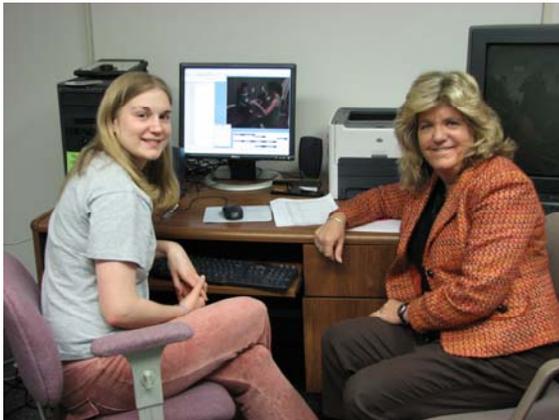


HHMI Distinguished Mentor awards recognize excellence in undergraduate mentoring. Six awardees from the University of Florida and one from Morehouse College were selected in the spring 2007 competition. These came from a large pool. For example 38 nominees and applicants from seven different colleges were considered at the University of Florida representing ranks from junior faculty to distinguished professors.

Dr. Barbara-Anne Battelle is a professor of neuroscience in the College of Medicine and at the Whitney Laboratory for Marine Bioscience, St Augustine, studying circadian changes in visual function. Since her primary research animal is a marine invertebrate, the horseshoe crab, she has the good fortune of having her research lab across the street from the ocean. Supported by grants from the NSF, Dr. Battelle's research aims at understanding the mechanisms that regulate photoreceptor sensitivity. She applies the techniques of biochemistry, molecular biology and cell biology to examine changes in photoreceptor cell structure, gene expression and protein function. Dr. Battelle has been active in training undergraduates since she arrived at the University of Florida in 1985. By 1987, she was co-PI on a Research Experience for Undergraduates site award from the NSF - the first year of the program. She served as PI on three subsequent REU site awards. Dr. Battelle has mentored 34 undergraduates in her laboratory. Once on board, undergraduates become integral members of her research team and 17 are co-authors on her publications. In addition to mentoring undergraduates, Dr. Battelle traditionally trains high school interns, local secondary school teachers, and is the founder of the Whitney Laboratory's popular K-12 educational outreach programs. Dr. Battelle participates in the Science for Life program and believes strongly in the power of nurturing young scientists. battelle@whitney.ufl.edu



Jennifer Ann Harrison Elder, PhD, RN, FAAN is Associate Professor and Chair in the Department of Health Care Environments and Systems at the University of Florida College of Nursing. Dr. Elder teaches mental health nursing and research at the undergraduate and graduate levels. Dr. Elder has spent the last 25 years studying autism and related child neuropsychiatric disorders and serves as an international research consultant. With an interdisciplinary team of researchers and clinicians, she has developed and tested a variety of interventions for children with autism. Her family-focused research program has been funded by four grants from NIH's National Institute of Nursing Research and examines methods of educating families, enhancing family cohesion, and reducing caregiver stress. Dr. Elder has employed and mentored 16 undergraduate students in

her research projects. She has also provided research experiences for five undergraduate research scholars and 44 honors students. Dr. Elder's students frequently co-author and present with her at major research conferences. Four have presented internationally. Dr. Elder is a fellow in the American Acad. of Nursing and serves as a frequent reviewer for several NIH study sections and journals. elderjh@nursing.ufl.edu

Kevin M. Folta is an Assistant Professor in the Horticultural Sciences Dept. (IFAS) and the Graduate Program for Plant Molecular and Cellular Biology. His research program studies how light shapes plant development, influencing such important processes as seedling establishment, photoperiodic flowering and control of plant product output. He also heads a leading program in strawberry genomics, describing the structure and function of genes important to fruit production.



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Dr. Folta's laboratory is recognized for its novel techniques and homemade tools that address questions in plant physiology, such as custom LED light arrays, computer-interfaced electronics, and innovative imaging devices.

His work has been supported by grants from USDA, NSF, NASA, and grower organizations. He is currently the Chair of the U.S. Rosaceae Genetics, Genomics and Breeding Executive Committee and Co-Editor of a forthcoming book on Rosaceae genomics. In just over four years at the University of Florida Dr. Folta has hosted research appointments for 17 undergraduate students, most supported through the University Scholars Program, IFAS or PMCB internships, or internships obtained through the National Science Foundation. Five undergraduate authors have contributed to peer-reviewed publications, and undergraduate research findings have been presented on over 20 abstracts and/or posters at national or international conferences. kfolta@ufl.edu

Dr. Henry Hess is an assistant professor of Materials Science and Engineering in the College of Engineering. He is an expert in Nanobiotechnology, focusing on the engineering applications of molecular motors. His research group integrates biomolecular motors, such as the motor protein kinesin, into synthetic structures in order to create "smart dust" biosensors, to facilitate self-assembly, or to fabricate adaptive materials. The insights developed by engineering hybrid structures with biological components in turn inform our understanding of biological systems. His projects have been supported by the DOE Office of Basic Energy Sciences, the DARPA Biomolecular Motors program, and the NSF CAREER program. Dr. Hess has worked extensively with undergraduate scientists during his appointment as research assistant professor in the Department of Bioengineering of the University of Washington, and continues his efforts since joining the University of Florida in 2005. The nine undergraduate students mentored in his lab have received multiple awards. For example, Michelle Kinahan was recognized with a NSF graduate student fellowship, and Robert Tucker received a Fulbright fellowship. As part of his NSF CAREER award and in coordination with the HHMI Science for Life program, Dr. Hess will create opportunities for undergraduate researchers to participate in the work of international research groups in Europe and Japan. hhess@mse.ufl.edu



Lisa McElwee-White is currently Professor of Chemistry at the University of Florida, having moved her research group from Stanford University in 1993. Her research interests center around applications of organometallic chemistry in synthesis, catalysis and materials science. One current thrust of her work is adapting catalytic reactions for synthesis of pharmaceutical candidates such as HIV protease inhibitors under more environmentally sensitive "green chemistry" conditions. Other projects involve synthesis of precursors for chemical vapor deposition of materials used in the semiconductor industry and development of catalysts for the direct electrochemical oxidation of liquid fuels such as methanol or ethanol in fuel cells. These projects have involved 40 undergraduate research students,

who have been authors on 17 of the more than 80 peer reviewed papers from the McElwee-White group. Undergraduates have also been contributors on 23 oral or poster presentations at major scientific meetings. Dr. McElwee-White has served as mentor for undergraduate researchers through the Beckman Scholars Program, the NSF-REU site and the University Scholars Program, as well as the Science for Life program. lmwhite@chem.ufl.edu

Spring 2007 HHMI Distinguished Mentors

Dr. Willie Rockward of Morehouse College, Atlanta is the first faculty mentor selected under an innovative UF-Morehouse partnership.



Dr. Rockward is an Assistant Professor in the Department of Physics, and serves as the Director of the Micro/Nano Optics Research & Engineering (MORE) Laboratory. His current research interests include micro/nano optics fabrication, extreme ultraviolet interferometry, nanostructure characterization, terahertz imaging, crossed phase optics, and termite behavior to diffracted light. He has multiple research collaborations; most recently with Dr. Y. Tseng at the University of Florida for the optical characterization of nanoparticles suspended in hydrogels. Also, Dr. Rockward encourages his male African-American students to pursue graduate studies at major research universities: he is responsible for ~50 students enrolling in Ph.D. programs. The MORE laboratory has trained over 60 undergraduates and 10 high school students in optical techniques during its 7 year existence.

He is a member of the American Association of Physics Teachers, the Council on Undergraduate Research, the National Society of Black Physicists, the National Technical Association, and the Optical Society of America. His current educational interests include hands-on experiments in mathematics and science for primary (K-8) education, demonstrations with lasers and diffractive optics, and developmental initiatives in science, mathematics and engineering pipeline programs.

Dr. Adrian E. Roitberg is an Associate Professor in the Chemistry Department in the College of Liberal Arts and Sciences and is a member of the Quantum Theory Project center. He also holds an affiliate appointment in the Physics department at UF. Dr. Roitberg studies 'things that move', focusing on how dynamics in biomolecules affects structure and function. His group uses computational techniques to model biological systems. Dr. Roitberg has studied with these techniques problems ranging from protein folding of peptides, enzymatic mechanisms and protein structure prediction. He has published over fifty articles.

Dr. Roitberg serves in a number of NIH review panels, and in the NSF panel for supercomputer allocations. His undergraduate colleagues have all gone to graduate school, coauthored papers with him, and were awarded a number of prizes and fellowships. Adrian is working with the Science for Life program to expand undergraduate research opportunities with HHMI international Research Scholars in South America. roitberg@qtp.ufl.edu



Morehouse College and the University of Florida will award at least 35 HHMI-DM awards in six institution-wide competitions over the first four years of the Science for Life program. A rotating seven-member selection committee reviews applications. Contact: P. Soltis psoltis@flmnh.ufl.edu, R. Duran duan@chem.ufl.edu, L. Guillette ljpg@zoo.ufl.edu