**FY2018: James Brown**

Presentations:

* Invited speaker at 2018 ACS AGRO Division in Boston, MA.

Outreach

* Volunteer entomology guide at 2018 Learning Gate Community School BioBlitz in Lutz, FL.
* Invited guest at 2018 Glen Springs Insect Day in Gainesville, FL.
* Invited guest at 2018 University of Florida Bug Camp in Gainesville, FL.
* Invited judge at 2018 University of Florida 4H Insectathon

Undergraduates

* Jeremiah Martinez ([martinezjeremiah@ufl.edu](mailto:martinezjeremiah@ufl.edu))
  + January 2018 - Present
* Erin Lapasaran ([elapasaran@ufl.edu](mailto:elapasaran@ufl.edu))
  + December 2018 – Present

**Element 1: Assists with and conducts experiments**

* Maintained a 3.66 GPA at the University of Florida
* Maintain a colony of European corn borer, *Ostrinia nubilalis,* here at the USDA-ARS CMAVE courtesy of Dr. Daniel Hahn of the University of Florida.
  + Colony established on August 15, 2016 under diapause and non-diapause conditions
    - Diapause larvae maintained at 23 degrees Celsius and a 12 hour photoperiod.
    - Non-diapause larvae and maintained at 23 degrees Celsius and a 16 hour photoperiod
  + Sustaining the *Ostrinia nubilalis* colony by ensuring biological and abiological conditions are adequate for growth and development.
    - Insect artificial diet preparation and environmental control monitoring
    - Daily surveys of colony growth, development, and health,
    - Genetic homogeneity maintained by regular infusions of eggs from the University of Florida.
* Instructed lipid extractions from ECB colony reared at CMAVE and lipid analysis
  + Provide support and instruction to undergraduate student worker on how to safely and reproducibly extract non-polar lipids from ECB larvae using a modified Folch extraction technique
* Extracted lipids analyzed using HPLC instrumentation.
  + Lipids separated into classes and the concentration of Triglycerides determined
* Prepared new undergraduate students to meet the performance standards of the lab.
  + Each student taught proper safety standards of the lab and the unit.
  + Each student taught to prepare calibration standards, calculate dilutions, manually inject samples, and analyze results for accuracy.

**Element 2: Practices Safety/SHEM/EEO/CR**

* Wearing PPE as required preventing injury, negligent practices are avoided, and violations and/or incidents are reported to supervisor.
* Performs duties and responsibilities in a manner that is fair and respectful.
* Aware of EO and CR policies.
* Demonstrates support to EEO and CR policies.
* Written and oral communications are free of discriminatory bias.
* Attempts to discourage unlawful discrimination by maintaining an unbiased atmosphere.
* Displays helpful attitude and willingness to assist persons of all kinds and creeds.

**Element 3: Maintains equipment and supplies and materials**

* Performs periodic cleaning, maintenance and calibrations on instruments and equipment when necessary.
  + SpeedVac maintenance
  + Lyophillizer maintenance
  + High Performance Liquid Chromatography instrumentation calibration
  + Gas Chromatography Mass Spectroscopy Instrumentation calibration
  + Gas Chromatography Flame Ionization Detection instrumentation calibration
  + Cleaning used equipment using autoclaving technique.
  + Solvent based cleaning and drying of reusable glassware
* Maintains cleanliness of work areas after use.
  + Laboratory fume hood
* Prepares solutions and reagents when needed.
* Ensures and predicts procurement of necessary supplies and equipment.

**Element 4: Processes Data**

* Data entered into laboratory books and electronic files.
* Summary reports are prepared as prescribed by scientist.
* All relevant information and details are recorded in a manner that can be referenced and repeated.
* Laboratory data is recorded and summarized using available software.
* Experiment data is maintained, organized and accessible to the researcher
* Meeting with SY regularly for advice, guidance, and project status updates.
* Attending staff meetings when scheduling permits.