

## Florida State University

### *Planning Grant: Constructual Optimization of Solar Photo-Bioreactors for Algae Growth*

**PI:** Juan Ordonez

**Students:** Quinn Straub (MS), Tom Tracy (MS)

**Description:** This planning grant has allowed us to enhance our laboratory capabilities and personnel qualifications to support competitive proposals in the area of bio-fuels. By the end of this one-year effort, we have a complete design of a small-scale photo-bioreactor for algae growth and obtained additional funds that will allow us to build a large-scale photo-bioreactor and conduct the necessary research for its optimal design and operation.

**Budget:** \$15,000

**Universities:** FSU

**External Collaborators:** Federal University of Parana, Brazil

### Progress Summary

This project is complete. Graduate students Straub and Tracy attended a 2-day seminar hosted by the University of Texas at Austin. The seminar exposed the students to fundamentals of the biological interactions of micro-algae, culturing techniques, culture maintenance, as well as, proper use of lab equipment. They also toured a culture collection, that is one of the best in the world with over 3,000 species of algae.

**Funds leveraged/new partnerships:**

Shih and Ordonez have received a 2010 US Higher Education Consortia program grant for \$185,000

