PCE$_3$ Seminar Series

Thurs, Sept 22$^{nd}$
1 p.m. EST/10 a.m. PDT

More information & registration:
prebioticchem.info/seminar-series/index.html

@PCE3_Sci

Theme: Biosignatures

Joshua Krissansen-Totton
Assistant Professor
University of Washington
“Exoplanet biosignatures and early Earth evolution”

Erica Barlow
NPP Fellow
Pennsylvania State University, and Laboratory for Agnostic Biosignatures
“Biosignatures in early Earth rocks: on a path to our origins”

Topical introduction by Dawn Sumner, Professor at the University of California, Davis
Erica Barlow

Erica Barlow is a NASA Postdoctoral Program Fellow in Prof. Chris House’s group at Penn State University. She obtained both her B.Env.Sc. degree and her PhD in Geology at the University of New South Wales, Sydney, where her research focused on morphological, textural, and isotopic biosignatures in the early Earth rock record. Her current research with the Laboratory for Agnostic Biosignatures explores the idea of universal signs of life in rocks, to contribute to the development of tools to be able to recognize and describe fossilised life ‘as we don’t know it’ elsewhere.

Joshua Krissansen-Totton

Joshua Krissansen-Totton earned his Dual-Title PhD in Earth and Space Sciences and Astrobiology from the University of Washington in 2019 and was then a NHFP Sagan Fellow at UC, Santa Cruz. He is now an Assistant Professor at The University of Washington where he is interested in understanding the evolution of rocky planets both within the solar system and beyond, with a focus on questions related to what makes planets habitable and how to detect life on exoplanets. Joshua’s recent work encompasses Earth’s long-term geochemical evolution, the climate of early Venus, and making testable predictions on the atmospheric evolution of highly irradiated terrestrial exoplanets.

Dawn Sumner

Dawn Sumner earned her B.S. from the California Institute of Technology and Ph.D. from the Massachusetts Institute of Technology. She was a postdoctoral scholar at Caltech before joining the faculty at UC Davis in 1996. Her research focuses on Earth’s early environments and microbial ecology, emphasizing the evolution of oxygenic photosynthesis and its environmental effects. Dawn also studies microbial ecology in ice-covered Antarctic lakes as analogs for ancient life on Earth and possibly on Mars, using data from NASA’s Curiosity rover. Dawn is dedicated to curtailing racism and promoting inclusive practices in academic settings.