Research

Over the past 16 years my laboratory has developed a research program ([ravel-lab.org](http://ravel-lab.org)) focused on applying modern genomics technologies and ecological principles to characterize the role and dynamics of the vaginal microbiome in women’s health. Particularly, we apply systems biology approaches to examine the triangular relationship between human genetic variation, sexually transmitted infections and co-infections caused by Chlamydia trachomatis and Neisseria gonorrhoeae, HIV and the function of the vaginal microbiome. Further, the laboratory also studies the role of the vaginal microbiota in bacterial vaginosis, pregnancy and prematurity, as well as the health of neonates. Our work is currently being translated by developing novel live microbiome-based live biotherapeutic drugs to restore vaginal health, treat conditions such as bacterial vaginosis and urinary tract infections.

Publications

