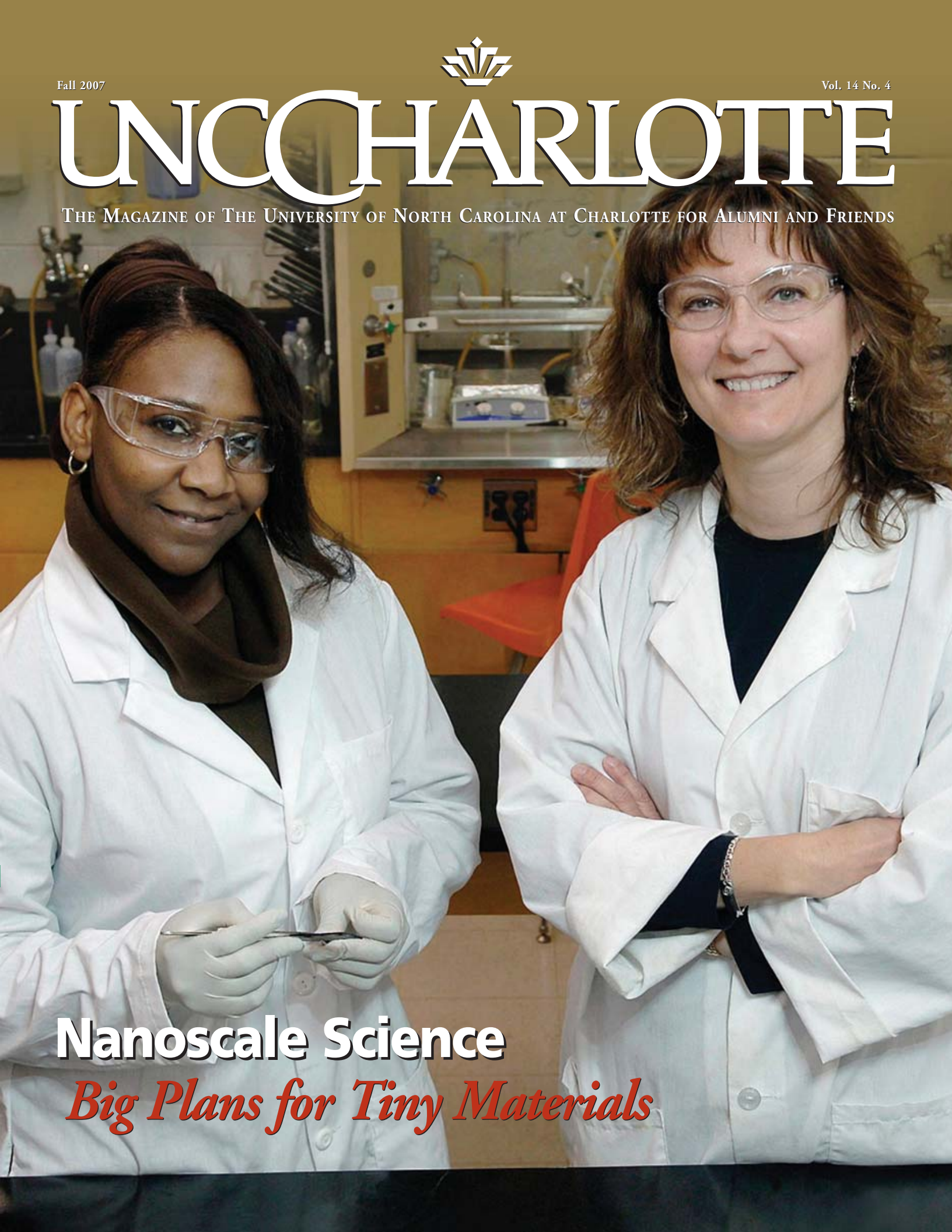
Fall 2007 Vol. 14 No. 4

UNC CHARLOTTE

The Magazine of The University of North Carolina at Charlotte for Alumni and Friends

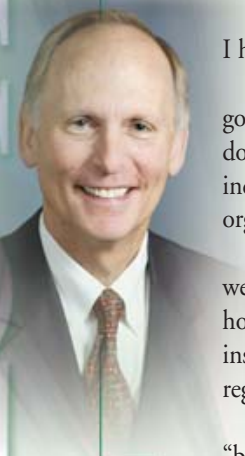


Nanoscale Science

Big Plans for Tiny Materials

UNCCHARLOTTE

Letter from the Chancellor



Branding will help define our presence in the region and the nation

Over the two-and-a-half years that I have been serving as UNC Charlotte's fourth chancellor, I have spent a lot of time talking about expanding our "presence" in the greater Charlotte region.

When I speak of "presence," it is primarily about substance. If we are to be successful in recruiting good students, developing internship and career placement opportunities for those students, raising private dollars to support our academic and athletic programs, and forming productive research partnerships with industry, then we must become better-connected to the various business, governmental, and nonprofit organizations that comprise the Charlotte region.

But "presence" also means being attentive to how we communicate with the public, how successful we are (or are not) in building community awareness of UNC Charlotte's programs and resources, and how we are perceived by the various constituencies that have an interest in the region's only public research institution. Too often, we hear that UNC Charlotte lacks a clear identity for too many people in our region – even among the alumni, staff and friends of the University who know us best.

So, by the time you read this, UNC Charlotte will be working in earnest to unveil and launch a fresh "brand position."

Well, that sounds good. But what does it really mean?

Many people associate a brand with a logo or an advertising slogan. A brand is much more. A brand is a promise that people infer from the behavior of an organization or product. For example, Tide is a brand of laundry detergent. It includes a recognizable logo and color scheme. But the Tide brand is more personal. It is a promise that you can rest assured that your clothes will be fresh and clean.

NASCAR is a brand. It means, "Let's go racing!" to most fans. It may mean corndogs and beer to some. But for millions of fans it also means excitement, fun, camaraderie and the highest racing skill. It means ambition, glory and peril.

In both cases, whether it's laundry detergent or racing, the brand helps build public awareness, attention, and allegiance.

So, what is UNC Charlotte's brand? As a university (not just a particular college, department or program), what is the identity of this institution? What is the image we wish to cultivate – the promise we wish to imply and fulfill?

Answering those questions has been the goal of a year-long brand research study conducted by the STAMATS firm of Cedar Rapids, Iowa. Under the supervision of Vice Chancellor David Dunn's Division of University Relations and Community Affairs, and in collaboration with countless alumni, students, staff, faculty and community leaders, STAMATS has conducted surveys, convened focus groups, and held conversations with scores of our constituents. We have learned that we have a long way to go to establish a clear sense of institutional identity in this community.

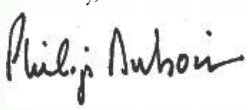
All of the research conducted by STAMATS will result in two major initiatives:

A brand promise (also known as a brand position), which captures what we want UNC Charlotte to stand for in the mind of the public. A brand promise is not simply a slogan or catchphrase to appear in ads and brochures. Instead, a brand promise is the guiding idea that captures the benefits and experience of being associated with that brand. For UNC Charlotte, this guiding idea will help direct our marketing communications work: ads, brochures, Web site content and design – even the design and layout of this magazine.

A new identity system – that will provide a unified, consistent format for marketing materials of all kinds. Visual identity is vitally important in the brand process. As a physical representation of the brand promise, it communicates and reinforces the guiding idea. For UNC Charlotte, the identity system, which will include a slogan, will be used publicly and extensively. It also will include a revised UNC Charlotte logo.

Our hope is that a distinct, well-communicated brand will add value to this university from the perspective of the University's many diverse internal and external constituencies including you, our alumni. We want you able to serve effectively as our greatest cheerleaders. Oh, and by the way, Go Niners!

Cordially,



Philip L. Dubois, Chancellor

UNC CHARLOTTE

Volume 14, Number 4

THE UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

PHILIP L. DUBOIS
Chancellor

RUTH SHAW
Chair of the Board of Trustees

VICE CHANCELLOR FOR UNIVERSITY RELATIONS AND COMMUNITY AFFAIRS
David Dunn

EDITOR
DIRECTOR OF PUBLIC RELATIONS
John D. Bland, APR

MANAGING EDITOR
Phillip Brown

STAFF WRITERS AND CONTRIBUTING WRITERS
Will Crockett
Clark Curtis
James Hathaway

CLASS NOTES
Katie Suggs

PHOTOGRAPHER
Wade Bruton

CIRCULATION MANAGER
Cathy Brown

UNC Charlotte is published four times a year by The University of North Carolina at Charlotte, 9201 University City Blvd., Charlotte, N.C. 28223-0001
ISSN 10771913

Editorial offices: Reese Building, The University of North Carolina at Charlotte, Charlotte, N.C. 28223. Telephone: 704-687-4385; FAX 704-687-6379; e-mail: jdbland@email.uncc.edu

Printed on Recycled Paper

Contents

2 News Briefs

9 49er Notebook

pg. 10 BIG PLANS for tiny materials

Big Barred Owls

pg. 14

pg. 18 How Safe Are Our Computers?

17 ALUMNI PROFILE

pg. 20 THE SUM OF US: HOMO SAPIENS

22 DEVELOPMENT & GIVING

23 ALUMNI NOTES

On The Cover
Dr. Sherine Obare (left) and Dr. Bernadette Donovan-Merkert are leaders in the UNC Charlotte Nanoscale Science doctoral program.

Fleet Going Green at UNC Charlotte

In efforts to be good stewards of the environment, UNC Charlotte is being proactive in creating a fleet of alternatively fueled vehicles.

Since 2005, the university has added approximately 51 low-speed, battery-electric vehicles to its motor fleet. Plans are underway to add at least 90 more. UNC Charlotte added 24 Daimler Chrysler Global Electric Motorcars to the fleet that includes 24 Club Cars, two Trolleys, one EZGO Electric Vehicle, and two Columbia Par Car Summit Neighborhood Electric Vehicles.

North Carolina has mandated that 75 percent of all state motor fleets operate on alternative fuel by January of 2009 and the campus master plan vision calls for a pedestrian friendly campus as well.

Global Electric Motorcars (GEM) was selected because they met most of the university's neighbor electric vehicle goals. The GEM line of electric vehicles can be licensed to operate on 35 mph roads, have automotive safety restraints, four-wheel braking, automotive tires and built-in rollover protection.

"We're thinking about the future and looking for ways to protect the environment," said facilities construction engineer, Steve Terry. "And we're also trying to teach our students how important recycling, reduction of fossil fuels and conservation of water is, so they can take that knowledge out into the world." GEM has proposed doing a case study of UNC Charlotte's green fleet.

Technology Transfer gets new Director


Carl Mahler

Carl Mahler is taking over the reins at the Office of Technology Transfer (OTT) at UNC Charlotte. He succeeds Ruth Burnett, who has been the acting director for the past year.

The office has primary responsibility for the university's intellectual property, a key component of the university's broader economic development initiatives. In addition, OTT helps faculty and students create new businesses and oversees licensing of university-based intellectual property.

BusinessWeek recently featured UNC Charlotte in an article about colleges and universities that have found profitable niches in tech transfer.

Since 2002, Mahler had been director of intellectual property at the Center for Technology Transfer and Enterprise Creation at Carnegie Mellon University.

UNC Charlotte ranked first last year in the nation among universities in the number of start-up companies formed in a survey by the Association of University Technology Managers. That same ranking also listed the university as second in invention disclosures received and third in patents issued for each $10 million in research dollars.

Belk College to Offer Dual-Degree with Copenhagen Business School

The Belk College of Business at UNC Charlotte and the Copenhagen Business School in Denmark are collaborating on a new master's degree program in economics.

Graduates of the program will receive both an M.S. in Economics with an Economics/Finance concentration from UNC Charlotte and an M.S. in Applied Economics and Finance from Copenhagen Business School (CBS). Students will spend one academic year in each location.

The UNC Charlotte degree is designed for students seeking careers in banking or other financial institutions, as well as positions with regulatory bodies dealing with financial markets. The CBS degree provides students with a solid understanding of finance, macroeconomics, and industrial economics. Students completing the dual degree program are prepared for analytical and management positions that require an international perspective and an ability to integrate economic analysis and advanced quantitative methods.

Copenhagen Business School is an internationally recognized and accredited urban institution located close to the heart of Denmark's capital. It is one of the largest business schools in Northern Europe with more than 15,000 students. CBS offers world-class research-based programs and has partnerships with other universities, enterprises, organizations, and a select group of companies that provide opportunities to join knowledge development with students and researchers.

Copenhagen Business School
HANDELSHØJSKOLEN

New Research Center to Focus on Urbanization and Regional Growth

UNC Charlotte has entered a partnership with Renaissance Computing Institute (RENCI) to create a new RENCI engagement center on the Charlotte campus focused on forecasting urban growth and its impacts.

The new center will be administered by UNC Charlotte's Urban Institute and will be developed as a partnership among the Urban Institute, the Center for Applied GIS and the Charlotte Visualization Center. The three campus entities will collaborate on research that addresses trends in land use and development in the Charlotte area, and the effects of urbanization on natural resources, traffic patterns, urban infrastructure, quality of life and disaster response.

Using resources provided through RENCI's statewide organization, RENCI at UNC Charlotte will develop models to forecast future urban development, create and disseminate interactive, visual simulations of data on urbanization trends, and deploy visual decision support tools that stakeholders will be able to use to develop and assess sustainable growth and economic development policies.

The new center at UNC Charlotte will contribute its research and expertise to RENCI's statewide mission of solving problems important to North Carolina through collaborations among research institutions, government and business. It will link via the North Carolina Research and Education Network to RENCI headquarters in Chapel Hill, to centers on the Duke, UNC Chapel Hill and NC State campuses, and to engagement centers at UNC Asheville and East Carolina University in Greenville.

Joe Price Elected to UNC Charlotte's Board of Trustees

Board of Trustees Chair Ruth Shaw, Joe Price and Chancellor Philip L. Dubois

The University of North Carolina Board of Governors elected Joe Price, chief financial officer at Bank of America Corp., to UNC Charlotte's board of trustees.

Price was recommended by the UNC Charlotte board's nominating committee, chaired by trustee Jim Babb. A 1983 graduate of UNC Charlotte's Belk College of Business, Price fills the position vacated by Carl Belk, who recently submitted his resignation.

Price's term runs until June 30, 2011, when he would be eligible for a second four-year term.

UNC Charlotte Chancellor Philip L. Dubois said Price's appointment will enhance the diverse talents and expertise of the board "as well as strengthen the ties between UNC Charlotte and the city's largest financial institution.

"Joe Price is a great friend of the university and the community, and a tremendous addition to our leadership team," Dubois said.

Price currently sits on the college's Business Advisory Council and is also a member of UNC Charlotte's football feasibility study committee. He joined Bank of America in 1993 after serving on the bank's engagement team at PriceWaterhouse.

Price also serves on the board of directors at Habitat for Humanity of Charlotte.

Urban Institute Names New Community Research Services Director

Sean Langley

Linda Shipley

The Urban Institute announced that Sean Langley has been named Community Research Services Director and Linda Shipley named Senior Associate Director.

Langley previously served as Social Research Associate for the Urban Institute's Community Research and Services Division. In his new position as community services director, he will be responsible for seeking funding for various projects, managing and maintaining the budget for Community Research and Services (CRS), conducting applied research for numerous agencies and organizations in the Charlotte region.

Specifically, Langley will conduct several program evaluations, consult with clients on the Institute's annual survey and provide community outreach to the Charlotte community.

Prior to his appointment at the Urban Institute, Langley worked as a program coordinator in the College of Computing and Informatics, while also serving as an Adjunct Professor at several community colleges in the Charlotte area. Originally from Virginia Beach, VA he received his B.A. in Sociology from Johnson C. Smith University and a M.A. in Sociology from UNC Charlotte.

Shipley comes to the institute from Legal Aid of North Carolina. Previously she worked with the Research Triangle Institute, MDC, Inc. and as part of an Economic Development Administration Grant as well as with Manpower Demonstration Research Corporation, in New York City. Shipley received a B.A. in economics and a M.A. in Regional Planning from UNC Chapel Hill.

Tabor and Reichs Shared the Mysteries of Archaeology and Forensic Science

Archaeologist, author and internationally known Jesus scholar, James Tabor joined forensic anthropologist and New York Times best-selling author, Kathy Reichs for an evening sharing the mysteries of forensic science and archaeology at UNC Charlotte in October.

Moderated by WFAE 90.7 FM's Mike Collins, the authors shared some of their most interesting cases at "Dead Bones Talk and Silent Stones Speak." Audience members participated in a hands-on experience and were able to view never before seen artifacts from the Lambdin-Irwin Antiquities Collection, a rare assemblage of ancient Egyptian and Sumerian artifacts.

Tabor is the author of the controversial best seller "The Jesus Dynasty." He has combined extensive field work in archaeology in Israel and Jordan with his work on ancient texts including his recent work at the John the Baptist cave at Suba and the Tomb of the Shroud in Jerusalem. He is the chair of the Religious Studies Department at UNC Charlotte.

Like her fictional character, Temperance Brenna, Kathy Reichs is a forensic anthropologist for the Laboratoire des Sciences Judiciaries et de Médecine Légale for the province of Quebec. She has been a professor of anthropology at UNC Charlotte. Her book, "Deja Dead" became a New York Times bestseller. Eight other books have also been international and New York Times bestsellers. The hit television show, "Bones" on Fox Television is based on her novels.

The event was the culmination of the celebration of the J. Murrey Atkins Library's acquisition of its One Millionth volume.

Engineering Professor Receives Top Teaching Award


Helene Hilger

Terms such as passion and dedication were used when students and colleagues were asked to describe Helene Hilger, who was selected in September as the 2007 recipient of the highest teaching honor bestowed by UNC Charlotte – the Bank of America Award for Teaching Excellence.

Hilger, an associate professor of civil and environmental engineering, was chosen from a prestigious list of finalists. Also nominated this year for their commitment to excellence in teaching were:

- **Harold H. Jaus**, professor of education.
- **Ronald A. Madsen**, professor of economics.
- **Jordan Poler**, associate professor of chemistry.
- **Coral Barborie Wayland**, associate professor of anthropology.

The five nominees were honored during the evening ceremony and gala attended by hundreds of UNC Charlotte faculty members and their guests, Friday, Sept. 28, at Founder's Hall in the Bank of America Corporate Center.

"We have an incredible faculty at UNC Charlotte and the list of nominees for the Bank of America Award for Teaching Excellence speaks volumes about our intellectual capital," said Chancellor Philip L. Dubois. "I congratulate all of the finalists this year for this most prestigious recognition. Helene Hilger should be very proud to have been selected from among such a talented and dedicated group of colleagues."

All five honorees drew strong praise from their students and peers at UNC Charlotte.

"Her passion for the environment and for helping students understand their role in both protecting and engineering the earth led to my decision to further pursue an education in environmental engineering," wrote one of Hilger's former students.

Other current and former students commented on how Hilger engages a mix of undergraduate and graduate students in group activities and in her research projects, how she always has time for students, and the excellent role model and advisor she is for them.

"Dr. Hilger blends theory and practice, field work and class/ lab work, and brings reality and emerging engineering concepts to her classes via her personal experiences," said a faculty colleague.

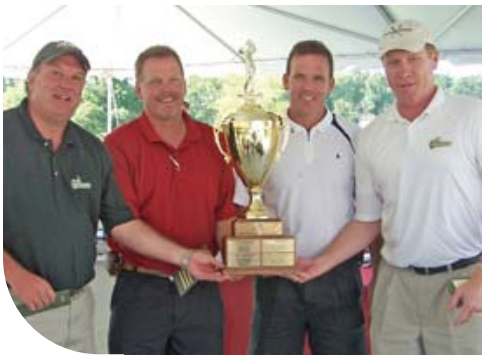
"I work hard to win my students' interest because even after all these years of teaching, I am still impressed by the power of what a civil engineering graduate can do," she said. "With a mere bachelor's degree in hand, she or he can contribute to solving some of the most pressing environmental problems that exist in the developed and developing world."

Alumni Golf Classic Raised $12,000 for Scholarships

The Ninth Annual TIAA-CREF Alumni Golf Classic has raised more than $12,000 for student scholarships. The golf tournament was held on October 8 at Pine Island Country Club in Charlotte. Chancellor Philip L. Dubois, Vice Chancellor Niles Sorensen, and Head Men's Basketball Coach Bobby Lutz played in the tournament along with staff, alumni and friends of UNC Charlotte.

Players were put into teams of four for the 18-hole course with first, second and third place winners receiving various prizes.

The first place team consisted of Sorensen, Paul Thomas, Larry Griffin and Dennis Bunker. Second place winners were Bill Courtney, Rich Hoffman, Barry Pronier and Joe Hanel. Third place went to Todd Graden, Greg Barber, Thomas Eatmon and Jeff Notsger.



The first place team consisted of (from left to right) Vice Chancellor Niles Sorensen, Paul Thomas, Larry Griffin and Dennis Bunker.

"We are so grateful to everyone who participated and helped with our Ninth annual TIAA-CREF Alumni Golf Classic. Together, we have raised a tremendous amount of money for student scholarships, and we cannot wait to give all that money away," said Chip Rossi, director of Alumni Affairs.

The TIAA-CREF Alumni Golf Classic was founded in 1999. The annual tournament is held in October of each year and serves to raise funds for the Alumni Association's scholarship program.

For more information, please contact the Alumni Association at (704) 687-2273 or visit www.uncharlottealumni.org.

Photonics Research and Development Focus of Symposium

Chief executive officers, a Nobel Laureate and influential researchers all explored photonics trends at the Charlotte Research Institute's 6th Annual Optoelectronics and Optical Communications Symposium.

The Charlotte Research Institute is the industry/education portal for the University of North Carolina at Charlotte. The symposium was held on Oct. 31-Nov. 1 on the UNC Charlotte campus.

"The industry is approaching $1 trillion in market impact and is growing fast. Our Center for Optoelectronics and Optical Communications is placed squarely in the sweet spot of research," said center director Michael Fiddy.

The Charlotte Research Institute has active photonics research projects in:

- Active and passive photonic devices for communications, sensing, imaging, lighting
- Integrated optics and packaging
- Optical materials (semiconductors, polymer-organic and crystalline)
- Optical metrology • Optical imaging
- Optical networks

The Charlotte Research Institute also collaborates with the Center for Precision Metrology at UNC Charlotte to combine photonics and precision engineering research. The strategic outcome of the disciplines can lead to advances in advanced manufacturing.

Computing and Informatics Partners to Bolster IT Workforce

The UNC Charlotte College of Computing and Informatics (CCI) announced a new partnership with Cook Systems International, Inc. Cook Systems International will work with CCI to help bolster the area IT workforce by strategically placing CCI students in real-life work situations.

"One of the goals of the College of Computing and Informatics is to help find employment for our highly-qualified students," said Mirsad Hadzikadic, Ph.D., Dean of the College of Computing and Informatics. "Placing our students in the local IT workforce not only enhances their career opportunities following graduation but it also allows us as a college to learn from these experiences and to structure our curriculum in a way that better prepares our students for the ever-changing world of IT."

COLLEGECAREERCORPS is a program that integrates students into professional work environments within local businesses. The students join a team of experienced information technology professionals to work on actual IT projects on a long-term basis.

As part of its partnership with CCI, Cook Systems International will actively identify corporate and government partners that can benefit from this program. And, because partners contract directly with Cook Systems International, projects don't have to begin and end during a single semester like a traditional internship.

MBA Program Partners with National Black MBA Association, Princeton Review

The UNC Charlotte MBA program is partnering with the National Black MBA Association and The Princeton Review to offer scholarships for Graduate Management Aptitude Test (GMAT) preparation courses.

The goal of the scholarship program, which began last fall, is to assist high-potential candidates whose backgrounds are traditionally underrepresented in MBA programs.

The scholarships, valued as high as $1250, will cover GMAT preparation courses offered at The Princeton Review's centers in uptown and the Arboretum area in south Charlotte.

According to AACSB International, the organization that accredits business schools, only about 5.3 percent of U.S. MBA students are African-American. Hispanic Americans represent about 5.2 percent of the MBA student population, while less than one percent is Native American.

Students who wish to apply for the scholarships must hold a bachelor's degree from an accredited university with an undergraduate grade point average (GPA) of 3.0 or higher. They also must apply for admission to the UNC Charlotte MBA program prior to applying for the scholarship.

As part of the scholarship application, prospective students must take the free GMAT practice test located on www.princetonreview.com and submit a printout of their results. Preference will be given to applicants with professional work experience, as well as to candidates from underrepresented groups.

Davies Honored with Bonnie Cone Early-Career Professorship for Teaching

UNC Charlotte Associate Professor Dr. Matthew Davies has been honored with the university's Bonnie E. Cone Early-Career Professorship for Teaching Distinction.

Davies, an Associate Professor of Mechanical Engineering and Engineering Science, was honored at the university's convocation on Aug. 14.

A member of the UNC Charlotte faculty since 2002, Davies was recruited for his international reputation in advanced machining.

Provost Joan Lorden with Matthew Davies

For his part, Davies said he enjoys collaborating with students.

"I am finding that one key to successful teaching is being able to 'connect' with the students," he wrote. "But how can I accomplish this practically? One way is to change the atmosphere of the class from adversarial, where students are merely trying to 'get a good grade' to one where the teacher works with the students to make the class, and the teaching, effective for them."

Approved by the UNC Charlotte Board of Trustees in December 2005, the Bonnie E. Cone Early-Career Professorship for Teaching is awarded to a faculty member who has been awarded tenure within the last three years.

Hall-Hertel Named Assistant Dean of Graduate School

Katherine Hall-Hertel has been named the new Assistant Dean of the Graduate School. She comes to UNC Charlotte from Georgetown University, where she was an Assistant Dean in the Law Center.

Hall-Hertel's priorities for the coming year include working with the Graduate and Professional Student Government to help create a stronger sense of community among the graduate students and the development of workshops to support the academic and professional success of graduate students.

Katherine Hall-Hertel

Ideally, she said she hopes the university will embrace the concept of a Center for Graduate Life as a way to centralize support for graduate education.

Hall-Hertel said she is excited about coming to a graduate school that is "relatively new and dynamic."

"That is an exciting combination and there is a real energy here about graduate education," she said. "Coming to a multi-disciplinary environment presented me with a new challenge and offered me the opportunity to hone some new skills."

Student Health Center

State-of-the-Art Student Health Center Opens at UNC Charlotte

UNC Charlotte opened a new state-of-the-art Student Health Center this fall, located at the intersection of Cameron Boulevard and Mary Alexander Road.

The new center is almost triple the size of the center's former home, the Brocker Building.

The $7.5 million building, at almost 32,000 square feet, features 19 medical examination rooms. The new facility also provides for the expansion of the laboratory, pharmacy, immunization clinic and the university's wellness education program.

The new building also features three dedicated urgent care bays designed to isolate and treat the most serious patients. Other new features include a digital X-ray machine and two negative pressure rooms. Digital X-rays will enable the Student Health Center to securely transmit results to consulting radiologists and other medical professionals, which will speed patient diagnosis and treatment.

Negative pressure rooms are used to prevent the spread of infectious bacteria. Very few student health centers have negative pressure rooms, so including these is smart planning and forward thinking in how to handle potentially infectious agents.

The Brocker Building will be renovated to accommodate UNC Charlotte's Military Science Program which includes both an Army and an Air Force ROTC program.

Shaw Group Gives $50,000 for EPIC

At a November news conference to unveil plans to add more than 550 jobs in Charlotte, officials with the Shaw Group Inc. presented a $50,000 check to the UNC Charlotte Foundation.

Describing it as an investment in education, the gift was accepted by David Dunn, vice chancellor for university relations and community affairs.

"This generous gift will significantly boost UNC Charlotte's research capability in our new Energy Production Infrastructure Center (EPIC)," said Dunn. The university's EPIC building has received $19 million in state funds for planning and site development work.

The 200,000-square-foot EPIC building will house the departments of Electrical Engineering and Civil Engineering. UNC Charlotte officials are seeking full funding for construction of the $76.2 million building in the 2009 session, with completion by the summer of 2011.

Shaw already has about 950 workers in Charlotte. It provides design and engineering services for power plants around the world. It does significant business with Charlotte-based Duke Energy Corp.

Freshman Enrollment Surpasses Expectations in Quality, Diversity

UNC Charlotte's fall enrollment data show that the university enrolled more freshman than expected and that those freshmen are a more diverse group and achieved higher GPAs and college entrance test scores than in 2006. The university's Graduate School also enrolled its largest class.

The freshman class grew from 2,798 in 2006 to 2,957 in 2007 – an increase of 159 students (5.6 percent) over 2006. The university exceeded its freshman goal of 2910.

The SAT average score for those new students increased from 1568.8 in 2006 to 1572.7 in 2007 – a 3.9 point increase. Across the nation and elsewhere in North Carolina, the average SAT score dropped 7 points in 2007.

This is a more diverse freshman class than in 2006. The percentage of underrepresented students – which include African Americans, Hispanics, Native Americans, and students of Asian descent – increased from 20 percent in 2006 to 22.5 percent for fall 2007.

Enrollment of African American freshmen increased from 334 to 382; Hispanic student enrollment increased from 107 to 124; Native Americans from 8 to 19. The SAT averages for all minority groups except Native American Indians increased.

The high school GPA average of freshmen improved from a 3.60 to 3.63. There were more students enrolled from the 4.00 or higher high school GPA range this year as compared to last year (21.2 percent this year as compared to 18.9 percent in 2006).

"These are extraordinary data," said UNC Charlotte Chancellor Philip L. Dubois. "It is a great credit to everyone associated with attracting students to the university that we are growing in diversity and academic standing.

Another positive indicator is the size of UNC Charlotte's transfer class. The university enrolled 2,044 transfers this semester as compared to 1,906 in 2006. Once again UNC Charlotte has the largest transfer class in North Carolina. Many of the transfers come from community colleges.

The appeal of UNC Charlotte also extended to prospective graduate students. The university's Graduate School enrolled 4,793 graduate students this semester – more than ever before.

Preliminary data show an 18 percent increase in doctoral enrollments.

David Dunn Takes Flying Leap with ROTC

Vice Chancellor for University Relations and Community Affairs David Dunn's adventure began at 0600 Oct. 31. In the darkness, a van is parked at the back entrance of the Kennedy Building, home to the UNC Charlotte Army ROTC 49er Battalion. A team of representatives from broadcast communications, public relations, and Army ROTC departs with Dunn for Laurinburg/Maxton Airport near Fort Bragg, N.C. on what will be the chance of a lifetime for Dunn.

At 0830 hours, the van arrives at flight headquarters for the U.S. Army's premiere parachuting team, The Golden Knights. Dunn has an appointment to take a tandem jump with the Army's most talented champion skydivers. He's in good company. The walls of the training room are lined with photos of tandem jumpers – former President George H.W. Bush, Tiger Woods, Ann Curry, Chuck Norris, rocker Joan Jett, former NFL player Bill Romanowski and other high-profile celebrities.

Dunn is here at the invitation of UNC Charlotte's Army ROTC Command Team, Lt. Colonel Eddie Johnson and MSG Lee Rodriguez. The Army's Tandem Team enables university ROTC programs to reach out to influential faculty and staff to show appreciation for their support. Dunn had no reservation about jumping and his response to Lt .Col. Johnson's invitation was, "I am in. Let's fly!"

Within two hours, Dunn is trained in tandem procedure by the Golden Knights team leader, Sgt. 1st class, Billy Van Soelen, who will serve as Dunn's tandem partner.

Billy V, as the team refers to him, is a 14-year veteran of the team with more than 10,000 jumps to his credit. At 5-feet-9-inches, Billy V is dwarfed by Dunn who stands at 6-feet 2-inches. Billy V is built, however, like a refrigerator.

Suited up in Army Golden Knights parachuting gear, Vice Chancellor David Dunn looks excited and confident prior to his first-ever skydive.

After donning a bright yellow jumpsuit and helmet, Dunn and company board a UV-18A Twin Otter Golden Knights aircraft. While the Otter climbs to 14,000 feet, Billy V attaches himself to Dunn and checks their equipment. Finally it is time. The aircraft door opens, wind rushes in, and Van Soelen and Dunn approach the opening.

On a crisp, crystal clear, fine autumn day, David Dunn leaps out into blue sky two miles above the earth. He and Van Soelen disappeared freefalling into white clouds.

Staff Sergeant Joe Jones, a freefall photographer, jumps along with the tandem team videotaping the entire adventure. He approaches the team mid-air, extends his hand to Dunn, and they take a few spins traveling at 120 miles per hour.

After falling 13,500 feet, Jones, Van Soelen with Dunn approach ground and feet hit the earth as if they are stepping off an escalator. All three are upright, safe and sound. "That was the most exhilarating experience of my life. Awesome," shouts Dunn.

LTC Johnson and MSG Rodriguez have now adopted David Dunn, a 1980 UNC Charlotte alumnus, as an honorary member of the Army ROTC 49er Battalion.

Vice Chancellor David Dunn is now Army strong. He will be more than happy to show you the video.

A whole team of Army ROTC and Golden Knights teammates and others made the adventure possible. Flanking Dunn in camouflage are Master Sgt. Rodriguez and Lt. Col. Eddie Johnson of the Army ROTC 49er Battalion, Eastern region, 4th Brigade. The Golden Knights are based at Ft. Bragg. Bill Van Soelen is at the front, right with Joe Jones.

49ers Golf Consensus #1

With wins in its first three fall events, which included some of the top teams across the country, the Charlotte golf team vaulted to number one in the Golfweek, Golfstat and NIKE/Golf World GCAA Coaches' polls. The golf team, which has beaten previous number one Alabama and defending NCAA National Champion Stanford, is the first team in school history to achieve a number one ranking.

Charlotte has one the previous two Atlantic 10 Championships and placed third at the 2007 NCAA Championships. With four of their top five players returning Charlotte was ranked 10th in the Golf World Preseason Poll but climbed the ladder with wins at the Scenic City Invitational, the PING/Golfweek Preview, an invitation-only event that attracts top teams to the site of the upcoming NCAA Championships and The Prestige at PGA West, co-hosted by Stanford.

Charlotte's top four players are all ranked in Golfweek's Top 50 individual rankings, including Stefan Wiedergruen, who has been ranked as high as #2 in the country and Jonas Enander Hedin, who has reached as high as #5. Enander Hedin is ranked 29th in the World Amateur rankings, as well.

Charlotte 49ers Basketball Underway

2007-08 Charlotte 49ers Women's Basketball Schedule

JANUARY

Wed. 2	**CLEMSON**	**Charlotte, NC**	**7 pm**
Sat. 5	**WINTHROP**	**Charlotte, NC**	**7 pm**
Sat. 12	at Duquesne*	Pittsburgh, PA	
Tues.15	**MASSACHUSETTS***	**Charlotte, NC**	**12 pm**
Sat. 19	**SAINT LOUIS***	**Charlotte, NC**	**7 pm**
Tues.22	at Dayton*	Dayton, OH	7 pm
Sat. 26	at George Washington*	Washington, DC	2 pm
Wed.30	**LA SALLE***	**Charlotte, NC**	**7 pm**

FEBRUARY

Sat. 2	at Saint Louis*	St. Louis, MO	8 pm
Wed. 6	at Temple*	Philadelphia, PA	7 pm
Sat. 9	**St. BONAVENTURE***	**Charlotte, NC**	**7 pm**
Tues.12	**SAINT JOSEPH'S***	**Charlotte, NC**	**7 pm**
Sun. 17	at Xavier* (CSTV)	Cincinnati, OH	12 pm
Sun. 24	**RHODE ISLAND***	**Charlotte, NC**	**2 pm**
Wed.27	at FORDHAM*	Bronx, NY	6 pm

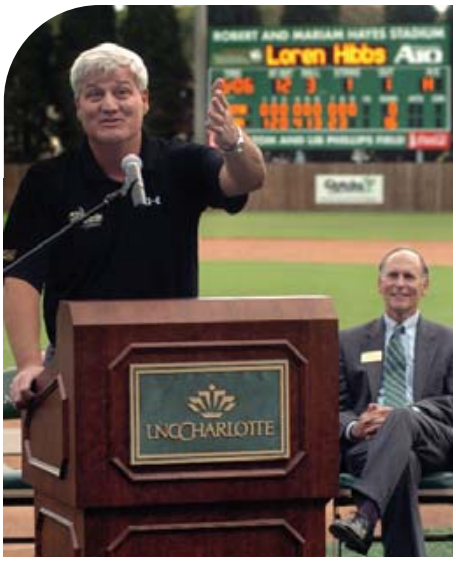
MARCH

Sat. 1	**RICHMOND***	**Charlotte, NC**	**7 pm**
Fri.-Mon. 7-10	at Atlantic 10 Championships		

*Atlantic 10 Conference games | Home games in CAPS and bold | All times are Eastern | The Atlantic 10 Tournament is held at Saint Joseph's Alumni Memorial Fieldhouse in Philadelphia, PA.

See back cover for Men's Basketball Schedule

49ers Dedicate Robert & Mariam Hayes Baseball Stadium



Coach Loren Hibbs

"Wow."

That was the first word uttered by Charlotte 49ers head baseball coach Loren Hibbs during the dedication ceremony of Robert & Mariam Hayes Stadium, Oct. 19.

The Charlotte 49ers officially dedicated their brand new $5.9 million baseball facility, which includes includes concession stands, ticket windows, on-site restrooms, a spacious press box, hospitality suites, radio and TV booths, improved dugouts and bullpens and seating for over 1,100 fans in two levels of seating. The playing surface, Tom and Lib Phillips Field, remains relatively unchanged, but the amenities now available to the athletes and fans have given the program a first-class feel.

Hibbs, who has coached the 49ers for 15 years, said he often dreamed of this time and thanked the coaches and players who came before him as well as the many donors for their part in making the facility a reality.

A crowd of nearly 300 friends of the program, faculty and staff as well as former players, parents and fans all got a chance to take part in touring the facility.

Chancellor Phil Dubois, Athletics Director Judy Rose and Athletics Foundation President-Elect Ellison Clary spoke at the event and made presentations honoring the Hayes family, represented by Bob Hayes, grandson of the late Robert and Mariam Hayes.

The 2007 Charlotte 49ers baseball team, which won the Atlantic 10 Championship, posted a pair of wins in the NCAA Regional and set a school record with 49 victories, was also recognized with a Championship Ring ceremony. In addition, consensus all-America Adam Mills was honored with a plaque for leading the NCAA in pitching ERA.

Hayes Stadium on the day of its dedication

BIG PLANS for tiny materials

Nanoscale science research helps shape the future atom by atom

By Phillip Brown

When it comes to revolutionary research, UNC Charlotte is positioning itself to be a major player in materials of a very small size.

Nanoscale science is the University's newest doctoral program, and it is the only such program at any North Carolina public institution. This burgeoning area of study is devoted to investigating the development and manipulation of materials and devices between one and 100 nanometers or one billionth of a meter.

If that sounds small, it's because it is. This virtually inconceivable size is 100,000 times thinner than a strand of hair. Nanoscale is at the level of atoms, the building blocks of all matter.

In the article "How nanotechnology will work," author Kevin Bonsor points out that for humans, cells are nature's nanomachines, and the consumer goods people buy are created by pushing together piles of atoms in a bulky, imprecise manner.

The alternative is to manipulate each individual atom and use ones of the exact same size and shape to produce a desired structure or nanomaterial. How to create and use these nanomaterials is the focus of much discussion and debate.

According to Dr. Bernadette Donovan-Merkert, chair of the University's Department of Chemistry and interim director of the Nanoscale Science Ph.D. program, there is an increasing emphasis on nanoscale research in the United States and around the world.

She points to the National Nanotechnology Initiative, announced by President Clinton in 2000, as an indicator of the field's importance.

In a speech at the California Institute of Technology, Clinton said, "Imagine the possibilities: materials with 10 times the strength of steel and only a small fraction (of the weight) – shrinking all the information housed in the Library of Congress into a device the size of a sugar cube – detecting cancerous tumors when they are only a few cells in size."

Donovan-Merkert and scientists around the world recognize that nanoscale research offers a vast potential for discovery and advancement, especially in the areas of medicine, energy, homeland security and the environment.

"Nanotechnology is vitally important for our economic future, not only for the country, but for North Carolina," said Donovan-Merkert. "Its promise could have the same level of impact on North Carolina's economy that biotechnology did a few decades ago."

The National Science Foundation estimates by 2015 nanotechnology will be a $1 trillion industry worldwide employing roughly 2 million people. In the United States, nanoscale science workers will number between 800,000 and 900,000.

To harness that future will require researchers adept at working collaboratively, stressed Donovan-Merkert.

"Research at the nanoscale cuts across the science and engineering disciplines," Donovan-Merkert stated. "Chemists typically work from the bottom of the nanometer length scale and build up larger systems. Their understanding of bonding and molecular interactions is detailed, but they cannot apply these concepts to molecular systems that extend into the larger-sized region of the nanoscale regime. While engineers and physicists understand the behavior and properties of materials of sizes greater than the nanometer scale, their understanding of materials is challenged when they push technology down into the nanoscale range. Although biologists often work on a scale that is significantly larger than 1 to 100 nanometers, their expertise is needed to understand and replicate the phenomena of biological systems to enable nanoscale science to revolutionize the practice of medicine and health care delivery. Our program motto, 'The disciplines meet at the nanoscale,' reflects our understanding that success will require the integration of biology, chemistry, engineering, physics and other disciplines."

Interdisciplinary collaboration is the hallmark of UNC Charlotte's Nanoscale Science Ph.D.

Professor Obare assists Kaitlyn Crawford, an undergraduate research assistant, prepare a sample for analysis using the scanning tunneling microscope.

program. Fortunately, the University has a long-standing tradition of such cooperation.

"UNC Charlotte's advantage in creating this new program is its flexibility. We are well-positioned to establish a truly interdisciplinary program the way we wanted to because of the high level of collaboration already taking place among faculty across campus. Factor in the Charlotte Research Institute and it is apparent that we have the proper foundation to build a world-class program," Donovan-Merkert said.

That emphasis on collaborative interdisciplinary education already is producing results enabling UNC Charlotte to recruit Dr. Sherine Obare from Western Michigan University. Obare, an assistant professor, holds a doctorate in inorganic/analytical chemistry from the University of South Carolina, and she completed a Camille and Henry Dreyfus post-doctoral fellowship in environmental chemistry with an emphasis on nanomaterials at Johns Hopkins University.

"Nanotechnology is vitally important for our economic future, not only for the country, but for North Carolina," said Donovan-Merkert. "Its promise could have the same level of impact on North Carolina's economy that biotechnology did a few decades ago."

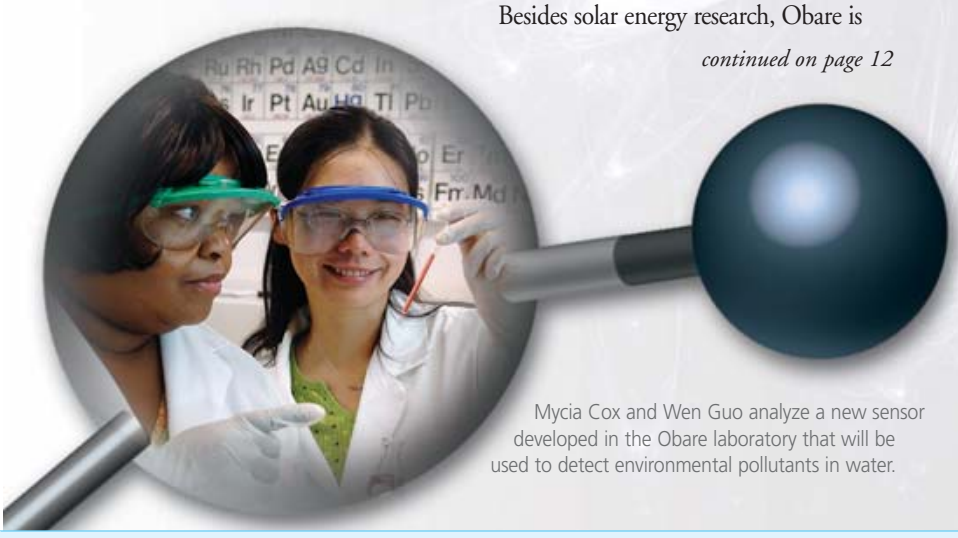
Considered a rising star in the field, Obare arrived in August along with a research team comprised of one postdoctoral fellow and four Ph.D. students. Those doctoral students account for almost half of the program's first class of nine enrollees.

"Solving problems in science requires the expertise of researchers from various disciplines and the fact that UNC Charlotte is developing several interdisciplinary programs is exciting because it provides an educational environment for students to address problems in new ways," exclaimed Obare. "Being part of a community that understands and encourages the interdisciplinary research and training is an advantage toward our success. Through the nanoscale science program at UNC Charlotte, we will be educating and training scientists who will be capable of tackling some tough technological issues in the future."

Obare is a recipient of the Faculty Early Career Development (CAREER) award from the National Science Foundation, its most prestigious honor for junior faculty members. The award is funding her research that focuses on the development of nanoscale materials capable of harvesting and storing solar energy and using that energy as needed for various chemical transformations. In addition, Obare collaborates with scientists and engineers nationally and internationally on projects funded by the National Institutes of Health and the Michigan Economic Development Fund.

Besides solar energy research, Obare is

continued on page 12



Mycia Cox and Wen Guo analyze a new sensor developed in the Obare laboratory that will be used to detect environmental pollutants in water.

Scientist brings whole team from Michigan

When Sherine Obare arrived on campus in August, UNC Charlotte gained not only one of the country's top nanoscale scientists, but her entire cadre of student researchers.

The team is comprised of four doctoral students who are among the first enrollees in the University's nanoscale science Ph.D. program along with one post-doctoral fellow. Obare's passion and dedication to her research as well as her desire to see them succeed in this emerging field were strong motivators for the students.

"She really provides us a lot of attention and wants us to be active participants in the research process," said Ruel Freemantle, a native of Kingston, Jamaica, who earned a bachelor's in chemistry from the University of West Indies.

Kausik Mukhopadhyay, a postdoctoral researcher, agreed.

"Not only do we all like her as a person, but we appreciate the level of freedom she gives us to conduct research," Mukhopadhyay said. "She doesn't force us to go by the rules or the book but allows us to explore our interests in nanotechnology and nanomaterials."

Originally from India, Mukhopadhyay received his doctorate in chemistry from the National Chemical Laboratory, Pune University.

Princess MyCia Cox, Wen Guo and Minghong Liu complete the team that followed Obare from Western Michigan University. Cox, an Arkansas native, holds a bachelor's degree in chemistry from Eastern Michigan University. Guo and Liu are both from China, and each earned master's and bachelor's in chemistry from Xiamen University.

After arriving in August, the team spent the first month setting up a research laboratory so they could resume work on their projects related to the synthesis or creation of nanomaterials.

The transition to a new institution might seem like a daunting prospect, but the students are delighted to be in Charlotte and at the University.

In addition to witnessing Southern hospitality first hand, the students were impressed with the campus, faculty and the design of the Nanoscale Science Ph.D. program.

The interdisciplinary nature of the program will expose us to other ideas and how to approach problems from other perspectives, said Cox.

"Nanoscale is a very new field, and it requires us to broaden our understanding of physics and other disciplines and types of instrumentation," Cox explained. "We're really learning the details about these areas, and that's going to enable us to bridge the gap between chemistry and engineering, which will give us an advantage in the job market after we complete our degree."

exploring how to use nanoscale materials in environmental cleanup and the development of detection methods for biological and environmental applications. Her effusive enthusiasm for her research and its potential is easily apparent.

"Our goal is to create new nanomaterials, understand their properties and use their properties to study how they can be used to address environmental, biological and energy-related problems," said Obare.

Ultimately, if successful in principal, researchers can team up with engineers or industrial partners to use the work commercially to benefit society.

Minghong Liu and Ruel Freemantle handle air sensitive chemicals in a glove box that is used to fabricate novel nanoscale materials.

One example Obare uses to illustrate that concept is her work with engineers at Michigan State University. She and her colleagues are exploring how to build catalysts that can convert biorenewable materials into chemicals that are useful for everyday use (called commodity chemicals).

"Currently, several commodity chemicals are derived from crude oil, which, as a fossil fuel, is becoming increasingly scarce," Obare explained. "What we're trying to do is take materials present in biomass, such as dead leaves or dry grass, and transform it using nanomaterials and water. Once we are successful, then, our work can be extended to large scales that will be useful industrially."

Another potential boon to the environment is Obare's efforts to discover how to detect pesticide contamination in groundwater supplies.

"Agricultural use of pesticides has resulted in advancement in food supplies and animal protection, but sometimes with unanticipated consequences," Obare explained. "For example, introduction of pesticides can have some serious environmental and health risks. Many pesticides are made of toxic chemicals, and while being sprayed, they seep into the ground and can easily end up in rivers, lakes and other sources of drinking water. The resulting damage has required building treatment plants and purification systems."

"As the program continues to grow, we'll be competing with other institutions for the best and brightest students."

Obare and her students are designing and fabricating nanomaterials that change color when they come into contact with a potential pesticide pollutant. The color change and its intensity indicate their presence and severity. With such knowledge, state and federal agencies could begin the process of detecting that pesticide and develop strategies to remove it from the environment or food supplies.

Despite its futuristic potential, Obare said the concept of nanoscale science is not new. She cites the use of gold particles used by stained glass artisans as an illustration.

"Centuries ago, gold nanoparticles were used to stain glass and create beautiful art. But at the time, it was difficult to know the structure of gold being used because of the lack of instrumentation for their analysis. Gold on the nanoscale was prepared such that it had unique colors ranging from red to maroon to blue," said Obare. "Most people think of gold as the color associated with jewelry, but at the nanoscale, the size and shape of gold particles can be manipulated to appear as these other colors. This is just one example of how materials can have unique properties on the nanoscale."

Today's sophisticated instrumentation, such as atomic force and scanning electronic microscopes, enables Obare and others globally to conduct nanoscale research.

While the University has increased funding toward the Nanoscale Science Ph.D. program, Donovan-Merkert said there is a pressing need for additional funding to purchase instrumentation needed to conduct cutting-edge research and to build additional laboratory facilities. For example, many researchers in nanoscale science at UNC Charlotte need a transmission electron microscope (TEM) to conduct their work. Since the University does not have this instrument on campus, faculty and students must travel to other institutions to make measurements, cutting into research productivity.

"It also limits our ability to recruit other top-rate scientists who need this instrumentation for their research," Donovan-Merkert said.

She added that increased funding to recruit and retain graduate students will be critical to the growth and success of the program.

"You can't have a top-rate graduate program if you don't attract top-rate students," noted Donovan-Merkert. "Our program started off with an outstanding group of students in part because of our ability to offer competitive stipends."

The University already is recognized for being among the leaders in nanotechnology research through the Center for Precision Metrology, Donovan-Merkert observed. "Across the disciplines, faculty members at UNC Charlotte are working hard to bring in more grant funding to support graduate research assistantships. But we will also need help from other internal and external sources to increase the number of competitive graduate fellowships that will enable our program to thrive.

"As the program continues to grow, we'll be competing with other institutions for the best and brightest students. We'll need the ability to support faculty and student travel to conferences and other institutions to enhance future recruitment efforts."

Obare agreed that increased funding will be important for the program.

"Our students will have to have a level of support that will enable them to conduct research," said Obare. "However, that research must be done collaboratively, which is the focus of our program. In 10 years, UNC Charlotte will be recognized as a leader for developing interdisciplinary nanoscale research while more established schools will attempt to catch up."

Phillip Brown is internal communications manager at UNC Charlotte.

RuBiRu Helps Raise Funds and Profile for BRAIN CANCER

All Proceeds Raised Remain in the Charlotte Region

Director of Community Affairs Ashley Oster shares the good times at RuBiRu with Jim Palermo (center) of Brain Tumor Fund for the Carolinas and Vice Chancellor David Dunn. All three were instrumental in developing the event. Dunn won a medal in the first 5K road race segment of the event.

WINNERS of the 5K road race were:
Patrick Schallenkamp, *18, of Matthews*
Mike Murphy, *53, of Charlotte*
Michael Greene, *25*
Eimar Goggin, *50, of Charlotte was the first place female winner*

WINNERS of the 10K Bike Time Trial were:
James Bowen, *50, of Charlotte*
Brian Sain, *18, of Taylorsville*
Matthew Chisholm, *24, of Charlotte*
Catherine Betor, *was the first place female winner*

WINNERS of the 5K Trail Run were:
Chan Pons, *30*
Mike Murphy, *53 of Charlotte*
Michael Greene, *25 of Charlotte*
Lana Sohan, *21, was the first place female winner*

In November, UNC Charlotte's first 20K run, bike, run event drew more than 210 participants and raised more than $20,000 for brain cancer research. Officials estimate that proceeds might exceed $40,000 after all matching funds are processed.

RuBiRu comprised a 5K road race, a 10K bike time trial, and a 5K trail run. For children there was a RuBiRu Kid Zone sponsored by the University YMCA. All proceeds raised will remain in the Charlotte region.

Participants were challenged to raise donations by seeking sponsorships. Phill Wertz and Bobby Ketchie each raised more than $5,000. Both are brain cancer survivors from the Charlotte region. One will receive a cooking class for 10 people with Chef Peter Reinhart of Johnson & Wales University after employer matching donations are tallied.

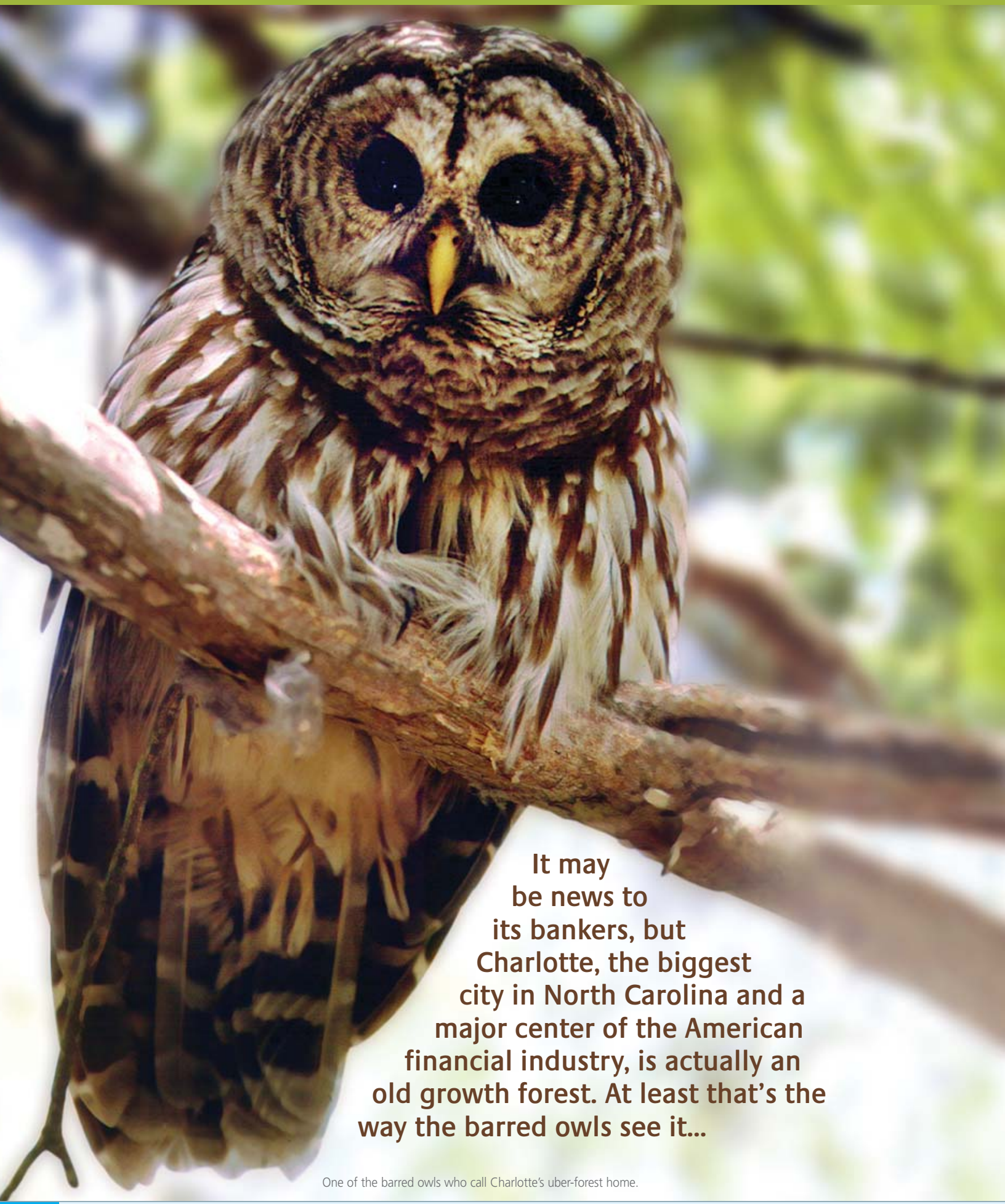
Approximately 100 volunteers from the University YMCA: UNC Charlotte athletics teams; staff and students; Brain Tumor Fund board members; and Presbyterian Neuro-ICU nurses participated. Presenting sponsor Hearst Service Center volunteered to sponsor RuBiRu again next year.

RuBiRu is part of an effort to create a multi-million dollar, nationally competitive brain cancer research program at UNC Charlotte that will partner with cancer physicians in the region's major healthcare systems.

"This event exceeded all our expectations," said Jim Palermo, co-founder of the Brain Tumor Fund for the Carolinas. "This is another solid step in our journey to provide brain cancer research in this region."

Above: Scott Carlberg (left) and Bob Wilhelm are pictured here with Bob's wife and daughters, Lynda, Amelia and Menaka. Wilhelm is executive director of the Charlotte Research Institute. Carlberg is principal of Talking Points LLC and manages public affairs for CRI.

Right: Chancellor Philip L. Dubois won a medal in the first 5K segment of the event. As UNC Charlotte's director of life sciences, Catherine Hicks works very closely with the Brain Tumor Fund in its collaborations with the university.



It may be news to its bankers, but Charlotte, the biggest city in North Carolina and a major center of the American financial industry, is actually an old growth forest. At least that's the way the barred owls see it...

One of the barred owls who call Charlotte's uber-forest home.

Ecology Study Discovers City is an

UBER-FOREST for Big Barred Owls

By James Hathaway

Charlotte is famous for having two kinds of green. It is home to two of the nation's largest banks and its downtown residential neighborhoods and near-suburbs are also known for their lush yards and green streets, lined with large trees. Less well-known is the fact that the city is almost as well populated with large owls – particularly barred owls – as it is with bankers. Harry Potter would feel very much at home.

In fact, the barred owl population in Charlotte is so strong that the city was chosen to be the site for the most extensive barred owl research study that has ever been attempted, with fieldwork going on in the manicured front lawns and gardened back yards of urban and suburban neighborhoods.

Urban wildlife numbers have been increasing in recent decades, notably in populations of squirrels, Canada geese, raccoons and deer, but the appearance of significant urban populations of barred owls, the third largest owl species in the US, is a surprise to many biologists.

"If you read about barred owls in the textbooks, it says they need large stands of old-growth forest to survive," notes University of North Carolina at Charlotte ecologist and ornithologist Rob Bierregaard, who has directed the six-year-old research study. "Either the barred owls in Charlotte haven't read that book or the book is wrong, because they are really here and apparently doing quite well."

"We have concluded that there may be a third possibility: that old suburban neighborhoods in fact are an old growth forest, at least as far as the barred owls are concerned."

Bierregaard's study has now found and monitored more than 200 nesting attempts by 78 different pairs in both suburban Charlotte and the surrounding countryside, but the project began when he first considered doing a study of barn owls, which are common in farm country, as a thesis project for a graduate student. A team of volunteers was necessary to support the effort and, unfortunately, they all lived in the city – a long drive from the proposed rural study sites.

In order to accommodate the volunteers, the researchers pragmatically changed the target species and put up nest boxes in the wooded suburban neighborhood where the volunteers lived. Barred owls, they discovered, were common there.

"Barred owls need old growth forest because they need trees big enough to have holes to nest in," Bierregaard noted. "They also need a pretty open understory, because their hunting technique is to sit on a branch and wait for something to move. If you have a young forest with a really thick undergrowth, they are not going to be able to see enough to hunt.

"When you look at suburban Charlotte, what do we have? We've got giant old willow oak trees with plenty of holes in them and we've got mowed lawns and azalea bushes, which is a *very* open understory, so they can see a *long* way. The habitat is an 'uber' old growth forest for owls because the understory is so open and there are plenty of birdfeeders to attract prey."

The research study, which began in 2001 and has been sponsored by the Carolina Raptor Center, has been large-scale and in-depth, with researchers monitoring about 40 nesting sites each year and tracking many sets of young as they mature through attached radio transmitters. Using radio telemetry, the team has mapped out a dozen or so owl territories in south Charlotte, each of which is about 200 acres in size. Locating the birds and their nests, normally a very difficult task in wild forests, has been greatly simplified thanks to the reporting of ordinary Charlotteans, who apparently love their city's owls.

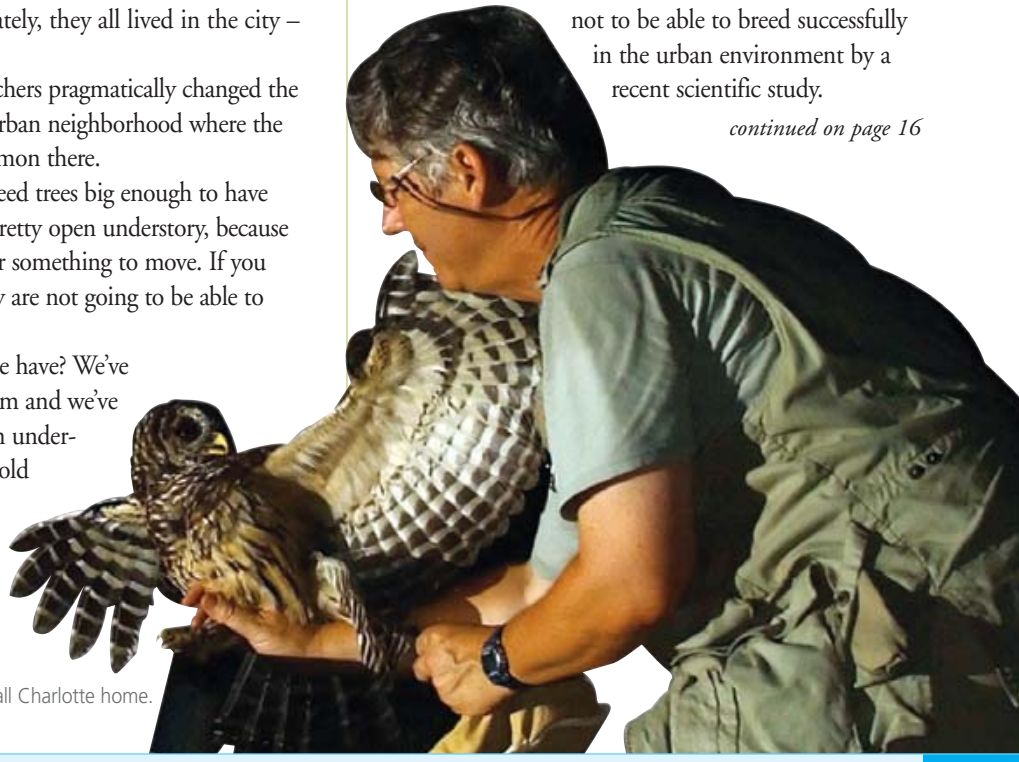
"Probably half the nests we've found because someone either called in to the Raptor Center and reported young on the ground or we're wandering around a neighborhood with a tape recorder playing owl calls and someone will ask 'what are you doing?' I'll explain and they'll say 'there's a pair three blocks over that way.' Since they are so vocal, you can't be around a barred owl nest and not know it," Bierregaard said.

Though amused to see the biologists afield in their yards, the Charlotte community seems to have eagerly embraced the project. "Pretty much everybody knows us when they see us and the antennas," he said. "There aren't many neighborhoods where we haven't been."

Public enthusiasm and interest aside, some very serious science is going on in people's backyards. One of the most important ecological questions that the study is close to answering is the question of whether or not the barred owls are really as successful in Charlotte as they appear to be.

The answer to the question of whether or not the city's many owls have been able to be at home is not as obvious as it would seem on the surface. For example, the cooper's hawk, another raptor known to be common in cities like Charlotte, has been shown not to be able to breed successfully in the urban environment by a recent scientific study.

continued on page 16



Rob Bierregaard has become an expert on the barred owls that call Charlotte home. Photo Credit: Jim Simmons, *The Charlotte Observer*

Big Barred Owls

Barred owls are thriving in Charlotte's uber-forest.

"Coopers hawks are drawn by the food," Bierregaard notes. "Everyone's got birdfeeders up and a birdfeeder is just a two-step hawk feeding platform. The local Coopers hawks have these kamikaze raids where they will fly though a neighborhood at full speed and they will come around a corner where they know there's a birdfeeder and just see what flies up in front of them. It is like they are trap-lining the local birdfeeders."

The visiting hawks are not as successful, however, when it comes to nesting. Cities abound with pigeons and doves, which are good prey for hawks but often carry a microbial parasite that is fatal to the hawks' young. The urban environment thus creates an ecological condition known as a "sink" – the area looks friendly to the birds but is really causing a net loss to the overall hawk population. Birds are attracted into the area but are not able to replace themselves in the next generation.

The situation of barred owls in Charlotte is very different, Bierregaard and his students believe. Though their findings are not fully complete, the researchers have so far found that the urban barred owls are able to reproduce effectively – perhaps significantly more effectively than in wild forests – because their rate of reproduction exceeds their rate of mortality. In the city, owl death tends to happen either from disease or from cars, the owls' most serious predator.

The researchers have attached miniaturized radio transmitters to young owls. The ecologists then track the movements of the owls as they mature and note where they finally settle among the network of well-mapped territories and nesting sites, establishing a kind of on-going community history of the owl population in south Charlotte.

"If you see an owl in south Charlotte, chances are we know it by name," said Bierregaard. "There's a location in Lata Park, for example, that has apparently had barred owls almost forever. But just since we've been studying that pair, it has been replaced by a completely

"The habitat is an 'uber' old growth forest for owls because the understory is so open and there are plenty of birdfeeders to attract prey."

new pair. Three years ago, the male died – he was replaced. The next year, the female died – the male raised the young as a single dad – and then the next year the female was replaced. If we didn't have radios and know those birds, nobody would have known that they were new birds. It's been amazing how quickly they are replaced."

Bierregaard notes that Charlotte wasn't always such prime owl habitat. A hundred years ago when the city was much smaller, most of the current residential area was farmland – open country with few trees that would be suitable for barred owl nests. As the land was sold for residential neighborhoods, trees were planted which eventually grew to old growth forest size and, apparently, the owls moved in.

Now, as newer suburban continue to mature, the owl habitat is steadily expanding. "As the farms have been abandoned, the new neighborhoods that replaced them have planted trees," he said. "If you wait long enough, the barred owls are going to expand their territory, as the trees start to grow up in the newer suburban neighborhoods."

Other mysteries of urban owl life are beginning to emerge, including the question of what it is that city birds most like to eat – squirrel or cardinal, crawfish or koi? In the last couple of seasons the researchers have installed video recorders in some of the nest boxes, and Cori Cauble, one of Bierregaard's graduate students, has been researching a thesis on the owl's food habits and how they compare to owls in the wild.

Before the video cameras, the researchers had noted the prominence of bird feathers in the nest boxes, but were unwilling to draw any conclusions because they noted that feathers were more likely to be left and preserved from kills than other kinds of remains. The videos of owl home life answered the question.

"We scaled back our estimation on how important birds are in their diet until the first day we had a video camera in a box: they brought in eight prey items and four were birds. That result has held – for two years we have had cameras in four or five different nests. They have diverse diets, depending on territory," he noted. "We have one nest we call the 'sushi box' because they bring in so many fresh fish, but even there the owls bring in a lot of birds."

All-in-all, the researchers think a picture is emerging of barred owls that are nearly as happy in cities as people are, though like the humans, they hate and fear the traffic, and living space is at a premium.

"The biggest source of mortality in an urban environment is flying into cars," Bierregaard noted. "We've had a couple die of diseases, but for most of the birds that we have had tagged, where we know how they died, they flew into a car. But it seems that mortality even from that isn't that high.

"It certainly seems that they are cranking out enough young to more than make up the difference. We are getting to the point now where young that we radio-tagged back in 2002 are having young. It's neat to watch how the young birds that we tagged wander around and find a spot where there is a vacancy, where a bird has died. There are enough birds floating around that when a bird dies, that spot is filled really quickly."

In the world of urban owls, it would appear, there is no downturn in the real estate market.

To see further information about the south Charlotte barred owl study, see the web pages at: www.bioweb.uncc.edu/bierregaard/barred_owls.htm

James Hathaway is research public relations manager at UNC Charlotte.

Banker is Passionate Advocate for Latino Community

Jose Manuel Rey has never been afraid to explore new places or opportunities.

Raised in Houston, Texas, Rey crossed the border to pursue his undergraduate studies at Latin American University in Mexico City before earning his Masters Degree in Public Administration from The University of North Carolina at Charlotte in 1998.

After career stops with Mitsubishi Motors and Duke Energy, Rey landed a coveted position with Charlotte-based Wachovia Corp., one of the largest banks in the United States.

"It's not to say we didn't learn a lot of theory, but my teachers gave me a lot of practical knowledge that I use all the time in my work."

Jose Manuel Rey

By 2002, he was promoted to the position of vice president in charge of the bank's Hispanic market, where he developed and implemented Wachovia's regional strategy for the growing Hispanic market.

Seemingly set in his dream job, what does Rey do next?

He leaves Wachovia just two years later to join Peoples Bank, where he spearheads the launch of Banco de la Gente (Peoples Bank in Spanish), a new banking concept designed specifically to serve North Carolina's growing Latino population.

Rey remains a passionate advocate for the Latino community, which helped him earn a spot on the Charlotte Business Journal's prestigious "40 Under 40" list this year. Nominees are judged on their business leadership roles and voluntary efforts toward the betterment of the community.

So instead of making a comfortable living from working for a banking powerhouse with billions of dollars in assets and thousands of employees in branches from Florida to California, Rey proudly states that Banco de la Gente now has four branches in Charlotte, Union County and Raleigh.

Like Rey, all of his fellow bank employees are bilingual. All 35 of them.

Providing bilingual bankers is one of the practical marketing strategies Rey initiated at the Latino bank, something Rey said he learned as a graduate student at UNC Charlotte.

"I have come to see that I apply many of the things I learned at UNC Charlotte," he said. "It's not to say we didn't learn a lot of theory, but my teachers gave me a lot of practical knowledge that I use all the time in my work. It was an excellent program and I had some fantastic professors."

Some of those professors that left a big impression on Rey were Roger Brown, Gary Rassel and Maureen Brown.

A large part of his job is getting to know his customers, many of whom would prefer to do their banking after they get off work or even on weekends. That's why all four Banco de la Gente branches are open seven days a week, with hours from 10:30 a.m. to 7:30 p.m. Monday to Friday, 10:30 a.m. to 5 p.m. on Saturday, and 10:30 a.m. to 2 p.m. on Sunday.

A bank that's open on Sundays? For his customers, Rey said, that is an important service because many of them work long hours, often six or seven days a week.

"A lot of people don't understand it is part of their culture," he said about the unusual banking hours.

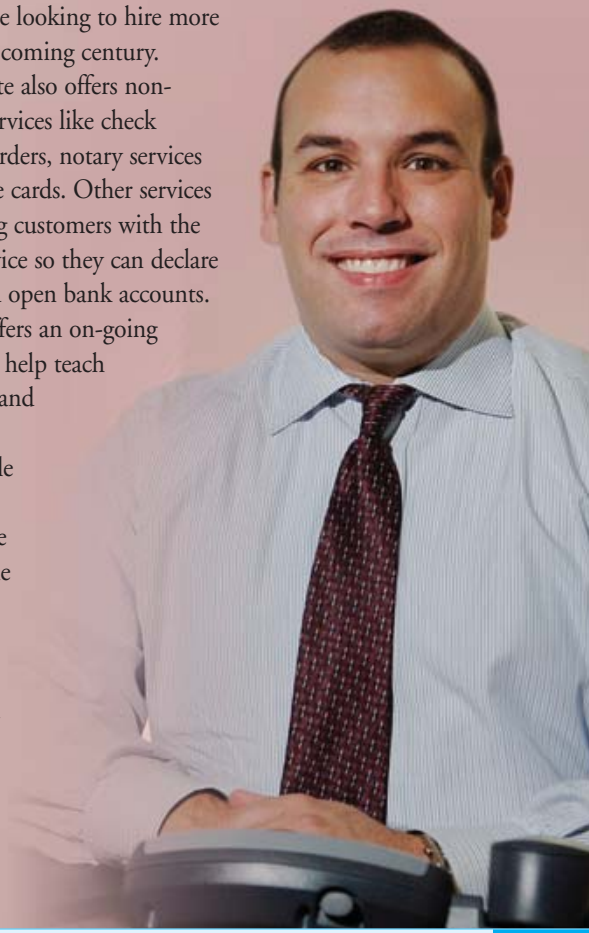
Rey said some Latinos are wary about banks in the U.S. because of the way banks operate in their home countries. Others are unfamiliar with the banking system here and that stops them from going to U.S. banks to open a checking or savings account or apply for a home mortgage or other consumer loans, he said. Many of his customers are surprised when they are told they can qualify for loans.

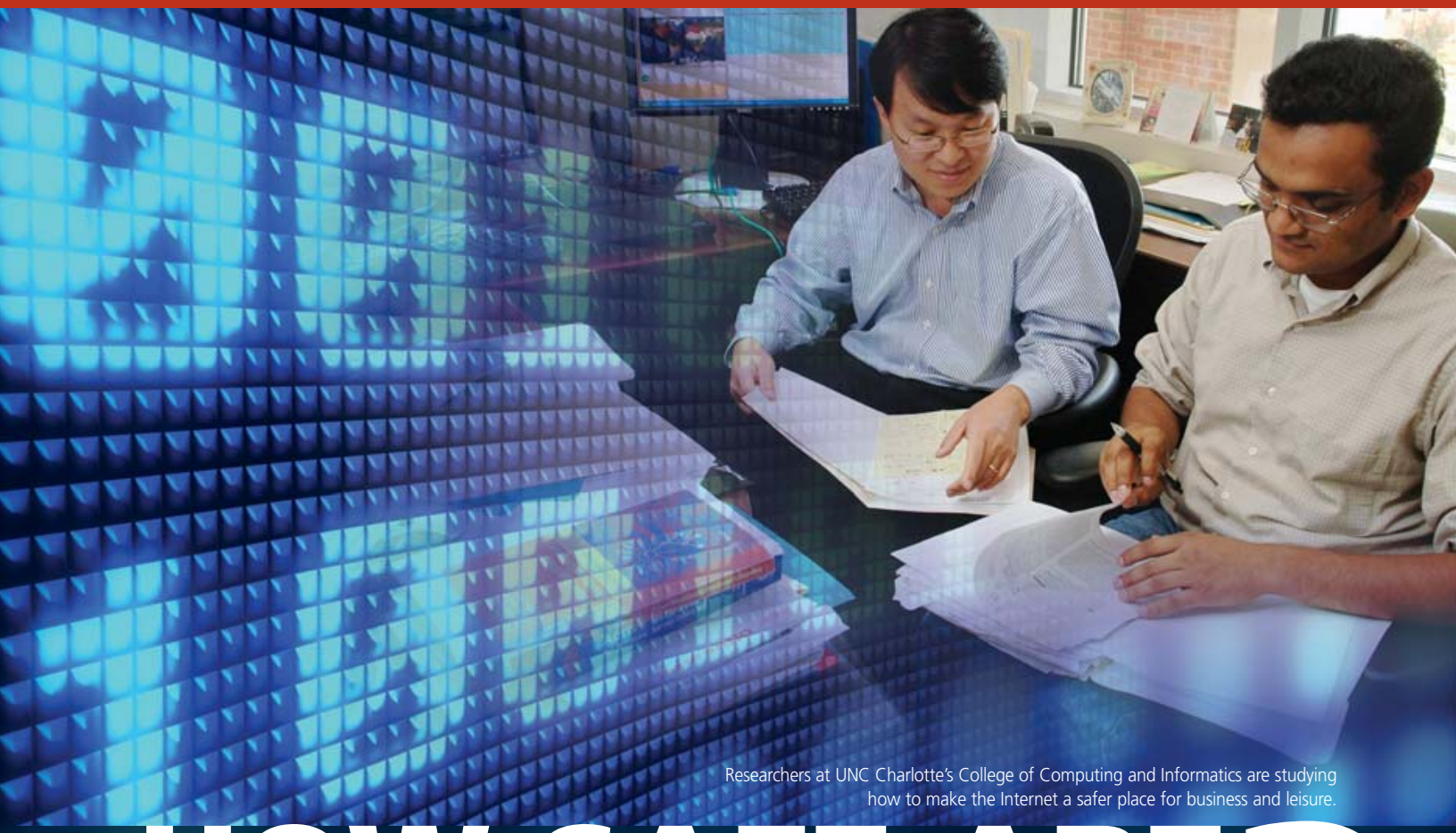
Rey said Banco de la Gente offers Latino customers a way to assimilate into their new American culture by providing a safe and comfortable haven to save their money, build their credit and take advantage of opportunities such as borrowing money to buy cars and even homes.

Rey sees himself as a catalyst between the Hispanic community and the universities that will educate them and the companies who will be looking to hire more skilled workers in the coming century.

Banco de la Gente also offers non-traditional banking services like check cashing, free money orders, notary services and prepaid telephone cards. Other services will include registering customers with the Internal Revenue Service so they can declare income, pay taxes and open bank accounts.

The bank also offers an on-going education program to help teach the basics of banking and operating within the financial system. While Rey anticipates the expansion of Banco de la Gente's footprint, he said the current focus is in North Carolina and Charlotte, where the Latino population has grown over 500 percent since the 1990s.





Researchers at UNC Charlotte's College of Computing and Informatics are studying how to make the Internet a safer place for business and leisure.

HOW SAFE ARE OUR COMPUTERS?

Top researchers at the College of Computing and Informatics try to stay one step ahead of cyber criminals

By Clark Curtis

It's a whole new world in terms of the battle against cyber crime. Gone are the days when individuals and businesses could utilize the Internet without the fear of their computers or servers being compromised. Enter, the world of botnets.

A botnet is made up of broadband enabled computers (zombies) that have been compromised by virus and worm (bots) attacks. A machine can easily be infected and controlled when users unwittingly visit a URL via spam email, download unknown files from the Internet, or purchase private party software. The zombies can then be used to send out spam email, perform distributed denial of service (DDoS) attacks, and steal identities on the compromised machines. Moreover, these bots are very hard to detect as the tasks being performed don't appear to be anything out of the ordinary. For example, the new generation of bots don't work like viruses and worms, which often generate very noticeable bursts in network traffic to infect other systems in the network. Simply put, the bad guys co-exist with you on your machine and you don't even know it.

It is well documented that there have been gaming sites that have been completely shut down by these attacks. This is done when a botnet is programmed by the command and control center to redirect transmissions to a specific server hosting a website. With thousands of these transmissions coming in at the same time, the site simply closes down. There have been cases where the site will remain shut down unless thousands if not hundreds of thousands of dollars are exchanged with the attacker. Generally, the motivation for such attacks is to cripple a competitor.

Brent Byung Hoon Kang, Ph.D., with UNC Charlotte's College of Computing and Informatics' Software and Information Systems Department is recognized nationally as one of the top researchers in the country when it comes to combating cyber crime.

"This research is crucial in learning how to combat this newest cyber threat to businesses and individuals," said Dr. Kang. "By understanding the bots, we learn how to combat against them. Once we know how they work then we can identify the bots and further locate the infected machines with bots in the network infrastructure based on its peculiar network behavior."

Zombie hunter Dr. Brent Byung Hoon Kang is recognized as one of the country's leading authorities on battling cyber crime.

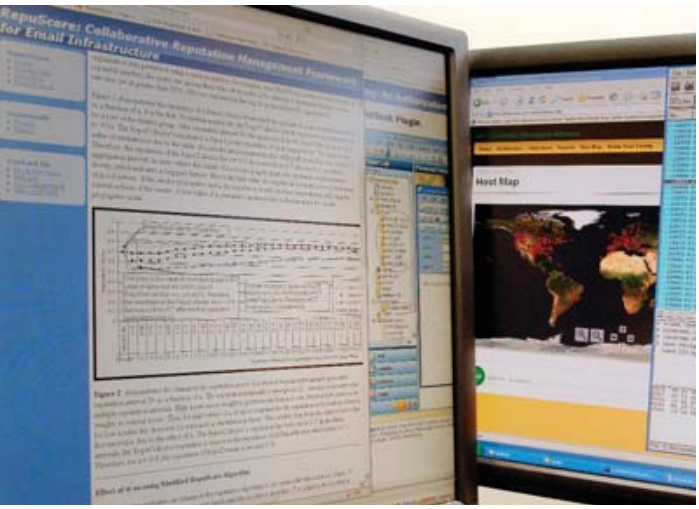
Dr. Kang says recent studies indicate there are at least 200,000 Zombie machines around the world. With the pervasive spread and growing presence of malicious botnets throughout the Internet, efforts to mitigate and provide countermeasures to these threats to security and resources are on the rise. This is being done at the College of Computing and Informatics via the direction of Dr. Kang in close collaboration with the UNC Charlotte HoneyNet project.

"Our Honeynet is capable of collecting detailed data about an attacker by allowing the attacker to interact with a real network," said Dr. Kang. "The attackers' actions are monitored and the data is analyzed to try and determine what the bad guys are doing and how to ward off such attacks in the real world. The Honeynet project is part of the research effort of the network security group in the Laboratory of Information and Infrastructure Security in the Software and Information Systems Department. Our Honeynet implementation uses a commercial ISP and is not part of the campus network."

However, cyber criminals don't rest on their laurels. Dr. Kang says botnets are undergoing a sort of evolutionary process, resulting in their topologies being modified to defend against being rendered useless. One example of this process is implementation of decentralized botnets with peer-to-peer architecture. This decentralized architecture marks a strong departure from traditional IRC-based botnets that necessitate a central server to route traffic, consisting of botmaster commands and bot replies, throughout the botnet.

One of the newest tools being developed is Storm bot. The next generation, Storm bots (Peacomm bots), will be based on peer-to-peer making them even more difficult to detect. The Peacomm bot will use existing music and movie file sharing networks (such as Overnet) to disguise their communication channel under the generic peer-to-peer file sharing activities. The key to the research being conducted by Dr. Kang and his co-workers is to detect these command and control channels and determine the particular indicators known to be associated with bot activities (such as search hashes that the Peacomm bots are looking for), and develop the necessary protection systems based on such indicators.

"The prevalent bots have opened up a huge black market where cyber criminals can buy the botnet service to conduct online crimes." says Dr. Kang. "The emergence of peer-to-peer bots has made for an ongoing arms race. It makes for a very exciting but difficult time in the world of cyber crime."



Botnets are the newest cyber threat to individual and business computer systems.

Dr. Kang says the main focus of his research now is to defend against attacks from the botnets, find out their network and protocol behaviors, and use such peculiarity in determining where the Zombie machines are located. Beyond this his long-term ambitions include making the Internet a safer place for business and leisure.

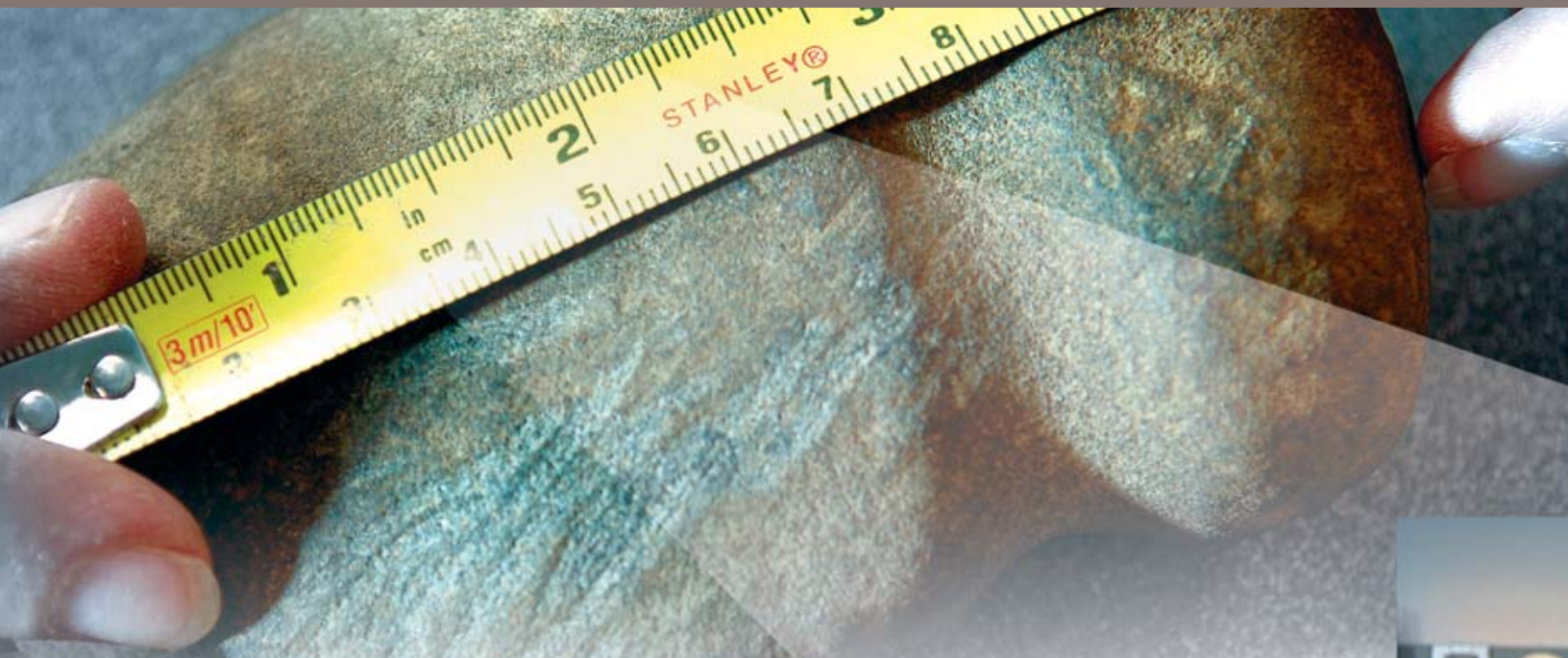
"My long term research goal is on-line cyber safety," said Dr. Kang. "Right now you are totally on your own when interacting with the Internet. It's like any seven-year-old kid can walk into any room in the world. There is no kind of protection at all. It's great to be able to communicate with people all over the world but it needs to come with guidance."

Dr. Kang wants to address the problem of email spam and phishing through Privilege Messaging. This challenges the current protocol that anyone in the world with an IP address should be able to send an email to anyone else's inbox. Privilege Messaging is an authorization framework that operates on the principle that a sender is required to have a set of privileges to send a message while simultaneously enabling the receiver's infrastructure server to verify the message before it is placed in the receivers' inbox.

Dr. Kang and his Ph.D student Gautam Sigaraju, have been working on an email server reputation sharing framework which would enable email receivers around the world to keep track of the list of trustworthy and reputable email senders.

Other related projects, including p2bot, private messaging and email reputation can be found on his lab web site, www.isr.uncc.edu.

Clark Curtis is the marketing director for UNC Charlotte's College of Computing and Informatics.



The Sum of Us:

Anthropology tackles some of the most complex specimens on the planet – Homo Sapiens

By Will Crockett

Anthropology, the study of humans, has long been a thriving academic area at UNC Charlotte, nestled among the humanities, natural sciences, and arts disciplines in the College of Arts and Sciences. Last July, the Department of Sociology and Anthropology amiably multiplied into two departments, and the newly formed Department of Anthropology continues its study of the planet's most complex primate – us.

While the world appears to be smaller and smaller everyday, anthropology gives cultural diversity a deeper meaning, framing the human species in a broad, historic context with contemporary flair.

Anthropology is at its core, the study of all things human. Originally primarily housed within museums, anthropology has been welcomed to the table of academia as the field of study that tackles a panoramic view of human existence. It offers a bridge between the natural sciences such as biology and chemistry with history, English, psychology, arts, and other humanities. It is, as one American anthropologist Professor Conrad Kottak put it, "the exploration of human diversity in time and space."

"Anthropology offers a cross-cultural analysis of human behavior," says Dr. Janet Levy, associate professor and chair of the new department. "It is a frequently qualitative rather than quantitative approach to understanding humans, and takes a holistic perspective towards understating 'us' as a biological and cultural species."

Levy, who in the 1980s was the only professional archaeologist in a 70-mile radius of Charlotte, specializes in prehistoric North America and prehistoric Europe as well as ethics in anthropology. "Every time someone found prehistoric arrowheads in the region, I got a phone call," she says. She originally specialized in the archaeology of Scandinavia, then retooled as an archaeologist of the southeastern United States and eventually excavated at both historic period and prehistoric sites in the region.

"Our shared goal is to overcome ethnocentrism, the idea that one's own culture is the best or even the only way to organize daily life. We firmly believe that understanding of and respect for diverse cultural patterns is an essential basis for a successful community and nation."

That broad and sweeping charge for Anthropology breaks into four major categories or "sub-fields": biological anthropology, cultural anthropology, linguistic anthropology, and archaeology. This would mean that anthropological study can encompass anything from the boulders of Stonehenge and Native American cave paintings to the language of text-messaging. Biological anthropology examines human origins and biological evolution while cultural anthropology looks at cross-cultural patterns of social, political, economic, and religious organization within human communities. Linguistic anthropology studies the way cultures are expressed through language, and archaeology involves the recovery and study of material remains and landscapes.

Thus the anthropologist enjoys exploring both the broad landscape of humankind as well as the intimate details.

Consider the work of Chantal Tetreault, assistant professor of Anthropology. As a linguistic anthropologist, her work examines language, the sounds and utterances that have become what many refer to ask the hallmark of the human species. "By looking at the grammar or structure of a language, we can begin to understand it as a means to communicate beliefs and values," she says. Her research has involved teenagers in France of Algerian descent and how they have reshaped some of the language of their Algerian parents to fit their adolescent lifestyle in France.

The Anthropology faculty actively engages in research across the globe. Levy, a fierce advocate for her fellow anthropologists, can easily recall all the adventures her faculty are on. "Dr. Gregory Starrett and Tetreault, have recently published works on improving public understanding of the Islamic world community. Jon Marks, a biological anthropologist, focuses on how biological and cultural anthropology can contribute to a more complex understanding of the concepts of race and ethnicity in modern society and help combat racism."

Above: Janet Levy says, "We firmly believe that understanding of and respect for diverse cultural patterns is an essential basis for a successful community and nation."

Opposte page: This object is a full-grooved axe head that would have been attached to a wooden handle. It is probably between 500 and 1,000 years old. It was discovered in 1964, when the Hechenbleikner Lake at the front of campus, was dredged.

"Our other biological anthropologist, Diane Brockman, has initiated research in Vietnam looking at the exposure of monkey populations to Agent Orange left over from the Vietnam war and what the implications are for conservation of animal species and for humans. Katherine Metzo is working on the status of minority communities in Siberia. Coral Wayland researches the role of women in poor communities in Brazil, Garth Green studies Afro-Caribbean culture in Trinidad, and Dena Shenk studies the social position of the elderly in different cultures. Our newest faculty member is Dennis Ogburn, an archaeologist who works in Ecuador to understand the expansion and collapse of the Inca Empire."

Levy herself still makes time for her own scholarly research involving how indigenous people, including American Indians and the Saami (formerly called Lapps) of northern Europe, interact with archaeologists and museums.

Anthropological research may not always involve a long look back through the annals of time. "The popular media over-emphasizes a focus on ancient societies," says Levy. "In fact, a strong trend in anthropology has been to use the methods and approaches that were developed to understand your own home society. This contributes towards embracing diversity and an understanding that the way we do something may not be the only way or the best way to do it."

Tetreault agrees. "Despite thinking we're all enlightened about our own culture, we're still challenged in examining our culture because we're an insider. We have to compare and contrast our culture to another to understand it more fully. You simply step outside of it and as a result, you become more informed on why and how certain ideas in your culture

"A strong trend in anthropology has been to use the methods and approaches that were developed to understand your own home society."

do or don't exist in others." She mentioned the benefits of "losing our cultural bearings" and the understanding that can come from that.

Similarly, Coral Wayland, associate professor of Anthropology and director of Women's and Gender Studies, adds that, "You have to learn your piece of the puzzle (as an anthropologist) so that when you take all the pieces together, you get a broader picture."

In recent years, more and more anthropologists are finding jobs outside academia. The global economy, the ease with which people can travel, and advances in technology have opened up opportunities for other professions to tap into the wealth of knowledge offered by the anthropologist. The field of *applied* anthropology has grown rapidly and focuses on the application of anthropological tools and concepts to address practical and contemporary issues.

"You may not find a help-wanted ad for an anthropologist," remarks Wayland. "But you will find ads that look for the skills of an anthropologist. An ability to do research, to do critical thinking, to work towards a cross-cultural understanding- these are all the skills with which we equip our majors and minors."

The Department offers a series of courses that prepare students in both the theoretical and practical ways. The core curriculum introduces students to the four sub-fields of anthropology and encourages courses in statistics, communication, and a foreign language. From there, students can begin to explore other areas so that they can begin to specialize. A student may seek to couple an anthropology major with Religious Studies, Biology, Criminal Justice, or even Art. Field work and internships also add an experiential element for students, enabling them to make connections and build up a resume.

Clearly, the field of anthropology awakens the adventurer in everyone. It is a discipline of tools that enables its pupils to investigate one of the richest questions on the planet: What does it mean to be human?

"In an increasingly global world, a deeper understanding of cultures is essential, and anthropology brings that to the table," says Levy. "Anthropology's big message is the power of ethnocentrism and the struggle to escape from it. There are a lot of different and successful ways to be human."

Will Crockett is the director of communications for UNC Charlotte's College of Arts and Sciences.

The University's extended community continues to provide financial support to a wide variety of campus initiatives. Private support provides the necessary funding for advancements in technology, field research, artistic expression, athleticism, humanitarian efforts and countless other initiatives at UNC Charlotte.

The International Student/Scholar Office hosts regular coffee hours, on campus, for UNC Charlotte's international students. Here, Marian and a student enjoy a game of Scrabble.

UNC Charlotte's **Marian Beane** has made a gift to establish and endow the International Student Scholarship Endowment Fund. As the university's director of the International Student/Scholar Office, Beane has worked through the years to benefit thousands of international students, whose presence and participation make for a rich, cultural diversity on campus, the level of which is unmatched in the Charlotte region. Beane made her gift in honor of her parents, Dr. Ercil Beane and Maxine Beane, who inspired her to love and appreciate the personal connections that develop through a strong international community.

On behalf of Philip Morris USA Inc., longtime supporter **Altria Group** has made two gifts to support the Leadership Academy and the North Carolina Junior Engineering and Technology Society in the William States Lee College of Engineering. The Leadership Academy is a competitive program for select students in the College, preparing them for professional, personal and civic leadership both during college years and after graduation.

Seddon "Rusty" Goode, Jr. and his wife, Jane have made a major gift to establish the Jane and Rusty Goode Scholars Endowment Fund in the College of Education. The fund will provide scholarship awards to academically excellent students who plan to become teachers and who have financial need. Rusty Goode is vice chairman of University Research Park, and in addition to that service, he also is a UNC Charlotte Foundation Board Director.

North Carolina has an urgent need for qualified, highly trained teachers, and UNC Charlotte's innovative lateral-entry program equips skilled professionals to transition into the classroom with a second career as a teacher. University trustee **Robert F. Hull, Jr. '85, '88 and his wife, Jacqueline**, recently established an endowed scholarship for aspiring lateral entry teachers in the College of Education. Robert Hull is the executive vice president and chief financial officer of Lowe's Companies, Inc.

Through the Charles C. Cameron Charitable Remainder Unitrust, **Cliff and Sara Cameron** have made a gift that significantly enhances the C.C. Cameron Scholarship, which is part of the university's prestigious Scholarship for Merit program. Cliff Cameron is chairman emeritus of the UNC Charlotte Foundation as well as an honorary university trustee. Further, he is both the current and longtime chairman of University Research Park, whose 1966 establishment was led by UNC Charlotte for economic and business development.

Cliff Cameron (right) was named philanthropist of the year for the Charlotte region in 2007 by the Association of Fund Raising Professionals; he is pictured here, after the event, with Olen Smith, the university's retired vice chancellor for business affairs. Cameron chairs University Research Park, and Smith is president.

Giving

Once again, the **Honorable Irwin Belk** is making UNC Charlotte a more beautiful place. Belk has a long history of making gifts of significant public art for campus as well as gifts of money to support purchases of public art on campus. Belk's most recent gifts, among other things, will bring to the Charlotte Research Institute campus a sculpture by internationally renowned artist Housi Knecht. The gift also will allow for creation of busts of each of UNC Charlotte's four chancellors. Belk is a former UNC Charlotte trustee and UNC Charlotte Foundation director and over the past 40-plus years, he has provided consistent, leadership service for the university.

Through the Schoenith Foundation, longtime donors **James, Holly and Linsey McMillan** have made a gift to support the McMillan Greenhouse Endowment Fund. In its 25-year existence, the McMillan Greenhouse has drawn thousands of visitors from 48 states and more than 20 countries. The complex also includes 10 acres of botanical gardens and forest.

A dove orchid, one of the exquisite products of the McMillan Greenhouse

The McMillan Greenhouse received more national attention this past July with the blooming of the exceptionally rare titan arum, recognized as the world's largest flowering plant. UNC Charlotte is one of only 20 institutions in North America to cultivate in captivity this specimen's bloom. More than three thousand people saw the bloom.

John and Martha "Rooney" Robison have a passion for the arts, education and UNC Charlotte. So does their son, John "Rob" Robison IV '78. All three have made significant scholarship gifts to UNC Charlotte this year. The elder Robisons' gift strengthens an endowed music scholarship that they established in 2005, and Rob's gift established an endowed scholarship in the university's new Center for Shakespeare Studies in Performance and History. Recipients will be outstanding students selected to study Shakespeare abroad, in England, during the summers. The elder John Robison is a UNC Charlotte Foundation director, and Rob Robison is a member of the College of Arts and Sciences advisory board.

Vi Hogue has made a gift in memory of her son, Dr. Jack Hogue, to support the Jack Hogue Memorial Scholarship Fund in the Belk College of Business. The scholarship will be used for students participating in the college's Students in Free Enterprise (SIFE) or Business Honors programs. Jack Hogue, beloved by his students, founded the UNC Charlotte SIFE team, SIFE is a non-profit organization that exists in more than 42 countries, with a mission built around teaching market economics, success skills, entrepreneurship, financial literacy, and business ethics. Jack Hogue died in an automobile accident in July 2005.

Alumni Notes

1970s

David Grice, '72 and '99, was elected Davidson County's sheriff in 2006. He was appointed sheriff in 2004 after completing a 30-year career teaching Criminal Justice at Davidson County Community College. David's family includes several UNC Charlotte graduates including his wife, Sarah ('79), his son Chris ('94), his daughter Lindsay ('06), and his brother John ('73).

Rozetta Eleanor Douglass Hicks, '71, passed away on September 16, 2007. She is survived by her two children, John B. Hicks of Charlotte and Joyce H. Cook of Statesville.

James Hunt, '79, has been selected as the North Carolina Elementary Art Teacher of the Year. This award will be given out at our North Carolina Art Educators state convention in November.

Donnie Jordan, '72, retired from the United States Marine Corps in 1999 as a Colonel. He has since founded the Anson Restaurant Group which consists of several restaurants in Alabama, North Carolina, and South Carolina. Donnie resides in Monroe, NC with his wife, Betty.

Vestal Taylor, '77, was recently named director of The Pilot and its affiliated businesses. Vestal and his wife**, Leilani, '78,** reside in Whispering Pines, NC. Their son, O'Brien, is a senior with the 49er baseball team, and their daughter, Laramie, recently graduated from UNC Charlotte.

Lyle Sheppard, '75, is currently selling real estate in Raleigh, NC.

Arleen Higgins, '75, recently retired from Smoky Mountain Counseling Center as a Developmental Disability Specialist.

Theresa Graves, '77, recently became a certified Project Manager Professional.

1980s

Rodger Payne, '80, was recently appointed to chair a new Department of Religious Studies at UNC Asheville. For the previous 16 years, Rodger was on the faculty at Louisiana State University and served as the chair of the Philosophy and Religious Studies Department for two years at LSU.

Gina (Burchett) Boling, '80, is currently employed as the Direct Care Nurse Facilitator for Gwinnett County Public Schools (GA) and supervises the placement of nurses with students throughout the school system. She and her husband, **Scott ('79),** reside in Lawrenceville, Georgia with their three children, Kyle, Kristin, and Stephanie.

Nancy Mathias, '88, and her husband, Dennis, recently celebrated their 40th wedding anniversary. Nancy is a certified nurse-midwife with Catawba Nurse-Midwives in Rock Hill, SC.

continued on page 23

Alumni Notes

Boyce Howie, '81, received a Master of Divinity in Pastoral Care and Counseling from Gardner-Webb University in May 2007. He and his wife, Lee, reside in Denver, NC.

1990s

Jason Suggs, '98, was recently named Marketing and Communications Manager on the executive leadership team at VisionCor, Inc. Jason and his wife, Katie, reside in Cornelius, NC.

Johanna Young, '98, has joined Novant Health as Director of Operational Improvement, based at Presbyterian Hospital in Charlotte. She previously completed her MBA at Campbell University and obtained her Lean Six Sigma Certification.

Marsha R. Hammonds, '92, married Travis L. Walker on September 1, 2007 in East St. Louis, Illinois. Following the ceremony, the couple honeymooned in San Francisco. The couple currently lives in Birmingham, Alabama where Marsha is a Communications Analyst.

James Ritzema, '99, recently received his MBA in Finance from the University of Wisconsin-Madison. Subsequently he accepted the position of Associate Portfolio Manager/Analyst with the Fixed Income group of Brandes Investment Partners in Brookfield, Wisconsin.

Mark Skeen, '92, has been named sales director of the Bluewater Marine Group.

Bradley McConnell, '02, and **Jaimie (Helms) McConnell, '02**, welcomed their first child, Ainsley Elizabeth McConnell, on July 6, 2007. The family resides in Charlotte, NC.

Thomas Wardrick, '93, recently completed his MBA through Pfeiffer University.

Alisa (Long) Golson, '93, and her husband, Brian, welcomed their daughter, Sloan Caroline, in August 2007. Sloan joins big sister Kate.

Kevin Creasy, '97, has been named General Manager for the Cardinal Club, a member of the ClubCorp family. He and his dog, Jordan, reside in Raleigh, NC.

Sandra Cole, '97, married Brian Cole in August 2004. The couple resides in Concord, NC.

Michelle Robertson Rogers, '93, has begun her 14th year as owner of Miller Street Dance Academy in Charlotte, NC. Miller Street offers dance lessons for over 1100 dancers between the ages of 18 months and 18 years in the South Charlotte area. **Alyson Badgett, '02**, Michelle's sister, works with her as the director of the studio. Michelle recently opened a non-profit consignment shop, The Lilypad Loft, in downtown Pineville, NC. All proceeds benefit an orphanage in Liberia through African Christian Fellowship International. Michelle, and her husband, David, reside in Waxhaw with their daughter, Natalie.

Katherine Hill-Oppel, '89 and '91, and her husband, Dr. Wayne Oppel, are pleased to announce the birth of their first child, Hunter R. Oppel, in July 2007.

Amy Sledge, '98, and **Sanchez Vernard Johnson, '97,** were recently married.

Brian Lee Clapp, '98, is currently a U.S. Navy Lieutenant working as a Facilities Program Manager for the White House Military Office in Washington D.C. He and his wife, **Monica, '94**, reside in Chesapeake Beach with their three children, Garrison, Maleena, and Tristan.

Timothy R. Austin, '99, married Brooke Livengood on May 26, 2007 in Winston-Salem, NC. Brooke is a Project Manager at Wake Forest University, and Tim is a Vice President with BB&T Wealth Management.

Jonathan Jones, '94, was recently promoted to Sergeant for the Forsyth County Sheriff's Office.

Lamar Drye, '94, has joined Cisco Systems as an Account Manager for the Carolinas Select Region as of July 2007. Lamar previously worked with Sun Mircrosystems/Storage Tek. Lamar resides with his wife, Laura, and their two children, Dylan and Jonah.

Orlando Robinson, '97, recently welcomed his first child, Kennedi Grace Robinson in June 2007. He is currently employed as an Assistant Principal in the Charlotte Mecklenburg School System.

Scott Jenkins, '90, and Jeanne Jenkins, '90, announce the birth of their son, Trevor Scott. Big sister, Emma Michelle, also welcomed the new addition. Scott is currently the Associate Vice President for Institutional Research and Analysis at the University of North Carolina System General Administration and Jeanne is pursuing her doctoral degree in nursing at UNC Greensboro. The couple resides in Graham, NC.

Christopher Kennedy, '93, and his wife, Denise, announce the birth of their first two children, Chloe Anna Mae and Christopher David Jr. in May 2007.

Melina Adcock, '95, received her MBA from UNC-Chapel Hill's Kenan-Flagler Business School. She is a Project Manager in the Retail Retirement Group at Wachovia.

Stefani LeVan, '97, married Frank Roma III of Glenside, Pennsylvania in November 2006. They are expecting their first child in early 2008.

Lori Bumgarner, '96, was recently named career coach and assistant director for the Vanderbilt University Career Center in Nashville, Tennessee.

Leigh (Thompson) Hill, '96 and '02, obtained her National Board Certification in the 2006-2007 school year under the Special Education program.

Ronda (Stiles) Diez, '95, married Jose Luis Diez in October 2006. Ronda was recently promoted to Public Health Supervisor with the Gaston County Health Department.

Allan Fink, '96, recently completed his masters in School Administration from Gardner-Webb University. Currently, Allan is the Assistant Principal of the 9th Grade Academy at Southwestern Randolph High School. Allan resides in Trinity, NC with his wife, Tasha, and their two children, Ava (3) and Anika (1).

Katherine (Hansen) Atwell, '98, and her husband, Wayne, welcomed daughter, Hannah Grace, in March 2007. Hannah joins big brother, Tyler Dalton. Katherine is currently employed with Bank of America.

Patricia (Rudisill-Crenshaw) Lund, '99, recently started her own company, Catawba Valley Tours, which specializes in local and national historical tours.

Melissa (Philbeck) Hooker, '97, and her husband, Tony, adopted their daughter, Madelyn Youmei Hooker, from Chongqing, China in February 2007. She joins brothers, Logan (5), Nathaniel (1), and Andrew (1).

2000s

Perrinne Kelley, '06, is currently attending the University of North Carolina at Wilmington pursing a Master's in Public Administration.

Justin Nifong, '04, recently passed the North Carolina Bar Exam and intends to practice patent and intellectual property law in Charlotte.

Sharon (Tuders) Carter, '00, and her husband, **Adam, '00,** recently welcomed their daughter, Charlotte. Charlotte joins big sisters, Abram, Ryanee, and Mia.

Stephanie (Gunter) McManus, '04, and her husband, Joe, welcomed their first child, Aidyn Montgomeri McManus, in March 2007.

Randall Thigpen, '07, recently completed U.S. Navy basic training at Recruit Training Command, Great Lakes, Illinois, with honors.

Robert Hinshaw, '03, is pursuing his master's degree in counseling at the University of North Carolina-Greensboro.

Tania Simmons, '00, has been named system-wide "Teacher of the Year" for the 2006-2007 school year for the city of Thomasville, NC.

Joan Waldron, '05, is in her second year of law school at the Charlotte School of Law. She recently worked as a judicial clerk for the Honorable Hugh Lewis and interned at the law office of Jacqueline Druar in Mooresville.

Alicia Peters, '06, has recently begun work as a graphic designer with Corporate Executive Board (CEB) in Washington D.C.

Ryan Sniatecki, '01 and Kendra Stead, '00, have returned from Mexico after living in Guanajuato to study Spanish and teach English. Kendra will attend law school in the fall as the Wigmore Scholar at Northwestern University Law School, and Ryan will continue his career as an editor and freelance writer.

Kenneth Thorne, '00, and his wife **Kristen Jones Thorne, '96,** welcomed their second child, daughter Adelyn Elyse, in July 2006. The family resides in Denver, NC.

Cynthia Wilson, '01, earned her National Board Certification in Education and is currently a teacher at Bess Elementary School in Gastonia.

Melissa (Brown) Daniel, '07, and Heath Daniel, '00, were married in March 2006 at Carolina Beach. The couple resides in Matthews, NC.

Anna Lauren Perkins, '02, and Adam Auerbach, '03 and '06, were married in February 2007 in the Bahamas. Anna is a 3rd grade teacher at Cox Mill Elementary School in Concord. Adam is employed as the Assistant Principal at Weddington Hills Elementary School in Concord.

April Spry, '01, was recently named Landis Elementary School's "Teacher of the Year" for 2007-2008. She resides in Rockwell, NC with her husband, Josh.

Paul Gilliam III, '07, has begun a Ph.D. program at the University of Edinburgh, Scotland in New Testament and early Christianity.

Scott Plunkett, '05, has been named the Program and Events Coordinator for the Alumni Office of UNC Charlotte.

LET US HEAR FROM YOU

What have you been up to lately? Changed jobs? Had a baby? Maybe you've been elected to the city council or have been doing a lot of volunteer work. Whether you've become CEO or a new parent, we want to hear from you.

Visit the Alumni Affairs Web site at **www.uncharlottealumni.org** and tell us what you've been doing.

Or write: **Alumni Affairs, UNC Charlotte**
9201 University City Blvd.
Charlotte, NC 28223-0001

07-08 Men's Basketball Schedule

January

Sat.	**5**	**MARYLAND** (ESPNU)	**Bobcats Arena**	**12:00**
Wed.	9	at Clemson	Clemson, S.C.	7:30
Sat.	**12**	**TEMPLE***	**Halton Arena**	**7:00**
Wed.	**16**	**SAINT JOSEPH'S***	**Halton Arena**	**7:30**
Sat.	19	at Massachusetts*	Amherst, Mass.	7:30
Wed.	23	at La Salle*	Philadelphia, Pa.	7:00
Sat.	**26**	**FORDHAM***	**Halton Arena**	**7:00**

February

Sat.	**2**	**RICHMOND*** (HC)	**Halton Arena**	**3:00**
Wed.	6	at Dayton* (CSTV-R)	Dayton, Ohio	TBA
Sat.	9	at St. Bonaventure*	St. Bonaventure, N.Y.	7:00
Wed.	**13**	**XAVIER***	**Halton Arena**	**7:30**
Sun.	17	at Fordham*	Bronx, N.Y.	1:00
Wed.	20	at Richmond*	Richmond, Va.	7:00
Sat.	**23**	**SAINT LOUIS*** (CSTV-R)	**Halton Arena**	**TBA**
Wed.	27	at Temple*	Philadelphia, Pa.	7:00

March

Sun.	**2**	**DUQUESNE***	**Halton Arena**	**2:00**
Thurs.	**6**	**GEORGE WASHINGTON*** (CSTV-R)	**Halton Arena**	**TBA**
Sat.	8	at Rhode Island*	Kingston, R.I.	7:00
Wed.-Sat.	12-15	***at Atlantic 10 Conference Championship, Atlantic City, N.J.***		

All times Eastern; All times TENTATIVE | *Atlantic 10 game | Home games in bold all caps
HC - Homecoming | Dale F. Halton Arena is inside the James H. Barnhardt Center
Call 704.687.4949 for Athletic Ticket Office.

UNCCHARLOTTE
The University of North Carolina at Charlotte
9201 University City Blvd.
Charlotte, NC 28223-0001