



QSB SEMINAR SERIES 291

The American Gut Project: Utilizing Citizen Science to Advance Our Understanding of the Role of the Human Microbiome in Health and Disease

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Date: **10/6/17**
Time: **1:30 PM**
Location: **COB2 170**

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BIO:

It was at Baylor where Dr. Hyde first learned about the microbiome - the entirety of microbes (and their gene products) that live in and on the human body. She began to see human diseases as a complex interplay between several factors - both genetic and environmental - rather than as a consequence of a single gene mutation or anomaly. She joined the laboratory of Dr. Joseph Petrosino, director of the Alkek Center for Metagenomics and Microbiome Research, and deepened her work analyzing microbial communities. Her thesis work was divided into three main categories: the human microbiome and health, the human microbiome in disease, and the human microbiome and death.

Dr. Hyde obtained her PhD in less than four years and headed to CU Boulder where she joined the lab of one of the elite microbiome researchers in the world, Dr. Rob Knight. Shortly thereafter she became the Project Manager for the American Gut Project (now at UC San Diego), the largest crowd sourced citizen science project in existence.

Dr. Hyde continues to study the intricate ways the microbiome can affect our health, and what it means to be human. Her research at the Knight Lab has focused on both the environmental and human microbiomes. She took on a project that now represents one of her most passionate research topics - the effects of closed-space lifestyles on the microbiome of both humans and animals and the potential connection between closed living, the microbiome, and disease. Her related research on Komodo dragons is featured in the current issue of the online Smithsonian Magazine. Dr. Hyde has also continued the investigation into human decomposition that she started as a graduate student at Baylor College of Medicine. She collaborates with Dr. Jessica Metcalf, who is leading the forensics microbiome work in the Knight lab, to study whether microbes can act as trace evidence at crime scenes.

Embriette Hyde's revolutionary work has the potential to change the world of medicine in the very near future. Her selection as one of Forbes "30 Under 30 in Science" as well as her recent appearances on Live Wire and CNN are just a few examples of the widespread interest in her work, and the profoundly personal effect it has on people.

