

FACULTY/STAFF NEWSPAPER

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THE GEORGIA INSTITUTE OF TECHNOLOGY

Researchers aid in busting drug counterfeiters

John Toon Research News

ech researchers were part of a three-continent, multi-organizational effort in February

"This is absolutely

television program

— Facundo Fernandez

Assistant Professor.

School of Chemistry

and Biochemistry

CSI-techniques

they use on the

really do work

in real life."

known as "Operation Jupiter," which successfully identified and shut down manufacturers who were flooding Southeast Asia with counterfeit—and ineffective—anti-malarial drugs.

With 11 different organizations, including the Centers for Disease Control and

Prevention (CDC), the World Health Organization (WHO), the Wellcome Trust and international law enforcement agency INTERPOL, the global effort provided Chinese officials with enough information to shut down the drug makers.

Beyond the human health cost of failing to

Drug busters continued, page 3

More than gatekeepers

Undergraduate Admission takes 'holistic approach' to processing applications

Robert Nesmith Communications & Marketing

A searly as last November, high school students started applying to Georgia Tech. This week, the students start finding out if they have made the cut, courtesy of the Office of Undergraduate Admission.

"It starts slowly in the fall semester, then starts ramping up with admission applications in mid-September," said Ingrid Hayes, director of Undergraduate Admission. "(With the President's Scholarship,) it's a scramble for us from Nov. 1 to Dec. 1 to prep (and) process the 4,700 applications into semifinalists." All told, Tech received roughly 10,000 applications for summer and fall 2008. About 20 percent of these come in on the Jan. 15 deadline. Decisions on students'

applications will be made by "early March." Everyone in Undergraduate Admission is evaluating the



Ingrid Hayes, director of Undergraduate Admission, says she and her staff remember the people behind the applications.

applications, assembly-line style, working to get through all 10,000 of them. In applying to Tech, students present grade-pointaverages, SAT or ACT scores, an essay, and examples of leadership initiatives, activities, summer enrichment programs and research they were/are involved in. "We have some high school applicants who have worked with a local college faculty member on research."

Admissions staff will have followed up on a hundreds of applications, as there are a few every year who don't have enough information included with them-either SAT or ACT scores or the student's grades. "There will be a few hundred that won't be admitted because they didn't include everything," Hayes said.

Provost Gary Schuster sets the incoming class size, letting Admissions know the summer a year before.

About 6,000 students will be offered an invitation to attend the Institute, with

roughly 2,400 students ultimately accepting for the fall. From the start, Hayes says Admissions knows there's a group that falls

Admissions continued, page 3

Tech's students earning national acclaim

A s evidence that the Institute's students are among the finest in the nation, several are being nationally recognized for their scholarly honors and accolades.

Adam Tart was selected from more than 300 applicants to receive the George J. Mitchell Scholarship. The Mitchell Scholarships are awarded annually to 12 Americans under the age of 30 to pursue a year of post-graduate study at any university in Ireland.

"The finalists were interviewed the weekend of Nov. 16 and 17 in Washington, D.C.," said Tart. "I found out that I had won the award the very next day by phone when Mitchell Scholarship Director Mary Lou Hartman called me. I was impressed and relieved with how quickly they let me know the decision, since I didn't have to sit and wait and wonder nervously for very long.

"I'm really excited about getting to pursue a field I'm really interested in (computer science) at a great university, in a



beautiful country, with the amazing opportunity to travel around Europe and see more of the world, all funded by a prestigious scholarship."

Tart is a discrete mathematics major and will pursue a master's in mobile

Honors continued, page 2

Scorpion venom could take sting out of cystic fibrosis, other diseases

Abby Vogel Research News

R esearchers have discovered a peptide in scorpion venom that may hold the key to understanding and controlling cystic fibrosis and other secretory diseases.

"Peptide toxins from scorpions, snakes, snails and spiders paralyze prey by blocking nerve or muscle ion channels so the prey can't get away," explained Nael A. McCarty, an associate professor in the School of Biology. "Those toxins have been enormously useful for studying the potassium, calcium and sodium channels that they interact with, but this is the first toxin discovered that potently binds to and selectively and reversibly inhibits a chloride channel of known molecular identity." Chloride channels are crucial for secretion in many epithelial tissues, but little has been known about their structures and mechanisms. Researchers do know that chloride channels open to allow millions of chloride ions to travel through them and out of epithelial cells. This movement creates an osmotic gradient that allows water to flow.

For the more than 70,000 people worldwide affected by cystic fibrosis, a lack of water flow in airway cells results in abnormally thick, sticky mucus that commonly causes blockages that obstruct airways and glands. The lack of water flow stems from a problem in a chloride channel

Venom continued, page 2

"QUOTE-UNQUOTE"

"Do you design a lander? Do you design an impactor? Do you just kind of orbit around it? There are all kinds, thousands of different solutions. So you kind of match your objectives to your potential designs, and say, 'so which one of these gives you the most bang for your buck?'"

- Tech graduate student Jarret Lefleur, whose team won \$5,000 in a competition by the Planetary Society in Pasadena, Calif., to track a near-earth asteroid. (Voice of America, wire services)



New methods

Hosted by the GVU Center, "Journalism 3G: The Future of Technology in the Field" brought together seasoned correspondents and computer scientists, as well as technology and media executives, to discuss how new technologies can alter the news business for years to come. The symposium, held Feb. 22 and 23, attracted top people from Google, Minnesota Public Radio, CNN, Reuters and Newsweek, as well as those from the journalism schools at Northwestern and Columbia universities. Tech alum Krishna Barat, the creator of Google News, addresses the crowd. For more information, visit **www.computational-journalism.com**.

Venom, cont'd from page 1

called the cystic fibrosis transmembrane conductance regulator (CFTR) protein.

In individuals with cystic fibrosis, the CFTR protein is mutated. In the most common CFTR mutation leading to cystic fibrosis, the chaperone proteins-which are responsible for quality assurance within cells-bind to misfolded proteins and discard them from the cell. Loss of CFTR proteins stops water from flowing into or out of the cells, thereby altering the conditions in the airway, leading to cystic fibrosis. In other diseases, CFTR

channels are overactive, which also causes problems. These include secretory diarrhea, a worldwide health concern causing thousands of deaths per year; diarrhea-predominant inflammatory bowel disease; and autosomal dominant polycystic kidney diseases, the fourth leading cause of end-stage renal disease in the United States.

With collaborators at the Hungarian Academy of Sciences, Emory University and the University of Calgary, the researchers used reversed-phase high-performance liquid chromatography (HPLC) to extract the novel peptide from the complex venom of the Giant Israeli Scorpion, Leiurus quinquestriatus hebraeus.

"We chose this technique because each different peptide has slightly different water solubility and hydrophobicity properties, allowing them to be separated," explained Julia Kubanek, an associate professor with joint appointments in the schools of Biology, and Chemistry and Biochemistry.

In separating and applying each peptide to chloride channels to see which was responsible for the overall effects of the venom, they discovered a novel peptide that bound to the cytoplasmic side of the CFTR protein. They called it GaTx1.

The researchers plan to use GaTx1 as a molecular probe to learn more about how chloride channels are structured and regulated. They also plan to study how this peptide can be useful in treating other secretory diseases.

To treat patients with cystic fibrosis, GaTx1 could possibly be used to increase water production by binding to the chaperone binding sites on the chloride channel. The peptide would allow ions and water to flow from the cells to thin the mucus in the airway, McCarty said.

McCarty has been studying CFTR for his entire research career and as he moves to a new position as associate professor in pediatrics and senior cystic fibrosis scientist at Emory University, he will continue this work in collaboration with Tech researchers.

For more information.. School of Biology www.biology.gatech.edu

Honors, cont'd from page 1

networking and computing at the University College Cork, located in Cork, Ireland.

The Mitchell Scholarship is named for former Senate Majority Leader George Mitchell, who spearheaded the historic Good Friday Agreement of 1998, a peace accord in Northern Ireland. The Mitchell Scholarship recognizes outstanding young Americans who exhibit the highest standards of academic excellence, leadership and community service.

Biomedical engineering major Inn Inn Chen has been named a Marshall Scholar. The Marshall Scholarships finance young Americans of high ability to study for a degree in the United Kingdom.

Founded by a 1953 Act of British Parliament, Marshall Scholarships are mainly funded by the Foreign and Commonwealth Office and commemorate the humane ideals of the Marshall Plan conceived by General George C. Marshall. The scholarships are designed to enable intellectually distinguished young Americans to act as their country's ambassadors while studying in and gaining an appreciation of Britain. These young American scholars are able to contribute to the advancement of knowledge in science, technology, the humanities and social sciences and the creative arts at Britain's centers of academic excellence.

Chen wants to study tissue engineering and regenerative medicine at Oxford. She spent last summer as an intern at the National Institutes of Health and has developed a sustainable solar-powered refrigerator for vaccine storage. Chen is also associate editor of the Journal of Young Investigators and leads the Engineering World Health chapter on the campus to enable repair and shipment of life-saving equipment to areas of the world with critical needs. She is currently studying immune responses to new medical devices.

Andrew Marin, a chemical engineering student, has been named a Gates Cambridge Scholar. Scholars are selected on the basis of intellectual abilities, leadership capacity and desire to use their knowledge to contribute to society throughout the world by providing service to their communities.

Throughout his college career, Marin has been heavily involved with organizations that promote the chemical sciences. As president of the professional chemistry fraternity (Alpha Chi Sigma), he organized corporate seminars to display the most recent advancements in the chemical industry, and as chair of the chemical engineering student advisory board he worked to better student-faculty relationships

Marin also conducted research on unconventional solvent systems in the Eckert- Liotta Joint Research Group. In 2006, he was awarded the Barry M. Goldwater Scholarship for his technical capabilities and leadership in organizations. Through coursework and research, he has become interested in photovoltaic device materials.

At Cambridge, Marin will pursue a doctorate in materials science and metallurgy and investigate the use of metal oxides to enhance solar energy conversion. After graduate school, he will continue to research energy technology. Marin aspires to contribute to both technical and nontechnical communities through publications, innovations and outreach.

Other Georgia Tech students who have received this scholarship include Nabil Wilf (2007), Anthony Hylick (2005), and Jay Silver (2002).

The Bill & Melinda Gates Foundation established the Gates Cambridge Trust, which created an international scholarship program to enable outstanding graduate students from outside the United Kingdom to study at the University of Cambridge.

Jessica Heier, an industrial and systems engineering graduate student, was one of 14 young engineers featured in USA Today. Each year, the National Engineers Week Foundation, a coalition of engineering societies, major corporations and government agencies, asks its members to nominate colleagues 30 years old and younger who have shown outstanding abilities and leadership. Heier was nominated for her work in humanitarian relief logistics to be part of the New Faces of Engineering.



WHISTLE

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Photos by Rob Felt, unless noted

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

Admissions, cont'd from page 1

into a "definite yes" and a "definite no," with the remaining applications on the fence. "It's this group in the middle we have to concentrate on."

"We take the information the students have provided and evaluate," Hayes said. "By looking at the applicant pool, we ask 'which students have the best chance for success at Tech?'

By March 15, all admission decisions will be mailed. Hayes said all of this leads up to May 1-the acceptance and housing deposit deadline.

All Admissions staff members realize they are not just evaluating pieces of paper. "Every folder represents a human being, who has dreams and aspirations," Hayes said. "This office works to treat every one of them with respect." Her staff, she says, has met a lot of these students while on the road.

"It's agonizing," she said. "We know there are students who can do the work, but we have to deny thousands-4,000 students, roughly. We offer them other options, other 'pathways': they can always transfer in to Tech or apply for graduate school.'

In one example, Hayes recalls an instance where Admissions had to deny a young man's application. "We knew we would not be able to admit him." Hayes said. "His mother contacted us, saying she had fallen short in her duties. We were able to convince them to try and transfer. He committed himself, came to Tech in his sophomore year and completed his degree."

As can be expected, Undergraduate Admission's work is highly cyclical. In the fall, counselors are out traveling, conducting high school visits and college nights. They finish up the road recruiting in December. In January, they start

compiling the applicant files and plan for the office's spring programs, including on-campus programs for high school seniors who have accepted. "They go back out in March," she

said. "Through our yield programs, they follow up with students to see if they will still enroll."

Hayes says Admissions concentrates on areas around the state of Georgia, as well as the Washington, D.C., area, the "Research Triangle" in North Carolina and other areas. The Institute tends to receive a large number of applications from areas whose industry requires professionals with an engineering or science education.

"Georgia Tech is very wellknown and respected nationally," Hayes said. "But there are some areas where we are more well-known than others. We're spending a lot of time trying to make sure students are aware that we're more than an engineering school."

With outreach programs like Connect with Tech, students are able to get their applications in earlier and earlier. "Students are making their decisions earlier each year. It's uncommon for them to wait until their senior years to select the schools where they will submit an application." Students cannot apply until they complete their junior year of high school.

Admissions partners with several groups on campus, includ-

Drug busters, cont'd from page 1

effectively treat hundreds of thousands of malaria cases, the fake drugs could be fueling development of malarial strains that may become resistant to the most sophisticated drug now available to treat the disease: artesunate. Counterfeiters sometimes include small quantities of the real drug in their fakes, possibly as part of an effort to fool simple quality tests. By not killing the malaria parasites, the small amount could facilitate drug resistance.

As their part of the investigation, Tech researchers used sensitive mass spectrometry techniques to analyze nearly 400 drug samples provided by public health authorities. They also developed methods to speed up analysis, including an ionization process that reduced the time required to test a drug sample from half an hour to just a few seconds.

"About 50 percent of the samples obtained from the field in Southeast Asia were fakes," said Facundo Fernandez, an analytical chemist

school counselors," Hayes said. "We decide what messages we want to push out to the students, but we also post informa-

tion on the Web Undergraduate site." Admission Last Monday, the first wave of denial

decisions were

mailed, and Admissions staff members will spend this week evaluating the final group of applicants for the next academic year. The "holistic review process," Hayes says, ensures that all components of the application are factored into the final decision for each student.

With a staff of more than 30 people, Hayes has been director of the office for the last five years. Each staff member plays a key role in the processing and review of all undergraduate applications. From the initial receipt of documents and preparing files for review to fielding calls from parents and students, Admissions staff work to handle each application quickly but thoroughly in a rela-

And before this class has been put to bed, Admissions staff has already begun the process of recruiting the 2009 freshman class, as mailings and programs already have begun.

For more information.. **Undergraduate Admission**

www.admission.gatech.edu

and assistant professor in the School of Chemistry and Biochemistry. "They look very real, even down to the hologram in the packaging. It's very difficult to tell which ones are the fakes and which ones are real."

"We found old and ineffective antimalarials like chloroquine," he said. "We found antibiotics like erythromycin. We found all sorts of drugs that basically have no effect on resistant malaria parasites. Acetaminophen was one of the most common chemicals we found."

Fernandez speculates that the makers chose certain compounds, like acetaminophen, because they could temporarily make patients feel better by lowering the fever associated with malaria.

Mass spectrometry provides a very effective means of identifying samples by determining their accurate molecular weight. But conventional analysis can be time-consuming. Fernandez and his group developed a faster method that allows them to analyze hundreds of samples in a single day. Their goal was to make

analyses responsive within the time constraints that surveys in developing countries and law enforcement agencies involved in anti-counterfeiting tasks require.

Ultimately, Fernandez hopes to help develop highaccuracy instrumental tests that could be used in the field to save time and expense.

The effort also relied on analysis of pollen found in the drugs—a discipline known as forensic palynology-which was done by scien-

tists in New Zealand. A study of calcium carbonate isotopes in the compounds, together with the pollen and active ingredients in the samples, pointed to two main groups of samples originating in different

IN BRIEF

Tech receives record citations

According to ScienceWatch.com, in the field of Economics and Business, Tech has received the highest percentage increase in total citations of research papers published.

The Institute's current citation record in this field includes 2,278 citations from 338 papers. In the article, several research papers are discussed with members of the College of Management. ScienceWatch.com is a subsidiary of Thomson Scientific. For more information, visit www.ScienceWatch.com.

GT 1000 instructors sought

The Office of Success Programs seeks volunteers to teach sections of GT1000 Freshman Seminar for Fall 2008. The seminar helps incoming freshmen adjust to college life, learn about their majors and related careers and introduces them to campus. Sections are comprised of 24 to 30 students and are assisted by upper-class team leaders.

Instructors are welcome from any department (discipline, academic, service), provided they hold a master's, have been employed at Tech for at least one year and have a supervisor's or department head's support. Training is provided.

For more information, contact Steven Girardot, director of Success Programs, at 894-1945 or at steven.girardot@vpss.gatech.edu or visit www.gt1000.gatech.edu.

Certificate achieved

Verna Wilson, an administrative clerk with the Tech Police Department, is the first person to complete the Office of Organizational Development's new Emergency Preparedness Certificate Program.

Designed for building managers across campus, the course is open to everyone in the community. Participants learn about crisis management and disaster prevention, along with other tools to use in the event of a campus emergency.

To receive the certificate, attendees must complete five required courses and two elective courses. For more information, visit www.orgdev.gatech.edu.

Facundo Fernandez, an assistant

Chemistry and Biochemistry, was

part of an international effort to

halt the production of counterfeit

professor in the School of

anti-malarial drugs.

geographic regions of Asia.

"This is absolutely CSI-the techniques they use on the television program really do work in real life," Fernandez said.

The operation provided enough information that Chinese authorities were able to shut down the manufacturers.

Malaria kills more than a million people each year worldwide. and is a risk for about 40 percent of the world's population. Most victims would survive-if they had access to the proper drugs.

"The problem is not over," he cautioned. "There are more fakes and more fake producers. But at least this is a beginning. Having an opportunity to do some good in this area is very satisfying."

"Every folder dents, parents and represents a human being ... this office works to treat every one of them with respect." - Ingrid Hayes Director,

ing Financial Aid and

Communications & Marketing,

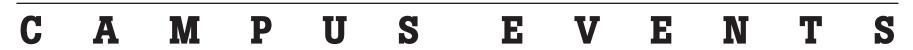
their supporters. "We have so

to get the recruitment messages out to potential students and

many con-

stituents-the stu-

tively short timeframe.



Arts & Culture

March 6

Curator Martin Collins of the Smithsonian's National Air and Space Museum presents "Night at the Museum: Historians as Curators and Other Strange Creatures," from 11 a.m. to 12:30 p.m. in the Neely Room of the Library and Information Center. For more information, visit www.hts.gatech.edu.

The documentary "Prince Among Slaves," about Abdul Rahman Ibrahima Sori, an African who was enslaved in the United States for 40 years, will be shown from 7 to 9 p.m. in the Architecture Auditorium. For more information, visit www.gtmsa.org.

March 14

The Ferst Center for the Arts presents Chinese pianist Yundi Li, at 8 p.m. Tickets are \$20 to \$45 (\$24 to \$32 with subscription). For more information, visit www.ferstcenter.gatech.edu.

March 25

The Science Fiction Film Series continues, with Ridley Scott's "Blade Runner" (1982), from 7 to 9 p.m. in the Library East Commons area. For more information, visit www.lcc.gatech.edu.

Conferences & Lectures

March 4

Duke University Professor Gregory A. Wray presents "Positive Selection on Non-coding Sequences During Human Evolution: From Genome to Nucleotide," at 11 a.m. in room 1116W of the Klaus Advanced Computing Building. For more information, visit http://cssb.biology.gatech.edu.

Universidad Complutense Professor María Luisa García presents "Immigration in Spain: A Different Approach," from 11:05 a.m. to noon in room 104 of the D. M. Smith building. For more information, visit www.modlangs.gatech.edu.

The Tech Library presents the Tuesday Talk with Music Department Assistant Professor Jason Freeman—"Composer, Performer, Listener"—from noon to 1:30 p.m. in the Neely Lobby of the Library and Information Center. For more information, visit www.library.gatech.edu.

University of Maryland Professor Sang Bok Lee presents "Nanotubes Beyond Carbon Nanotubes: From Nanomedicine to Electronic Devices," part of the Materials Council Seminar Series, from 3 to 4 p.m. in room 299 of the Love Building. For more information, visit www.matecouncil.gatech.edu.

Georgetown University Professor Timothy H. Warren presents "Discrete Late Metal Nitrenes in Catalytic C-H Animation," from 3 to 4 p.m. in room G011 in the Molecular Science & Engineering Building. For more information, visit www.chemistry.gatech.edu.

Interactive Computing Professor Gregory Abowd presents "Behavior Imaging: A Technology Approach to Support Behavioral Science and Developmental Disabilities," from 4 to 5 p.m. in room 250 of the J.S. Coon building. For more information, visit www.psychology.gatech.edu.

E. Neville Isdell, chairman and CEO of The Coca-Cola Co., presents "Quo Vadis Russia: A Business Perspective," from 6 to 7:30 p.m. at the Atlanta History Center's McElreath Hall. Tickets are \$15 for faculty and staff. For more information, visit www.southerncenter.org.

March 5

Tech Visiting Scholar Richard John presents "The Pantheon: A Flawed Masterpiece," from 6 to 7 p.m. in the Architecture Auditorium. For more information, visit www.coa.gatech.edu.

Massachusetts Institute of Technology Professor Alan Lightman presents "The Crossroads of Science & the Arts," from 7 to 8 p.m. in room 100 of the Management building. The lecture is sponsored by the Georgia Tech Honors Program and the College of Sciences. For more information visit www.honorsprogram.gatech.edu.

The Spring 2008 Innovations in Economic Development Forum presents "From 'Old' to 'New': Neighborhood Revitalization in the Old Fourth Ward," with Atlanta City Council member Kwanza Hall, from noon to 2 p.m. in the Hodges Conference Room of the Centergy Building @ Tech Square. For more information, visit www.cherry.gatech.edu.

March 6

The Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University celebrates its 10th anniversary, from 8 a.m. to 2 p.m. in the Cox Hall Ballroom at Emory. For more information, visit www.bme.gatech.edu.

Science fiction writer Kim Stanley Robinson will give an interview to WREK radio and then hold a general discussion from 11 a.m. to noon in the Library East Commons area. For more information, visit www.lcc.gatech.edu.

March 7

Heinrich-Heine-Universität Düsseldorf Professor Thomas J.J. Mueller presents "Multi-component

Synthesis of Heterocycles and Domino Reactions Inititated by Palladium Catalysis," at 3 p.m. in room G011 of the Molecular Science & Engineering building. For more information, visit www.chemistry.gatech.edu.

March 11

Kansas State University Professor Christopher T. Culbertson presents "Small Volume Biological Sampling, Fluid Handling and High Efficiency Separations on Microfluidic Devices," starting at 3 p.m. on March 11 in room G011 of the Molecular Science & Engineering Building. Fore more information, visit www.chemistry.gatech.edu.

Faculty/Staff Development

Ongoing

The Office of Organizational Development offers a Web-based tutorial on the basics of using a state purchasing card (p-card). To register, visit www.trainsweb.gatech.edu.

The Office of Organizational Development offers an Emergency Preparedness Certificate, which consists of several smaller courses, including "Fire Safety," "Facilities Hazard Training" and "Basic First Aid/Adult CPR/AED." For more information on scheduling, visit www.orgdev.gatech.edu.

March 6

The Office of Human Resources offers two seminars on Social Security and retirement benefits in room 117 of the Student Services Building. Eileen Salowitz from the Social Security Administration presents "Making Sense of Social Security," from 1:30 to 2:30 p.m., and Benefits Manager Linda Mitchell will speak on Tech's retirement benefits from 2:45 to 3:45 p.m. For more information, visit www.trainsweb.gatech.edu.

March 13

Both Teacher's Retirement System (TRS) benefits and optional and supplemental retirement benefits will be discussed in room 117 of the Student Services Building. Mike Zarem from TRS will speak from 1:30 to 2:30 p.m. and Jeff Juday from Fidelity Investments will speak from 2:45 to 3:45 p.m. For more information, visit www.trainsweb.gatech.edu.

Miscellaneous

March 6

School of Public Policy Associate Professor Roberta M. Berry will sign copies of her newest book, "The Ethics of Genetic Engineering," from 5:30 to 6:30 p.m. in the Georgia Tech Bookstore. For more information, visit www.gatech.bncollege.com.

AUTOMOBILES

1999 Oldsmobile Alero GLS. Green exterior with tan leather seats, V6, 96,450 miles, alloy wheels, sunroof, spoiler. \$3,900. Pics avail. 678-850-5841 or 678-850-5601.

REAL ESTATE/ROOMMATES

1BR/1BA apt. in Home Park available. Off-street parking, ADT security, lots of storage space, washer/dryer, central heat/AC. Perfect for one or a couple. No pets. \$675 + deposit. 404-512-4618.

3BR/2BA home on Panola Road, near Publix/Walmart, 1/8 mile from I-20. BR w/ private BA, cable, \$475. Access to kitchen, laundry room, dining

room. \$400 deposit, nonsmoker. Call 770-593-2527.

2BR/1BA loft, downtown close to 5 Points, Phillips/CNN. Granite counters, concrete floors, balcony, in-building parking, common area roof-top deck. March 2008 move in. \$1,200 + deposit and credit check. E-mail Anika at anika.harris@ gtri.gatech.edu for info/pics.

3BR/ 2.5 BA 2-story Smyrna townhome, 10 miles from GT, \$219,900, hardwoods on main, 1,800-sq-ft, built 2005, w/d & stainless steel appliances stay, MLS No. 2313966. Call 678-631-1750.

4BR/3BA renovated house for rent in Howell Station.

appliances incl. \$2,000/mo. Info at www.1251NilesAve.com. Call 404-808-8483.

SPORTS/FITNESS/RECREATION

Mountain bike: Diamondback 21-speed, aluminum frame, \$75. E-mail jim.cook@ gtri.gatech.edu.

New cross-country skis, boots and poles. \$100 OBO. Pics on Craigslist, No. 528243989. Call 770-378-0678.

FURNITURE/APPLIANCES

Sleeper sofa-free! You come and take it away. Broyhill, good condition (couple of scratched spots), non-smoking

home. Very comfortable, very robert.todd@coa.gatech.edu.

3-piece sectional sofa: \$1,100. Sleeper sofa, 2 recliners, and wedge. Microsuede, fabric protection, 2 yrs. old, pics avail. E-mail capGT@gatech.edu or call 404-295-0008.

Pull-out couch, queen-sized bed, 2 chairs, ottoman, green. Pics available, \$450 OBO. Call 894-1028 or email robert.gregor@ ap.gatech.edu.

MISCELLANEOUS

Unused CCT 31-day express round-trip bus pass. \$75. E-mail lynn.fenster@library .gatech.edu.

Nikon professional camera outfit: F3 with high-point finder, MD-4 high speed motor drive, 35-105 zoom lens, AS-4 flash adapter, SB16 twin-head flash, \$375. Nikon FM10, 35-70 zoom, fitted case, like new, \$150. Prices firm. E-mail jim.cook@gtri.gatech.edu.

Used 4-wheel/tires-Saturn Ion, \$100. Pics on Craigslist, No. 531485823. Call 770-378-0678.

Submissions appear in the order in which they are received. E-mail ads to editor@comm.gatech.edu.



Hardwoods, vaulted ceilings,