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THE WHISTLE

FACULTY/STAFF NEWSPAPER

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THE GEORGIA INSTITUTE OF TECHNOLOGY

2005 State of the Institute Address



President Wayne Clough will deliver the annual State of the Institute Address to faculty and staff on Oct. 11 at 3 p.m. in room 236 of the Global Learning and Conference Center at Technology Square.

Student musicians plan concert performances in China

Matt Nagel
Institute Communications and Public Affairs

While international experience is nothing new for Georgia Tech students, playing at the Shanghai International Arts Festival goes far beyond the usual study abroad trip.

Sixteen students from the Woodwind Ensemble will travel to Shanghai and Beijing next month to participate in several collaborative concerts. Assistant Professor and Director of Bands Andrea Strauss says she and the students are excited about the trip. "Beijing is the largest city in China and has the most history to it. We'll be able to take in the sights such as Tiananmen Square and the Great Wall."

The trip is more than just a sight-seeing tour as Strauss has filled the itinerary with several opportunities for the students to perform while they

are in China. These include the China Shanghai International Arts Festival, the Sino-U.S. Logistics Summit, Beijing Music Conservatory and Concord College.

"I think the performances are what make this trip different and unique for the students," said Strauss. "These students are going to have the chance to be ambassadors for their country and for Georgia Tech, but they are also going to be able to collaborate with a different culture in a real, unique musical interaction."

The students aren't music majors and are well aware of the fact that they will be missing three days of classes for the trip, but the opportunity was too much to pass up.

"I think it is an incredible opportunity to do something outside of what I normally do," said Adam Wilson. "I'm a computer science major, and when someone comes to me and

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Aerospace engineering undergraduate Michael Abraham is a member of the Woodwind Ensemble traveling to China to perform several concerts during fall break.

Researchers uncover E. coli's defense mechanism

David Terraso
Institute Communications and Public Affairs

Researchers at Georgia Tech have uncovered the mechanism that enables disease-causing bacteria to thwart the body's natural defense responses. The findings, which could ultimately lead to the development of more effective antibiotics, appear in the September 29 issue of the journal Nature.

"Nitric oxide is produced by the body to fight infections. We discovered a mechanism that allows bacterial cells to detect nitric oxide and turn it into something that's harmless to the cell," said Stephen Spiro, associate professor in the School of Biology.

Spiro, along with colleagues from the John Innes Centre in the United Kingdom, studied a non-pathogenic strain of Escherichia coli, which is very closely related to salmonella bacteria.

The pathogenic forms of E. coli and salmonella are usually transmitted to humans through undercooked meat, unwashed vegetables and cross contamination from surfaces on which these foods were prepared. Infections from either of these organisms can cause diarrhea, abdominal cramps and occasionally require hospitalization. E. coli doesn't respond well to antibiotics, while salmonella has developed several drug-resistant strains. Learning how the bacteria handle the body's immune response is the first step in developing more effective medicines.

Spiro and colleagues focused their study on the NorR protein and the role it plays in reducing the levels of nitric oxide. In response to nitric oxide, NorR binds to DNA in order to regulate expression of an enzyme that reduces the amount of nitric oxide in the bacteria. Since nitric

E. coli continued, page 3

Open enrollment season begins

This year's open enrollment period — the only time of year Tech employees are invited to change their health benefits — will run from Oct. 3 to Nov. 4.

As with last year, most changes to a Georgia Tech employee's benefits package can be made through TechWorks, the Web gateway that enables employees to view and update their own HR information.

In order to make changes, employees must log on to TechWorks with account and password information. Confirmation statements will be e-mailed to employees after changes have been made.

In addition, the Office of Human Resources will host a benefits fair for the campus on Wednesday, October 19, from 10 a.m. until 2 p.m. in the Student Center Ballroom. This is an opportunity to pick up and review new rates and materials. Employees can get individual attention from company representatives, and most have promotional materials to give away.

Representatives from the health insurance carriers, tax-deferred

TechWorks Open Enrollment Resources include:

- Significant changes for 2006
- Rates and plan comparison charts
- AFLAC plan overviews and forms
- BOR PPO/Indemnity plan rates
- Kaiser/Blue Choice plan rates

annuity companies, Teachers Retirement System, optional retirement plan, U.S. Savings Bonds Plan, short/long-term disability insurance plan, the Credit Union and OHS/CompDent will be present, as well as staff members from OHR and Health Services. Visitors may also opt to receive a flu shot, win one of several door prizes, or simply grab a free lunch of hot dogs and soda.

For more information...

Techworks
www.techworks.gatech.edu

QUOTE
UNQUOTE

"What happens when you have a hurricane is the evaporation that fuels a storm actually serves to cool the ocean, and the strong wind acts to stir the ocean, so you bring colder water up from down low. What we're seeing in the Gulf this season is the warm layer is so deep, we're not seeing that mix, that cooling from deep mixing. It's so deep that it's not strong enough to mix it up."
—Judy Curry, professor and chair of the School of Earth and Atmospheric Sciences, on the climatological effect of hurricanes.
(National Public Radio)

Steven Kudravi, biology instructor and advisor, dies

Steven Kudravi, a senior academic professional and pre-medical advisor in the School of Biology, died suddenly over the weekend of Sept. 24-25. The School will host a memorial service on Thursday, Oct. 6, from 4:30 - 6 p.m. in room 1128 of IBB.

He received a bachelor's in biology from Cleveland State University in 1991 and a doctorate in pathology from Vanderbilt University in 1998. He worked as a postdoctoral research scientist at the University of Washington School of Medicine and taught in the Seattle area before

moving to Georgia State University in 2001 to take the position of lecturer and laboratory coordinator in the Department of Biology.

Kudravi joined Tech in May 2004. Within a year, he transformed Tech's introductory biology laboratory classes to discovery labs with original experiments that require several weeks to complete. As senior academic professional, he mentored both graduate and undergraduate teaching assistants, continually coaching them to improve their teaching skills and to share his passion for excellence in teaching.

He also felt strongly that the importance of dedicated graduate student teaching assistants is too often unrecognized. In his memory, the School of Biology is establishing an Outstanding Teaching Assistant Award, presented annually to those who demonstrate excellence in undergraduate teaching. Anyone wishing to contribute to the award fund should e-mail nenagray@biology.gatech.edu.

Kudravi is survived by two sisters, Kathy and Kris, and mother Paula Kudravi.

Lorraine delegation renews economic ties during Tech visit

Megan McRaney
Institute Communications
and Public Affairs

A distinguished group of 15 delegates from Lorraine, France, visited Georgia Tech Sept. 26-28 to explore an expanded economic development partnership between the state of Georgia, Georgia Tech, and the Region of Lorraine.

The delegation, which included Lorraine President Jean-Pierre Masseret, hoped to explore how Georgia Tech — including a key role played by the Advanced Technology Development Center — could add a new dimension to Georgia's economic development activities by helping emerging Georgia companies with high technology products and services expand into the European market.

Lorraine, which borders Germany, Belgium and Luxembourg, is a leading industrial region in France and Europe. The Region of Lorraine has been a sister-state to Georgia since 1988. The selection of Metz, Lorraine's capital city, for the European campus of the Georgia Institute of Technology, known as Georgia Tech Lorraine, was a result of the partnership.

The delegation visited several labs and met with key leadership at Tech and also met with the Georgia Department of Economic Development, the Metro Atlanta Chamber of Commerce and several local technology companies.

During the visit, President Masseret and Governor Perdue signed an agreement to affirm both parties' transatlantic economic development

and technology transfer commitments as provided for by the 1988 sister-state agreement.

Georgia Tech Lorraine (GTL) opened its doors in 1990. Students can take graduate-level courses taught in English in electrical and computer engineering and mechanical engineering. GTL also offers undergraduate courses as part of its summer program, including courses in electrical and computer engineering, mechanical engineering, management and international affairs.

For more information...

Georgia Tech Lorraine
www.georgiatech-metz.fr

OIT launches account management portal, self-assigned e-mail alias

Office of Information Technology

Over the course of their scholastic careers, many Georgia Tech students take on numerous roles, working in multiple capacities on campus as they pursue their degree. Along the way, they typically collect a number of user accounts for the computer systems they work with, both as employees and as students. This has led inevitably to account maintenance overhead, both for the students and for campus systems administrators.

Beginning October 3, the GT

Account name format will change for all new GT Accounts. The new GT Account names will have a maximum length of 14 characters, and will be comprised of first initial, last name and a sequence number. The new username replaces the assigned "gtg" and "gte" usernames some students found impersonal. Department managers will still retain the ability to create departmental accounts.

Additionally, all faculty, staff and students will be able to self-assign e-mail aliases in the format alias@gatech.edu. The aliases are optional and serve as an additional Georgia Tech

e-mail address. Generally, aliases will be provided on a first-come-first-served basis and give users some control over the format of their e-mail username.

Passport, a new personal account self-service portal, will be released soon and will be located at www.passport.gatech.edu.

For more information...

Office of Information Technology
www.oit.gatech.edu

Music, cont'd from page 1

says would you like to spend a week touring through China and playing music ... you can't say no. It is something you have to do."

"For me this trip is a bonus," said Michael Abraham, an aerospace engineering major. "I would have gone to play my clarinet in Wichita, Kansas. But the fact that it is China and a travel opportunity I may very well never have again makes the whole

trip irresistible."

Strauss began putting together the nine-day trip this summer and saw an opportunity to give students a chance to be ambassadors at another Georgia Tech event. The Logistics Summit will be held in Shanghai while the ensemble is there, and event organizers welcomed the opportunity to have the ensemble perform.

"We are going to play at the opening ceremonies for the summit," said Strauss. "It was just an ironic coinci-

dence that the summit was taking place at the same time we were going over for the Shanghai International Arts Festival."

The students will be traveling for nine days through China during fall break, returning on Oct. 22.

"This trip is putting me somewhere really cool and different. It is putting two things together — something I love and something I don't think I'll ever get another chance to do," said Abraham. "You have to say yes to a trip like this."

Georgia
Tech



THE
WHISTLE

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Georgia Tech is a unit of the University
System of Georgia.

GTISC Distinguished Lecture features national security leader



Anthony "Tony" Michael Rutkowski, vice president for regulatory affairs in the Communication Services Division at VeriSign, prepares to talk about "An Emerging Ecosystem for Security and Critical Infrastructure Protection of Public Next Generation Networks" at the recent Georgia Tech Information Security Center (GTISC) Distinguished Lecture Series sponsored by CipherTrust. To his right is Paul Judge, alumnus and chief technology officer for CipherTrust.

Pirelli signs R&D agreement with Georgia Tech

John Toon
Research News

Officials of Italian-based Pirelli and Georgia Tech have signed a five-year strategic research and development partnership to develop new optical components and systems and new broadband access technologies for future high-speed telecommunications networks. The agreement was announced last month by Georgia Governor Sonny Perdue, representatives of the company and Georgia Tech officials.

Pirelli and researchers from the Georgia Electronic Design Center (GEDC) at Tech will develop a new generation of integrated optical systems. Atlanta will become the North American operational branch of Pirelli Labs, the advanced research center of the group based in Milan. The group, founded in 2001, specializes in broadband access and second-generation photonics.

Pirelli will also consolidate all of its North American corporate staff activities in the new Atlanta center, including the headquarters of Pirelli Broadband Solutions, a new company that engineers and markets the innovations conceived in Pirelli Labs.

Under the agreement, visiting researchers from both organizations will work in Georgia Tech laboratories — and in the clean rooms of Pirelli Labs near Milan. There, advanced facilities devoted to research and development of optical components for telecommunications occupy about 54,000 square feet in the Pirelli Labs building.

Pirelli's location in Atlanta will initially include laboratory space at the GEDC in the Technology Square Research Building, as well as additional office space next door in the Centergy One building.

"By combining the respective know-how, Pirelli

Labs and Georgia Tech will be able to develop new cutting-edge broadband access and optical technologies for the North American market," said Giorgio Grasso, CEO of Pirelli Labs Optical Innovation. "We view our partnership with GEDC as a major strategic asset in our future broadband activities."

Pirelli, a pioneer in photonics worldwide, is among the world's leaders and innovators in a number of fields, including its key markets of tires and telecommunications systems.

"Today's announcement indicates that we are making great progress in establishing Georgia as a hot spot in the world of electronic design," said Craig Lesser, commissioner of the Georgia Department of Economic Development. "We set out to make Georgia a world leader in the design of high-speed communications systems, devices and chips, and Pirelli's location here takes us one step closer to achieving that vision."

The Pirelli decision demonstrates the impact that Georgia Tech can have on the state's economy, noted President Wayne Clough.

"We are excited that an innovative company like Pirelli has chosen to locate at Technology Square in partnership with GEDC," said Clough. "This outcome reflects the power of linking Georgia Tech's research and educational assets with those of the state of Georgia to help build the state technology sector in a time when competition for such jobs comes not only from other states, but other nations as well."

For more information...

Georgia Electronic Design Center
www.gedcenter.org

E. coli, cont'd from page 1

oxide binds to metals, the researchers suspected that there might be a metal in the protein.

"It turns out that the protein NorR contains a single molecule of iron," said Spiro. "Our study found that the nitric oxide binds to the iron, which in turn activates the protein."

Once activated, the protein controls expression of the *norW* genes. These genes encode an

enzyme that removes the nitric oxide, allowing the bacteria to fend off the body's defenses.

The discovery of this mechanism is just the first step in what Spiro hopes will be a line of research aimed at disrupting the mechanism by which the bacteria rids itself of the poisonous nitric oxide.

"If we can interfere with the mechanism, it could lead to better antibiotics and better treatments," said Spiro.

IN BRIEF:

Tech2Nite starts next week

Next week, the Tech2Nite fall schedule of personal enrichment classes at Tech's Global Learning and Conference Center in Technology Square will begin.

Class topics range from hobbies to business and are taught by faculty and staff from Georgia Tech as well as industry professionals. Classes meet in the evenings for two hours for three- and six-week sessions. Georgia Tech employees receive discounts on all classes.

For detailed class descriptions and schedules, click on the Tech2Nite icon at www.pe.gatech.edu. Registration is available online or by calling 385-3500.

Clothing drive continues

Institute Partnerships continues one of its annual outreach projects to provide clothing and toiletries for needy families in the surrounding community.

Last year, Institute Partnerships collected more than 150 bags and boxes of clothing, toiletries and accessories for the English Avenue Community Resource Center, goods that have helped more than 1,000 neighbors in that area.

The clothing drive ends Nov. 1. Donations can be made at room 107 in the Wardlaw Center, or arrangements can be made for pick-up. For more information, call 894-5187 or e-mail sonia.croft@icpa.gatech.edu.

Prism limits increased

The Office of Information Technology recently improved the Prism complex by giving users more personal disk space and another convenient way to access it. OIT increased the default disk space quota for each user from 25 megabytes to 256 megabytes, and added a file-sharing protocol to enable easier access from Windows XP and Macintosh OS X computers.

For more information, visit www.oit.gatech.edu/inside_oit or contact the OIT Support Center at support@oit.gatech.edu.

Mileage reimbursement rate increased

The mileage reimbursement rate for the use of private vehicles on state business has been increased to 48.5 cents per mile. This new rate was just adopted by the General Services Administration, and it is effective for all travel completed after Sept. 10, 2005. Travel completed before that date must use the old rate of 28 cents per mile.

Student business fraternity selling flowers

Every Friday, Georgia Tech's chapter of Alpha Kappa Psi, the national co-ed business fraternity, sells roses as a fundraiser. Located on the first floor of the Student Center, roses are \$2 each or \$20 per dozen and will help to support the organization and the professional events and speakers it hosts for the Georgia Tech community. To place an advance order, or for more information on the chapter, visit www.gtakpsi.com.

C A M P U S E V E N T S

Art & Culture

Oct. 26

The annual Bourne Poetry Reading, featuring Doreen Gildroy, Michael Ryan and Thomas Lux, will be at 7 p.m. in the Clary Theater.

Brown Bags/Conferences/Lectures

Oct. 6

The Woodruff Colloquia series continues with University of Wisconsin at Madison Professor Sanford A. Klein on "Fuel Cells, the Hydrogen Economy and Your Energy Future," at 3 p.m. in room 4211, MRDC. Call 894-7479 or e-mail srinivas.garimella@me.gatech.edu.

Oct. 7

The Georgia Tech Focused Research Program in Ethics & Technology and the Ivan Allen College welcome University of Virginia Professor Deborah G. Johnson, on "Engineering Ethics: Integrating STS and Practical Ethics," at 2 p.m. in the Student Center Theater.

Oct. 11

The Office of Sponsored Programs hosts a brown bag workshop on "Conflict of Interest," with Associate Vice Provost for Research Jilda Garton at noon in the Research Administration Building. E-mail nadia.zitman@osp.gatech.edu or call 894-6944 to reserve a seat.

Oct. 11

The Nano@Tech Volunteer Researcher Group welcomes Chemical and Biomolecular Engineering Associate Professor Mark Prausnitz to discuss the

most recent advances in microneedles and ultrasonic drug delivery technologies at noon in room 102A of MiRC. To register, e-mail paul.turgeon@mirc.gatech.edu.

Faculty/Staff Development

Oct. 19

The Georgia Tech Research on Accessible Distance Education (GRADE) project hosts a lunchtime presentation on Accessibility and Course Management Systems. There is no charge to attend, but registration is required. To register, e-mail barbara.christopher@coa.gatech.edu. A confirmation notice will contain location and directions.

Oct. 20

The Center for the Enhancement of Teaching and Learning's faculty development seminar series continues with "Promoting Classroom Civility," from 11 a.m. - 1 p.m. in the Library's Wilby Room. Lunch will be provided for those who register at www.cetl.gatech.edu or by e-mail to clint.lyle@cetl.gatech.edu.

Miscellaneous

Oct. 7

The Office of Diversity Issues and Programs sponsors Safe Space training, where individuals will receive information to provide support and learn about resources for Tech's GLBT population, at noon in room 216, Student Health Services. To register, e-mail stephanie.ray@vpss.gatech.edu.

Oct. 11

The fall meeting of the General Faculty, combined with the Academic Senate and General Faculty Assembly, will be at 3 p.m. in room 236 of the Global Learning and Conference Center. For more information, visit www.facultysenate.gatech.edu or e-mail said.abdelkhalik@me.gatech.edu.

Oct. 12

The 2005 vendor showcase will be held from 10 a.m. - 2 p.m. in the Petit Institute for Bioengineering and Bioscience building.

Oct. 19

The School of Applied Physiology is hosting an open house for its master's program in Prosthetics and Orthotics from 2 - 5 p.m. in the Clary Theater. Facilities tours begin at 2:30 p.m. in the Weber Building, bottom floor. For more information, call 894-7658 or visit www.ap.gatech.edu/mspo.

Oct. 19

A town hall meeting on the Financials 8.8 upgrade will be held from 9 - 11 a.m. in room 117 of the Student Services Building. For more information, e-mail kara.tillman@orgdev.gatech.edu.

Oct. 19

The annual Open Enrollment Benefits Fair will be held from 10 a.m. - 2 p.m. in the Student Center Ballroom. Retirement representatives, benefit providers and financial counselors will be on hand.

E-mail calendar events to editor@icpa.gatech.edu.

C L A S S I F I E D S

APPLIANCES

GE Spacemaker 'Over the Range' black microwave oven. \$50. E-mail belinda.harding@dev.gatech.edu or call 894-1622.

AUTOMOBILES

1988 Honda Civic, 4-door, 5-speed. Call 770-364-9718.

1991 Honda Accord EX. Excellent mechanical condition, 155K miles, sunroof, a/c, power windows, CD player w/MP3 input. Burgundy w/gray interior. \$3,200 OBO. Call 404-277-3705 or e-mail jswann@isye.gatech.edu.

FURNITURE

Girl's bedroom suite: twin white poster bed, 5-drawer chest, double dresser with vertical mirror. Only 1 year old from Rooms To Go Kids. Bedspread, pillow shams, curtains included. \$1,400. Call 770-757-3911.

REAL ESTATE/ROOMMATES

Housemate wanted to share luxury penthouse condo in Midtown/Ansley. \$775/month. See www.prism.gatech.edu/~hk28/condo. Call 404-717-6406 or e-mail hk28@mail.gatech.edu.

4BR/2BA house on beautiful Lake Avondale, 8 miles from downtown Atlanta. LR, DR, secluded office/hobby room, 2-car garage, eat-in kitchen, mudroom/laundry, large lot. \$450,000. Call Angie, 404-299-5259.

2BR/2.5BA condo in Cross Creek, 10 minutes from downtown. Hardwoods on main, seagrass carpeting on upper level. Adjacent to clubhouse and golf course. \$169,900. Call 770-732-1545 or e-mail paulvolle@earthlink.net.

3BR/2.5BA home in Dallas, Ga. Built 2002, spacious island kitchen w/adjoining dining room. Upstairs laundry. 2-car garage. Fenced back yard. Lease \$1,100/month or buy for \$140,000. Call 404-694-0901.

Female roommate needed to share 3BR/2BA home in Northlake/Tucker. Nice yard, garage and extra storage. No smoking. \$595/month, plus utilities. 30 minutes to Tech. E-mail mary.morder@coa.gatech.edu or call 894-0240.

3BR/3.5BA new townhome in Midtown. 2-car garage, gated community. Hardwood floor, granite countertop, private backyard. Premium park front lot. 5 minutes to Tech. \$312,400. Call 404-433-7305.

3BR/1.5BA condo in Marietta near I-75 and Delk Rd. Hardwood floors, new HVAC, updated kitchen, bath and extra storage. 15 minutes to Tech. Reduced to \$99,700. E-mail ss334@mail.gatech.edu or call 678-302-5369.

1914 Craftsman bungalow with 4BR, 2.5BA, hardwood floors, high ceilings, updated eat-in kitchen, deck, 2 blocks from Agnes Scott College & a short walk to Decatur & Oakhurst restaurants. \$399,900. Call 404-327-4871.

1BR/1BA Brookhaven condo in quiet neighborhood. Gas fireplace, spacious closets, remodeled kitchen/bath, W/D, off-street parking, 2nd floor balcony with lake view. \$120,000 or \$900/month starting January. E-mail annie.pearce@gtri.gatech.edu.

3-4BR/3.5BA house for sale. Unincorporated Alpharetta, off Holcomb Bridge and Barnwell. European design, stucco, cluster home. Master on main, large keeping room w/fireplace. Email lc7@mail.gatech.edu or call 404-423-5264.

3BR/2BA in East Cobb, 2-car garage, private yard. Nice neighborhood. \$1,400/month. Call 894-5633 or e-mail ww102@oit.gatech.edu.

Seeking 3BR home for rent in Snellville/Grayson area. E-mail lynn.rosenfeld@oit.gatech.edu or call 894-9942.

Immaculate 2BR/2BA condo, 1.5 miles from Tech. Furnished/unfurnished. \$1,250/month. E-mail gail.greene@mgt.gatech.edu.

3BR/2.5BA family-ready house is available for lease. Located in pedestrian-friendly Oakhurst. For more information, call 770-849-2692 or visit www.showing247.com/132mead.

SPORTS/FITNESS/RECREATION

Weight bench with complete set of weights, free to a good home. E-mail dh16@mail.gatech.edu or call 404-444-8316.

1989 Sears Gamefisher fishing boat, 14-foot aluminum V-hull with 15 HP Evinrude engine, 2 swivel seats, trailer, \$1,400. E-mail david.zurn@gtri.gatech.edu.

MISCELLANEOUS

Landau men's long, white lab coat, size 40 tall with goggles, both for \$30. Call 678-570-6798.

Wanted: used upright or console piano in good condition. Call Roberta at 385-2082.

Female Siberian Husky, 4 months old, b/w, blue eyes, free to good home. Alpha personality, likes adults, doesn't care for children. Call 404-558-0654.

Free yellow jacket nest removal, to be used for research at Georgia Tech. Call 385-6311 or e-mail michael.goodisman@biology.gatech.edu.