



# THE LIFE CYCLE OF THE ELEMENTS: ROCKS, SOILS, ORGANISMS, ENVIRONMENT (X-LEAP)

## A CHESS 2030 WORKSHOP

**July 28-29, 2021**

This workshop will identify forefront research questions probing the life cycle of elements, especially metals, moving through the environment and living organisms, from geological and man-made sources through the soil microbiome and into living tissues and cells.



**Wednesday, July 28th**

Session 1: **Geological/geochemical impacts on environment**

Session 2: **Soil-microbe-plant interfaces**

**Thursday, July 29th**

Session 3: **Use of elements by cells**

Session 4: **Impact of environment on living organisms**

**In addition to these four topical sessions, the workshop will include an "Idea Slam" consisting of contributed presentations, 3-5 minutes each.**

**Featuring invited presentations by:**

Rachelle Gaudet, Harvard University  
Mary Lou Guerinot, Dartmouth  
Megan Holycross, Cornell University  
Jeeyon Jeong, Amherst College  
Johannes Lehmann, Cornell University  
Karin Limberg, SUNY College of Environmental Science and Forestry  
Matt Limmer, University of Delaware  
Greg Lowry, Carnegie Mellon  
David Mendoza-Cózatl, University of Missouri  
Matteo Minghetti, Oklahoma State

Dianne Newman, Caltech  
Jasquelin Pena, UC Davis  
Ingrid Pickering, University of Saskatchewan  
Carla Polo, LNLS  
Jessica Stromberg, CSIRO

**REGISTER TODAY!**

**Workshop Organizers: Mary Lou Guerinot (Dartmouth); Karin Olson Hoal (Cornell); Matthew Reid (Cornell); Olena Vatamaniuk (Cornell)**

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