Agricultural Microbial Ecology in Israel IAP 2018

This three-week experience will allow students to learn state-of-the-art techniques used in the cultivation and analysis of the microbial communities that digest complex plant fibers in the cow rumen. These microbial communities, which live in symbiosis with their hosts, are unique in their ability to transform recalcitrant plant material into energy and as such have tremendous biotechnological potential.

Students will join a select group of undergrads from BGU University to:

- Cultivate rumen microbes and study their interactions in vitro.
- Perform advanced microscopy to learn how bacteria attach to plant fibers
- Perform Mass Spectrometry and Gas Spectrometry to identify the metabolites produced by rumen microbes.
- Test state of the art, real-time DNA sequencing technologies to identify clusters of genes involved in enzyme production.
- Learn and apply bioinformatics tools to annotate genomes and analyze microbial community dynamics.

In addition, the experience will include tours to the Dead Sea, hikes in the desert, visit to Jerusalem, and other fun activities around Israel.

Any inquiries should be addressed to:

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