CREATE-IGERT Trainees

Lucas Arzola – Transient expression of plant-made products in tobacco

Geoff Benn – Plant stress signaling and engineering crop tolerance

Chris Bernard – Engineering nematode resistance in sweet potato

Marta Bjornson – Arachidonic acid signaling and engineering plant pest resistance

Tim Butterfield – Polyphenolic plant defense compounds in transgenic crops

Elenor Castillo – Engineering plant aromatic volatiles to improve agronomic and post-harvest crop traits

Dawn Chiniquy – Characterizing plant cell wall enzymes to improve biomass conversion

Mitch Elmore – Proteomics to ID and engineer disease resistance proteins in planta

Dominique Gales –Natural plant products for cancer therapeutics

Hyrum Gillespie – Engineering vector-borne viral citrus disease resistance

Tiffany Glavan – Transgenic plant-derived therapeutics for gut mucosal regeneration

Mitch Harkenrider – Engineering environmental stress tolerance in the biofuel feedstock, switchgrass

Rachel Kerwin – Engineering glucosinolate plant defensive compounds for crop protection

Mark Lemos – Duckweed as a production platform for cellulosic biofuels, oils and high value products

Sonni-Ali Miller – Plant-made products to treat atherosclerosis and alter lipid metabolism

CREATE-IGERT Trainees (Cont.

Patrick O'Dell – Atomic force microscopy to characterize cellulose hydrolysis

Steven Samuels – Transgenic sweet potato for plant-made therapeutics

Erica Vonasek – Optical imaging of plant tissues and bacteriophage biocontrol in crops

Natasha Worden – Endomembrane trafficking and plant cell wall synthesis for biofuels

Tracy Zeng – Cell wall formation and fermentation processes in Aspergillus nidulans

Steve Zicari – Biomass conversion of Energy Beets, a saline-tolerant biofuel feedstock

CREATE-IGERT Graduates

Dr. Dalya Lateef - Postdoctoral Fellow at the NIH National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dr. Ben Lindenmuth - Process Development Engineer at Bayer HealthCare in Berkeley, CA

Dr. LaKisha Odom - Postdoctoral Research Associate at Tuskegee University investigating disease resistance mechanisms in sweet potato

Dr. Raymon Shange - Postdoctoral Research Associate in Microbial Ecology, doing small farms research and creating a metagenomic library of soil DNA at Tuskegee University

Dr. Chris Simmons - Postdoctoral Scholar in the laboratory of faculty trainer Prof. Jean VanderGheynst

Mark Wolf completed a Master's of Science degree and is now teaching science in the San Francisco Bay Area

COLLABORATIVE RESEARCH & EDUCATION IN AGRICULTURAL TECHNOLOGIES & ENGINEERING

C OLLABORATIVE R ESEARCH & E DUCATION IN A GRICULTURAL T ECHNOLOGIES & E NGINEERING

An IGERT Training Program Funded by the NSF Division of Graduate Education (DGE-0653984)

http://create-igert.ucdavis.edu

CREATE IGERT

COLLABORATIVE RESEARCH & EDUCATION IN AGRICULTURAL TECHNOLOGIES & ENGINEERING

Training Program Overview

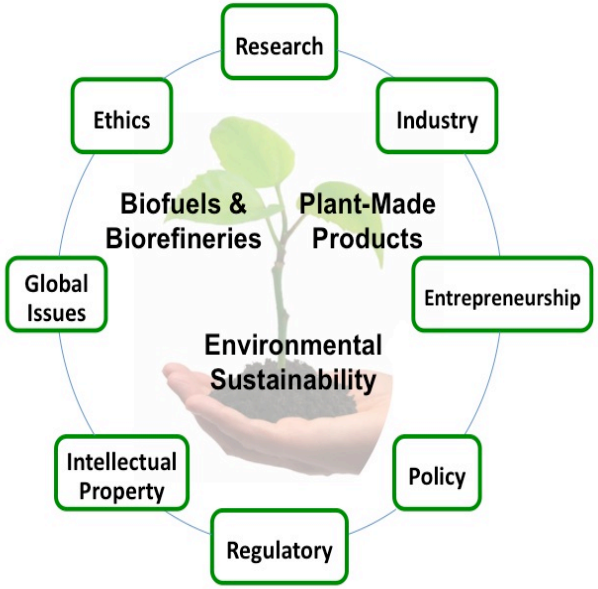
A multi-institutional National Science Foundation funded IGERT program, "Collaborative Research and Education in Agricultural Technologies and Engineering" (CREATE), links UC Davis and Tuskegee University, bringing together a diverse group of faculty and graduate students from the plant sciences, molecular biology and engineering.

http://create-igert.ucdavis.edu

NSF CREATE-IGERT faculty and students work in interdisciplinary teams, tackling research projects with applications in the following focus areas:

- Biofuels & Biorefineries
- Plant-Made Products
- Environmental Sustainability

The NSF CREATE-IGERT training program includes industrial research internships in the U.S., as well as abroad. International partners include: the **Teagasc Oak Park Research Centre** in Carlow, Ireland; the **National University of Ireland (NUI), Maynooth**; the **National University of Ireland (NUI), Galway;** and **University College Dublin**. Trainees will be exposed to the latest technologies and policy paradigms (regulatory, IP) in plant biotechnology, including global perspectives.



CREATE-IGERT Emphasizes Integrative Skill Sets

1) Desire and ability to work in interdisciplinary research teams.
2) Frequent and effective communication between research team members.
3) Establishment of a common ground (a common set of scientific principles and laboratory skills to build upon).
4) Deep knowledge in one's own field coupled with broad exposure in related areas.
5) A commitment to teach others outside one's field as well as a desire to learn from others outside of their field.
6) Creativity and "out of the box" thinking.
7) Ethical and responsible conduct in research, development and business.
8) An understanding of the global impact, as well as different needs and/or perspectives on the technology in different parts of the world.

Technical Short Courses

International Research Experiences

Public Outreach & Science Communication