



האוניברסיטה העברית בירושלים  
הפקולטה לחקלאות, מזון וסביבה ע"ש רוברט ה. סמית  
המכון לביוכימיה, מדעי המזון והתזונה



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**Title:**

## **From strain variation to novel taxa: genome-based study of the human microbiome**

המפגש יתקיים

ביום א', 28 דצמבר 2014, בשעה 9:00

מועדון סגל

(12/28/2014, 9:00, Faculty Club)

**Abstract:**

The human microbiome has been associated with various medical conditions and physiological processes critically impacting human health. Despite the increasing recognition of its importance, our ability to study microbial communities at the resolution of species and strains is limited by the available methods for analyzing community genomic (metagenomic) data. Moreover, many important members of the human microbiome, which are from phylogenetically novel taxa, evade cultivation efforts. In this talk I will discuss the results of two of our studies that were achieved using novel methods I developed for the recovery of complete genomes from metagenomic data. These methods were successfully used to study the process of infant gut colonization in a premature infant, in which we tracked community dynamics over time and achieved strain-level resolution for members with relative abundance as low as 0.05% of the community. In another study from adult gut metagenomic samples, we were able to recover complete genomes and thus physiologically characterize the first members of a novel non-photosynthetic phylum sibling to Cyanobacteria.

סגל וסטודנטים מוזמנים להשתתף

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