

GENETICS, BIOINFORMATICS, AND SYSTEMS BIOLOGY COLLOQUIUM

THURSDAY APRIL 7TH
12:00 PM PST
LIVE ON ZOOM!

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PASSWORD: **GENETICS**

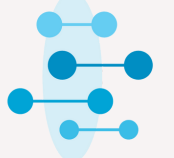
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DIVING INTO THE DARK MATTER OF MOBILE GENETIC ELEMENTS IN MICROBIAL COMMUNITIES

Most current microbiome studies concentrate on prokaryotes including bacteria and archaea. In addition to prokaryotes, there are many other microbes such as eukaryotes and mobile genetic elements (MGE) including viruses and plasmids. Although the amount of genetic materials from MGEs is much smaller compared to that of prokaryotes, the number of MGEs is over 10 times that of prokaryotes. MGEs affect microbial communities either directly by their genes or through interactions with their hosts. However, MGEs are vastly understudied in metagenomics. We develop statistical and machine learning methods for the identification of MGEs and their hosts from metagenomics shotgun data and investigate their contributions to microbial communities including human gut and marine environments.

Organization Committee: J. Gleeson, J. Sebat
GBSBC Seminar Coordinator: R. White

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