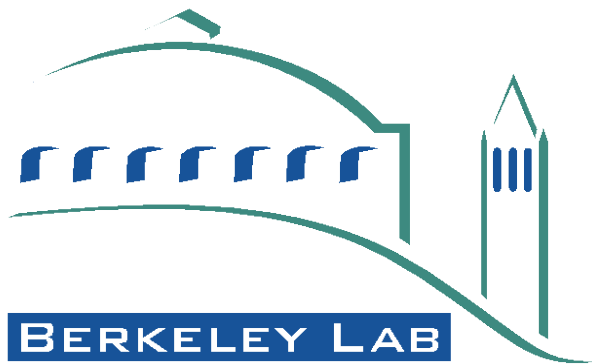


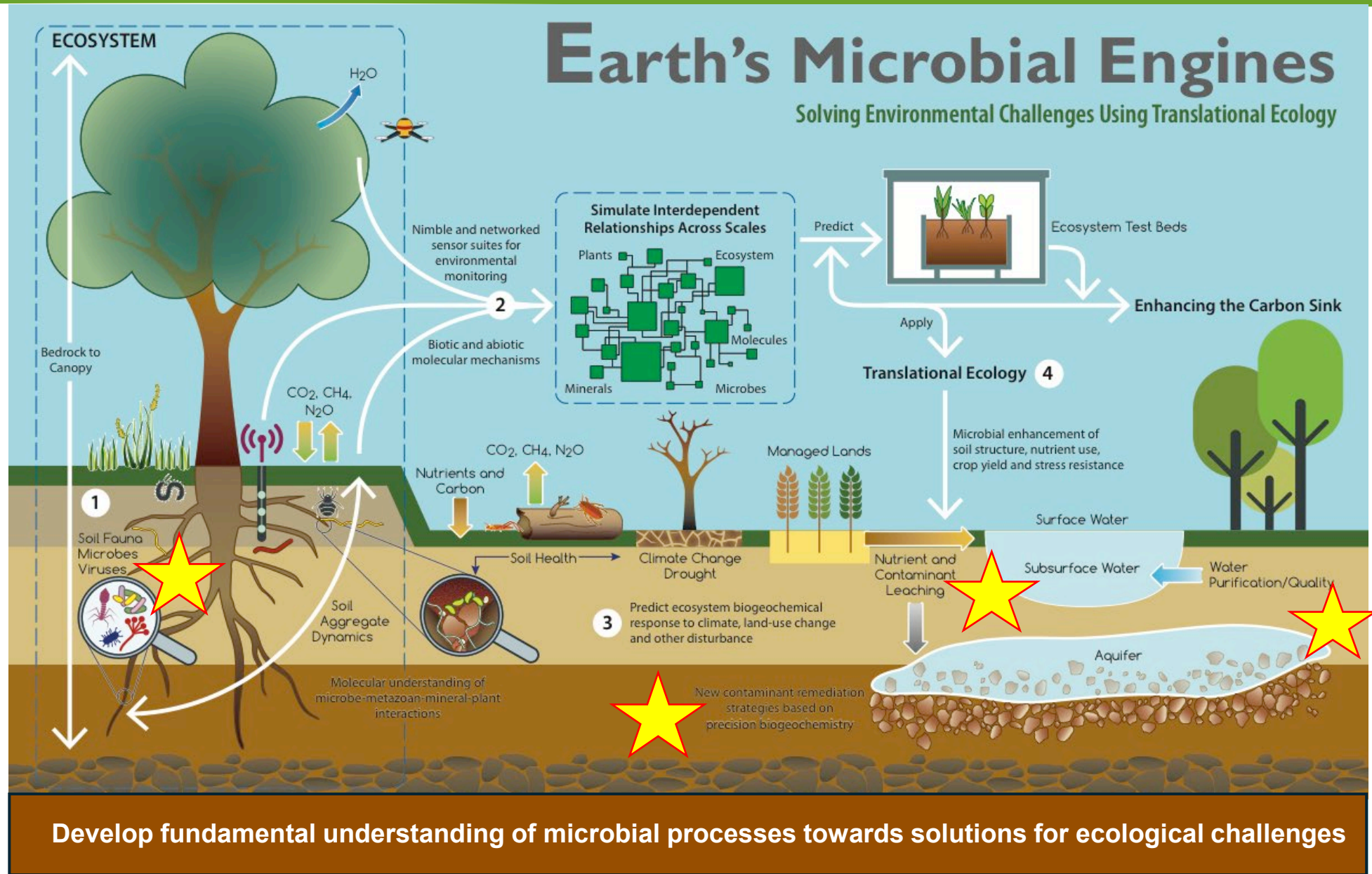


Dr. Romy Chakraborty
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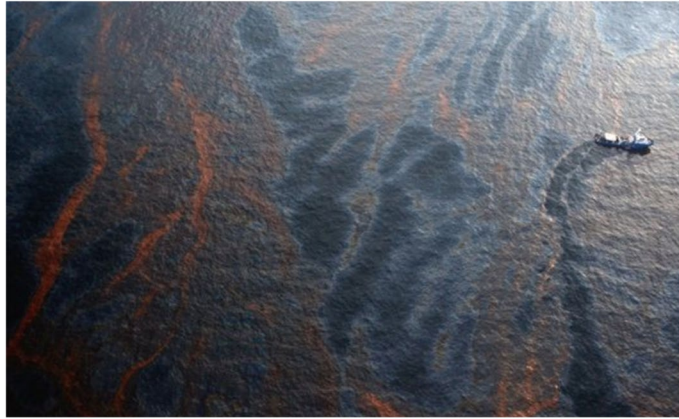
ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY



My Research Interests



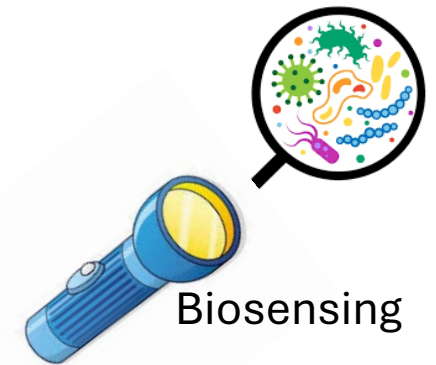
Microbe-mediated functions in the Environment



Agriculture

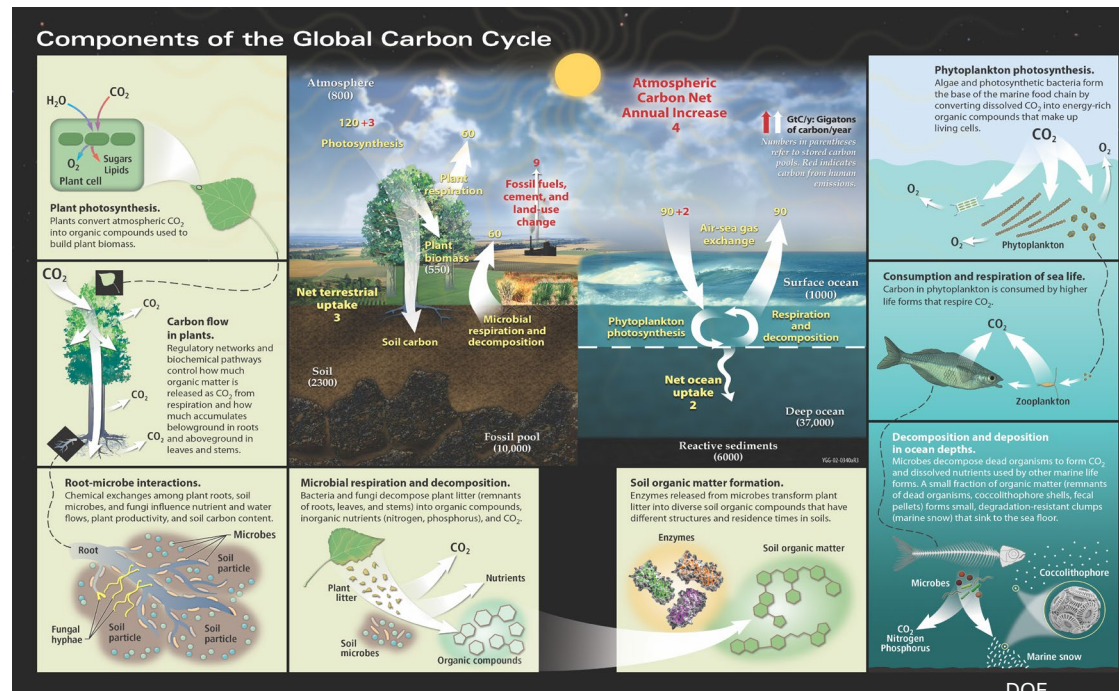


Bio Products and Biomining



Biosensing

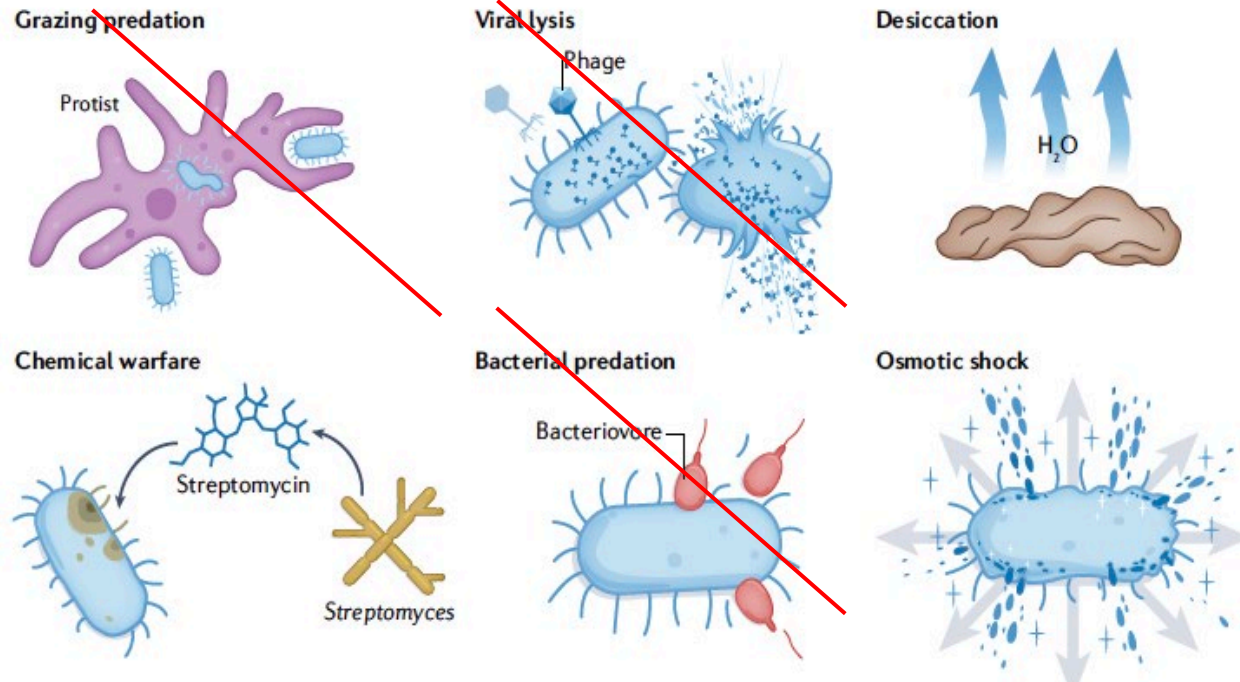
Water quality/ resource recovery



Fundamental science

Environmental resilience

Fate of mirror cells in the environment



Sokol N et al: <https://doi.org/10.1038/s41579-022-00695-z>

Considerations:

- Need
- Survival
- Containment
- Lessons learned from GMOs
- Multiscale testing

Need for integrated platform and approach across scales : fabricated ecosystems

Microbes do not exist in isolation

BioEPIC: Accelerating Integrated Team Science Across Scales and Complexity



Extending models, mechanisms, and principles to field studies and observatories

Microbial scale

High control and throughput

Single-plant scale

Multi-plant scale

Landscape scale

Highest relevance