

## PHOTONICS TOPS LIST FOR NEW STATE CENTER

UCF INITIATIVE IN LINE FOR \$10M



The Florida Board of Education has approved the allocation of \$10 million to establish the Florida Photonics Center of Excellence (FPCE), to be located within UCF's School of Optics/CREOL (Center for Research and Education in Optics and Lasers.)

The approval follows a recommendation by the state's Emerging Technology Commission (ETC) that ranked the University of Central Florida's center on top of a list of three proposals for technology "centers of excellence" in the state.

A biomedical and marine technology facility at Florida Atlantic University and a bio-processing center at the University of Florida will also receive \$10 million each.

UCF's Florida Solar Energy Center was ranked fifth of the 16 proposals reviewed by the ETC.

The Photonics Center of Excellence will focus on building upon what UCF has already accomplished through the School of Optics/CREOL, said Eric Van Stryland, School of Optics/CREOL Director. "This designation will provide resources needed to expand our photonics efforts into the growing areas of nanophotonics, biophotonics, advanced imaging and 3D displays and ultra-high bandwidth communications," he said.

One of the biggest strengths of the School of Optics/CREOL has been its ability to successfully work with industry - creating solutions to complex problems and developing the foundation required to attract, retain and grow high-tech, high-impact companies.

"The University of Central Florida is committed to developing new technologies that will bring high-tech industry to our state and region," UCF President John Hitt said. "The Florida Photonics Center of Excellence will strengthen that mission and ensure that the university remains on the cutting edge of optics and laser research. Governor Bush and the Legislature are to be commended for their foresight in recognizing that the work of our universities is critical to Florida's economy."

The Florida High Tech Corridor conducted a study in 1999 that found 106 photonics companies in the area from Melbourne to St. Petersburg and 148 statewide. The School of Optics/CREOL generated more than \$10 million in external funding in 2002, about 40 percent of which came from industry.

Those strategies will continue as the new center is developed, Van Stryland said. Faculty growth will be critical with funds budgeted for faculty support, including five new faculty chairs proposed in nanophotonics, biophotonics and imaging. And \$4 million is planned to fund competitive research proposals from throughout the state for work in those areas.

A dedication for the new center is planned for April 25. See Calendar, page 6.

## UCF RESEARCHERS AMONG NATION'S BEST IN MAJOR COMPETITIONS

UCF researchers have placed among the nation's top universities in two major award competitions. Two researchers from UCF's Advanced Materials Processing and Analysis Center (AMPAC) have received the prestigious Faculty Early Career Development (Career) awards from the National Science Foundation. And three researchers from the School of Optics/CREOL (Center for Research and Education in Optics and Lasers) and one from AMPAC have won four of the 10 federal defense instrumentation awards granted to Florida universities.

"Each one of these awards is significant in its own right," said M.J. Soileau, UCF's vice president for research. "When you look at the six of them together, especially the receipt of two Career awards in one department, it says a great deal about the impact of UCF research across the country."

The Career award winners, Yongho Sohn and Raj Vaidyanathan are assistant professors with AMPAC and both have joint appointments with Mechanical, Materials and Aerospace Engineering. Each received the award for their proposals in materials science and engineering.

The Career Program recognizes and supports the early career-development activities of teacher-scholars who are most likely to become the academic leaders of the 21st century. Vaidyanathan's project, "Neutron, Synchrotron X-Ray Diffraction, and Instrumented Indentation Studies of Deformation in Shape-Memory Alloys" focuses on shape memory alloys - materials that change shape with stress or temperature. Vaidyanathan

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## Q & A WITH YONGHO SOHN AND RAJ VAIDYANATHAN



RAJ VAIDYANATHAN AND YONGHO SOHN ARE ASSISTANT PROFESSORS OF AMPAC & MECHANICAL, MATERIALS & AEROSPACE ENGINEERING

Yongho Sohn and Raj Vaidyanathan, assistant professors of AMPAC and Mechanical, Materials and Aerospace Engineering, each received the prestigious National Science Foundation Faculty Early Career Development (Career) award for their proposals in the discipline of materials science and engineering. UCF is especially proud to have two researchers from the same discipline win the award in the same year. IMPACT asked these researchers about the effect research in their discipline is having in the region and the world.

*You have each been identified as researchers likely to make an impact in your field. What does this mean for the future of materials?*

Vaidyanathan: I hope by the end of the award period (2008) I can contribute towards a better understanding of deformation in shape memory alloys - with direct implications for actuators and biomedical devices. The award will also impact materials science and engineering education at UCF, by modernizing instruction and laboratory curricula, and increasing its visibility through outreach programs.

Sohn: This award will certainly serve as a cornerstone of my research activities in multicomponent diffusion in multiphase alloys at UCF. While the current Career award will focus on fundamental aspects, findings from this program can be applied to design materials with enhanced performance, durability and reliability. My research activities will focus on those materials and coatings related to efficient and environmental-

ly-friendly production and utilization of energy. This program is also designed to improve materials science and engineering education at UCF through a development of "hands-on" laboratories. In addition, public awareness of materials science and engineering, particularly for K-12 children, will be promoted in collaboration with the Orlando Science Center (OSC) and the Center for Independence Technology and Education (CITE), a non-profit organization for children with visual and other disability.

*How strong is the materials industry in Central Florida?*

Vaidyanathan: I would say - fairly strong. We have Siemens Westinghouse, Lockheed Martin, Agere and NASA-Kennedy Space Center who do extensive work with materials to name a few.

*Is this a rapidly growing industry sector?*

Vaidyanathan: More than "rapidly growing," the word "mature" may be appropriate. It serves as a feeder to a variety of industries - aerospace, automotive, defense, medical, chemical, electronic etc. Materials are everywhere!

Sohn: The materials industry is certainly a "mature" one - it originated from the fields of "metallurgy" and "ceramics." It has always struggled with its role in the science and engineering community because it encompasses

## COOKIN' WITH M.J.

Vice President  
For Research  
M.J. Soileau



"These creative young researchers are the key ingredient!"

This issue of IMPACT is a feast of accomplishments by the University of Central Florida faculty, staff and students.

For starters, we have the College of Education equaling its FY02 funding of \$16 Million in the first seven months of FY03. Projects in the

College of Education are having a major IMPACT on teaching our children to read - one of the most pressing problems in the state and the nation.

For the next course, we have two prestigious National Science Foundation (NSF) Career awards presented to a couple of exceptionally bright young faculty in the Advanced Materials Processing and Analysis Center (AMPAC) and Mechanical, Materials and Aerospace Engineering (MMAE). The selection of Raj Vaidyanathan and Yongho Sohn is a first for UCF - a double winner in the same unit. Both have active partnerships with regional industry. Their Florida High Tech Corridor industry partnerships were just the right spice to complete the

recipe for winning proposals. And these creative young researchers, and others like them, are the key ingredient for making UCF the nation's leading Metropolitan Research University.

The selection of UCF's Florida Photonics Center of Excellence (FPCE) adds a bit of sweetness to this feast. The state's Emerging Technology Commission ranked UCF's School of Optics/CREOL (Center for Research and Education in Optics and Lasers) proposal first among the 16 submitted from the state's public and private institutions. That selection is a nice validation of UCF's strategy of partnership with industry and excellence in selected areas of research and graduate education. How sweet it is!



### SPOTLIGHT: TECHNOLOGY

## UCF TECHNOLOGY SHINES DURING STATE MANAGERS CONFERENCE

UCF joined other Florida universities to make the case for high technology industry in the state at the Association of University Technology Managers annual conference held at Disney's Contemporary Resort in February.

The conference kicked off with an invitation-only reception put on by the Florida research universities in conjunction with Enterprise Florida and law firm Akerman Senterfitt. Throughout the evening, potential commercialization partners were given the opportunity to learn details about the array of new discoveries being generated by Florida universities.

More than 1,400 association members from more than 25 countries offered seminars, classes and speeches covering the world of university technology transfer and related industries. UCF's Office of Research participated in the networking fair, which featured more than 30 exhibitors and 35 universities. The Office of Research and the UCF Technology Incubator co-sponsored an exhibit including interactive displays of some of UCF's most successful technology transfer products. One of those suc-

cesses, the Gossamer Wind ceiling fan created by Florida Solar Energy Center researcher Danny Parker, was featured as a door prize in the Florida research universities reception.

"During the conference, UCF was able to showcase its technology and the close cooperation that exists between the Office of Research and UCF's Technology Incubator," said Herb Winfield, UCF's associate director for technology transfer. "This is important because it shows our commitment to move technology from the lab to commerce, using the Technology Incubator as a catalyst."

According to a survey conducted using data from AUTM's FY 2000 Annual AUTM Licensing Survey, approximately 20 percent of the \$1 billion spent on research expenditures in Florida in 2000 was spent by private industry to support Florida university research (and acquire commercial rights to research inventions), thus providing a



CAROL ANN DYKES, TECHNOLOGY INCUBATOR ASSOCIATE DIRECTOR, SHOWCASES UCF TECHNOLOGY AT AUTM

clear path to technology transfer for the benefit of the public. The federal government provided approximately 60 percent of the research funding with the remainder coming from state governments, private foundations, internal funds and associations.

Many new high-tech start-up companies are springing up around the state including Optium Inc., a fiber-optic company that was started in Central Florida because of the strength of the research being conducted at UCF. Utilizing UCF photonics technology, the young company was able to secure \$50 million in start-up funds, strengthening the region's high-tech sector and contributing high-skill, high-wage jobs to the economy.

## NANOPARTICLE RESEARCH SUGGESTS MEDICAL ADVANCEMENTS

A research group led by Beverly Rzigalinski (Molecular Biology & Microbiology) and Sudipta S. Seal (Mechanical, Materials and Aerospace Engineering and the Advanced Materials Processing and Analysis Center) presented "Cerium Oxide Nanoparticles Extend Cell Longevity and Act as Free Radical Scavengers" at the Nature Biotechnology annual meeting in Miami.

The presentation is authored by members of both labs, including David Bailey and Stephanie Merchant, undergraduate students in the Rzigalinski lab, and by S. Kuiry and S. Patil, of Seal's Lab. Leslie Chow, an undergraduate student in the University's Nanotechnology REU program, is also a co-author on the presentation. Their work describes the novel use of nanoparticles at dramatically extending the lifespan of cells in culture and blocking the effects of several forms of cell injury.

The nanoparticles were capable of increasing the lifespan of neurons to 3-4 times their normal lifespan, while keeping their function intact. Their findings suggest a wide range of potential applications of nanoparticles in health and medicine, putting UCF among the forerunners in this exciting new field. Additional investigations into the use of nanoparticles in tendon injuries will be funded by Ortheon through an I-4 corridor grant.

<http://nanotech.research.ucf.edu>



**LESLIE SUE LIEBERMAN**  
DIRECTOR, UCF WOMEN'S RESEARCH CENTER

### LESLIE SUE LIEBERMAN

A professor of anthropology is advancing research about and by women as the founding director of the University of Central Florida's Women's Research Center.

Leslie Sue Lieberman is a biomedical anthropologist with degrees in anthropology, human biology and behavior genetics. But while at UCF she focuses her skills on developing research opportunities for women faculty.

The Women's Research Center, located within the College of Arts and Sciences, was initiated by President John Hitt and Provost Gary Whitehouse to help the university advance as a research institution. The center, which opened in August 2001, focuses on fostering and utilizing the talents of women faculty members as researchers and developing interdisciplinary projects that focus on women.

"The Women's Research Center's mission is to help women faculty get grants, fellowships, or external funding to move to tenure and full professorships. That requires research and publication," Lieberman says. "In Fall 2002 only 43 women faculty held full professorships out of 1,300 faculty. There are many women at the assistant or associate professor level."

One of Lieberman's early projects was compiling statistics on the success of women researchers on campus. What she found surprised her. In Fiscal Year 2002:

- Five of the top 10 externally funded professors and eight of the top 20 were women.
- Women faculty accounted for 53% of the total amount of external funding.
- Sandra Robinson, dean of the College of Education brought in more than \$5 million and Carrie Whitcomb, director of the National Center for Forensic Science, more than \$3.4 million.
- Seven of the 14 researchers inducted into the Office of Research "Millionaires Club" women.

The Women's Research Center works to publicize such successes and encourages individual women through mentoring and grants assistance. In February the Center co-hosted, with the 130 member UCF Women in Science and Engineering (WISE) organization, the National Women in Science and Engineering Week at the Orlando Science Center. The Center has actively supported Diversity Week: in the Fall of 2001 by hosting a session "Women's Research: Mirror of Unity/Reflecting Diversity" to encourage mentoring, networking, and leveraging of resources; and again in 2002 with "Women's Research II: Engendering Diversity" with a focus on local, state and federal funding opportunities. The 2002 event featured performances by the Center's first year awardees in the Arts & Humanities: Mary Johnson, an associate professor in the Department of Film, was awarded for a documentary film of Marya Methven; Pamela Hammons, an assistant professor in the Department of English, received an award for her project, a book on gender and class in the lyric poetry of women writers in the English Renaissance; and John Bell, associate professor in the Department of Theater received a special seed money award for his project, a musical, Rivers Run Deep about women in history defying stereotypes.

The Center has also surveyed the UCF community and the adjacent Central Florida Research Park about health, child-care and elder care needs in response to a President's Commission of the Status of Women Report in which more than 2,250

## UCF EDUCATION INITIATIVES LEAD RESEARCH FUNDING

UCF's College of Education started 2003 much as it ended 2002 - securing funding for professional development of teachers and strengthening its role as one of the state's leaders in reading and educational reform.

At the end of February 2003, educators had already matched the total funding received in 2002 - \$16 million.

Reading and professional development programs continue to be the funding leaders. The Reading Professional Pilot Program better known as FLARE (Florida's Literacy and Reading Excellence Center) is one of the College's largest initiatives. College of Education Dean Sandy Robinson has received nearly \$6 million for FLARE projects in 2003. She has also received an additional \$2.8 million from the state for the Reading Professional Development Pilot project. And Professor Mary Little's Effective Instructional Practices Project received \$1 million from the state Department of Education.

The FLARE project puts UCF at the center of the state's emphasis on improving reading skills and comprehension. Housed in

UCF's Academy of Teaching, Learning and Leadership, FLARE is one of several professional development programs for teachers sponsored by the Academy that are designed to benefit approximately 240,000 students in 400 schools in all 67 Florida counties.

A second FLARE program, Reading First, focuses on increasing literacy levels in K-3 classrooms in certain school districts. Funded as a result of the federal "No Child Left Behind" education law, FLARE Reading First is a collaboration with the state's Just Read office and the Florida Center for Reading Research at Florida State University.

UCF's College of Education is also a leader in the Florida Online Reading Professional Development project-a program that uses the Internet to help teachers improve reading instruction for pre-kindergarten through grade 12 students. Funded by the Florida Department of Education-and developed collaboratively with literacy and technology experts, school districts, professional organizations, and teacher educators across the state-the project helps teachers learn new ways to teach their students

vocabulary and reading comprehension in all areas of the curriculum.

A unique UCF partnership gaining national interest for its approach to developing mathematics, science and technology education is the Lockheed Martin/University of Central Florida Academy for Mathematics and Science. By offering a graduate degree in K-8 mathematics and science, the UCF College of Education provides area schools with teachers ready to bring cutting-edge information to their students. The academy, funded for its first four years by the National Science Foundation, was concurrently endowed through a gift from Lockheed Martin and a matching gift program of the Florida Board of Regents.

The commitment to improving teaching through research is part of the mission of UCF's College of Education. Giving Florida's students the best chance to succeed in an increasingly competitive world is its highest priority.

By redefining the basics, UCF's College of Education is leading the way in the field of educational research-and setting the standard for educational reform throughout the state and around the country.

## UCF LAB EXPERIENCE LEADS TO REGIONAL SCIENCE FAIR PRIZE



Andy Cook is just sixteen years old. Yet to him hear his describe his research in Beverly Rzigalinski's laboratory, you'd think you were listening to a seasoned scientist.

Cook is at ease when describing his work on the effects of polychlorinated biphenyls (PCBs) on cultured brain cells. He also is quite comfortable in his environment. "I've always loved research labs," says the high-school junior.

Cook's understanding of his research earned him a grand prize at February's Orange County Regional Science and Engineering Fair in Orlando. As recipient of the prize, he automatically competes this May in the Intel-sponsored International Science Fair in Cleveland. He also took first place among entries in the category of "Environmental Science," which enables him to compete in the statewide competition in April. In March, Cook won a first place honor in the Orlando Science Center Challenge Competition for which he received awards totalling \$4,400.

Rzigalinski, professor of molecular biology and microbiology in the College of Health and Public Affairs, says Cook joined her lab in July 2002 through a program at Lake Highland Preparatory School in Orlando. The program, named ASPIRE, matches each selected high school student with an

expert mentor, who guides the student through a research project. "Once Andy got started he need little supervision," notes Rzigalinski. "He works very well on his own."

Cook and Rzigalinski collaborate with Sudipta Seal, associate professor of Mechanical, Materials and Aerospace Engineering, a researcher at the Advanced Materials Processing and Analysis Center and the lead on the university's Nanotechnology Initiative. Seal and his research group created nanoparticles that Cook is using in his research.

Cooks says his experience working in Rzigalinski's laboratory has been affirming: "I definitely want to pursue a career in laboratory research." He plans to continue his work in her laboratory through the remainder of high school.

## CALENDAR OF EVENTS

### MARCH

SUNDAY THE 30TH - APRIL 4  
2003 SPRING SIMULATION INTEROPERABILITY WORKSHOP  
Sponsored by the Simulation Interoperability Standards Organization  
Held in conjunction with The Society for Modeling and Simulation International  
The Hyatt Orlando Hotel, Kissimmee, FL  
Registration: rwilliam@ist.ucf.edu

### APRIL

THURSDAY THE 3TH  
EMERGING BUSINESS NETWORK MONTHLY FORUM  
BILL FLUKE OF PRICEWATERHOUSE COOPERS  
SHAKING THE MONEY TREE 2003  
Cost: \$25.00 to all EBN members who pre-register, \$30 for non-members  
6p.m. - 8:30p.m. at the Radisson Plaza Hotel Downtown  
Details/Registration: www.incubator.ucf.edu

FRIDAY THE 25TH  
CREOL AFFILIATES DAY AND INAUGURATION OF THE FLORIDA PHOTONICS CENTER OF EXCELLENCE  
8:30a.m. to 6:00 PM  
Breakfast, Morning Plenary Session - Cape Florida Ballroom UCF Student Union  
Lunch, Afternoon Session & Reception - CREOL Building  
Free Registration:  
http://www.creol.ucf.edu/Affiliates/AForm.htm  
For information about Corporate Exhibit space or Sponsorship opportunities: diana@creol.ucf.edu

TUESDAY THE 29TH  
FACULTY WORKSHOP  
8:30 A.M. - 12:30 P.M.  
HPA1 126 Seating Capacity 75  
Anthony M. Coelho, Jr. review policy officer for the National Institutes of Health (NIH) will conduct a faculty workshop on topics including: Understanding the peer review process, successful grantwriting and NIH 101  
Health & Public Affairs Building 1, Room 126  
Registration: bhowell@mail.ucf.edu

### MAY

THURSDAY THE 1ST  
EMERGING BUSINESS NETWORK MONTHLY FORUM  
FEATURING MARK HAYES OF BLUWORLD  
Cost: \$25.00 to all EBN members who pre-register, \$30 for non-members  
6:00pm-8:30pm at the Radisson Plaza Hotel Downtown  
Details/Registration: www.incubator.ucf.edu

THURSDAY THE 8TH  
INCUBATOR EDUCATIONAL SERIES:  
STRATEGIC PLANNING  
PRESENTED BY JOHN SPENCE  
Cost: \$5  
8:30am - 4:00pm, Location TBA  
Registration: joldham@mail.ucf.edu

### JUNE

THURSDAY THE 5TH  
EMERGING BUSINESS NETWORK MONTHLY FORUM  
FEATURING TBA  
Cost: \$25.00 to all EBN members who pre-register, \$30 for non-members  
6:00pm-8:30pm at the Radisson Plaza Hotel Downtown  
Details/Registration: www.incubator.ucf.edu

THURSDAY THE 12TH  
INCUBATOR EDUCATIONAL SERIES: TEAM BUILDING  
PRESENTED BY JOHN SPENCE  
Cost: \$5  
8:30am-Noon, Location TBA  
Registration: joldham@mail.ucf.edu

## NAVY AND UCF SIGN RESEARCH AND DEVELOPMENT AGREEMENT

The Naval Air Systems Command Training Services Division (NAVAIR Orlando TSD) and the University of Central Florida Office of Research, have signed a Cooperative Research and Development Agreement, or CRADA, which is expected to enhance mutual understanding of operator performance under stress. UCF's Multiple Universities Research Initiative/Operator Performance Under Stress, or MURI/OPUS, Laboratory - in close concert with the Institute of Simulation and Training (IST) - is hosting this collaborative effort.

Shown at CRADA signing ceremony in November are (front) TSD Commanding Officer Capt. Andy Mohler (left) and UCF Vice President for Research M.J. Soileau;



(back row, left to right)

Jim Szalma, IST research associate; Ron Wolff, TSD; Peter Hancock, UCF/IST principal investigator and director, MURI/OPUS laboratory; Paul Ward, IST research associate, and IST Director Randall Shumaker.

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concepts in disparate fields ranging from chemistry and physics to mechanical and electrical engineering. However, it has and will always serve practically all industry, since all useful things (and some useless things, too) are made up of materials.

*Do you receive much support from local industry?*

Vaidyanathan: I have been funded by NASA Kennedy Space Center, Siemens Westinghouse and psiloQuest Inc. and am expecting to work with Lockheed Martin in the immediate future. I have definitely benefited from the Florida High Tech Corridor Program (which provides matching funds for partnerships with industries in the Florida High Tech Corridor).

Sohn: I have been funded by Siemens-Westinghouse Power Corporation (SWPC) for multiple projects, and have also been assisted by the Florida High Tech Corridor Program. SWPC is also a sponsor and a partner of my research activities in high temperature materials and coatings along with several other industrial sources all over the U.S., including General Electric Aircraft Engines (OH), General Electric Global Research Center (NY), Solar Turbines Incorporated (CA), Pratt & Whitney

(CT), Howmet Research Corporation (MI), and Praxair Surface Technologies (IN).

*What changes in the field can we look for in the next decade, globally and locally?*

Vaidyanathan: At least for the next decade, I think one of the biggest changes will come from reduction in size scales - both geometrical and microstructural. As materials scientists and engineers, we are going to see enhanced functionality as we make things smaller. I am also expecting biomaterials to be actively researched and result in widespread application in the human body.

Sohn: It is quite clear that the overall significance of materials science and engineering will increase with sophisticated functionality and applications, aided by further realization of nanostructured materials, bio-compatible materials and computational modeling. However, the importance of understanding fundamental science and even generating dependable experimental data can never be ignored since materials for the future require enhanced durability and reliability, constrained by economic justification and environmental/biological safety.

## FSEC RESEARCHERS HONORED FOR SCHOOL AIR-CONDITIONING SYSTEM

A unique cooling and air distribution system demonstrated at a Florida elementary school by researchers at the Florida Solar Energy Center (FSEC) has received a Technology Award Honorable Mention from the American Society of Heating,

Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE). Don Shirey and Richard Raustad, buildings researchers at the solar center, were principal investigators.

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## STUDENTS RECOGNIZED FOR NEUROBIOLOGY WORK

Stephanie Merchant, a student in Beverly Rzigalinski's Neurobiology lab in the Department of Molecular Biology and Microbiology, won an Outstanding Achievement award in the student abstract competition at the National and International Neurotrauma Symposium last November. Twenty-four out of 600 submitted abstracts were selected.

Richard Aguilar, another student under the mentorship of Rzigalinski, was selected along with Merchant to give an oral presentation at the first Hydrocephalus Symposium held at the Society for Neuroscience Annual

meeting. Aguilar is conducting studies to determine the mechanisms involved in the development of hydrocephalus, or brain swelling.

Dr. Beverly Rzigalinski (Molecular Biology & Microbiology) and Dr. Sudipta S. Seal (Mechanical, Materials and Aerospace Engineering and the Advanced Material Processing and Analysis Center) led a presentation titled "Cerium Oxide Nanoparticles Extend Cell Longevity and Act as Free Radical Scavengers" at the *Nature Biotechnology* annual meeting in February in Miami.

[brzigali@mail.ucf.edu](mailto:brzigali@mail.ucf.edu)

## IST STAFF WIN PRODUCTIVITY AWARDS

Two Institute for Simulation and Training staff members from the Information Systems Technology Department have received Notable Individual Awards of \$300 in the Florida employee Davis Productivity Awards competition for 2002. Tammie

McClellan and Robert Reed developed a web-based timesheet system that replaces error-prone manual data entry, saving UCF an estimated \$70,000 each year.

[mcclell@ist.ucf.edu](mailto:mcclell@ist.ucf.edu)

## UCF AWARDED \$50,000 FOR ENTREPRENEURSHIP

The University of Central Florida is one of 52 colleges and universities nationwide to receive funding from the premiere entrepreneurship foundation in the U.S.

UCF was awarded \$50,000 from the Ewing Marion Kauffman Foundation to develop awareness of and education programs in entrepreneurship. "Specifically, funding from the pro-

gram will be used to develop entrepreneurship curriculum, provide support for the UCF student entrepreneurship society, bring in guest lecturers on entrepreneurship, support a 'meet the researcher' event, provide funding for student internships, and support a business plan competition," said Tom O'Neal, executive director of the UCF Technology Incubator which will administer the grant.

## FUNDING OPPORTUNITIES FOR APRIL - JUNE

INVENTIONS & INNOVATION PROGRAM  
DEPT. OF ENERGY (DOE)  
DEADLINE: 04/12/2003

CENTERS FOR LEARNING & TEACHING  
NSF  
DEADLINE: 04/24/2003\*

NATIONAL NANOTECHNOLOGY INFRASTRUCTURE NETWORK  
NSF  
DEADLINE: 05/16/2003\*

NEW & INNOVATIVE IDEAS FOR ADVANCED TECHNOLOGY  
DEPT. OF DEFENSE (DOD)  
DEADLINE: CONTINUOUS (OPEN DEADLINE)

SCIENCE & TECHNOLOGY CENTERS:  
INTEGRATIVE PARTNERSHIPS  
NSF  
DEADLINE: 06/03/2003

FOR MORE INFORMATION, CONTACT  
[TDAILEY@MAIL.UCF.EDU](mailto:TDAILEY@MAIL.UCF.EDU)

\*DENOTES A LIMITED SUBMISSION PROGRAM

## ARTICLE REVS UP INTEREST IN FAN

An article in the *Chronicle of Higher Education* is increasing interest in UCF's Gosammer Wind ceiling fan. The fan, developed by Florida Solar Energy Center researcher Danny Parker, is licensed by the university to the King of Fans company and sold exclusively in Home Depot stores.

Since January 2001, more than 375,000 fans have been sold, generating nearly \$250,000 in royalties for the university.

The fan's blades, modeled after airplane propellers, make it among the most energy efficient ceiling fans in the market.

The article, in the March 7 edition of the *Chronicle*, was prompted by a display featuring the fan at February's Association of University Technology Managers conference in Orlando (see page 3).

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Non-Profit  
Postage  
PAID  
Permit # 3575  
Orlando, FL

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uses various diffraction and nanoin - dentation methods to determine what makes these memory alloys change and retain their shape.

Sohn's project, "Fundamentals of Multicomponent Diffusion in Multiphase Alloys," will seek to advance the understanding of diffusion process in multicomponent alloys with multi-phase microstructure - commonly used as structure and coatings for aerospace, energy and space applications. The goal is to provide a better understanding of this fundamental phenomenon and devise structural materials and coatings that can withstand high temperatures and aggressive environment with enhanced performance, durability and reliability.

Each researcher will receive approximately \$400,000 in funding through January 31, 2008.

UCF is one of 75 academic institutions in the country and one of four in Florida to receive Defense University

Research Instrumentation Program awards. UCF and the University of Florida each received four awards and Florida State University and the University of Miami each received one. The Department of Defense is allocating \$27 million to the awards program that is designed to support the purchase of research instrumentation.

UCF's awards were received by Michael Bass of the School of Optics/CREOL for equipment for research on two- and three-dimensional displays; Leonid Glebov of the School of Optics/CREOL for "Femtosecond Laser for Photo-Thermo Refractive Glass;" Eric Johnson and Glenn Boreman of the School of Optics/CREOL for "Tunable Antenna-Coupled Uncooled Infrared Focal Plane Arrays" and Sudipta Seal of AMPAC and the Department of Mechanical, Materials and Aerospace Engineering for "Plasma Processing for Nanoparticles to Bulk Materials."

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respondents indicated the desire for a number of services to be located in the Research Park.

Lieberman has received funding from the Susan G. Komen Breast Cancer Foundation and the Gala Endowed Program for Oncologic Research for her own projects on helping family practice physicians and their African-American patients better communicate about breast cancer. A second project funded by the Winter Park Health Foundation involved UCF undergraduate and graduate students in a rapid assessment of traditional health care beliefs and practices among Orange County minority populations.

Lieberman has been at UCF 19 months after 25 years at the University of Florida. She says she is amazed by the infectious enthusiasm of the faculty, staff and students and their commitment to grow and advance UCF into a top tier Metropolitan Research University.