

SEMINAR

Mon, 3 July 2023 | 4 pm | DBS Conference Room 1

Hosted by Assoc. Prof Sanjay Swarup

Shaping Microbial Communities in Subterranean Soil and Sediment: Carbon's Role in Fueling Life Underground

By Romy Chakraborty

Scientist and Ecology Department Head, Earth and Environmental Science Area, Lawrence Berkeley National Laboratory, Berkeley, USA



About the Speaker

Dr. Romy Chakraborty received her PhD from the University of California, Berkeley in Microbiology and completed her Postdoctoral training at the Lawrence Berkeley National Laboratory. She is the Department Head of Ecology, Earth and Environmental Science Area at Lawrence Berkeley National Laboratory. Her research focuses on discovering fundamental mechanisms about microbes catalysing key biogeochemical processes in soil, sediment, water and plants, to enable translational solutions for improving environmental health and sustainable agriculture.

Microbial assembly, metabolic potential and function in subterranean ecosystems are substantially impacted by the availability of carbon. In surface soils, microbial abundance and activity are mostly associated with root exudation close to plant roots. Below the rhizosphere, availability and quality of natural organic matter, microbial abundance and activity decline as a function of depth. I will present our ongoing research on microbial interactions with these carbon pools, as we hope to unravel the intricate processes that govern belowground carbon cycling and sequestration