

## Summer Reading

### The Dean's Musings

Contrary to popular opinion, UF faculty seldom have relaxed, time-filled summers. If they are not teaching in the growing summer program, intensive scholarship fills their days, and sometimes nights. Still, the period between academic years does flow at a somewhat different pace and normally includes whatever time faculty can find for vacation, perhaps at one of the marvelous Florida beaches.

Conventional wisdom calls for light reading at the sea shores, the latest John Grisham perhaps, maybe a Dilbert compilation. However, those who live the life of the mind might wish to include a little meatier fare among their selections. If so, what better group to consider than the CLAS authors who give us so many books from our fascinating range of disciplines.

I have the privilege of seeing most of these books, which we feature in our New Books display in the Dean's Office. If you haven't seen the collection, come by and browse. It is most impressive. Each year I mentally mark at least a half dozen of these books for future reading, as soon as I find time. It is my great loss that I never am able to include as many as I should.

But let me suggest a few recent books, at the peril of leaving out so many others, that you might consider picking up at Goerings' to stuff in the suitcase this summer. For example, Tony Randazzo and Doug Jones have just brought out *The Geology of Florida*, a book that ought to be in the library of all Floridians, not just geologists. Dan Ward has been working for many years to document the largest trees in Florida, some of which

## Chemistry Prof Uses His Research to Educate and Prepare His Students

As chemistry Professor Ken Wagener sees it, his primary job isn't to do research and make new discoveries. His job is to educate students, and his research happens to be an effective way to accomplish that goal.

"The whole point is to teach students to think coherently in terms of chemistry, to express themselves convincingly and to feel independent in their actions," Wagener said. "That's our primary mission here: educating graduate students to do that, and chemistry is our tool."

Wagener, who worked for an international fibers company for 11 years and has received numerous research awards, still considers his most important role that of teacher. It's a responsibility he takes seriously.

"It's a four or five year adventure with each student and I feel it's a privilege and an opportunity to help someone accomplish that goal," he said. "That may sound idealistic but I consider that to be my philosophy on why I teach."

So how does Wagener combine the education of his students with his research? He relies on polymer chemistry, or the study of plastics. The UF polymer program began in 1946 thanks to the efforts of George Butler for whom the program is named. It is the oldest continuous polymer effort in a chemistry department in the nation and is recognized for its important research. Because polymers are large molecules, Wagener thinks this area of chemistry is an ideal way to teach stu-



*Ken Wagener, professor of chemistry, has been teaching at UF since 1984. His research on the reaction ADMET is known internationally by major companies.*

dents about the fundamental lessons of chemistry.

"Most molecules are small, like methane. Polymers, on the other hand, are much larger," he said. "If, for example, a methane molecule were three inches long, then a polymer molecule would be seven miles long, comparatively speaking."

Polymer research can be divided into two categories: how plastics are made, or synthesized, and how they behave. The chemistry department is primarily interested in how to make polymers, and, thanks to Wagener and

**This month's focus: Department of Chemistry**

# Around the College

## DEPARTMENTS

### ASTRONOMY

*James Hunter* visited the Instituto de Astrofísica de Canarias (IAC), Tenerife, Canary Islands, Spain as a guest of the Spanish government. He gave two invited talks and supervised a Ph.D. project during his visit.

*Bo Gustafson* was an invited visitor at the Ondrejov Observatory of the Academy of Science of the Czech Republic to discuss the future of the European Meteor Network.

*Henry Kandrup* and his graduate student *Christos Siopis* were invited visitors at the Observatoire de Marseille. While there, they engaged in numerical experiments involving the stability of irregularly shaped galaxies.

### GEOLOGY

*Michael Perfit* was an invited speaker at short-course which was held as part of the Geologic Society of Canada—Society of Economic Geologists Annual Meeting in Ottawa, Canada in March.

### RELIGION

*Azim Nanji* was an invited speaker at a conference at the School of Advanced International Studies at Johns Hopkins University in March.

## AALL Student Receives Private Scholarship to Study in Japan



(left to right: *Joseph Murphy*, assistant professor of African and Asian Languages and Literatures; *Art Zirger*, UF Outreach Program of the College of Engineering; *Amanda Rust*, scholarship recipient; *Ann Wehmeyer*, associate professor of African and Asian Languages and Literatures and *Susan Kubota*, lecturer in African and Asian Languages and Literatures) The Zirger Scholarship Award, for \$1,000 per year, is awarded to an outstanding female student majoring/minoring in Asian Studies. This year's recipient, *Amanda Rust*, is majoring in Japanese language and will use the scholarship to study at the Saga National University in Saga, Japan, this summer.

## HONORS AND AWARDS

The College of Liberal Arts and Sciences would like to congratulate the following faculty members for their achievements and recognition.

- ◆ *Alan Katritzky* (Chemistry) received the *J. Heyrovsky Honorary Medal for Merit in the Chemical Sciences* from the Academy of Sciences of the Czech Republic.
- ◆ *Bo Gustafson* (Astronomy) had Asteroid 4275 named after him by the *International Astronomical Union*. A condensed version of the citation states: "Named in honor of Bo S. Gustafson at the University of Florida, Gainesville. Gustafson has specialized in studying the formation, evolution and fate of small particles in the solar system."
- ◆ *Terry Mills* (Sociology) won the "Best Presentation Award" at a technical workshop sponsored by the *National Institute of Aging* in Washington.
- ◆ *John Oliver* (Astronomy) received a *NASA Summer Faculty Fellowship* at the Jet Propulsion Laboratory (JPL) in Pasadena, California, for a second consecutive year. He will be responsible for refining the software JPL uses to predict meteoroid impacts on deep space probes and for providing a more "user friendly" interface to the software.



UNIVERSITY OF  
FLORIDA

CLAS notes is published monthly by the College of Liberal Arts and Sciences to inform faculty and staff of current research and events.

Dean: Willard Harrison  
Editor: Lurel D. Ponjuan  
Graphics: Sally Brooks

Worldwide web <http://clas.ufl.edu/clas-notes>

# CLAS Honors Graduates with Annual Baccalaureate Ceremony



*Dean Harrison (r.) congratulates one of the many CLAS Scholar Award recipients during the pre-Baccalaureate ceremony held in the Friends of the Music Room.*



*Larry Severy, associate dean, (l.) and Shari Ellis, assistant professor psychology, (r.) offer congratulations to one of their students, Amy Myerson (c.), who is a Four-Year Scholar. Ellis also received a "Teacher of the Year" Award.*



*Students listen to Sam Proctor, Distinguished Service Professor of History, recite a vignette from UF's history.*



*Cristina Jimenez, who was selected as a Four-Year Scholar, enjoys the reception with her family.*



*Marla Rosenblatt, one of the six CLAS valedictorians, speaks to her fellow graduates about the many changes they've witnessed while students at UF.*

# CLAS Faculty Make Headline News

CLAS faculty are recognized as experts in their fields of research in academia and the private sector. Following is a list of UF researchers whose comments and research have recently appeared in the media.

### Lobster Business Was Cutthroat

*Ron Formisano*, professor of history, was featured in an article in *The Boston Globe* concerning his book, *The Great Lobster War*.

### Prof. Comments on Africa Today

*Michael Chege*, director for the Center for African Studies, was interviewed by *KPFA Radio Station* in San Francisco for a program "Africa Today." Chege also appeared on *Niteline*, a news program of the Australian Broadcasting Corporation, to discuss the recent change of government in Zaire.

### Discrimination is Alive and Well

*The Washington Post* cited a 1994 discrimination survey conducted by *Joe Feagin*, professor of sociology.

### Darwin May Have Had Some Help

*The New York Times* reported a response by *Vassiliki Betty Smocovitis*, professor of history, concerning the contributions of Ernst Mayr to Darwinism.

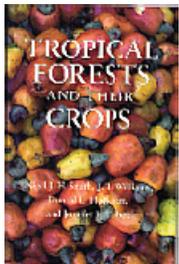
### To Privatize Or Not to Privatize?

*The Atlanta Journal and Constitution*, *The Nashville Banner* and *The Economist* quoted *Charles Thomas*, professor of criminology, concerning the privatization of prisons.

### Contraception is Male Issue, Too

*The Dallas Morning News* and *The Houston Chronicle* quoted *William Marsiglio*, associate professor of sociology, on getting men involved in contraception.

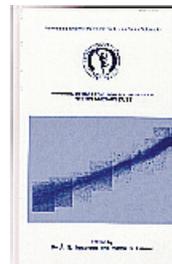
## Book Beat



*Tropical Forests and Their Crops* (Cornell University Press) by *Nigel J. H. Smith* (Geography), *J. T. Williams*, *Donald L. Plucknett* and *Jennifer P. Talbot*. (review taken from back cover)

The tropics are the source of many of our familiar fruits, vegetables, oils, and spices, as well as such commodities as rubber and wood. Distinctly practical and soundly informative, this book gives readers a feeling for the abundance of tropical forests, a sense of what we may lose if they are destroyed, and an appreciation for the relationships between tropical forest plants and people throughout the world.

(Excerpt) *Tropical forests represent only 7 percent of the earth's surface, but they contain more than half the world's biota (E. O. Wilson, 1988). Tropical deforestation thus has far more repercussions than destruction of an equivalent area of temperate forest. Tropical forests contain vastly greater numbers of wild populations of existing crops and potential crops than any other home. All tropical countries with forests are losing these complex and valuable ecosystems. Our examination of the rates of deforestation underscores the fact that time is running out for forests in some areas, and along with their loss will go plant and animal genetic resources whose value we may never know.*



*Physics, Chemistry, and Dynamics of Interplanetary Dust* (Astronomical Society of the Pacific) edited by *Bo A. S. Gustafson* (Astronomy) and *Martha S. Hanner*. (review taken from book preface)

IAU Colloquium 150 Physics, Chemistry, and Dynamics of Interplanetary Dust was held at the campus of the University of Florida, in Gainesville, Florida, from August 14 to August 18, 1995. The Colloquium brought together 109 scientists from 18 countries....This continued the tradition of holding colloquia at regular intervals to review the progress in the broad range of disciplines used to study interplanetary dust and to help relate progress made through observations, experimentation, and theory.

(Excerpt) *A single spacecraft orbiting below 2000 km altitude is capable of producing a man-made orbital debris hazard which exceeds the natural interplanetary meteoroid hazard in low Earth orbit. Because of the high inclinations that most spacecraft are launched into, the average collision velocity between objects in this region is about 10 km/sec (Kessler 1994). Consequently, it was inescapable that orbital debris would become an environmental issue requiring models and measurements to understand this new environment.*

## Computer Archaeology



*The dimly lit room is full of file cabinets. Papers and yellowed computer printouts are jutting from folders stacked in piles on and around them. You spend hours shuffling through the folders and file cabinet drawers. You wonder whether a successful search will only be the beginning of a more difficult process. You are looking for an old diskette.*

When you find your diskette, will you be able to read it? Diskettes were not designed as archive media. If you created diskettes five or more years ago, there is a good chance that you may not be able to read them today. The old 5 1/4" diskettes (the floppy floppy disks) were notoriously problematic. They were fragile, subject to degradation by temperature changes, dust, and moisture. Worse still, there were many different formats — single density, double density, quad density, high density, multiple IBM formats and multiple Macintosh formats.

So even if you find your diskette and it is physically in good enough shape to be read, can you find a computer with a diskette drive to read it? And even worse — if you can find a diskette drive to read it,

can you find software that can read the format the data is stored in? And if you can read the format, can you make sense of the rows and columns of data you might find there?

There is a growing sub-specialty in computing dedicated to preserving data and recovering data from antique computer systems. Old data stored on old media requires unusual equipment and the programming talent to extract data stored in formats that are no longer widely used.

Fifteen years ago, WordStar was a popular word processing software package. Ten years ago, most word processors could still read WordStar formats. Now, commercial word processing systems no longer read WordStar formats.

Ten years ago, 5 1/4" diskette drives were standard equipment on most desktop computers. Now they are not. It is difficult to equip some modern computers with 5 1/4" drives and it will become more difficult in the future.

Physical media, the diskettes and tapes and CD-ROMs used to store data change formats over time. And most of these media were not designed for long term storage. Desktop computer tape systems are notorious for constant format changes and short shelf life. In some cases tapes that are well cared for can not be read due to oxidation or other physical degradation within twelve months of being written. Do not consider using such tapes for long term storage.

The combination of old media — in possibly degraded condition — and data stored in formats that can no longer be read provide considerable challenges for computer archaeologists. These recovery experts maintain old equipment and old software to perform data recoveries. They can also charge large fees to recover data and documents.

To preserve electronic data consider

the following suggestions. Store data on media with good long term properties. 5 1/4" diskettes should be replaced now — data should be copied to more preservable media. 3.5" diskettes are expected to last far longer than 5 1/4" diskettes. Data stored on CD-ROM is expected to last longer still. Store data in ASCII files — not in spreadsheets or database formats. These formats change over time and the software that can read them now may not be available in 10 or 20 years.

Store documentation in ASCII text files, not in word processed documents. The software needed to read word processed documents may not be available. Do not assume that by storing the software with the data you have solved the problem. We can no longer run much of the software written for computers in the 1970s and we are losing the ability to run software written for computers in the 1980s. Store all archive data and documents in ASCII files.

Multimedia materials provide particular problems for the archivist — there are dozens of "standard" formats for storing computerized images and it is not clear which will still be viable ten years from now. The same can be said of digitized sounds and video clips. Formats used on the web — HTML for documents and data, GIF for images, MPEG for video and AU for sound are likely candidates for long term availability.

One archival system that has merit is paper. We know how to store it and preserve it. OCR systems continue to improve. Data and documents printed on paper can be scanned into future computer systems to recreate their contents in future formats and media. ☺

### Researchers Compile First National Survey of Gay and Lesbian Issues

—by Cathy Keen, writer for UF News and Public Affairs

The biggest civil rights movement of the 1990s has been the silent but growing pace at which American communities have added gay and lesbian rights to their anti-discrimination laws, say University of Florida researchers whose new book is based on the first national survey of these issues.

"Just as blacks dominated the civil rights battleground of the '60s, gays and lesbians are making their mark in the '90s, with a dramatic increase in anti-discrimination legislation and a growing shift in public opinion," said James Button, a UF political science professor and co-author of *Private Lives, Public Conflicts*, an examination of gay rights nationwide.

The book also is written by UF political scientist Kenneth Wald and health science education Professor

Barbara Rienzo. In exploring the cutting edge of this grass roots movement, the researchers also include in-depth case studies of five diverse communities. U.S. Rep. Barney Frank, D-Mass., who is openly gay, wrote the introduction.

Seventy-nine of the 159 cities and counties that had extended civil rights protection to gays and lesbians by 1996 did so in the '90s, the highest adoption rate of anti-discrimination ordinances since the first was passed in East Lansing, Mich., in 1972, Button said.

Anti-discrimination laws are an important factor in changing public attitudes about homosexuality, even though more than a quarter of the communities that have them report local or state efforts to overturn them, the researchers said.

One sign of the new political primacy of gays and lesbians is that the number of cities and counties offering domestic partner benefits more than doubled since 1993. So did the number of openly gay elected officials in the two years before 1993, he said.

"While it's clear that gays and lesbians have made significant strides, the bulk of that success has been in larger cities where they are physically concentrated and politically well-organized," Wald said. "It's a much grimmer reality in smaller cities and rural areas, where there is a collective unwillingness to face the problems that gays and lesbians encounter."

The researchers said they found gay and lesbians continue to experience an inordinate amount of hostility on a daily basis.

"Even Americans who are sympathetic to the rights of gays and lesbians often regard homosexuality as an aberration or perversion," Wald said. "People who make allegations about blacks are often regarded as cranks or misfits, but people who entertain broad stereotypes about gays and lesbians are still accepted."

Because they are a primary institu-

tion for launching change, public schools have become the central battleground in the cultural war between people with traditional views about homosexuality and those who favor greater tolerance, Rienzo said.

School programs addressing the needs of lesbian and gay youth were rare but more likely to be found in large, affluent and more diverse communities with anti-discrimination laws on the books, Rienzo said.

Gays, lesbians and many health professionals feel strongly that for homosexuality to be understood, discussion must begin in the schools. Opponents, however, fear children will be unfavorably influenced and even become homosexual if gays and lesbians teach and the subject is included in the curriculum, she said.

Other signs of shifting attitudes range from the appearance of gay and lesbian characters on popular television programs, such as "Roseanne" and "Melrose Place," to the readiness of the Walt Disney Company and other corporations to extend domestic partner benefits, he said.

"As Barney Frank says in the book's introduction, 'politics works' even for unpopular minorities," Button said. "Just as blacks say the civil rights laws in the '60s were invaluable, gays and lesbians are finding such measures a first step toward social change."

"Yet lack of pension rights and other marital benefits is a problem because gays and lesbians feel so vulnerable economically," said Wald, who characterizes the movements' gains as a 'silent revolution' with 'one step backward for every two steps forward.' "They feel any time they come out about their sexuality, they face economic retaliation." 

*"Even Americans who are sympathetic to the rights of gays and lesbians often regard homosexuality as an aberration or perversion. People who make allegations about blacks are often regarded as cranks or misfits, but people who entertain broad stereotypes about gays and lesbians are still accepted."*

—Kenneth Wald  
Professor of political science

# Chemistry Research Could Lead to Better Computer Chips and a Natural Gas Fuel

Besides a passion for science, probably the next most important quality a chemist must have is patience. Chemistry research takes years of trial and error and many times researchers find themselves headed in completely different directions than what they had previously anticipated at the beginning of their studies. Such is the case for Lisa McElwee-White, associate professor of chemistry, who has been studying compounds since 1987 and has just recently found a new way to use them.

"We were looking at the compounds for other reasons and realized that there might be a materials application for it," McElwee-White said. "This project has to do with making materials for the manufacture of semi-conductor devices, like computer chips."

Her research involves compounds that bond (or attach) between tungsten (a metal) and nitrogen (a gas). The ultimate target, called tungsten-nitride, could solve a problem with the manufacture of computer chips by preventing the aluminum (from the wiring in the computer chip) and the silicon (which forms the base of the chip) from dissolving into each other during the high-temperature processing step. She is hoping that a film made out of the tungsten-nitride can act as a barrier during this process.

"I think we have a couple of more years ahead of us before knowing the success or failure of this," she said. "We're very good at making the compounds but we're going to have to do the experiments to make the films to see if they're successful."

The project, funded by the Office of Naval Research, is actually a collaborative effort between McElwee-White and Tim Anderson, professor of chemical engineering.

"We're making the compounds

and Tim and his group do the engineering end of it," she said. "They do the film deposition experiments and make the films while we make the compounds."

While UF researchers aren't the only ones working on this particular problem, their technique may be one-of-a-kind. Because of the way they prepare the tungsten-nitride films, the silicon is left unharmed.



*Lisa McElwee-White, associate professor of chemistry, is working on several projects that could have very practical applications.*

"Usually when these films are synthesized a by-product is released that ruins the silicon surface to a certain extent," she said. "The unique aspect of our compounds is that when they decompose, the by-products don't harm the silicon, so there should be less of an etching problem on the surface of the computer chips."

As if this project wasn't enough to keep McElwee-White and her students busy, she is also working on a "clean fuels technology" project involving

methanol. There's been interest both in the private sector and in the military to make power supplies that burn methanol electrochemically in a fuel cell (similar to a battery that uses methanol as a fuel). But there are problems with the technology.

"It's not very efficient because the process that converts methanol into the eventual product, carbon dioxide, is very complicated," she said. "The more complicated a process is, the more energy it takes to drive it along. As a result, you don't get maximum use out of the fuel."

McElwee-White and her students are trying to develop catalysts which make the consumption of methanol easier and more energy-efficient. And, as with her other project, they're taking a unique approach to the problem. Instead of using a piece of pure platinum for the electrode — which is very expensive — they're trying to create an electrode made out of something cheaper yet which produces the same results. (*The electrode is the piece at the end of the wire that is dipped into the methanol. The process that generates the electricity takes place at the electrode surface.*)

"You might be able to get the same thing to happen without having to use a piece of platinum to build the electrode," she said. "Not many people are trying to do that. This may be unique."

In addition to the many practical applications McElwee-White's research has, she wants people to realize how it benefits her students. The experiments give them experience and teach them first-hand about chemistry research.

"The education of graduate students is what drives the research," she said. "Our students learn from the many projects we're involved in and the research we generate." 

# Understanding Single Molecules May Lead to Improved Diagnoses for Many Patients

*Following is an interview Weihong Tan, assistant professor of chemistry.*

***What does your research focus on?***

Basically what we're doing is looking at very small biological cells, or molecules, and trying to develop bioanalytical and biophysics techniques to study individual molecules. Right now, it is difficult to study one molecule at a time. We want to develop techniques to view what is invisible with our own eyes.

***What are the applications for this technique?***

From a diagnostic point of view, this technique can help doctors detect the early stages of diseases. For example, if a doctor takes 10 ml of blood from a patient and if there are only 10 cells out of the 10 million in the sample that are in the early stages of cancer, they won't show up in the results. But suppose you have a technique which allows you to detect one cell at a time. Then you would be able to identify the 10 diseased cells and begin treating the patient as soon as possible.

Another application for this technique would allow us to manipulate nanostructures and even one molecule at a time. This is very important because it gives us the basic knowledge about how reactions happen. If we have the capability of manipulating one molecule at a time, we can study the properties of that molecule. This kind of technique can be used in environmental sciences as well.

***What are the steps involved in your***



*Weihong Tan, assistant professor of chemistry, is seated in front of an Olympus inverted microscope. It is used to detect single photons with an enzyme probe.*

***research?***

The first step is the development of nanometer scale imaging and sensing technology, then we will apply these novel techniques to biomedical research and environmental detection. For example, using our technology we are studying stroke mechanism on a subcellular level. Our ultimate goal is to develop an optical microscopy with single molecule level resolution and sensitivity. Our techniques will enable us to study a variety of significant biomedical problems, such as the mechanism of disease and the imaging and manipulation of ion channels.

***Do you work with other researchers?***

We have good collaborations with researchers in the medical school. They provide us with samples, and, more importantly, provide us with biological problems which stimulate our development. We try to help them better understand some biological problems

and provide them with the frontier knowledge in the physical sciences. It is a mutually beneficial arrangement.

***What do you think is most significant about your research?***

Scientists have long been fascinated by the elementary entities that make up matter. If we can manipulate one molecule at a time, our work will be very significant. What this means is that we will have the capability to study the very elementary entities of living and non-living systems. Only when you have this level of capability can you study and control the basic processes in these systems.

In addition, as the study of biophysics and biochemistry becomes more sophisticated, there is a growing need for monitoring biological events at the cellular and subcellular level. Our research will contribute significantly in this area as well. ☺

# Grant Awards through Division of Sponsored Research

April 1997 Total \$1,182,051

<i>Investigator</i>	<i>Dept.</i>	<i>Agency</i>	<i>Award</i>	<i>Title</i>
---------------------	--------------	---------------	--------------	--------------

## *Corporate...\$85,435*

Katritzky, A.	CHE	Bayer	40,000	Miles compounds contract.
Katritzky, A.	CHE	Dow Elanco	1,000	Dowelanco compounds agreement
Katritzky, A.	CHE	Dow Elanco	1,900	Dowelanco compounds agreement.
Katritzky, A.	CHE	Multiple Co	3,890	Software research support.
Katritzky, A.	CHE	Upjohn	1,500	Upjohn service contract.
Kennedy, R.	CHE	Soane Bio	6,875	Assay development.
Thomas, C.	CRI	Corrections	8,500	Private corrections project.
Hollinger, R.	SOC	Sensormatic	15,000	Security research project.
Marks, R.	STA	Biomaterials	3,385	Clinical trial research design.
Marks, R.	STA	Biomaterials	3,385	Clinical trial research design.

## *Federal...\$970,436*

Brandt, S. & Arthur, J.	ANT	NSF	11,827	Ceramic use in an agrarian society.
Campins, H.	AST	NASA	41,680	A coordinated ground and space based infrared study of comet Hale-Bopp.
Campins, H.	AST	NASA	44,179	A coordinated ground and space based infrared study of 2 taxonomic classes.
Chen, K.	AST	NASA	2,000	Electronic database of the card catalogue of photometric binaries.
Xu, Y.	AST	NSF	128,888	Experimental verification of electromagnetic multisphere-scattering theory.
Benner, S.	CHE	NIH	200,009	Non-standard base pairs as biomedical research tools.
Zerner, M.	CHE	NSF	15,720	Development of a multi-configuration scheme for molecular electronic struc.
Drago, R.	CHE	Army	26,000	Adsorption and catalytic oxidation of sulfide and thioate substrates.
Voelklein, H.	MAT	NSF	20,000	Groups as galois groups.
Ipser, J. & Detweiler, S.	PHY	NASA	53,500	Relativistic and gravitational physics.
Seiberling, L.	PHY	NSF	122,151	Interaction of GE with surfactants on the SI(100) surface.
Sullivan, N.	PHY	NSF	100,000	Dynamical properties of frustrated molecular solids at low temperature.
Ziller, R.	PSY	NASA	2,000	Space travel as an induction of tolerance.
West, R.	PSY	NIH	69,170	Memory beliefs in relation to goals and test difficulty.
Agresti, A.	STA	NIH	78,312	Statistical inference for sparse categorical data.
Chapman, L. & Crisman, T.	ZOO	NSF	5,000	Spatial and temporal dynamics of refugia in the Lake Victoria Basin.
Evans, D.	ZOO	NSF	50,000	Is nitric oxide or a prostaglandin the relaxing factor in fish.

## *Foundation...\$70,430*

Hodell, D. & Brenner, Mark	GLY	FIS	Nat Geographic	20,430	The role of climate change in the collapse of classic Maya civilization.
Holling, C.	ZOO	UF	UF	50,000	UF Foundation account for R. C. S. Holling.

## *Other...\$43,098*

Bernard, H.	ANT	Misc Don	8,400	Miscellaneous donors.
Eyler, J.	CHE	Misc Don	15,000	Miscellaneous donors.
Eyler, J.	CHE	Misc Don	7,348	Miscellaneous donors.
Caviedes, C.	GEO	Misc Don	3,150	Miscellaneous donors.
Williams, P.	POL	Misc Don	4,200	Miscellaneous donors.
Nordlie, F.	ZOO	Misc Don	5,000	Miscellaneous donors.

## *Universities...\$12,652*

Hudlicky, T.	CHE	UCSF	9,152	Sites and mechanisms of inhaled anesthetic actions.
Zoltewicz, J.	CHE	North Texas	3,500	Nicotine and ethanol-induced neurotoxicity.

are in the Gainesville area, and his newly published book, appropriately called **Big Trees**, can direct you to these giants on your summer travels. The front (and back) cover photo is worth the price of the book.

For those of us who lived through it, a revisiting of the Vietnam era through Nora Alter's *Vietnam Protest Theatre* brings back good and bad memories. If history interests you as much as it does me, Mike Gannon's *The New History of Florida* is a must. This collection of chapters includes contributions from several outstanding CLAS faculty. And if ancient history is more your preference, why not try Mary Ann Eaverly's *Archaic Greek Equestrian Sculpture*, which shows that there was the horsey set even then.

I'd have to admit that my personal favorite, given a mispent youth, is Kevin McCarthy's, *Baseball in Florida*. Don't write this one off as a jock oriented book. Kevin, a professor of English, includes chapters on spring training, baseball history, college baseball, African Americans in baseball, and a timely report on women in baseball. The book's historic photos alone make it a steal.

Want something a little deeper? Try Mark Thurner's *From Two Republics to one Divided*, which explores Peru's transition from colonial to republic status. Or enjoy *The News Revolution in England*, in which John Sommerville writes so well on the early days of journalism. And do you want to know what makes our provost tick? I certainly do. For some hints, we might all read the latest edition of Betty Capaldi's textbook, *Psychology*. Finally, I haven't seen but can hardly wait for Karen Seccombe's forthcoming book, *So You Think I Drive a Cadillac*.

There are many more great books arising from the pens of CLAS faculty. Take a look at our library in the Dean's Office, which contains faculty books going back over the past 5 years. We are truly fortunate to have such talented faculty who share with us the fruits of their scholarship.

**Will Harrison,**  
Dean

[harrison@chem.ufl.edu]

his research group, the department is known internationally for developing a process that produces polymers in an energy-efficient way. The reaction ADMET (Acyclic Diene Metathesis Chemistry) took ten years of research and involved the work of undergraduates, graduate students and professors. UF patented the basic process which is used by companies and institutions all over the world.

"It's a way of making polymers at or close to room temperature, so it doesn't require as much energy as other reactions might," Wagener said. "It's very clean in that it produces a polymer and gas. We found that we can make a wide variety of polymer materials with this reaction."

Wagener is encouraged by the recognition ADMET has received from industry since it gives students a chance to see how the

private sector benefits from their research. NSF, Dow Chemical, Amoco, Shell and Dow Corning are just a few of the companies that have funded this kind of research.

"This is another part of students' education," he said. "Interaction with private companies gives students a view of their future in industry."

Although the ADMET reaction has been extremely successful, Wagener admits that chemistry research is a long, difficult process and that it's impossible to predict the success of any one project.

"Turning chemistry into reality is not easy," he said. "There are always reasons why things don't work. But even when research doesn't turn out exactly the way you've planned, you can consider it a success if it's helped to educate students."👉

## From the Chair....

### John Eyler, chairman of the Department of Chemistry

When I began as chair of the Chemistry Department three years ago, we had just finished a period of rapid growth with nine faculty members having been hired between 1991 and 1994. Given such a large influx, we faced tremendous pressures to support the varied research efforts of these new faculty, while continuing to serve the needs of established faculty who had been major contributors to the Department's research and teaching efforts for many years. We focused on improving our support services for Departmental research and teaching, and I believe this has benefited the scholarly activities of all in the Department as well as collaborators and students around the campus.

The three faculty whose research is highlighted in this issue of *CLAS notes* emphasize recent trends in chemistry both here

and around the nation. The main thrusts of their work are in some of the newer, more interdisciplinary areas of chemistry. Thus both Ken Wagener — with his synthesis of new polymers — and Lisa McElwee-White — with her synthesis of organometallic compounds with new properties and potential catalytic activity — are both working in what might be loosely categorized as materials chemistry with rigorous grounding in organic and inorganic chemistry. Weihong Tan's work illustrates the increasing study of biological molecules and systems by chemists. While his development of near-field optical spectroscopic and other methods for single molecule detection are at the cutting edge of analytical chemistry, there are many potential applications to biochemistry and medicine, some of which he is already exploring.