Genetic Engineering and the Human Microbiome: Bioethics and the Boundaries of our Genome



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The concept of 'engineering' has been recently attached to biology. Two specific ways of engineering biological networks have emerged. First, genetic engineering consists of creating and programming cells to perform particular functions. Second, evolutionary engineering selects for a particular property, where changes in the 'parts' and their interactions are occurring as a byproduct of this process of selection. However, both forms of engineering have underplayed two important facts about biological organisms: 1) organisms include a diverse community of microbes that colonize them & 2) microbiomes are not passive players but contribute to host function and fitness. This presentation explores the nature and the implications of microbiome engineering by providing an explanation of the evolutionary risks involved and of the unique ethical challenges that this form of biological engineering raises.

When: March 12, 2020

- Where: Centre for Applied Ethics Room 225, Klinck Building UBC, Vancouver
- Time: noon to 1:30pm