



**Frank Alexander, Jr.**

### **Frank Alexander, Jr. Receives NSF/ASEE Fellowship**

*Frank will head to Philadelphia this summer to work with Optofluidics.*

**TAMPA, Fla (April 10, 2013)** Frank Alexander, Jr., a doctoral candidate in the Department of Electrical Engineering, is the recipient of support from the nationally competitive NSF/ASEE Engineering Innovation Fellowship Program (EIFP). Alexander will spend the summer in Philadelphia with Optofluidics, Inc., a venture backed life-sciences company, to help with the development of state-of-the-art microfluidic and biophotonic nanomanipulation technologies for biological, material science, and pharmaceutical applications.

The EIFP, sponsored by the National Science Foundation (NSF) and the American Society of Engineering Program (ASEE), is a summer program that places current NSF Graduate Research Fellows in industrial settings to conduct on-site research for 10-12 weeks. The goal of the program is to enable students to acquire real-life engineering experience that will impact their future graduate studies and professional careers. In addition to a research position, Frank will participate in professional development activities (grant/proposal writing, technical writing, licensing strategies, marketing, product development, brown bag discussions, lectures, etc.). His long-term career goal is to become Founder/CEO of a biomedical start-up company that designs microscale systems for high-throughput drug screening.

Frank is advised by Shekhar Bhansali, professor and chair in the Department of Electrical and Computer Engineering at Florida International University and Andrew Hoff, professor and graduate program coordinator in the USF Electrical Engineering Department. His dissertation research seeks to combine bioimpedance spectroscopy measurements of three dimensional (3D) tumor cell models with simultaneous pH measurements to correlate morphological changes with environmental changes for a more accurate drug screening platform. He hopes to integrate his research with the ongoing technologies at Optofluidics to facilitate important advancements in the areas of personalized therapeutics, drug development, and bioimpedance measurements for early detection and treatment of cancer.

[National Science Foundation Graduate Research Fellowship Program](#)

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