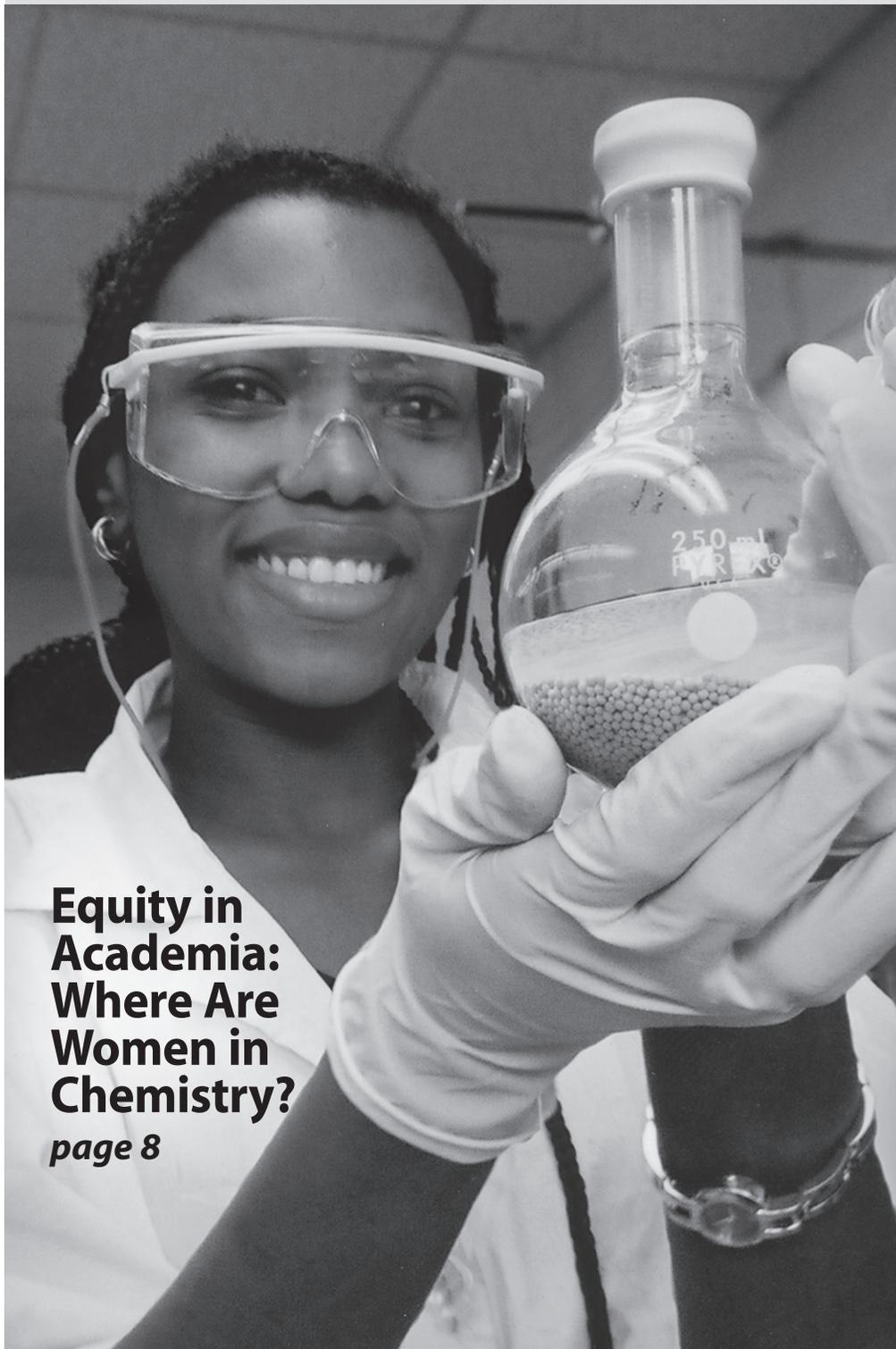


CLASnotes

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The University of Florida College of Liberal Arts and Sciences

No. 8



**Equity in
Academia:
Where Are
Women in
Chemistry?**

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Around the College

DEPARTMENT NEWS

Astronomy

Joanna Levine, a PhD student, was recently awarded a 2001-02 Zonta International Amelia Earhart Fellowship. The scholarship is one of 35 international fellowships awarded to outstanding women in aerospace-related science and engineering graduate programs this year.

The \$6000 fellowship will allow Levine, who works with Professor Elizabeth Lada, to pursue her research on the impact of close binary stars on planet formation. For her doctoral research Levine is studying the properties of binary systems in "young" star clusters (roughly 1 million years old) and the effects these systems have on protoplanetary disks. Levine will also continue to conduct field research at telescope sites in Arizona, Chile, and Hawaii.

Botany

In May, the *Guardian Weekly* published a commentary by **David A. Jones** titled "Science's lingua franca." Jones was responding to an article by Robert Phillipson, "English, yes, but equality first," and remarking on the impact of English as the international language of science.

Chemistry

Jens Oddershede was installed as Rektor (president) of the University of Southern Denmark on June 21. Oddershede is a courtesy professor in UF's Department of Chemistry and an adjunct professor with the Quantum Theory Project. He is also codirector of the University of Southern Denmark/University of Florida student exchange program.

Geology

Michael Perfit attended the European Union of Geosciences meeting in Strasbourg, France in April. He presented three papers at the meeting that dealt with research he and his students **Matt Smith, John Chadwick** and **Scott Kutza** have been doing on ocean floor volcanism in the eastern Pacific Ocean. Perfit was also an invited speaker at the Geodynamics Seminar Series on Plume-Ridge Interactions at the Woods Hole Oceanographic Institution in April. He presented a lecture on recent geochemical research he and Chadwick have completed on Axial Seamount, an active hotspot on the Juan de Fuca Ridge off of the coast of Oregon.

Germanic and Slavic Studies

Hal H. Rennert gave a talk at the Europa-Union as part of Europe-Week in Backnang, Germany on May 9. His presentation was titled "From Weimar to Paris: Wilhelm Hausenstein's Contribution to French-German Reconciliation after 1945."

Psychology

Manfred Diehl was one of 30 participants selected from a national competition to attend the American Psychological Association's Advanced Training Institute (ATI) in Longitudinal Methods, Modeling, and Measurement in Contemporary Psychological Research. The ATI provided training in state-of-the-art methods for modeling longitudinal data including growth curve analysis, time series modeling, and dynamic structural equation modeling. The ATI was held in June at the University of Virginia in Charlottesville.

Franz R. Epting and **Larry Severy** each were recently elected to serve as president of a division of the American Psychological Association. Epting will serve the Humanistic Psychology Division and Severy the Population and Environmental Psychology Division. Beginning in August, each will serve a year as president-elect, followed by a year as president.

Doctoral student **Katherine White** won a National Research Service Award (NRSA) from the National Institute of Mental Health (NIMH). The award is a predoctoral research fellowship for White's dissertation studies. Her project is titled "Phonological Priming of Preexisting and New Associations."

Romance Languages and Literatures

Geraldine Nichols recently presented her paper, "Apples, Oranges and Rewards in the Multilingual Department," at the Association of Departments of Foreign Languages Summer Seminar East at Middlebury College. She was also a workshop leader for the new chairs' sessions at the seminar.

Written and Oral Communication

Ed Kellerman presented a paper titled "Understanding Recent Court Cases on Affirmative Action and their Effect on Higher Education Policy" at the American Educational Research Association's annual conference held in Seattle in April. The paper addressed recent court decisions banning racial preferences in affirmative action programs, and how Texas, California, Florida, and Georgia have responded with programs to ensure a diverse student body.



The **Department of History** conducted a summer institute for secondary school world history teachers from June 25-29 as part of a nationally coordinated set of seventeen such institutes sponsored by the World History Association and the College Board, with funding from the National Endowment for the Humanities. Sixteen teachers attended the institute, fifteen of whom were from Florida. The UF faculty consisted of **Hunt Davis**, director and **Murdo MacLeod**, lead instructor. Alan Rushing of Duval County Schools was the pedagogy instructor. The focus was on the AP World History course, which will be offered for the first time in the 2001-2002 school year.

The Dean's Musings

Information Technology: A Tool for ALL Disciplines

No one would question the value of the tremendous surge in advancing the capabilities in all areas of research and instruction, which has been generated by modern computer technology and internet networking. Once the exclusive tool of the mathematical and physical scientists, information technology (IT) has enabled major advances in biology, genomics and bioinformatics, the social sciences, library services, and the humanities. The use of digital methods to preserve and analyze ancient texts, and to study linguistics and the processes of learning, are just some of the exciting new frontiers that advanced technology has opened and expanded.

It is important to keep in mind, however, that IT should be seen as a tool to enable research and teaching, and to serve our academic mission—not the other way around. We should use IT in all its forms to advance learning and teaching, to help provide access to rare and costly resources (large telescopes, international data banks, deep earth exploration activities), and to take the classroom to such varied locations as remote archaeological digs or to see government in action around the world.

What we need to avoid is the gold-rush mentality, namely to invest in a costly type of resource simply because one of our competitors has one and therefore we think we should have one too. We need to focus on and set our academic goals in research, distance education and outreach programs, and select what technology is best suited to achieve those goals. The development of our technology should above all be driven from the ground up and not from IT down.

Neil Sullivan
<sullivan@phys.ufl.edu>

Dean's Office Staff

Carol Binello returned to the CLAS dean's office in June after a one-year leave of absence. Carol will resume her duties as the dean's administrative assistant, which include organizing CLAS functions, maintaining college programs, and collecting and analyzing data related to CLAS. During the last year, Carol was with her family in North Carolina, and she worked as a special education teacher for middle school kids.



Laura Griffis, CLAS publications coordinator, is leaving the dean's office in August to attend graduate school at the New School University in New York City. Laura has been at UF since last summer and has managed the CLAS publications

unit. She will pursue a MS in urban policy analysis and management and has received a two-year graduate fellowship through the Peace Corps Fellows Program. Laura was a Peace Corps volunteer in Africa for several years before moving to Gainesville and working in CLAS. Dean Neil Sullivan says, "Laura has helped bring a new tone to *CLASnotes* and other college publications with wider



and more probing coverage of college life, highlighting especially the work of our students and staff in addition to faculty members. Her emphasis on human-interest stories and the accomplishments of those who make true differences in the lives of others has set a new standard for CLAS publications. We will miss her as a member of our college team and wish her every success in the Big Apple."

NEH/DRP - Summer Stipends

The Division of Research Programs (DRP) of the National Endowment for the Humanities (NEH) is accepting nominations for its 2002 Summer Stipend awards. Interested faculty should contact the Division of Sponsored Research's program information office, 392-4804, for details. Applications are available on the NEH website <www.neh.fed.us/grants/onebook/fellowships.html> and should be submitted to the Campus Research Awards Committee, 223 Grinter Hall by 4:30 pm, September 5. Final nominated applications are due at the NEH on October 1.

Acknowledgment: In the article titled "Seeking Zora," which was written by Irma McClaurin and appeared in the April 2001 issue of *CLASnotes*, the correspondence between Zora Neale Hurston and Langston Hughes was used with the kind permission of the Estate of Zora Neale Hurston.

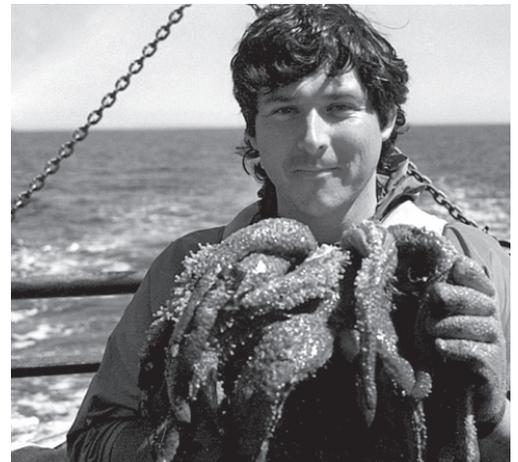
In Memory

Dr. Larry McEdward 1955-2001

Zoology Professor Larry McEdward passed away on July 2 in Montana. A memorial service will be held at 3:00 pm on Saturday, August 18 at the Unitarian Universalist Fellowship in Gainesville.

McEdward had been an associate professor of zoology at UF for the last 12 years, and his research focused on marine larval biology. He won a UF teaching award and was a member of numerous professional organizations.

Survivors include his wife, Deborah, and his two daughters, Maris and Lari. Instead of flowers, his family requests that donations be made to the Marine Science Fund, Friday Harbor Labs, 620 University Road, Friday Harbor, WA 98250.



Larry McEdward in northern Puget Sound with *Pycnopodia helianthoides* or sunflower starfish (1999).

Read *CLASnotes* online at <web.clas.ufl.edu/CLASnotes/>

CLAS Awards

Clogg Scholarship Winners

Political Science PhD candidates **Ryan Bakker** and **Emilia Gioreva** each received a Clogg Scholarship to support their study at the Inter-University Consortium For Political and Social Research (ICPSR) Summer Program in Quantitative Methods. The program offers a comprehensive, integrated series of studies in research design, statistics, data analysis, and social methodology for eight weeks at the University of Michigan. The Clogg Scholarship is a highly competitive award, which was given to nine advanced graduate students this year in PhD programs across the country.

Bakker's research focuses on the European Union, specifically the European Parliament and the role of political parties in European integration. Prior to attending the summer program, Gioreva was conducting field research in Ecuador for her dissertation on the problems of peasant communities in Southwest Ecuador.

Political Science Professor **Jeff Gill** has taught at the ICPSR summer program for the last two years, and **Melanie Wakeman**, a doctoral candidate in sociology, was also selected to participate in the program this summer.

Student Competes on Millionaire Show

History doctoral student Jason Parker won \$125,000 on an episode of "Who Wants to be a Millionaire?" that aired in June. Parker, who competed in four rounds of "Jeopardy" in 1999, was stumped when Regis Philbin asked him the origin of the word "Nintendo." Having already used his three lifelines, Parker chose not to risk his earnings with a guess. He walked with his \$125,000 check, of which he will net about 60 percent. He says he will use the money to pay bills and plan for his 2-year-old daughter's education.

AIM Program Nationally Recognized

Several Academic Advising Center advisors recently received national recognition for their work with the AIM advising program. The National Academic Advising Association (NACADA) has awarded the program a certificate of merit for being an outstanding institutional advising program. The AAC advisors who work with the AIM program are Shekela Joiner, Kathy Rex, Reggie Tolbert, and LaCusia Washington.

The Achievement In Mainstreaming (AIM) program's mission is to assist at-risk students with their transition into a higher education institution. AIM provides a structured curriculum, academic advising, and additional support services designed to improve students' successes during their time at UF. AIM students agree to participate in mandatory advising, and advisors discuss students' progress, performance, personal concerns, and university resources in individual counseling sessions. At the end of each semester, the AIM advisors review the students' progress and encourage them to reflect on their career goals.

AIM Director Dana Peterson says the award honoring the advising part of the AIM program is well deserved. "Since NACADA is the leading association for academic advisors in the US, this recognition is a great honor indeed. It is just further proof of what those of us who work with the CLAS academic advising team already know: that Kathy, LaCusia, Reggie, and Shekela are truly dedicated, student-centered advisors who extend their efforts far beyond our wildest expectations."

The AIM advisors will be honored at the special awards presentation and reception being held during the annual NACADA conference in Ottawa, Ontario in October.

Student Scholarship Awards in Aging

The Center for Gerontological Studies, the Institute on Aging, and Leighton E. Cluff, MD are sponsoring student scholarship awards for research on older adults and the aging process.

Awards: For best paper in the graduate/professional category (\$1200) and undergraduate category (\$600).

Eligibility: Undergraduate, graduate or professional students enrolled at UF.

Topics: Research studies, scholarly reviews or essays related to late life, aging and/or older citizens.

Submission: By September 17, 2001. For further information visit <www.aging.ufl.edu/stuaward.htm> or contact Robin West at 392-2116; <rwest@geron.ufl.edu>.



Baha'i Award Winners

Three CLAS professors recently received the Baha'i Award for Excellence in Education. (Pictured left to right) G. Zohorah Simmons (Religion), Debra King (English), and Paul McLoughlin II (Academic Advising Center) were honored at a ceremony in April. The award recognizes faculty who have had an impact on students' lives through their creative teaching. Students nominate teachers in grades K-20, and the Nur Baha'i Center of Gainesville recognizes the winners at an annual ceremony in which the students speak about their professors. This year 20 local teachers received the honor.

A Letter From Abroad

Last year, Newman Nahas, who graduated with his bachelor's degree in English in May 2000, became UF's first Rhodes Scholar in over 20 years. The prestigious Rhodes scholarships, created in 1902 by the will of Cecil Rhodes, a British philanthropist and colonial pioneer, are the oldest international study awards available to American students. We first introduced Nahas in the March 2000 issue of *CLASnotes*. He has been at Oxford University since last October and recently wrote a letter to a friend describing his experiences over the last year. The following is an excerpt from that letter.

I have been studying the history and doctrine of the Christian tradition, primarily as it is found in the east. By "east," I mean such regions as Asia Minor, Syria and Mesopotamia. While western (Latin) expressions of Christianity have rightly received thorough attention from scholars, the same is not true of their eastern counterparts—despite the fact that Christianity had its origins in the Near East. For example, a good deal of Christian literature that was composed in a certain Aramaic dialect known as Syriac remains untranslated and unstudied. (I should mention that Aramaic is the primary language that Jesus spoke.)

I am cherishing the opportunity to work under one of the world's greatest Syriac scholars, S.P. Brock, and to study this ancient language and its exciting literary corpus. My hope is to contribute to a more comprehensive understanding of the history of Christianity, one that is indeed more sensitive to the contributions of the Christian East.

I am also work-

ing with one of the world's foremost experts on the Greek-speaking Christianity of the Byzantine Empire, K.T. Ware. While not as understudied as Syriac Christianity, the Christianity of the Byzantine world nevertheless suffers from having long been interpreted through Western categories of thought that are not indigenous to it. The nuances of its history have been distorted to fit the conceptual cookie cutter of the western historian. Dr. Ware has done a great deal to counteract this trend.

Overall, my experience here has been surreal. I still feel as though I've just arrived (and that is not just because I still haven't fully unpacked!). I have met some incredible people, off of whose friendship and enthusiasm I constantly feed. All in all, my enchantment with Oxford has not worn off. I still walk around gazing happily at the beautiful buildings, and I continue to find great delight in the inexhaustible resources of the Bodlian library.

I realize, however, that every place can

become commonplace. And Oxford is no exception. The Stoics were on to something. You mustn't rely too heavily on externals for your inner contentment. Contentment is a property that must flow from something more fundamental. One such more fundamental thing that my supervisors have taught me, more indirectly than formally but which I shall never forget, and which I think has made my trip worthwhile, is the importance of "wonder." For the first time in my life, I feel as though I really understand what Plato meant when, in the *Theaetetus*, he wrote, "The beginning of philosophy is to feel a sense of wonder." Life is boring without wonder;

there is no discovery, no joy without wonder.

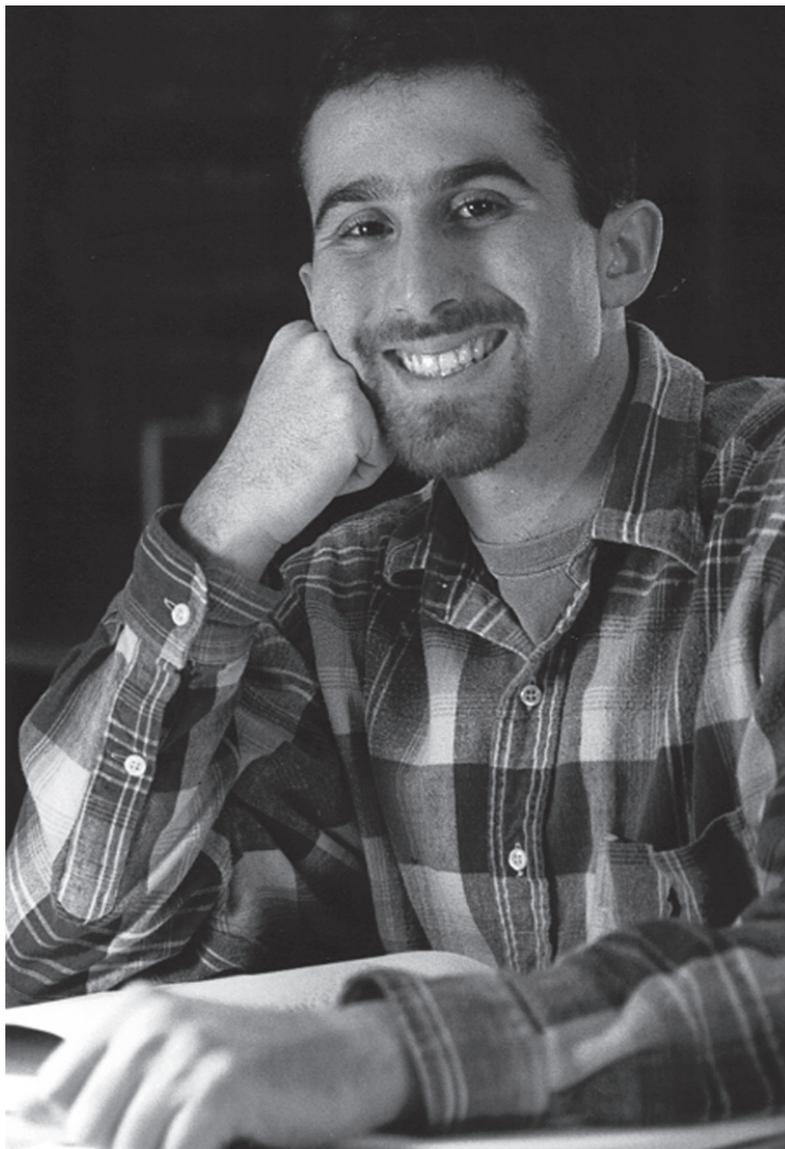
The true scholar must not learn to see through things, to explain them away—but rather, to delight in them, to render them near. The ideas and especially the persons I have encountered here at Oxford have indeed evoked this sense of wonder. But what this experience has also taught me is that Oxford has no monopoly on wonder. The Desert Monks of 4th-century Egypt were right in teaching that "If you can't find peace and joy in your small monastic cell, you won't find it anywhere."

I don't know when I'll return to the US. I will surely visit next Christmas. Otherwise,

I know that I'll be in England for at least two years, if not more.

I spent two weeks of my spring break in Russia, thanks to the Rhodes Trust, and visited historic Russian Orthodox monasteries, churches and pilgrimage sites. I am planning to make a similar trip this summer to Greece and Syria. The Rhodes Scholarship gives us the option to continue for a Doctor of Philosophy after we finish our initial two-year degree, which I hope to do. I also hope to spend a year or so in the Middle East pursuing some research ideas. I am in no hurry. I am rather enjoying my time here.

—Newman Nahas



Becoming Dean

An interview with Neil Sullivan

On June 6, Neil Sullivan, interim dean and professor of physics, was appointed by Provost David Colburn to serve as dean of the College of Liberal Arts and Sciences. His appointment, which officially began on July 1, came after a nine-month search that was initiated following Will Harrison's retirement from the post last summer after twelve years of service.

Sullivan earned both his bachelor and master degrees of science from Otago University in New Zealand in 1964 and 1965, respectively. He went on to receive his PhD in physics from Harvard University in 1972, after which he did a post doc at the Centre d'Etudes Nucleaires in Saclay, France. Sullivan then spent nine years as a physicist at the Centre d'Etudes Nucleaires before coming to UF in 1982. He served as chair of the physics department from 1989-99, until becoming associate dean of research for the college, a position that he held until he was appointed interim dean when Harrison stepped down.

In early July, Sullivan spoke with *CLASnotes* editor Laura Griffis about his new position and his vision for the future.



How do you understand your role as dean of the college?

The dean sets, ultimately, the tone, the level and the standards of inquiry for the college. Universities throughout the world are changing rapidly in terms of curriculum, the ways that they reach out to the community outside the university, as well as how they train and teach their students about the pursuit of knowledge. The levels of excellence that a particular unit can aspire to in all of these areas must be defined and promoted by the leadership inside that unit, and it is the dean's job to make sure those goals are both well defined and achievable on a workable time scale.

What are some of the goals that you hope to accomplish as dean?

My primary goal is to change the national perception of our college into an institution that ranks in the top 10 of all public institutions in the country. In some areas of the college we are almost at that level, and other areas have great potential. We have put outstanding faculty and programs in place, now we have to build them to a level of excellence where they compete with other top institutions.

My strategy is to choose particular areas where UF can be unique, build on those strengths, and rise to international eminence. We have done that in our current collaboration with Spain to build the Gran

Telescopio Canaris and, to a certain degree, with the environmental sciences and the new Land Use and Environmental Change Institute. I am also impressed with the analytical aspects of bioinformatics where a number of our programs have drawn interest in the last few years. There are particular elements of the humanities that have real strength and national eminence, and we need to focus on those and raise them to a higher level of national visibility. The goal for the nascent Center for the Humanities is to build a new mode of inquiry focusing on the intersection of the humanities in the public sphere. The center will draw great scholars, humanists, poets, and philosophers who will provide a catalyst for expanding our programs to a new level.

It is very important in all areas of intellectual pursuit—whether it be in the sciences, social sciences, or humanities—that we have a flow of scholars into the university to give students and faculty members the opportunity to interact with the most creative and accomplished individuals in their fields. Therefore, we need to find ways to build all of our programs so that they attract international leaders in a wide variety of fields.

What are the biggest challenges that are facing CLAS at this time?

We must realize that in order to move forward, we have to generate the drive and the financial resources ourselves. The time when research initiatives and

scholarly endeavors could depend on state support has passed. We must seek out resources and support from the private sector, from research foundations, and from philanthropic foundations that support new initiatives. Being awarded such support is a mark of achievement in and of itself. If we are able to compete with top institutions and if we are perceived as one of the best, we will be able to draw support from these foundations.

Are you expecting that the change in the system of governance is going to affect your job?

Yes, it will. First of all, there are going to be a number of new endeavors that we want to undertake and programs that we want to build. Rather than having to seek approval from the state university system to develop these initiatives, it will now be to our own local board of trustees that we go to seek approval.

Second, I think there could be a vast improvement in the morale of our faculty and students. Their confidence in their ability to develop a new path for the university could dramatically increase. With a new degree of independence, we will be given the opportunity to develop our own intellectual identity. I think faculty and students will respond to this opportunity for leadership and the invitation to strive for excellence. Our alumni and supporters will also respond because this is a chance for UF to develop its own mark.

The change of governance

will give us the opportunity to be independent, to choose the areas in which we want to be bold, and to actually make significant changes to programs that we want to develop. This independence also provides a challenge: it means that we will have to be creative and resourceful to find the funds and support to achieve our goals.

How would you describe your style of leadership?

I like to work with people on an equal basis, whether they are staff, faculty or students. I strive to encourage people who work with me on projects to feel like they are part of a team and all have an equal say. I do not think you can succeed by imposing ideas on others. You have to try to bring people to collective decisions and proceed forward as a unit so that everyone is on board with the major projects that you want to accomplish. At the end of the day, the thing that counts is what the best ideas are, not just who had them.

What is your five-year vision for CLAS?

There is no doubt that UF is changing. The changes will sometimes appear to be occurring very slowly, and on other occasions they will appear to be occurring quite rapidly. If we seize these moments of change, make the right choices, and put tremendous energy into developing our strengths, the college will move forward significantly.

I think in five to ten years time, UF will be more international in character. It will become an intellectual watering hole for the southeast in a way that we have not seen before. Our position with respect to other intellectual centers in the US will change. Research and scholarly activity will develop in areas that reflect how our college is unique and where we are leading the world in certain fields. Naturally, our programs will then increasingly attract world-renowned scholars. I think you will see the whole character of the university change.

“You have to try to bring people to collective decisions and proceed forward as a unit so that everyone is on board with the major projects that you want to accomplish. At the end of the day, the thing that counts is what the best ideas are, not just who had them.”

Equity in Academia: Where Are Women in Chemistry?

Although women have made significant contributions to the sciences over the last few decades, they still have earned only 25% of all PhDs in science during the last 30 years, and today fewer than 10% of full professors in the sciences are women.¹ Female scientists face problems in academia that are unique to women, and, even though more women than ever before are entering graduate programs in chemistry, academia is losing many of them to industry.

A recent survey conducted by *Chemical and Engineering News* of the top 50 universities in chemistry (departments identified by the National Science Foundation as having spent the most money on chemical research in 1998) found that overall women hold 10% of tenure-track positions in chemistry. Females account for only 6% of full professors, 21% of associate professors, and 18% of assistant professors. At UF, four out of 46 tenure-track positions in chemistry, or 9%, are held by women. Rutgers University topped the list with 26% and Arizona State and SUNY Buffalo rounded out the bottom with 3%.²

The road to a career in academia has changed over the years. Analytical Chemistry Professor Vanecia Young has taught at UF since 1984 and has seen many changes take place in the hiring process for new faculty. “When I applied for my first academic position at Texas A&M in 1978, I had about eight publications listed on my resume. Today, that number is considered low. Most candidates have completed a post doc and might have 20 or 30 research articles already published when they apply for junior faculty positions. We are expecting people to do more in order to get here.”

Even if a chemistry department actively recruits females and other minorities, the applicant pool does not always support the department’s efforts. Chemistry Chair David Richardson explains, “This is an area where we are working diligently but not as successfully as I would like. We ran five searches over the last year, and overall the pool of applicants had very few females. However, in each search, the committees were instructed to actively encourage female applicants and focus carefully on the cases of those females that did apply. Despite the low proportion of females in the applications received, it is my hope that we interview female candidates for every position.” Richardson says one idea for encouraging more women to apply for positions at UF is to invite more

junior and senior female chemists from other institutions to participate in various seminar programs here, so they will have increased visibility outside of the search process.

One of the possible reasons for a low female applicant pool involves what scientists often call the “two-body problem.” A survey compiled by the American Chemical Society (ACS) last year found that 24% of female academic chemists are married to or partnered with a fellow chemist, and another 20% are married to or partnered with a non-chemist scientist.³ Three of the four tenure-track female faculty in chemistry at UF are married to a fellow scientist. Valeria Kleiman joined the chemistry department in January of this year, and her husband, Adrian Roitberg, is also on the faculty. She says her husband’s job offer played an important role in her decision to come to UF. “Adrian and I are fairly unique because we have never lived apart. We’ve chosen to make this a priority for us, and fortunately it has worked. But it is not this way for everyone.”

Finding the balance between working and starting a family is another issue many women face at an early point in their careers. Universities, however, tend to be slower than private industries in establishing family-friendly practices such as shared jobs, extended maternity leaves, and on-site childcare facilities.¹

According to the ACS survey, far more women than men work part-time because of family responsibilities; 28.5% of female academic chemists reported taking at least a 6-month hiatus, compared to 11% of academic men. The reasons for these breaks in employment differed greatly for women and men: 58% of women, compared to only 1.4% of men, reported childcare or maternity or paternity leave as their reason for taking time off.³

Because there is a demand to produce research and publish widely during the first five years of a professorship, women who want to have children must plan carefully. Kleiman says, "I decided to have my child during the end of my PhD work because I did not want to wait until after I got a position and then had to work towards tenure." Lisa McElwee-White, an organic chemistry professor and CLAS associate dean, had her first child while still on the faculty at Stanford University. "If you go straight through your course work, get a PhD when you're 26 or 27, do postdoc work for another two to three years, obtain a position at a university and work for four or five years to get tenure, then, by the time you're able to start a family, you could easily be 35 years old, the age of which pregnancy risks increase."

Even though many universities have a policy that allows a junior professor to take time off during the first few years or her or his appointment and basically stop the tenure clock for a brief period, the general consensus is that departments do not look favorably upon a professor who opts for the delay. Several faculty members at UF and around the country suggest changing the system so that the first years of a professorship are somewhat easier on new faculty. Instead of assigning new faculty several large classes or labs, for instance, a university could allow more time for research and also delay the tenure process in some cases. Young supports these suggestions, but says there is another school of thought some faculty may choose to maintain. "It's the mentality of 'We made it through, why can't you?' They feel new faculty should have to face the same hardships they did and not be given any breaks."

The freedom to do research and to work with fresh young minds underline the main reasons chemists say they choose to work in a university setting. Anna Brajter-Toth, who in 1983 became the first female professor in the chemistry department, comments, "In



Chemistry Professor Valeria Kleiman (*left*) and graduate student Evrim Atas assemble instruments for their laser research.

academia, I am able to explore the new ideas I develop, and working with students also contributes to my desire to stay in this environment. They are constantly questioning concepts in science, and by teaching them, I am learning new ways to think about my own research." Valeria Kleiman agrees, "The main reason I chose academia is because of the presence of students and the constant challenges they present me with. I think I could run the same experiments here and in a national research lab, but at UF I have students around whose questions are one of the main sources of my intellectual growth."

Independent research and teaching, however, sometimes do not serve as strong enough incentives for graduates with advanced degrees to remain in academia. Junior faculty positions at research universities are typically filled from the ranks of postdoctoral associates. The majority of UF's graduate students are choosing not to apply for these positions. "Industry continues to be the principal employer of our graduates," remarks Richardson. "I have also seen many of our graduate students go to primarily undergraduate institutions to teach, but relatively few end up in research universities.

-See *Equity in Academia*, page 10

On the Cover: Chemistry graduate student Keisha-Gay Hylton checks her experiment's solvent as it dries over molecular sieves.

Equity in Academia, continued from page 9

This is the norm for virtually all chemistry departments.”

Even though admissions of females to the graduate program in chemistry at UF have ranged from 42 - 50% of all admissions over the last three years, Kathryn Williams, an associate scholar in chemistry who teaches lecture courses and supervises undergraduate labs, says women need more encouragement if they are going to pursue a career in academia. “We need our female professors to serve as mentors for the female graduate students, and we must encourage those graduate students to give female undergrads practical advice and empowerment to continue in chemistry.” Kleiman agrees, “The only way we’re going to get more women in academia is to encourage them to pursue science at much younger ages. It starts with teaching young girls in grade school basic scientific concepts to spark their interest. Then we have to continue encouraging them at the undergraduate, graduate, postdoc, and faculty levels so they will start the cycle again.”

McElwee-White points out that when she was in graduate school, industry was viewed as the safe route to take, while a career in academia had a more cutthroat reputation. “Even



Lisa McElwee-White's research group. From left to right: Lisa McElwee-White, Betsy Smith, Ben Brooks, Keisha-Gay Hylton, Corey Anthony (top), Maggie Zhang (bottom), Ying Yang and Gilbert Matare. Not pictured: Ilicia Shugarman and Daniel Serra.

though things are changing and industry isn't as stable as it used to be, the majority of students in my research group over the last five years have chosen to go into industry. While there might not be the same level of research freedom, sometimes there are better salary benefits and working environments in business. So the problem is not necessarily the lack of women earning advanced degrees in chemistry, but convincing them to stay in academia.” Keisha-Gay Hylton, a graduate student in McElwee-White's group, says even though she enjoys lab work, she is leaning towards a position in the pharmaceutical industry. “I like the university setting, and I'm grateful for the opportunity to learn from Lisa and other faculty who are working on cutting edge research. Eventually, however, I want to leave the laboratory and go into a diversified area such as management, administration, or patent law. I think there are more opportunities there for advancement in those areas.”

Many studies and statistics show that the tenure system, abolition of mandatory retirement, and cost-cutting measures at universities have made it difficult for women and minorities to reach leadership positions in academia. However, many faculty believe that once universities make a commitment to change, significant advances are possible. And while

statistics and reports often focus on the disadvantages women face in science, McElwee-White maintains there is at least one distinct advantage. “When a group of chemists are together at a conference, and a female voice asks a question, everyone in the room turns around to see who is speaking. Also, when you publish a paper, and your name is obviously the only female author, people remember it.”

Perhaps Anita Borg, founder of the Institute for Women and Technology at the Xerox Palo Alto Research Center captures the essence of why equity is important. “There are a lot of very sane people who are beginning to understand that if technology and science are going to go forward with wild creativity, we need the brilliance of more than a narrow group of people. We need women—all kinds of women.”¹

—Allyson A. Beutke

Balancing the Equation

- Women science PhDs are more likely than their male counterparts to come from liberal arts institutions.
- African American women earn proportionally more science and engineering undergraduate degrees than African American men. The same is true for Latinas and Native American women compared to their male peers, but does not hold true for white and Asian women.
- A study by Wellesley College found that the opportunity to conduct research was a significant factor in a woman's decision to remain with a science major. However, studies conducted by the University of Florida and Carnegie Mellon found that women tend to enter scientific fields with a focus on helping people, rather than pure research.
- Among science, math and engineering faculty, women tend to teach at more junior levels than men and are less likely to be tenured. The salary gap between male and female faculty increases with age.
- Women constitute 45% of the workforce in the US, but hold just 12% of science and engineering jobs in business and industry.
- Contrary to the popular perception that women scientists leave academia because of demands at home, most remain continuously employed after completing their training.

Facts from “Balancing the Equation: Where are Women and Girls in Science and Technology?” a report released in July by the National Council for Research on Women (NCRW). The University of Florida's Center for Women's Studies and Gender Research was recently invited to join the NCRW and contributed to the report.

1. *Balancing the Equation: Where are Women and Girls in Science, Engineering, and Technology?*, a report from the National Council for Research on Women, July 2001.
2. *Chemical and Engineering News*, Vol. 79, No. 30 (September 25, 2000).
3. *Women Chemists 2000*, a report from the American Chemical Society, August 2000.

Ron Akers New Associate Dean

Ronald L. Akers, professor of sociology and criminology and a 1998-2001 UFRF Professor, is the new associate dean for faculty affairs. Akers is replacing Joe Glover, who is now associate provost for Academic Affairs in Tigert.

"We are all very pleased and most fortunate to have Ron Akers join our ranks of associate deans," says Dean Sullivan. "Ron's dedication to the university and its faculty, students and staff, as well as his insistence on high standards in all our areas of activity will be a tremendous asset to the college."

Akers earned his PhD in sociology from the University of Kentucky in 1966 and joined the UF faculty in 1980. He served as director of the Center for Studies in Criminology and Law from 1994-2001, chair of the Department of Sociology from 1980-85, and graduate coordinator in sociology from 1988-92. Over the years he has been a member or chair of many committees and task forces in the college and university, including chair of the College Tenure and Promotion Committee and president pro-tem of the CLAS Assembly.

Akers is a leading criminological theorist, best known as one of the original authors and the principal proponent of social learning theory in the sociology of crime and deviance. His research over the past three decades has focused on developing and testing that theoretical perspective. His numerous publications include *Drugs, Alcohol and Society* (1992), *Social Learning and Social Structure: A General Theory of Crime and Deviance* (1998), and over 75 chapters and articles in major criminology and sociology journals.

I am grateful to Dean Neil Sullivan for the opportunity to serve in my new position as associate dean for faculty affairs in CLAS. I also want to thank the many colleagues who have directly expressed best wishes and support.

The position carries with it responsibilities in the areas of tenure and promotion, faculty salaries and raises, enrollment management, working with chairs and directors, faculty and student grievances, and other areas related to faculty. My goal is to support and facilitate CLAS departments, centers, and programs to do the best they are able with the available resources in each of these areas. These are important and challenging duties, and I am committed to doing the very best and fairest job I can in carrying them out. At times I will have to be hard-headed in making difficult decisions, but I will strive never to be hard-hearted.

As many of you know, I have been in the college



for a great many years, and I have seen the remarkable strides that, collectively, we have made. I want to do all I can to continue that progress. We are now entering a very crucial time in the life of the college and the university. The restructuring of the overall governance of the state universities and the way this will be carried out at UF, other recent legislative and gubernatorial initiatives that directly affect the functioning of the university, new and tighter budgetary constraints, and

other changes of historic proportions mean that great challenges await us not only in the immediate future, but in the long term as well. I hope I am able to play a positive role in the way CLAS meets these challenges and finds opportunities in them. Given the centrality and importance of CLAS in the university, how we respond will go a long way toward determining how the whole university responds.

—Ron Akers

Faculty Senate

Thirty two CLAS faculty members are currently serving two-year terms on the UF Faculty Senate. The Faculty Senate is the legislative body of the university and provides a forum for the exchange of ideas between the administration and faculty. The university constitution assigns legislative power to the senate on matters that involve more than one college or school, and on matters of general university interest. These issues include the educational policies of the university, the creation and abolition of new degree programs, criteria for faculty appointment, promotion and tenure, recommendations of candidates for honorary degrees, the university calendar, and academic regulations affecting students. The next meeting of the Faculty Senate will be Thursday, September 6 from 3-5 pm in the Reitz Union, room 282.

Elected for the Term 2000-2002

Beverly Brechner, Mathematics	Terry Mills, Sociology
H. Jane Brockmann, Zoology	Ranjini Natarajan, Statistics
Ira Clark, English	Hal Rennert, Germanic and Slavic Studies
David Drake, Mathematics	John Sommerville, History
Richard Hiers, Religion	Grant Thrall, Geography
Gary Ihas, Physics	Robert Wagman, Classics
Patricia Kricos, Communication Sciences and Disorders	Dennis Wright, Chemistry

Elected for the Term 2001-2003

Nora Alter, Germanic and Slavic Studies	Robert McMahon, History
Tom Auxter, Philosophy	Paul Mueller, Geological Sciences
Cynthia Chennault, Romance Languages and Literatures	Gerald Murray, Anthropology
Walter Cunningham, Psychology	John Oliver, Astronomy
Kim Emery, English	Milagros Pena, Sociology
John Eyler, Chemistry	Jon Reiskind, Zoology
Pamela Gilbert, English	Connie Shehan, Sociology
Anthony LaGreca, Sociology	Sam Trickey, Physics
	Bernard Whiting, Physics

Renovations

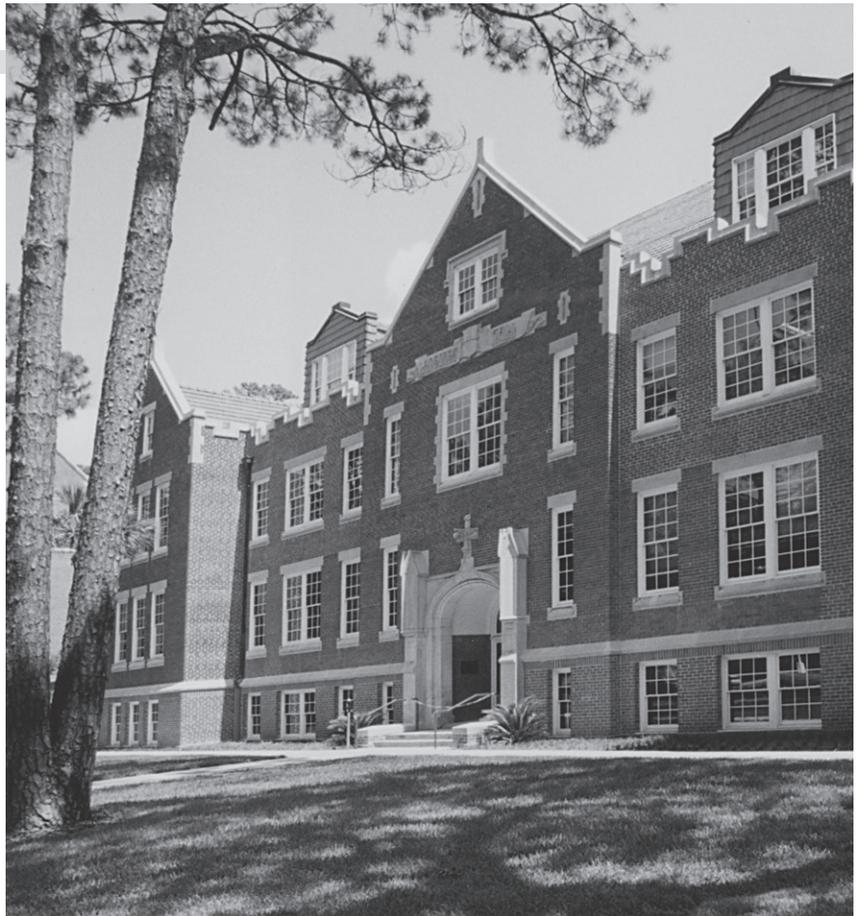
Classic architecture revived



Above: The grand entry to Keene-Flint Hall awaits the final touches. Below: Anderson Hall's main stairwell is refinished and brought up to modern safety codes.



Right: Until recently, the conference facility in 215 Dauer was a storage area. It now sports a 20-person conference table, and will soon have a state-of-the-art projection system with a multiregion DVD/VCR player capable of playing foreign language material.



Above: When Anderson Hall opened in 1906 it was known as Language Hall. It originally housed classroom space and offices for history, languages, classics, and mathematics. Now that renovations are complete, it has eight classrooms and is the new home of the political science and religion departments.



Grants *through the Division of Sponsored Research*

Investigator Dept. Agency Award Title

May 2001 Total: \$1,748,447

Corporate.....\$300,398

Lieberman, L.	ANT	FI Clinical Practice Assn	12,954	Center for research on women's health.
Katritzky, A.	CHE	Multiple Companies	3,197	Software research support.
Katritzky, A.	CHE	Multiple Companies	1,090	Miles compound contract.
Katritzky, A.	CHE	Multiple Companies	1,341	Miles compound contract.
Katritzky, A.	CHE	Nippon Soda Company	145,602	Collaborative work in heterocyclic chemistry.
Katritzky, A.	CHE	Upjohn Company	38,182	Upjohn service contract.
McElwee-White, L.	CHE	AM Chemical Society	10,000	American chemical society division of organic chemistry fund.
Reynolds, J.	CHE	Agfa-Gevaert	86,032	Dioxythiophene polymers: new routes and new materials.
Richards, N.	CHE	Ixion Biotechnology	2,000	Miscellaneous donors account.

Federal\$1,309,055

Kolokolova, L.	AST	NASA	89,334	Complex silicate grains with sublimating mantles.
Gustafson, B.				
Lebo, G.	AST	NASA	8,000	Spanish version of <www.science.nasa.gov> website.
Sarajedini, V.	AST	NASA	22,470	Illuminating the galactic dark matter.
Benner, S.	CHE	NASA	39,690	Grand challenge.
Benner, S.	CHE	NIH	308,548	Non-standard base pairs as biomedical research tools.
Duran, R.	CHE	NSF	74,650	The US-France REU site in chemistry.
Scott, M.				
Reynolds, J.	CHE	US Army	113,705	Electrochromic adaptive infrared camouflage.
Tanner, D.				
Henretta, J.	GERON	NIH	31,717	Health and retirement study.
Alladi, K.	MAT	NSF	36,361	Some problems in the theory of partitions and q-series.
Klauder, J.	PHY	NSF	34,438	Affine quantum gravity.
Mitselmakher, G.	PHY	NSF	101,000	Application of newly-developed high-precision measurement techniques.
Reitze, D.				
Reitze, D.	PHY	NSF	113,700	Methods & instrumentation for high precision characterization of LIGO optical components.
Tanner, D.				
Sabin, J.	PHY	NSF	92,403	Theoretical treatment of environmental effects on spectra and chemical reactivity.
Tanner, D.	PHY	US Army	56,515	Electrochromic adaptive infrared camouflage.
Devine, D.	PSY	NIH	84,854	Self-injurious behavior: identification of molecular markers.
Vollmer, T.	PSY	NIH	90,352	Laboratory evaluations of a common behavioral treatment.
Vanhaaren, F.				
Carter, R.	STA	DOE	7,458	Creation of an educational data warehouse for assessing student gains.
Hutson, A.	STA	NIH	3,860	Mitochondrial encephalomyopathies and mental retardation.

Miscellaneous.....\$138,994

Dermott, S.	AST	Miscellaneous Donors	3,760	University of Florida—Royal Institute of Technology, Stockholm fellowship.
Brenner M.	GEO	S FL Water Mgmt Dist	79,050	Investigation Of long-term Stability And Phosphorus Accretion By An Aquatic System.
Hodell, D.				
Golant, S.	GEO	FI Housing Finance Corp	9,700	Statewide rental market study.
Mueller, P.	GEO	UF Foundation	2,000	Allocation for personnel & miscellaneous expenses.
Emmel, T.	ZOO	Miscellaneous Donors	19,500	Unrestricted donation.
Guillette, L.	ZOO	FL Fish & Wildlife Consvr	24,984	Establishing comprehensive monitoring of reproductive endocrine health in the endangered Florida manatee.
Larkin, I.				

June 2001 Total: \$4,053,667

Corporate.....\$598,280

Oliver-Smith, A.	ANT	Intermediate Tech Dev Group	13,000	Year 2: ENSO disaster risk management in Latin America.
Harrison, W.	CHE	Leco Corporation	51,600	Microsecond pulsed glow discharge phase V.
Katritzky, A.	CHE	Merck and Company Inc	27,517	Merck and Company custom synthesis agreement.
Mitselmakher, G.	PHY	Fermilab	502,649	US CMS endcap MUON research project—FY 2001.
Korytov, A.				
Mitselmakher, G.	PHY	Fermilab	3,514	US CMS endcap MUON research project—FY 2001.
Korytov, A.				

Federal\$3,410,496

Mulligan, C.	ANT	NIH	94,958	Genotype: phenotype associations in alcoholism and alcohol-related disorders.
Boinski, S.	ANT	NSF	67,599	Ecological bases of social behavior in capuchins: a three-way comparative study.
Oliver-Smith, A.	ANT	EPA	9,550	Incorporating local knowledge and natural resource usage into South Florida ecosystem restoration.
Lada, E.	AST	NSF	161,401	Investigation of the formation and evolution of stars in young embedded clusters.
Angerhofer, A.	CHE	NSF	47,000	Consortium for the acquisition of a w-band electron magnetic resonance spectrometer.
Benner, S.	CHE	NASA	148,851	Darwin chemistry (astrobiology).



Physicist Wins DOE Award

Darin Acosta, assistant professor of physics, received an Outstanding Junior Investigator Award from the US Department of Energy. Only five to ten such awards are given each year, making it a special honor.

Acosta's area of research is high-energy particle physics, and the title of his proposal is "Search for Fundamental Scalar Particles at Hadron Colliders." The grant will allow Acosta and his research group to conduct searches for new physics using the Collider Detector at Fermilab experiment (CDF) in Chicago and the Compact Muon Solenoid experiment (CMS) at the European Center for Nuclear Research (CERN) in Geneva,

Switzerland. Acosta will use the award to support graduate and postdoctoral students who are working on his research program involving the CDF and CMS experiments.

Acosta remarks on the enormity of the CMS experiment, for which his group is developing hardware; "'Compact' is a misnomer. The experiment will be five stories tall, weigh over 12,000 tons, and contain enough steel to build the Eiffel Tower. The magnet for CMS will be the largest ever built, and the energy stored in it is the same as the kinetic energy of a 747 in flight! It's ironic that to look at the smallest things in nature we need the biggest machines."

Dolbier, W.	CHE	NIH	47,230	PETR imaging of hypoxic tissue with EF1 and EF5.
Duran, R.	CHE	US DOE	59,441	Operations funding for the material research collaborative access team.
Hudlicky, T.	CHE	NSF	26,206	Biocatalytic conversion of aromatic waste into useful compounds amaryllidaceae alkaloids and oligo inositols.
Martin, C.	CHE	NSF	141,649	Ultratrace chemical analysis with nanotubule membranes fundamental studies.
Reynolds, J.	CHE	US Army	25,017	Electrochromic adaptive infrared camouflage.
Tanner, D.				
Richards, N.	CHE	DOH	173,945	Synthesis and characterization of asparagine synthetase inhibitors.
Talham, D.	CHE	NASA	52,972	The features of self assembling organic bilayers important to the formation of inorganic materials.
Talham, D.	CHE	NSF	138,678	Supramolecular assembly at interfaces: coordinate covalent networks and polygons at the air/water interface.
Yost, R.	CHE	NASA	22,000	High performance mass spectrometry with a miniature ion trap for biological and environmental monitoring.
Parker, K.	CRI	US DOJ/NIJ	37,847	Gender, work and urban violence: estimating the direct and indirect linkages between the economic transformation.
Binford, M.	GEO	NASA	33,333	Land-use and land-cover change: decadal-scale dynamics of land ownership land management and carbon storage patterns.
Gholz, H.				Asymptotic topology of metric spaces.
Dranishnikov, A.	MAT	NSF	31,186	Task B: research in theoretical and experimental elementary particle physics.
Avery, P.	PHY	US DOE	273,667	
Yelton, J.				
Avery, P.	PHY	US DOE	35,850	Task S: computer acquisition for research in theoretical and experimental high energy physics.
Yelton, J.				
Field, R.	PHY	US DOE	23,543	Task F: CDF/phenomenology.
Hebard, A.	PHY	NSF	94,256	Luttinger-liquid phase induced by ultraquantum high magnetic fields.
Maslov, D.				
Konigsberg, J.	PHY	US DOE	182,608	Task H: experimental research in collider physics at CDF.
Mitselmakher, G.				
Mitselmakher, G.	PHY	US DOE	441,623	Task G: experimental research in collider physics at CMS.
Korytov, A.				
Mitselmakher, G.	PHY	NSF	560,856	Detection of gravitational waves: advanced research and development for LIGO.
Reitze, D.				
Ramond, P.	PHY	US DOE	352,325	Task A: research in theoretical elementary particle physics.
Sikivie, P.				
Spector, A.	PSY	NIH	23,643	The psychophysics of salt taste transduction pathways.
Geran, L.				
Casella, G.	STA	NSF	75,600	Implementation of accurate methods for practical inference.
Shuster, J.	STA	NIH	27,662	Minimal Residual Disease (MRD) in childhood clymphoblastic leukemia.

Miscellaneous.....\$44,891

Bernard, H.	ANT	Am Heart Assoc	17,000	Skin color, social status and blood pressure in Southeast Puerto Rico.
Gravlee, C.				
Bowes, G.	BOT	Multiple Sponsors	4,093	Miscellaneous donors, unrestricted donation.
Katritzky, A.	CHE	Multiple Companies	1,250	Software research support.
Katritzky, A.	CHE	Multiple Companies	6,552	Miles compound contract.
Katritzky, A.	CHE	Multiple Companies	2,727	Miles compound contract.
Katritzky, A.	CHE	Multiple Companies	2,269	Miles compound contract.
Hollinger, R.	SOC	Multiple Sources	11,000	Security research project.

Sunny Days Were Dark Times for the Ancient Maya

Global climate change is the subject of much debate. One issue that remains hotly contested is the role humans have played in recent climate shifts. To address this question satisfactorily, we must know the magnitude of natural temperature and moisture variations over the last 10,000 years, prior to the period when human activities, such as widespread deforestation and fossil fuel combustion, would have affected global climate patterns. Instrumental climate records extend back in time only about a century, so we rely on "paleoclimate" information in natural archives such as tree rings, peat bogs, glacial ice, marine deposits, and lake sediments.

In a recent article in the journal *Science* (27 April 2001, v. 292), Peter DeMenocal reviewed four case studies of past cultures whose demise was linked to abrupt but persistent climate change (Akkadians of Mesopotamia, Classic Maya of Mesoamerica, Moche of coastal Peru, and Tiwanaku of the Bolivian-Peruvian altiplano). His coverage of the Maya and Tiwanaku regions summarizes recent paleoclimate work conducted by UF investigators in the departments of geological

sciences (David Hodell, Jason Curtis, Mark Brenner) and geography (Michael Binford).

In 1995, Hodell, Curtis and Brenner published a paleoclimate record from Lake Chichancanab on the Yucatan Peninsula that showed an intense, protracted drought occurred in the 9th century AD and coincided with the Classic Maya collapse (*Nature*, v. 375). Hodell, Curtis and Brenner returned to Lake Chichancanab in May 2000 and collected new cores while being filmed for a BBC production on drought and Maya prehistory (as part of the BBC series "Ancient Apocalypse," scheduled to air in the near future).

These new cores showed that the devastating drought of the ninth century AD was only one in a series of drought episodes on the Yucatan Peninsula during the last 2,600 years. In another recent issue of *Science* (18 May 2001, v. 292), this research team points out that these dry events occur about every 208 years and coincide with episodes of greater solar output that have been shown previously to have a periodicity of 206 years. This suggests that the roughly bicentennial droughts that occur in the Maya lowlands are controlled

partly by changes in solar intensity.

In a similar study, Binford and colleagues reconstructed changes in the level of Lake Titicaca from a suite of lake sediment cores taken from the southern basin (Binford et al., 1997, *Quaternary Research*, v. 47). A lake level decline of about 16 meters provided evidence of dramatic moisture reduction in the basin, which occurred around 1150 AD. This drought is thought to have been responsible for the cessation of Tiwanaku raised-field agriculture and the consequent population decline in the region.

The research of the UF team is part of an interdisciplinary effort to study the complex relations among climate, environment, and humans, which is the mission of UF's newly established Land Use and Environmental Change Institute (LUECI). By studying past cultural adaptations to climate and environmental change, researchers hope to gain valuable perspective on the possible responses of modern societies to present and future environmental change.

—Mark Brenner and Dave Hodell

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