**Goal:**

To determine the degree to which the headspace of blueberry juice is altered or affected when blueberry juice is inoculated with species of bacteria known to alter the host preference behavior of spotted-wing drosophila (*D. suzukii*).

**BAC and BLUE to date:**

1. Method development
   1. Microbiological Sterile technique
   2. Bacteria culture, growth, and vessel
   3. SPME fiber selection
   4. Vent, P, and E time determination (vent= 10s, P=10m, E=5)
2. Bacteria glycerol stocks on hand -80C freezer
   1. Bacillus Subtillus, Pantoe Agglomerans, Enterobacteria sp, Bacillus amloliquefacians, Frigirobactrium faeni
3. VOC collected by HS-SPME, separated by GC-MS, at 2 hours, 24 hours, and 48 hours after microbe inoculation into fruit juice

**Status:**

1. Bacteria inoculation and data collection
   1. Pantoe agglomerans (Attractant microbe)
   2. Frigirobactrium faeni (repellent microbe)
2. Visualizing Data with PCoA

**Bac and Blue Events Timeline**

1. Feb 21, 2019
   1. Experiment: ***F. faeni*** *bacteria in* 0% Juice and 100% Broth
      1. Samples: Process blank (x3) and Replicates (x4)
2. Week of Feb 25, 2019
   1. Experiment: ***F. faeni*** *bacteria in* 10% Juice 90% Broth
      1. Samples: Process blank (x3) and Replicates (x4)
3. Week of Mar 4, 2019
   1. Experiment: ***P. agglormeans*** *bacteria in* 10% Juice and 90% Broth
      1. Samples: Process blank (x3) and Replicates (x4)
4. Week of Mar 11, 2019
   1. Experiment: ***P. agglormeans*** *bacteria* 0% Juice in 100% Broth
      1. Samples: Process blank (x3) and Replicates (x4)
   2. Fruit Foraging: Whole berries
      1. Process blank (x3) and Replicates (x3)
5. Week of Mar 18, 2019
   1. Data mining:
      1. Compiling datasheets
      2. PCoA visualizations in R