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Department of Medicine
Channing Division of Network Medicine

Channing Microbiome Seminar

March 8 (Friday), 2024, 11AM (ET)

MCP 5th-floor small conference room & Zoom:

<https://us02web.zoom.us/j/81070959105?pwd=RFJNd3dSZmR6dXJZNjJiYVVzQ3NEQT09>

Meeting ID: 810 7095 9105; Passcode: 984617



Sean Gibbons, PhD

Institute for Systems Biology

You are what you eat

Dietary intake is tightly coupled to gut microbiota composition, human metabolism, and to the incidence of virtually all major chronic diseases. Dietary and nutrient intake are usually quantified using dietary questionnaires, which tend to focus on broad food categories, suffer from self-reporting biases, and require strong compliance from study participants. In this talk, I will present MEDI (Metagenomic Estimation of Dietary Intake), a method for quantifying dietary and nutritional intake using food-derived DNA in stool metagenomes, and how this method will be integrated into our community-scale metabolic modeling tool called MICOM.

Bio: Sean Gibbons earned his PhD in biophysics from the University of Chicago in 2015. He completed his postdoctoral work at MIT in 2018. Sean is now an associate professor at the Institute for Systems Biology, in Seattle. His lab studies the ecology and evolution of microbial communities. In particular, Sean is interested in how host-associated bacterial communities influence the health and wellness of the host organism. His group designs computational and wet-lab tools for studying these complex systems. Ultimately, the Gibbons Lab aims to develop strategies for engineering the ecology of the gut microbiome to improve human health.