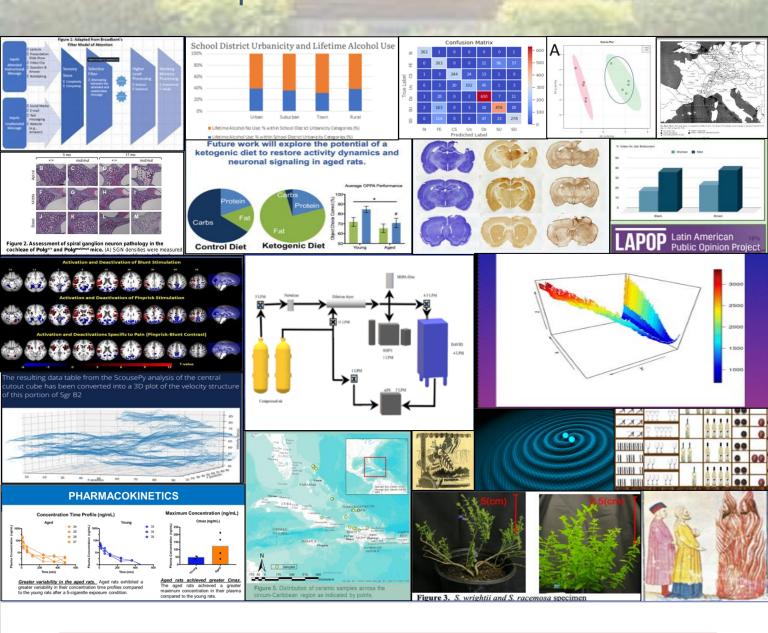
## 24th ANNUAL SPRING UNDERGRADUATE RESEARCH SYMPOSIUM

APRIL 4,2023|IPM-5PM

Stephen C. O'Connell Center





## Undergraduate Research for All

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Presenter(s): Kennedy Cook, Abby Prettyman, Caitlyn Annunziato, Avery Branstetter, Jordan Applebaum Authors: Kennedy Cook, Abby Prettyman, Caitlyn Annunziato, Avery Branstetter, Jordan Applebaum

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## Practical Aspects of Using Food as Medicine to Reduce Seizures

One-third of patients with epilepsy do not respond to traditional medical therapies and are diagnosed with refractory epilepsy. Our laboratory has applied a precision medicine approach called Precision Ketogenic Therapy (PKT) which uses foods to reduce seizures. Our Foodomics Database uses Nutrition Facts Label (NFL) images on current products in the Florida market as the source for the nutrient composition of each food consumed by patients. Recently collected data con firms different brands of the same fruit or vegetable have varying nutrient compositions and the values require frequent updating. This semester, we have collected data for 47 products offruits and vegetables currently used to treat patients. When foods do not have an NFL such as fresh produce, we rely on the Foundation Foods database of the USDA. We found the current Foundation Foods Database had 3 of 6 vegetables and 7 of 9 fruits that were the target of our searches. The Foundation Foods database will provide amino acids, individual carbohydrates, and fatty acid pro files to extend our Foodomics database. These data on speci fic foods could create a pro file template applied to different brands of products to improve the use offood as medicine.