Evolution

NORTH CAROLINA A&T STATE UNIVERSITY

>> RESEARCH MOVING FORWARD

LITTLE WONDER

Nanotechnology Research at A&T

INSIDE

ECONOMIC DEVELOPMENT at A&T > RESEARCH News > FACULTY Research

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Welcome to the first edition of *Evolution* —

North Carolina Agricultural & Technical State University's research magazine. It is an exciting time to be a part of the research enterprise at A&T. Every day new findings and results take our researchers on a stimulating journey of discovery. As an educational leader in the Piedmont Triad region of North Carolina, North Carolina A&T is committed to life-enhancing research, teaching excellence, and community service.

Our growth is apparent. We were recently designated by the Carnegie Foundation for the Advancement of Teaching as one of the nation's top-tier research institutions with the classification, "High Research Activity." There are 103 universities with this designation, which puts A&T in the distinguished company of institutions like Syracuse University, Wake Forest University, and the College of William and Mary. Further, only two universities in the University of North Carolina system have this designation, and we are one of only four Historically Black Colleges and Universities with the "High Research Activity" ranking.

We also have the distinction of ranking third in research funding in the University of North Carolina system, only behind the University of North Carolina at Chapel Hill, and North Carolina State University. A&T's research funding totaled $38.6 million for fiscal year 2006.

Serving approximately 11,000 students, we offer 89 bachelor's, 43 master's, and 5 doctoral degrees within eight colleges and schools. We are committed to being the premier interdisciplinary university in the country by building on our advantages in engineering, agriculture, technology, and business; celebrating our strong civil rights legacy and status as an 1890 land-grant institution; and attracting bright minds and independent thinkers who achieve distinction in the laboratory, classroom, and workplace.

Despite our accomplishments, we are not content to rest on our laurels. This first issue of *Evolution* introduces you to the major advancements we have made in the field of nanotechnology. It also offers you a glimpse into some of the other outstanding research being done on our campus. We hope you enjoy our premiere issue and thank you for allowing us the opportunity to share our successes with you.

Sincerely,

N. RADHAKRISHNAN, PH.D., P.E.
Vice Chancellor for Research & Economic Development

Evolution

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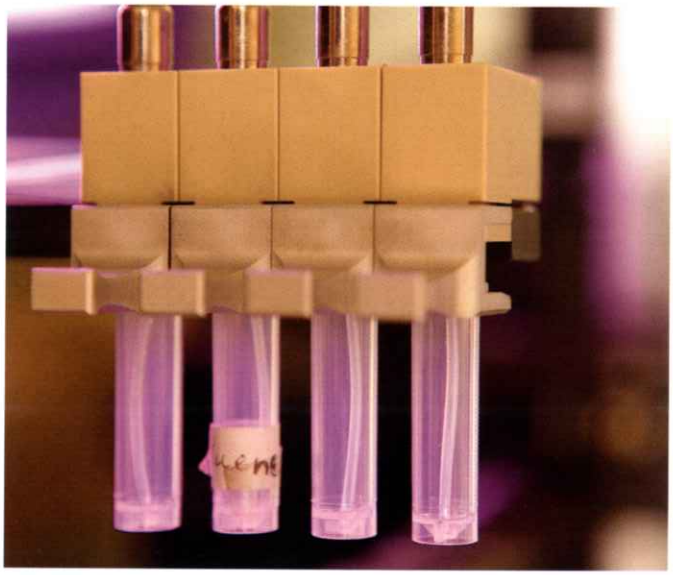
NORTH CAROLINA A&T STATE UNIVERSITY



FEATURES

4 LITTLE WONDER
Nanotechnology research at NC A&T

8 A RESEARCH UNIVERSITY FOR THE GLOBAL ECONOMY
Research at A&T creates global opportunity

DEPARTMENTS

2 A&T News
Developing leaders in a unique way; Professor receives award from the American Cancer Society; NOAA funds interdisciplinary center; GEARUP Program

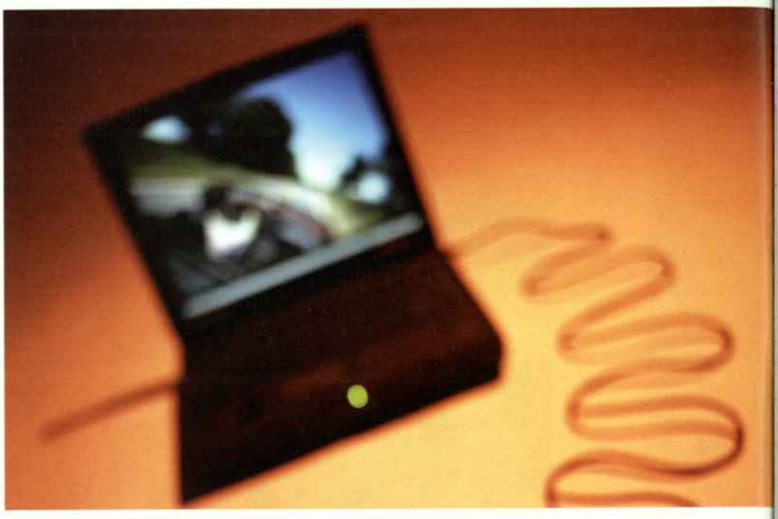
10 Current Research at A&T
S.E.E.K. — *Strengthening Economies by Expanding Knowledge*

- ADVANCED MATERIALS & NANOTECHNOLOGY
- COMPUTATIONAL SCIENCE & ENGINEERING
- BIOSCIENCES & BIOTECHNOLOGY
- ENERGY & ENVIRONMENT
- LOGISTICS & TRANSPORTATION SYSTEMS
- PUBLIC HEALTH
- INFORMATION SCIENCES & TECHNOLOGY
- LEADERSHIP & COMMUNITY DEVELOPMENT

18 Faculty Watch
Dr Solomon Bililign; Dr. Salil Desai; Dr. Numan Dogan; Dr. Ipek Goktepe; Dr. Margaret Kanipes; Dr. Celestine Ntuen

24 Undergraduate Research Experience
Kiara Walters

NC A&T PROFESSOR DEVELOPS LEADERS IN A UNIQUE WAY



STUDENTS AT NC A&T are products of the "video game generation." They've grown up with video games, they've played them most of their lives, and they probably can't imagine a world without them. One professor at the university wants to capitalize on that video game culture by using the same kind of technology to improve leadership skills.

Dr. Alice Stewart, associate professor of strategic management in the School of Business and Economics at NC A&T, is the principal investigator on the project called "Developing 21st Century Leaders Using 21st Century Technology." The goal is to use technology to improve leadership skills of upper-level honors students.

In an effort to determine the best way to train students, honors students across the University are assigned to one of two different groups: traditional and nontraditional. According to Stewart, "The traditional students are taught leadership skills using conventional methods such as lecture, discussion, and case studies. The nontraditional students play a computer-simulated video game called Virtual Leader to learn how to accomplish tasks within an organization." The purpose of the exercise is to teach students new and effective ways to work in an organization.

Virtual Leader simulates real-life events that take place within a work environment. Students act as managers in the game to help them understand leadership techniques and to develop awareness of cause and effect so they understand that their actions and attitudes have consequences in organizational life.

After evaluating the two groups, Stewart found that "students trained with Virtual Leader tend to interact up and down and across the organization to a greater degree. There is more of the cross-talk outside of their organizational silos than is seen with students trained in the traditional way. They are not told to communicate this way, but apparently they see something in the simulation that indicates it is a good thing to do." She adds, "The traditionally trained students tend to talk to people within their silos or to someone who has the same role, but this student does not branch out."

Stewart thinks the research is promising and could improve future managers' social awareness and communication skills. She says, "The use of computer-based simulations and other experiential-learning activities represents a new way of helping people learn that might be more effective, particularly in areas like business where there is this kind of practical element."

According to Stewart, bad management costs everybody something. "A lot of people are bad managers because they have never really learned better managing techniques and because they don't know that what they are doing doesn't work. Unfortunately, many only know negative ways of getting people to do what they want them to do — threatening them, coercing them, embarrassing them, etc. All the research reveals that these are not the best ways to get people to do things."

A&T Professor Receives Award from the American Cancer Society

DR. PHOEBE BUTLER-AJIBADE, assistant professor in the department of human performance and leisure studies at North Carolina A&T State University, recently received an award from the American Cancer Society to establish a chapter of Colleges against Cancer (CAC) on the NC A&T campus. The chapter will work to bring together the campus community to address cancer disparities.

Funds from the grant will be used to train students in health-disparity program planning and advocacy. The students will conduct a Great American Smokeout campaign in November and organize a team for the annual cancer walk. They participated in the regional tobacco conference for HBCUs in March 2007.

According to Dr. Butler-Ajibade, "This program will provide us with an opportunity to prepare our human performance and leisure studies (HPLS) majors for leadership in conducting wellness campaigns. Students will play a leadership role in producing creative campaigns to reduce tobacco use and exposure to secondhand smoke. I think that it will be helpful for our campus to address health disparities regarding cancer. Cancer is very scary in the African-American community."

The CAC program allows college students, faculty and staff to work together to bring American Cancer Society programs and services to college communities nationwide. The A&T chapter will become part of a network of more than 175 other colleges and universities.