Clough stresses innovation at State of the Institute

Sarah Eby-Ebersole
Institute Communications and Public Affairs

President G. Wayne Clough used the occasion of his 2004 State of the Institute Address, entitled “Innovation in a Changing World,” to discuss Georgia Tech’s opportunity to emerge as a leader in driving the innovation needed to solve society’s problems and produce economic prosperity.

Clough began by describing the larger world in which Georgia Tech functions. He noted rapid technological changes and powerful worldwide trends that have developed during the past twenty years, including expand opportunities for trade accelerated by the proliferation of telecommunications technology.

New research grants explore cancer detection, treatment at the nanoscale

The National Institutes of Health (NIH) has awarded scientists from Emory University and Georgia Tech two new collaborative research grants, totaling nearly $10 million, to establish a multidisciplinary research program in cancer nanotechnology and to develop a new class of nanoparticles for molecular and cellular imaging. Working at the sub-atomic level, these scientists are seeking specific data so that cancers can be predicted, detected earlier and treated more effectively.

Although the primary focus of the new programs will be prostate cancer, the research will have broad implications for many types of tumors, including breast and colorectal cancer and lymphoma. Shuming Nie, principal investigator of the project and an associate professor in the Department of Biomedical Engineering, is one of the first scientists in the world to utilize nanotechnology in the biomedical field.

The National Cancer Institute has awarded a five-year grant of $7.1 million to establish a multidisciplinary Bioengineering Research Partnership (BRP) in cancer nanotechnology. This partnership will integrate the bioengineering strengths of Georgia Tech and the cancer biology and clinical oncology expertise of Emory University School of Medicine and the Winship

Prominent alumnus Kim King dies

Kim King, a legendary figure in Georgia Tech athletics, first as a player and then as the Yellow Jackets’ long-time radio announcer, died Tuesday morning after a battle with leukemia. He was 59.

A public memorial service is scheduled for Monday, Oct. 18 at 10 a.m. at Alexander Memorial Coliseum.

King was an icon of Georgia Tech football for more than 40 years, beginning with a standout playing career for legendary head coach Bobby Dodd and continuing through 30 years of service to the Institute as a supporter and benefactor of athletics and as a radio color analyst.

Director of Athletics Dave Braine said, “I think when you talk about great names in Georgia Tech history, you always hear Heisman, Alexander and Dodd. I always put Homer Rice in there because he did so much for the (athletics) program. When you talk about Homer, you have to talk about Kim because at one time this program was almost ready to go down the drain. If it weren’t for Kim and Homer getting Coach Dodd back in the program to raise the money for the Edge Center, we might not be where we are today.”

Kim King was honored during halftime at the Oct. 2 football game against Miami.
challenges is innovation, which "requires not only that we discover new knowledge and technology, but also that we anticipate ways to put it to work within a complex legal, political, social and economic landscape," he said.

Clough cited the telegraph and telephone as examples, noting that while Samuel Morse and Alexander Graham Bell were the stereotypical inventors, working away in their labs on a piece of technology, their inventions became innovations that spawned today’s enormous telecommunications industry and changed the very character of our lives and our work.

“What will be the equivalent inventions for our century?” he asked.

“What inventions in biotechnology or nanotechnology will become the key transformational innovations that spin off dozens of products and change life as we know it through the coming decades? And, more to the point, who will be in a position to drive that change?”

Clough said that Georgia Tech’s goal of defining the technological research university of the 21st century is an expression of the Institute’s intent to help drive the innovation of the future. “In the process, we will help our nation to compete and shape a healthier, more sustainable and more prosperous future for all of the inhabitants of this world.”

He also pointed out that Tech’s enduring traditions of entrepreneurship and creative problem-solving are enabling the Institute to transform itself into the innovative, nimble, international enterprise required to succeed in today’s rapidly changing world.

However, Tech has challenges to overcome. The Institute is a relative newcomer to the top tier of the nation’s universities, all of which also want to be the best. In addition, it has experienced a series of reductions in its state allocations over the past several years. The portion of Tech’s budget that is funded by the state of Georgia has decreased from 34 percent to 25 percent over the past decade. The Institute has funded more than 80 percent of its capital construction over the same time and now pays the salaries of more than half of its academic and research faculty from non-state resources.

Noting that the recent series of cuts is beginning to cause a policy shift, Clough said, “I believe it is time for a statewide policy discussion about how public higher education will be funded in Georgia.”

He emphasized his commitment to maintaining the academic excellence for which Georgia Tech is known. "When it comes to using innovation to turn challenges into opportunities, we rely on the people equation," he said, noting that this fall’s freshman class is the largest, smartest and most diverse in Institute history and that upper-level students are winning some of the world’s most prestigious scholarships. The faculty is equally outstanding, he said, pointing out that Georgia Tech ranks second in the nation in the cumulative total of National Science Foundation CAREER Awards.

“Our outstanding students and faculty are the primary reason Georgia Tech has achieved a ranking among the nation’s top ten public universities every year since 1999,” he said.

The Institute’s campuses in France and Singapore reflect its increasingly global character. Study Abroad programs have grown rapidly, with a 14 percent increase in students participating last year. One-third of Tech students now participate in an international education program at some point in their undergraduate career, he said.

Innovation is also interdisciplinary in nature, another central trait of Georgia Tech. "As technology becomes increasingly ubiquitous, demand is growing for scientists and engineers who understand the broader social and cultural ramifications of their work and for practitioners in a wide range of other disciplines who understand technology," Clough said.

He cited cross-disciplinary programs such as the McEver Program for Engineering and the Liberal Arts and Technological Innovation: Generating Economic Results (TIGER), which is not only interdisciplinary but also involves students from Emory University as well as Georgia Tech.

He noted Georgia Tech’s interdisciplinary degrees, including two based in the School of Modern Languages and four professional master’s degrees based in the College of Sciences. Each of the professional master’s degrees is a collaborative effort of three different schools or colleges, and they are models for other universities around the nation.

Clough also pointed to the interdisciplinary nature of the Institute’s major research thrusts. “We are not just talking about technological mixtures,” he added, “but also mixtures that add public policy, international affairs, urban planning and transportation systems—all of which are required to bring new ideas and inventions to fruition.” Tech’s interdisciplinarity collaboration is especially advantageous in nanotechnology, he said, because it will touch every aspect of technology in the future.

Georgia Tech’s lifelong focus on economic development also pays off, Clough said, pointing to VentureLab, which supports the commercialization of discoveries from Georgia Tech’s labs, and the Advanced Technology Development Center, which incubates fledging companies.

Innovation is a social activity that both requires and fosters openness and interaction, which is why Georgia Tech is pursuing a wide range of partnerships with other universities. The most fully developed is the Coulter Department of Biomedical Engineering, a joint academic program between Georgia Tech and Emory University that is ranked second in the nation by U.S. News & World Report.

Tech is also developing other partnerships with universities in Europe, Asia and the Middle East, and using distance learning technology to serve educational needs around the world.

“Even the old and tired can be renewed and made more innovative,” he said, referring to the project now under way to widen the Fifth Street bridge, creating a small park on each side of the street. These projects are part of the Institute’s newly revised Campus Master Plan to create a sustainable, walkable campus that provides the facilities the Institute needs to define the technological research university of the 21st century.

To maintain the United States’ position in the global marketplace, Clough said, we must continue to invest in the kinds of research and partnerships that will lead to innovation.

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State of the Institute
www.president.gatech.edu/soi

WWW.WHISTLE.GATECH.EDU
Developed numerous properties all over Atlanta, founded Kim King Associates in 1972, a firm that started at quarterback, earning his bachelor's of 1963. “The Young Lefthander” was a three-year Tech when he enrolled at the Institute in the fall was diagnosed with secondary acute myelogenous myeloma, a form of cancer, in 1999. Last May, he their time of loss.”

Kim’s family our sincere sorrow in his passing and plex and Technology Square. I know that I join through the development of the Centergy com-

LAWN is designed to support mobile computing, not to replace the wired network,” says Matt Sanders, research scientist in Academic and Research Technologies in the Office of Information Technology (OIT), who oversees LAWY’s operation. “Wireless technologies will lag behind the physical networks in terms of performance, and the stu-
dents, faculty and researchers at Tech will continue to require these networks for their research.”

LAWN now has nearly 700 access points in 83 campus buildings. During the last six months, LAWN was installed in all of the learning centers in student residence halls, the Stamps Student Center Commons and numerous academic buildings. At the same time, outdoor wireless coverage also continues to grow, covering major pedestrian corridors and green spaces.

Priorities for the coming year include expanding wireless coverage to more classrooms, conference rooms and common areas in and around residence halls. Coverage in Junior’s Grill will be completed soon. Also, Sanders says OIT would like to expand the availability and use of FastPass, the commercial Wi-Fi service that gives campus visitors access to the Internet. OIT hopes to eventually expand this service so that Tech users have access to FastPass wherever it is available throughout the city of Atlanta.

Recently, the LAWY team improved and updated the login pages to be simpler to use and less prone to Web browser errors. They also introduced a Web site dedicated to the LAWY. The site’s content is continually growing and includes a current map of wireless coverage and configuration instructions.

For more information...

Local Area Wireless and Walkup Network (LAWN)
www.lawn.gatech.edu

IN BRIEF:

Scarc supply of flu vaccine leads to rationing
According to Student Health Services Director Cindy Smith, it is doubtful that Georgia Tech will receive its order of flu vac-
cines for this year, due to a national short-
age of vaccine that has been widely reported in the news media.

“Although we have not received official notification from the manufacturer, it is most likely that our order will be diverted,” she said.

To ensure that those who most need to be immunized receive the vaccine, the U.S. Centers for Disease Control and Prevention have advised citizens to forego a vaccination unless they are one of the following high-risk categories:

• People who are 65 years old or older
• Children 6 to 23 months old
• Adults and children with a chronic health condition, such as heart disease, diabetes, kidney disease, asthma, cancer or HIV/AIDS
• Women who will be pregnant during flu season
• Residents of nursing homes and longterm care facilities
• Children 6 months to 18 years of age on chronic aspirin therapy
• Healthcare workers involved in direct patient care

To locate the nearest location where flu shots are available, visit www.findafushot.com

Vaccination is not the only way to help prevent the flu. For more information, call the CDC Immunization Hotline at 800-232-2522 or go to www.cdc.gov/flu.

Clothing drive
Georgia Tech’s Office of Institute Partnerships is offering assistance to the English Avenue Community Resource Center, which provides skills training, health care and other services to its residents. Through November 1, the office will be collecting clothes donations in room 107 of the Wardlaw Center.

Pickups are also available. To make a donation, e-mail sonia.croft@cpa.gatech.edu or call 894-5187.

WWW.WHISTLE.GATECH.EDU

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Arts & Culture
Oct. 21
The School of Literature, Communication and Culture hosts the third annual Bourne Poetry Reading, hosted by Thomas Lux and featuring Mary Karr, Kirtu Lamkin and Gerald Stern, at 7 p.m. in the LeCraw Auditorium. No tickets are required. For more information, visit www.iac.gatech.edu/poetry.html.

Oct. 30
The Ferst Center for the Arts welcomes classical guitarist Christopher Parkening for an 8 p.m. performance. For tickets, call 894-9600.

Brown Bags/Conferences/Lectures
Oct. 20
The School of Psychology’s fall colloquium series welcomes Natalia Carrasco, professor of neuroscience at New York University, on “The Effects of Attention on Early Vision,” at 3 p.m. in room 250, J.S. Coon Building.

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The Tennenbaum Institute will hold its inaugural event on “Leading Enterprise Transformation,” at 3 p.m. in room 222, Global Learning and Conference Center. For more information, visit www.iile.gatech.edu or call 894-2303.

Oct. 22
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Oct. 29
Ivan Allen College’s STS Seminar Series welcomes Ryan T.K. Tewney, professor of psychology at Bowling Green State University, on “Experimental Ethnography and the Epistemology of Historical Replication,” at 5 p.m. in the Clary Theater.

Nov. 3
The School of Aerospace Engineering and the GT Society for Hispanic Professional Engineers welcomes Orlando Figueroa, deputy associate administrator for programs under NASA’s Science Mission Directorate, at 5 p.m. in the GCATT Auditorium. Seating is limited. To register, e-mail charming.moseley@ices.gatech.edu.

Nov. 4
The School of Mechanical Engineering’s annual Gegenheimer Lecture on Innovation welcomes Malcolm Swinbanks, chief scientist for Vibration and Sound Solutions Ltd., on “From Mathematics to High-Speed Boats: A Shock to the System,” at 5:30 p.m. in the Van Leer Auditorium.

Faculty/Staff Development
Oct. 21
The Office of Sponsored Programs offers a brown bag workshop on “New Budget Template,” at the Research Administration Building. To reserve a seat, call 894-6944.

Oct. 21
The Office of Sponsored Programs welcomes representatives from the American Heart Association who will present information on preparing a winning application for a grant or fellowship. E-mail nadina.zitman@osp.gatech.edu or call 894-6944 to attend.

MISCELLANEOUS
Oct. 25
An open enrollment information session will be held at the OTH Cobb County facility, 11 a.m. - 1 p.m. in Building One, Conference Room 104.

Oct. 29-30
The 8th annual Women’s Leadership Conference will be in the Georgia Tech Student Center. Visit or call the Student Center Box Office at 894-9600 to register. For more information, visit www.womenscenter.gatech.edu/wlc.

CLASSIFIEDS

APPLIANCES
Whirlpool stove. White w/grey burners, 4 years old. $200. Email vivianjohnsonme@gatech.edu or call 894-2110.

2 Fridgidaire appliances for sale: electric stove w/oven; $200; refrigerator with freezer; $110; or $225 for both. Good condition. Call 770-537-7357.

AUTOMOBILES
1998 Volkswagen Rabbit convertible. New top, battery, alternator and windshield. Excellent condition. 100,800 miles. A true classic and a fun little car. All records, $1,500. Email dhoefl@hot.net.

1993 Nissan Maxima GLE. White, black leather interior. 110k miles, Bose speakers, wood trim interior, sunroof, airbags, security system. Excellent maintenance, $8,500. Email carolc@cs.gatech.edu.

1997 Honda Accord EX. Automatic, 4-cyl. VTEC, 4-door, champagne, alloy wheels, 6-disc CD changer. Excellent condition, dealer maintenance, one owner. 107k miles, $7,000. Email boa.01@gr.i.gatech.edu.

1998 Saturn SL2. Manual, a/c. 113k miles, new tires, good condition. $3,100. Email tambor12@gmail.com or call 678-494-9369.

1998 Toyota Celica GT. 53k miles, white, fully loaded with custom vinyl seats. New tires, well maintained. $10,500 neg. Email nicole.pamplin@facilities.gatech.edu or call 404-799-0977.

2001 Honda Accord EX. Excellent condition, all records, 54,500 miles, loaded, leather, sunroof/moonroof, 6-disc CD changer, new brakes, $10,800. Call 770-314-4415 or email cindy.pendley@fgt.gatech.edu.

FURNITURE
Excellent office desk and credenza set in natural oak veneer, $600; bookshelf and bookcase in simulated oak finish, $50 each. Email ireppered@uav.cernet.cn or call 404-846-8878.

Oval, wooden dining room table with leaf section and 4 chairs, $65. Dining fan, $20. Will send digital photos. Email david.cant@odies.gatech.edu.

Solid wood computer armoire. Built-in CD shelves, 1 file drawer and 2 smaller drawers. Bi-fold doors. Purchased for $899, sell for $350. To see pictures, call 404-668-352 or e-mail mswilton57@bellsouth.net.

Queen futon. Beechwood frame and great mattress with light brown cover and cushion. In great condition. $200 OBO. Email rick@umc.mb.edu.

Reduced 3BR/2BA home in Lithia Springs. 25 minutes to Tech. Motivated seller. 2-car garage, full basement, private back yard and screened porch. Pictures available, MLS #975175. $219,000. Call Glenda, 404-843-2500.

1BR carriage house apt. available October 15. Three miles from campus in beautiful neighborhood. Rent: $550 per month, one-year lease preferred. Email william.long@binta.gatech.edu.

2BR/2BA townhouse at Holcomb Bridge. Just renovated, new carpet, paint, flooring, dishwasher, flat-top oven, 2-car garage. $110,000. Contact Michael Gilbert, 404-598-2.

2BR/2BA townhouse in Peachtree Corners. 5 miles outside 4108. New roof, new front walkway, newer deck, wooded community, W/D, fireplace, many updates. $95,500. Contact Sheila at 770-443-0388 or email sjbosch@yahoo.com.

5-piece drumset, black, great starter set, $200 OBO. E-mail Daniel at dhoefl@hot.net.

REAL ESTATE/ROOMS FOR RENT
Reduced 3BR/2BA home in Lithia Springs. 25 minutes to Tech. Motivated seller. 2-car garage, full basement, private back yard and screened porch. Pictures available, MLS #975175. $219,000. Call Glenda, 404-843-2500.

SAFETY/HEALTH
5-piece drumset, black, great starter set, needs new snare drum head. Asking $200 OBO. Email Daniel at dhoefl@hot.net.

Antique trunk, early 1900s, $90; two-tier weight rack for dumbbells. 4-feet long, $80; wedding veil, to waist, small rhinestone stones along all edging, paid $200 asking $75. E-mail nicole.pamplin@facilities.gatech.edu.

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