter A. Maxson, Belgium; Jozef Pacyna, Norway; Alan Penn, Canada; Glenn Rice, USA; Samuel Spiegel, Canada; Marcello Veiga, Canada



## BALLROOM C

### S-EB-5: Physiological and Environmental Implications of Mercury-Selenium Interactions

Organizers: Nicholas Ralston and Laura Raymond, University of North Dakota Energy and Environmental Research Center, USA

Moderator: Nicholas Ralston

#### 1:20 PM

S-1042: Interactive Effects of Dietary Mercury and Selenium on Distribution into Hair and Blood

Laura Raymond (Presenting Author), Carla Ralston, Nicholas Ralston

#### 1:40 PM

S-848: Toxicological Interaction between Perinatal Methylmercury Exposure and Selenoenzymes in Mice

Chiho Watanabe (Presenting Author)

#### 2:00 PM

S-325: Developmental Neurotoxicity of Mercury in Rats on Selenium-Rich Diets

M. Christopher Newland (Presenting Author), John C. Heath, Miranda N. Reed, Wendy D. Donlin

#### 2:20 PM

S-1241: Chronic Methylmercury and Selenium Interactions in an Animal Model

Wendy Donlin (Presenting Author), M. Christopher Newland, Miranda Reed, John Heath

#### 2:40 PM

S-892: Can Selenium Additions Lower MeHg in Freshwater Fish without Imposing Toxicity? A Limnocorral Study

Mariah Mailman (Presenting Author), R. A. (Drew) Bodaly

#### 3:00 PM

S-1272: The Role of Selenium Sequestration in the Molecular Mechanism of Mercury Toxicity

Nicholas Ralston (Presenting Author)

### Environmental Monitoring and Assessment

Moderators: Robin Reash, American Electric Power, USA; R. A. (Drew) Bodaly, Penobscot River Mercury Study, USA

#### 4:00 PM

S-1259: Mercury in Stream Water, Sediment, and Fish: Results from a National Survey

Barb Scudder (Presenting Author), Lia Chasar, Nancy Bauch, Dennis Wentz, Mark Brigham, David Krabbenhoft, Patrick Moran, William Brumbaugh

#### 4:20 PM

S-799: Methylmercury Levels in Fish from the Abitibi-Temiscamingue Region: A GIS Approach

Jean-Sébastien Beaulne (Presenting Author), Marc Lucotte

#### 4:40 PM

S-160: Noninvasive Environmental Monitoring of Mercury as a Global Pollutant in Alaskan Reindeer

Lawrence K. Duffy (Presenting Author)

#### 5:00 PM

S-468: A Simple and Effective Water Sampling Technique for Mercury in Surface Waters

Robert McCrea (Presenting Author)

#### 5:20 PM

S-492: A Comparison of Sampling Methods for Low Level Mercury Analysis of Wastewater Treatment Effluents at GBMSD

Michael Urbancic (Presenting Author)

## BALLROOM D

### Bioaccumulation and Trophic Transfer, Part 1

Moderators: Matti Verta, Finnish Environment Institute, Finland; Celia Chen, Dartmouth College, USA

#### 1:20 PM

S-154: Methyl Mercury Bioaccumulation in Brown Trout (*Salmo Trutta*): effects of Food Source, Trophic Levels and Life History Deduced from Stable Carbon, Nitrogen and Sulfur Isotopes and Strontium-Calcium Ratios in Fish Otoliths

Jonathan Kim (Presenting Author), Timothy Rochford

#### 1:40 PM

S-169: Is the Recovery of Mercury Concentrations in Northern Pike and Walleye from Reservoir Flooding Affected by the Invasion of Rainbow Smelt? Evidence from Northern Manitoba (Canada)

Wolfgang Jansen (Presenting Author), Richard Remnant

#### 2:00 PM

S-447: Bioaccumulation in the Aquatic Food Web of Enriched Stable Isotopes of Hg Following Whole-Ecosystem Additions: Results from the METAALICUS Project

Michael Paterson (Presenting Author), Cheryl Podemski, Paul Blanchfield, Holger Hintelmann, Diane Orihel, Ken Sandilands

#### 2:20 PM

S-611: Mercury in Seston (Zooplankton and Particulate) and Bivalves from a Brazilian Estuary

Helena Kehrig (Presenting Author), Elisabete Palermo, Tércia Seixas, Olaf Malm

#### 2:40 PM

S-1370: Assessing Biomagnification of Mercury in Food Webs Using Stable Isotopes: A Global Perspective

Linda Campbell (Presenting Author), Robert Hecky, Karen Kidd, Marlene Evans, Derek Muir

#### 3:00 PM

S-1466: Carcinus Maenas Bioaccumulation in a Human Induced Mercury Gradient (Ria De Aveiro, Portugal)

João Pedro Coelho (Presenting Author), Maria Eduarda Pereira, Armando Duarte, Miguel Angelo Pardal

### Bioaccumulation and Trophic Transfer, Part 2

Moderators: Olaf Malm, Federal University of Rio de Janeiro, Brazil; Jonathan Kim, University of Otago, New Zealand

#### 4:00 PM

S-289: Mercury Concentrations of Fish from Caddo Lake, Texas

Matthew Chumchal (Presenting Author), Ray Drenner, Brian Fry, K. David Hambright, Dijar Lutz-Carrillo, William McClain, Leo Newland

#### 4:20 PM

S-553: Estimating the Loss of Mercury from Prey and Predatory Fish Species in the Wild

Jill Van Wallegghem (Presenting Author), Paul Blanchfield, Holger Hintelmann

#### 4:40 PM

S-1514: Effects of Hypolimnetic Oxygenation on the Bioaccumulation of Mercury in Benthic Organisms

Stephen Dent (Presenting Author)

#### 5:00 PM

S-429: Transformations and Effects of Mercury on the Isopod Porcellio Scaber (Isopoda, Crustacea)

Nataša Nolde (Presenting Author), Vesna Jereb, Janez Valant, Ingrid Padovan, Damjana Drobne, Milena Horvat

#### 5:20 PM

S-581: Mercury Bioaccumulation in a Mine-Dominated Ecosystem in Clear Lake, California: From Ore to Organism.

Thomas Suchanek (Presenting Author), Peter Richerson, Robert Zierenberg, Collin Eagles-Smith, Darell Slotton, James Harner, David Osleger, Daniel Anderson