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...on the cover

The Cade Prize for Innovation

The Cade Prize for Innovation was established in 2010 in order to honor former University of Florida Professor **J. Robert Cade**, the inventor of Gatorade. In that year, Chemistry Graduate Student **Ryan Martin** and Associate Professor **Stephen A. Miller** reached the Final Four with their invention titled PolyEsterAcetals, which represent a new class of green plastics that are produced from sustainable biomass sources and are degradable back into ecological life cycles. This technology targets disposable packaging applications and features tunable degradation pathways in a variety of environments, including seawater. After additional experiments and prototype development, Martin and Miller re-entered the competition and were crowned the winners of the 2011 Cade Prize for Innovation on May 12 at the Cade Prize Night event, held on the campus of Santa Fe College. The Prize includes one year of free office space at the Gainesville Technology Enterprise Center and \$50,000 to be used to further develop their start-up company, Florida Sustainables. The Miller Research Group invents, synthesizes, and characterizes several different classes of polymers made from biorenewable feedstocks. Florida Sustainables (www.floridasustainables.com) works with the UF Office of Technology and Licensing to promote these innovations and secure collaborations with businesses in the polymer manufacturing and processing industry.

keep in touch

with Chemistry

We want to hear from you! Send us career updates or memories of "how it used to be" to: Maribel Lisk, PO Box 117200, Gainesville, FL 32611-7200 or email chairadmin@chem.ufl.edu. Join us in our efforts to keep UF Chemistry a top-notch program by your donations. To make online contributions, go to <https://www.ufl.edu/OnlineGiving/CLAS.asp>. Select "Chemistry 001401" and continue through the prompts. By phone, call 877-351-2377 or mail us a check made out to the University of Florida Foundation. Please designate or include the fund number.



the chemical
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SPRING 2011
University of Florida
Department of Chemistry



2010-2011 Staff Recognition Ceremony

Each spring, the College of Liberal Arts & Sciences holds a ceremony and reception in the Keene Faculty Center to honor staff who have attained between 5 and 30 years of continuous service to the University of Florida. This year eight staff members from the Department of Chemistry were recognized for having achieved one of these milestones. **Frederick Cartwright** (5), **Robert Johnson** (5), **Melisa Smith** (5), **Lawrence Westra** (5), **Joseph Carusone** (15), **Judith Parker** (20), **Donna Turner** (20), and **Vivian Thompson** (25). Congratulations and thank you for your dedicated service to our department.

A note from The Chair

Gainesville slows down in the summer, although it seems to me less and less. It still gives me a chance to update you on developments in the Department during the past academic year.

Some good news is that the design of the new Chemistry/Chemical Biology Building is complete! A terrific team led by Professors **Aaron Aponick**, **Phil Brucacat**, **Nigel Richards**, and **Weihong Tan**, along with the Director of our Organic Labs, **Tammy Davidson** and **John Flowers**, our Department Administrator, worked with the architects to combine innovation and efficiency in the design of a truly state-of-the-art facility that will be the centerpiece of our department for years to come. Now for the less good news... the State's budget woes have delayed construction for at least two years. The building is still a top priority of university President Machen, but we may need to explore complementary fundraising to help with the State shortfalls if we want to get underway soon. We will keep everyone up to date on our progress.

Nevertheless, the new building has inspired some new initiatives that are already underway. One of them is a move toward more "green chemistry" in our curriculum and our research. Tammy Davidson is adding new lab experiments to our Organic Chemistry Lab courses, greatly reducing organic solvent use and other chemical waste,

which saves money and is great for the environment. Green ideas are throughout our research, also. As an example, Professor **Steve Miller** and his graduate student **Ryan Martin** were recently recognized with the Cade Award for Innovation for the design of a new plastic made from biorenewable sources instead of from petroleum products. You may know that the estate of Robert Cade, the inventor of Gatorade, gives the Cade Award. More details are in one of the articles in this issue.

As part of another initiative this spring, we held the first meetings of our new Department of Chemistry Leadership Board. The Board, made up of business and community leaders with ties to the Department, adopted the mission statement "to offer leadership and guidance to provide financial strength and to achieve national acclaim as a top 10 Department of Chemistry." Charter members of the Board include **Glenn Boutilier**, **Michael Collins**, **Nancy Crews**, **Robert Grubbs**, **Kay Henderson**, **Eugene Inman**, **Wesley Jones**, **Robert Kincart**, **Mike Lee**, **Steven Scott**, **Howard Sheridan**, **Frederick Thurston**, and **John Heaton**, who agreed to serve as the Board's first Chair. We will be presenting our board members beginning with John Heaton and Nancy Crews in this issue, and continue the member introductions in our upcoming issues.

—Daniel R. Talham

Introducing our Chemistry Leadership Board Members

Nancy P. Crews is the Chief Executive Officer and Owner of Custom Manufacturing & Engineering™ (CME™), a Power & Sensors company serving both government and commercial markets. With extensive experience in strategic planning, market development, sales management, and product development and research, Dr. Crews has led CME™ to achieve growth and stability as a mature, larger small business conducting research and development, product testing, manufacturing, and engineering services. Prior to starting CME™, Dr. Crews was a Senior Manager at Lockheed Martin Specialty Components, Inc. Before joining Lockheed Martin, Dr. Crews worked for Eastman Kodak Corporation in a variety of managerial positions, including Marketing Director for Reprographics Products, Program Manager, Product Development Manager, and Research Scientist. Additionally, she was an original member of the business reengineering team streamlining Kodak's business processes. Dr. Crews earned her Ph.D. in Chemistry from Virginia Tech after earning her B.S. in Chemistry from the University of Florida. Dr. Crews and her companies have received several recognitions, among them the 2003 SBA's Small Business Person of the Year in South Florida District, and in 2008 and 2009 was listed as one of the Top Woman-Led Businesses in Florida by The Commonwealth Institute South Florida and Center for Leadership at Florida International University.



John C. Heaton is the Vice President of Research and Development for Contact Lens Products at Vistakon, a Division of Johnson & Johnson Vision Care. He has over 20 years of experience in developing and commercializing new products. In his 20+ years at Vistakon he has served in a leadership capacity in numerous key areas including Product Development, Clinical Research, Commercialization Engineering and Materials Science.

John joined Vistakon in 1983 as one of three R&D professionals charged with the development of ACUVUE® contact lenses. He received the Johnson Medal in 1992 for his contributions in the development of ACUVUE® lenses. Since that time he has contributed to the development and commercialization of over 20 products which have contributed to the growth of Vistakon from a \$10 Million regional company to a global leader in the industry having sales in excess of \$2 Billion.

John holds a B.S. degree in Chemistry from the University of Florida and an MBA from the University of North Florida and has authored/co-authored numerous patents.



More Great News About Our Students

There seems to be no end to the successes of Gator undergraduate chemistry majors. This past year, 122 completed the B.S. degree (35 in Summer 2010, 11 in Fall 2010, and 86 in Spring 2011), including 73 with Honors, High Honors, or Highest Honors. Five new chemistry graduates received special recognition at the Spring Commencement: **Christopher Marth** and **Andrew Scheuermann** as 4-Year Scholars with **Michael Mavros** earning Honorable Mention, **Jacob Burns** as Outstanding Male Leader with **Will Maxwell** as Honorable Mention. Gator Chomps for these outstanding students and for all of our B.S. graduates.

Each year, the department chooses one or more outstanding seniors for the Colonel Allen R. and Margaret G. Crow award. This year, the competition was so tight that four seniors are sharing the award: **John Abendroth**, an active member of **Professor David Wei's** research group; **Christopher Marth**, who is moving to UC Berkeley for graduate school, **Michael Mavros**, an entering physical chemistry graduate student at MIT; and **Andrew Scheuermann**, who will be attending Stanford University to earn a Ph.D. in Materials Science and Engineering. These are only a few of the top-tier graduate and professional programs attracting UF chemistry majors.

The department also awards several outstanding junior chemistry majors with funding provided by private donors. This year, **Charles Ocampo** receives the Joseph P. Laforana award; the Howard M. Sheridan award goes to **Daniel Turner**; and **Patrick Wieruszewski** is the winner of the Gordon M. and Joyce L. Smith award. The Chemical Physics scholarship winners are **John Abendroth**, **Francisco Birk**, and **Eugene Milshteyn**. Congratulations to all of these award winners.