Dr. John A. Bowden received his Ph. D. in Analytical Chemistry in December 2008, under the guidance of Dr. Richard A. Yost. His research focused on improving analytical methods for the characterization of endocrine disrupting compounds (EDCs) and endogenous steroids in environmental and biological samples. This HHMI-GSA award was earned for the work performed with Dominic M. Colosi and Diana Mora-Montero, specifically for their contributions to the publication “Evaluation of derivatization strategies for the comprehensive analysis of endocrine disrupting compounds using gas chromatography/mass spectrometry (GC/IMS)”. Under John’s guidance, Dominic also published as a first author on “Investigation of high-performance liquid chromatography/mass spectrometry (HPLCMS) using a monolithic column to separate spectra of steroids”. John is continuing his work with a diverse suite of steroids and has several other publications pending.

Erhun Kundakcioglu is a Ph.D. candidate in the Department of Industrial and Systems Engineering. His dissertation research focuses on optimization methods for data mining techniques with applications in healthcare. He earned the HHMI – GSA for his work with Sepehr M. Nasseri, which resulted in the publication “Support vector regression with multiple instance data”. For this research they examined a well established breast cancer database and analyzed certain aspects of breast cells for recurrent cases. Using a novel data mining tool that utilizes optimization theory, the relationship between features of breast cells and time of recurrence is revealed by simultaneously removing the noise from the data. Another work of Mr. Kundakcioglu titled “Cell death discrimination with raman spectroscopy and support vector machines” with undergraduate student Kathryn Finton is accepted for publication in Annals of Biomedical Engineering. This research provides a powerful monitoring tool for cell death, aids in understanding the pathological process induced by anti-cancer drugs, and proves that heat effect results in apoptotic death of cancer cells.

Samuel Brockington is a PhD candidate in the Department of Botany and Florida Museum of Natural History under the supervision of Professors Douglas and Pamela Soltis. His project concerns the evolutionary development of petals in the flowering plant family Aizoaceae in the context of the Caryophyllales. He received his HHMI-GSA award based on his work with two undergraduates Jeremy Ramdial and Roolse Alexandre. The publications that resulted from their work include; “Phylogeny of the Caryophyllales sensu lato: Revisiting hypotheses of pollination biology and Perianth differentiation in the core Caryophyllales” published in the International Journal of Plant Science; “Rosid diversification and the rapid rise of angiosperm-dominated forests” published in the Proceedings of the National Academy of Sciences; and “Keep the DNA Rolling: Multiple Displacement Amplification of Archival Plant DNA Extracts” published in the Journal of Taxon. Jeremy Ramdial went on to do a masters in Biomedical Research and is shortly to enter Medical School; Roolse Alexandre is certainly one of the few members of the United States Armed Forces with expertise in PCR and Phylogenetic Analysis.

Christos Lampropoulos was born in Patras, Greece and he performed his high school studies at the General Lyceum in Kamares, and graduated with highest honors. He then travelled to the United States and studied at the University of Illinois at Chicago (UIC) where he was performing undergraduate research in the group of Prof. John A. Morrison on the synthesis of trifluoromethyl-containing organometallic compounds of platinum, and molybdenum. He received a bachelor’s degree with honors in chemistry. In the fall of 2004, Christos joined the group of Drago Professor George Christou at the Chemistry Department at UF. Christos’s doctoral research primarily involves the synthesis of polynuclear transition metal, and mixed transition metal-lanthanide clusters, in search for new metal topologies, single-molecule magnets, and novel physical phenomena. He received the HHMI-GSA for his work on iron clusters and molecular iron wheels, which were characterized structurally (x-ray crystallography), physically (magnetism studies), and theoretically (ZILSH calculations).

The University of Florida Science for Life program has just named 8 HHMI Graduate Student Awards for 2008. These awards recognize excellence in graduate students who are able to mentor their undergraduates to a point where the undergraduate achieves co-authorship in peer-reviewed publications. These graduate students represent 10 different academic departments university-wide and have published research with 20 different undergraduate students while mentoring far more.
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Songqing Li is pursuing his Ph.D. degree in Molecular Cell Biology under the supervision of Dr. Edward Chan in the Department of Oral Biology. His studies mainly focus on characterizing the functional domains in the GW body marker protein, GW182, and understand the role it plays in the microRNA-induced gene regulation. Songqing received the HHMI-GSA for his work with Grant X. Abadal on publishing their paper “The C-terminal Half of Human Ago2 Binds to Multiple GW-rich Regions of GW182 and Requires GW182 to Mediate Silencing” in RNA journal, 2009. They also worked on a side project and published a co-author paper “Antibody Reactivity to α-Enolase in Mothers of Children with Congenital Heart Block” in Journal of Rheumatology, 2009.

Catherine Marcinkiewcz is a Ph.D candidate in the Neuroscience department working in the laboratory of Dr. Darragh Devine. Her dissertation research focuses on the role of the organic cation transporter-3 in the neurobiology of stress and stress-related disorders. She received the HHMI-GSA award for her work with Peter Duarte, which resulted in a co-authored publication in Brain Research, 2009, entitled “Social Defeat Stress Potentiates Thermal Sensitivity in Operant Models of Pain Processing”. Catherine continues to mentor undergraduate students as she completes her dissertation research in Dr. Devine’s lab.

Adam P. Mecca is a M.D.-Ph.D. candidate in his fourth year of training at the University of Florida College of Medicine. Adam works in the laboratory of Colin Summers, PhD and has mentored several undergraduate students. Most recently Adam has worked with Timothy O’Connor on the roles of angiotensin peptides during ischemic stroke. Their manuscript titled “Candesartan pre-treatment is cerebroprotective in a rat model of endothelin-1 induced middle cerebral artery occlusion” was recently submitted to Experimental Physiology. Adam is currently focusing on the potential cerebroprotective properties of Angiotensin (1-7) and Tim is focusing on the potential cerebroprotective properties of Angiotensin (III). In addition to his research, Adam also serves as a Co-Director of the Equal Access Clinic, a student run-free medical clinic in downtown Gainesville. The clinic serves the underinsured populations of Gainesville and Alachua County. Adam aspires to be an effective physician scientist, educator, and healthcare provider.

Ryan O’Mara is a PhD student in the Department of Health Education & Behavior. Under the supervision of Dr. Dennis Thombs and a multidisciplinary team of faculty investigators, Ryan conducts nighttime field studies assessing drinking and related risk behaviors in college bar districts. Ryan received the HHMI-GSA for engaging hundreds of undergraduate students each semester in applied research projects that bridge academia and service on pressing safety issues in the Gainesville community. Most recently, Ryan co-authored “Alcohol Price and Intoxication in College Bars” with Matthew Rossheim, a senior in the Department of Economics. This study is the first known investigation to document that increases in alcohol price at drinking establishments can be linked to lower intoxication levels among patrons. These ‘micro-level’ findings corroborate population-based econometric research and theory of the price elasticity of alcoholic beverages, which hold that customers respond to increased alcohol prices by purchasing and consuming less alcohol.