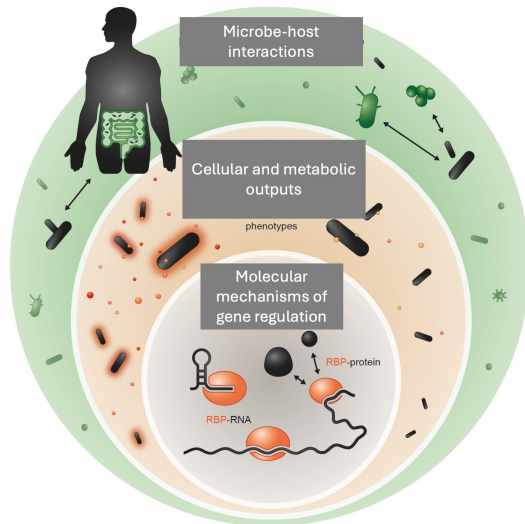


Cari Vanderpool

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Research in the Vanderpool lab seeks to illuminate the mechanisms used by bacteria to sense and respond to their natural environments. We study mechanisms at multiple levels ranging from the molecules to cells to communities. We are particularly interested in understanding how human-associated bacteria interact with the host to produce metabolic outputs that are helpful or harmful.



Keywords

Gut microbiome, oral microbiome, pathogens, bacteriophages, microbial metabolism, genetic regulation, RNA biology

Research Interests

- Studies to understand the scope and mechanisms of RNA regulation in *E. coli* and *Salmonella*, e.g., small RNA action, mechanisms
- Mechanisms of phage-bacteria interactions in *E. coli*

Current Projects

- RNA Biology in gut microbes, including *Bacteroides* species
- Carbohydrate transport and utilization in gut bacteria
- Mechanisms of phage-bacteria interactions in *Rhizobium*
- Oral bacteria-phage isolation and characterization

Interest Areas for Collaboration/Future Work

Dr. Vanderpool is interested in collaborating with computational scientists and engineers to design phage-based therapeutics for a variety of applications. She is also interested in collaborating with researchers who are collecting human-associated microbiome samples (oral and gut) for bacteria and phage isolation.