13th International Conference on Mercury as a Global Pollutant (ICMGP) Science to Policy Synthesis Workshop:

On Sunday, July 16, Research Translation Core (RTC) Leader, Celia Chen, and Coordinator, Laurie Rardin, brought together a group of 30 scientists and policymakers for a day-long workshop to provide the opportunity for face-to-face communications between mercury science experts and national and international policymakers and stakeholders. The workshop was designed to encourage a dialogue to address the questions and knowledge gaps policymakers need answered by scientific research.

Over the previous 10 months, the scientists had been collaborating on a series of 4 synthesis papers that addressed different aspects of mercury pollution and which will be published in *Ambio: A Journal of the Human Environment*, in March of 2018. In an engaging series of morning presentations, policymaker and stakeholder representatives provided an overview of their roles in the mercury policy and science arena and identified questions and knowledge gaps to be addressed in mercury research. The stakeholders included Jane Dennison from the U.S. State Department, Sheila Logan from the UNEP, David Krabbenhoft from the U.S. Geological Survey, Sandy Steffen from Environment Canada, Betsy Henry from Anchor QEA, Sarah Diringer from the Pacific Institute and Colleen Flanagan-Pritz from the National Park Service. Several provided specific feedback on the synthesis papers and outlined their priorities for the future of mercury science and policy, particularly in preparation for the first Conference of Parties of the Minamata Convention in September. Lead authors for each of the papers also shared comprehensive summaries of their synthesis papers.

In the afternoon, the group divided up by paper and discussed progress on the syntheses and methods to target a broader audience than just the peer-reviewed journal. The workshop culminated with a full-group discussion on how to translate these synthesis papers to have a bigger impact on mercury policy, including creating fact sheets for policymakers summarizing key points from the synthesis papers, summary materials targeting specific audiences like: artisanal and small-scale gold mining stakeholders; reservoir developers and managers; healthcare providers as well as other materials to inform the general public.

Synthesis author groups will continue to collaborate on revising their papers in the coming months and implementing translation ideas discussed during the day's session.

13th ICMGP:

Research Translation Core and Project 2 Leader, Celia Chen, co-chaired the 13th annual International Conference for Mercury as a Global Pollutant (ICMGP) held the week of July 17 with Charles Driscoll, professor of civil and environmental systems engineering at Syracuse University. This year's theme, 'Integrating Mercury Research and Policy in a Changing World,' celebrates the Minamata Convention on Mercury which enters into action on August 16 and will establish global policy to control new and existing sources of mercury pollution and monitor the effectiveness of these actions. Chen hosted the plenary speakers, including former U.S. EPA Administrator, Gina McMarthy, and provided the opening address for the meeting with Dr. Driscoll. Kate Buckman, Amanda Curtis, Vivien Taylor, and Brian Jackson all attended and presented oral sessions and posters, along with Laurie Rardin, who organized an information table for the Dartmouth Toxic Metals SRP group which distributed fact sheets, *Sources to Seafood* videos, and information on Dartmouth SRP research and translation and community engagement efforts.

Dartmouth Superfund Presentations:

Celia Chen

- Oral Presentation in Session: Mercury fate in aquatic and terrestrial food webs

  Thursday, July 20th, 2017 – 15:15-15:30

  "Factors affecting MeHg bioaccumulation in stream biota; the role of diet and dissolved organic carbon"

  Coauthors: Broadley, Hannah; Cottingham, Kathryn; Baer, Nicholas; Weathers, Kathleen; Ewing, Holly; Chaves-Ulloa, Ramsa; Chickering, Jessica; Wilson, Adam; Shrestha, Jenisha

Kate Buckman

- Oral Presentation in Session: Mercury fate in aquatic and terrestrial food webs

  Thursday, July 20th, 2017- 15:45-16:00

  "Influences on methylmercury fate in northeast USA estuaries: insights from field sampling across a range of environmental conditions"

  Coauthors: Seeleen, Emily; Balcom, Prentiss; Curtis, Amanda; Jonsonn, Sofi; Mazrui, Nashaat; Dimento, Brian; Gosnell, Katharine; Mason, Robert; Chen, Celia

- Posters in Session: Mercury fate in aquatic and terrestrial food webs

  Thursday, July 20th, 2017

  - "Methylmercury bioaccumulation in vernal pool invertebrates"

    Coauthors: Curtis, Amanda; Faccio, Steve; Taylor, Vivien

  - "Spatial variation of methylmercury concentration in Mediterranean Sea zooplankton, fish and squid"

    Coauthors: Lane, Oksana; Evers, David; Chen, Celia

Amanda Curtis

- Oral Presentation in Session: Mercury cycling in response to ecosystem perturbations

  Wednesday, July 19th, 2017- 11:45-12:00

  "How multiple environmental factors affect the bioaccumulation of methylmercury"

  Coauthors: Chen, Celia; Demidenko, Eugene; Bourne, Kimberly; Borsuk, Mark

Vivien Taylor

- Oral Presentation in Session: Sources and cycling of mercury in terrestrial ecosystems

  Monday, July 17th, 2017- 11:15-11:30

  "Landscape influences on mercury cycling in vernal pools"

  Coauthors: Buckman, Kate; Faccio, Steve

Brian Jackson

- Poster in Session: Legacy site assessment and management

  Tuesday, July 18th, 2017

"Mercury partitioning to clay size fractions from a contaminated floodplain soil"

Coauthors: Renock, Devon; Howley, Jennifer

Presentations by our research collaborators:

Rob Mason

- Oral Presentation in Session: Sources and cycling of mercury in coastal ecosystems

  Wednesday, July 19th, 2017- 8:45-9:00

  "Particulate methylmercury dynamics in estuarine water columns of varying historic mercury contamination"

  Coauthors: Seelen, Emily; Taylor, Vivien; Buckman, Kate; Curtis, Amanda; Chen, Celia

Nick Fisher

- Oral Presentation in Session: Rice and other foods as sources of methylmercury exposure in humans"

  Monday, July 17th, 2017- 16:15-16:30

  "Declining mercury concentrations in bluefin tuna"

  Coauthors: Lee, Cheng-Shuian; Lutcavage, Molly; Chandler, Emily; Madigan, Daniel; Cerrato, Robert

Nashaat Mazrui

- Oral Presentation in Session: Mercury methylation; microbial and geochemical constraints

  Monday, July 17th, 2017 – 10:30-10:45

  "Impact of organic matter and environmental variables on the distribution of Hg and MeHg and net methylation in coastal sediments along the U.S. east coast"

  Coauthors: Jonsson, Sofi; Balcom, Prentiss; Tanguay, Veronica; Seelen, Emily; Dimento, Brian; Goshnell, Kathleen; Buckman, Kate; Taylor, Vivien; Chen, Celia; Mason, Robert

Prentiss Balcom

- Oral Presentation in Session: Sources and cycling of mercury in coastal ecosystems

  Tuesday, July 18th, 2017 – 16:00-16:15

"Water column methylmercury, organic matter and sediment-water flux across a latitudinal gradient on the U.S. east coast"

Coauthors: Seelen, Emily; Mazrui, Nashaat; Tanguay, Veronica; Dimento, Brian; Gosnell, Kathleen; Buckman, Kate; Taylor, Vivien; Chen, Celia; Mason, Robert

Bryan Clark

- Poster in Session: Mercury cycling in response to ecosystem perturbations

  Thursday, July 20th, 2017

  "Exploring the effects of temperature and resource limitation on mercury bioaccumulation and growth in *fundulus heteroclitus* using dynamic energy budget modeling and behavioral assessment"

  Coauthors: Buckman, Kate; Bertrand, Ashley; Kirby, Ian; Bishop, Joseph; Champlin, Denise; Chen, Celia; Nacci, Diane

Mark Borsuk

- Oral Presentation in Session: Mercury fate in aquatic and terrestrial food webs

  Friday, July 21st, 2017- 10:45-11:00

  "Patterns of mercury and organic co-contaminants in marine and freshwater fish"

  Coauthors: Chen, Celia; Curtis, Amanda; Bourne, Kimberly

Emily Seelen

- Oral Presentation in Session: Sources and cycling of mercury in coastal ecosystems

  Wednesday, July 19th, 2017- 8:30-8:45

  "Mercury methylation and demethylation dynamics at and near the sediment-water interface of contaminated esturaries"

  Coauthors: Jonsson, Sofi; Mason, Robert