2022 Northeast Geobiology Symposium

April 16th, 2022

Massachusetts Institute of Technology, Cambridge, MA

Location: http://whereis.mit.edu/?go=32

8:00 – 9:00 am Arrive & breakfast [Vest Student Streets]
9:00 – 9:10 am Welcome & Land Acknowledgement [32-123]
9:10 – 10:20 am **Session 1**: Evolution, Phylogeny, and Omics [32-123]
Moderated by Jack Payette

- Distribution and phylogeny of denitrification genes within metagenomes and genomes from oxygen deficient zones - Irene Zhang
- Harnessing proteomics to explore the low zinc requirements of modern prokaryotes from an Archaean perspective – Annaliese Meyer
- Chimeric inheritance and crown-group acquisitions of carbon fixation genes within Chlorobiales – Maddie Paoletti
- Branching archaeocyathids as ecosystem engineers during the Cambrian radiation – Ryan Manzuk

10:20 – 10:50 am Coffee Break [Vest Student Streets]
10:50 – 12:00 am **Session 2**: The Fossil Record & Diagenetic Processes [32-123]
Moderated by Angel Mojarro

- Investigating a proposed algal origin for Precambrian sponge steranes - Juliana Drozd
- Moldic preservation of microbial mats and animal tissues in silica-rich solutions: implications for the preservation of the Ediacara Biota – Silvina Slagter
- The evolution of early Cambrian shallow marine environments: Refining the lower Cambrian stratigraphy of Esmeralda County, NV – Mary Lonsdale
- Calibrating the Neoproterozoic Hecla Hoek succession, Svalbard, Norway – Alexie Millikin

12:00 - 12:45 pm Lunch [Forbes Cafe & outside depending on weather]
1:00 - 2:30 pm **Poster Session** #1 [Vest Student Streets]
2:30 - 3:40 pm **Session 3:** Isotopes & Friends [32-123]
Moderated by Ellen Lalk

- Combinatorial and rate effects on the multiply-substituted isotope signatures in methane during biological production and consumption - Jiawen Li
- Carbon isotopic signatures of microbial trophic levels: insights from microbial mats – Ana Gonzalez-Nayeck
- Rise in the 15N-to-14N Ratio of otolith-bound organic matter associated with late cretaceous cooling – Crystal Rao
- Experimental investigation of amino acid binding as a mechanism for fractionating metal stable isotopes – Corday Selden

3:40 - 4:00 pm Coffee and Snacks Break [Vest Student Streets]
4:00 - 5:30 pm **Poster session # 2** [Vest Student Streets]
5:30 - 7:30 pm Dinner Reception [Forbes Cafe & outside depending on weather]