



Department of Biomathematics Seminar Series:
Frontiers in Systems and Integrative Biology

BIO
MATH

Interactions within Multispecies Microbial Networks



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4:00 PM**

**A2-342 MDCC, Moss Auditorium
Marion Davies Children Clinic**

ABSTRACT:

Microbial ecosystems in nature are diverse and heterogeneously distributed in space and time. Interactions between the microorganisms within these communities help regulate the overall activity and functional outputs of these systems, but how these interactions enter into the regulatory decisions of individual cells and form the basis for the emergent properties of these cellular networks remains poorly understood. We combine quantitative biological modeling with experiments using wild and genetically engineered bacterial strains to dissect the parameters that regulate microbial activity within single cells, spatially structured populations, and well-mixed microcosms. I will discuss our recent work on the structure of multispecies interaction networks, pattern formation, and engineering synthetic microbial communities.

Host: Mary Sehl, M.D., Ph.D.

To receive e-mail seminar notices, contact David Tomita (dtomita@biomath.ucla.edu)