Anniversary celebration

BME department marks first decade

Abby Vogel
Research News

A picture of collaboration—from across disciplines to across town—the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University (BME) celebrates its 10th anniversary on April 23.

Combining the skills of engineering with medical and biological sciences, BME has worked to improve not only patient health care, but also the quality of life in healthy individuals. Some of the work research labs are undertaking includes gene prediction, cancer detection and prevention, cardiac regeneration, biomedical imaging, neuroengineering and molecular engineering. Utilizing magnetic resonance imaging and other computer modeling techniques, 20 labs and 46 faculty members work to tackle the health challenges of the 21st century.

As part of the burgeoning nanomedicine field, the Coulter Department is host to the National Institutes of Health (NIH) centers Program of Excellence in Nanotechnology, the Nanotechnology Center for Personalized and Predictive Oncology and the Nanomedicine Development Center. The Coulter Department is the only academic department in the United States to have three NIH centers focused on nanomedicine. In U.S. News & World Report’s undergraduate and graduate rankings, the Coulter Department ranks No. 3 and No. 2, respectively.

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The department utilizes the strengths of the public/private relationship of the two universities. Giddens says, “This partnership benefitted us with research opportunities and gave us a lot of visibility because it was so novel,” he said. “And it works well, because Emory doesn’t have an engineering school and Tech doesn’t have a medical school. And because of the (nature) of the two different schools, we aren’t getting our funding from the same sources.”

By 2001, a $16 million grant from the Whitaker Foundation and a $25 million grant from the Wallace H. Coulter Foundation enabled the department to host the Nanomedicine Development Center.

Jackson receives recycling award

Office of Solid Waste Management and Recycling
Manager Cindy Jackson receives the American Forest & Paper Association’s College & University Recycling Award in New York on March 29. Jackson is also director of Tech’s Earth Day activities.

WIE program honors outstanding CoE female students and faculty

Sandra Song
College of Engineering

On March 27, 520 Georgia Tech students, faculty members, Institute leaders and corporate representatives filled the Georgia Tech Hotel Grand Ballroom for the ninth annual Women in Engineering (WIE) Excellence Awards banquet. The guests of honor were the undergraduate female engineering students who qualified to attend the banquet by earning an overall GPA of 3.55 or higher.

Representing 57 percent of the College of Engineering’s female student body, 576 students were recognized. “Regarding diversity and women, when I hear someone say, ‘I just want to hire the best,’ I point to our female students and say, here you are, these are the best,” said WIE director Mimi Philosobos, also a Civil & Environmental Engineering senior academic professional.

Students were given the opportunity to nominate faculty members who had positively impacted their lives and their experiences at Tech. For their excellence in teaching and their mentoring. Mathematics Professor Doron S. Lubinsky and Materials Science and Engineering Assistant Professor Valeria Todor-Nilam received these awards. A special tribute was given to Lynn Boyd, the Institute’s Corporate Liaison director, on the eve of her retirement for her sustained contributions. WIE provides an inviting and supportive forum for women in.

WWW.WHISTLE.GATECH.EDU
purchase of equipment, funded department chairs, explored and developed both graduate and undergraduate programs, and built the U.A. Whitaker Building at Tech, where most of the faculty offices, classrooms and labs are located.

“In September 1997, we had approval to hire 18 faculty members (for the department),” Giddens said. Instead of moving current professors already teaching in the bioengineering certificate program, Giddens said he saw an opportunity to expand, bringing in new faculty members. It was a “rare opportunity,” he said, to develop the course framework from scratch.

BME also showcases the uniqueness of its students. Undergraduates quickly become involved in research, as the degree is very research-oriented, Giddens said. “Most feel BME attracts students who want to have an impact on society, who want to apply engineering principles to health,” he said. And, as an engineering course of study, it bears the distinction of being nearly evenly divided between male and female students.

Larry McIntire, BME chair since 2002, says the department may have a few hurdles to vault, but that becoming ranked as the No. 1 biomedical engineering program is definitely the priority. In less than 10 years, the department already is the second largest nationally.

“The Coulter Department’s greatest successes over the last five years include the recruitment of approximately 20 outstanding new faculty to Tech and Emory, and the development of internationally recognized innovative research and education programs in biomedical engineering,” he said. “We have pioneered the use of problem-based learning in the biomedical engineering curricula at both the undergraduate and graduate levels. We are widely recognized for our excellence in cardiovascular engineering and in tissue engineering/regenerative medicine. We have also been national leaders in developing a critical mass of research in new and emerging fields such as nanomedicine, systems biology, neuroengineering and biomaterials.”

Both Giddens and McIntire agree BME will be the No. 1-ranked biomedical engineering program. For Giddens, it just needs a little more time. “It will be very important for the Emory and Tech relationship to grow beyond what it is right now,” he said. Another key, Giddens says, is to continue recruiting extremely capable faculty members and providing adequate space for the growing department—a tenet echoed by McIntire.

“We hope the Coulter Department will continue to grow to approximately 50 faculty over the next 10 years,” McIntire said. “With our leadership in the field of nanomedicine, it would make sense that faculty in the Coulter Department would occupy significant space in the new nanotechnology building.”

Beginning at 8:30 a.m. in the Klaus Advanced Computing Building atrium, the day’s events include an introduction from Giddens and Thomas Lawley, dean of the Emory School of Medicine. Roderick Pettigrew, the director of the National Institute of Biomedical Imaging and Engineering, is the keynote speaker. Other speakers throughout the day include Andrew Tousoukas, currently an assistant professor at the University of Pennsylvania and the first graduate of the Tech and Emory BME program.

The program initially started as a $400,000 seed-grant initiative between Tech and Emory in 1987 by former Tech Provost Michael Thomas and current Emory Chancellor Michael Johns. In 1997, the two established an advisory committee of both Tech and Emory faculty to establish a new department.

Researchers and professors hail from various campus disciplines—aerospace and mechanical engineering, computing and physics—and utilize several different spaces across campus, including four buildings with a combined 800,000 square feet on Tech’s campus and a research building on Emory’s campus.

“I came back to Atlanta specifically for (developing) BME,” Giddens said. “Of all the leadership roles I’ve held, the BME partnership is the one I’m proudest of.”

Robert Nesmith in Communications & Marketing contributed to this article.

For more information...

Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University
www.bme.gatech.edu
New challenge course to offer leadership, team building training

Dan Treadaway
Communications & Marketing

The use of ropes courses for developing leadership and teamwork skills has been standard practice in the corporate world for some time. Georgia Tech’s Division of Student Affairs is working to make such a course available for Tech students, faculty, staff, alumni, and external community organizations.

Ropes challenge courses consist of outdoor personal development and team building activities that usually include some elements that take place on the ground or a few feet above the ground, and others that are constructed in trees or made of utility poles and linked by ropes. Matt Marcus, coordinator of Outdoor Recreation Georgia Tech (ORGT) in the Campus Recreation Center, is spearheading efforts to establish the Georgia Tech Leadership Challenge Course Complex, which will be located near the Burger Bowl at Perret Drive and Hemphill Avenue.

The main marque-type event will be the ropes course,” explained Marcus. “It is an engineered structure built of wood and steel, ropes, and cables. There would be a series of rope and cable ‘bridges’ to cross at various heights ranging from 3 feet to 20 feet and all the way up to 55 feet. The course is used much like the infamous ‘Wigglet’ in business schools. Participants will utilize the structure to represent a real-life problem to be solved.

By having participants utilize this unusual and novel structure, they are forced to rely less on habits and focus more on specific skill sets related to effective communication, group problem solving and ethical leadership.”

Marcus continued. “Throughout the learning process, participants are actively engaged in posing questions, investigating, experimenting, solving problems, assuming responsibility, being creative and constructing meaning.”

Marcus says that about 750 Tech students are going off campus to outside vendors for ropes course services. With support of private donors, the Division of Student Affairs is aiming to bring this learning opportunity to students on campus and allow for broader participation.

In addition, Marcus said, a technology-oriented portion of the course will be focused on teaching students how to utilize the integrative technology with the standard needs of professionals, such as communicating electronically and working with dispersed work groups.

The Leadership Challenge Course Complex will also feature an outdoor classroom pavilion and associated amenities to enhance the experience.

In BRIEF:

Goodman offers testimony

International Affairs and Computing Professor Seymour (Sy) Goodman testified April 1 before the Subcommittee on Terrorism, Unconventional Threats and Capabilities of the House Armed Services Committee.

Goodman, James Lewis of the Center for Strategic & International Studies and Franklin Kramer, distinguished research fellow at the Center for Technology and National Security Policy, answered questions on the subject of “Homeland Security: Coaches to Cybersecurity Enabling Network Centric Operations.”

Goodman also serves as chair of the National Research Council Committee on Improving Cybersecurity Research in the United States. For more information, visit www.cc.gatech.edu, www.inta.gatech.edu, or http://armedservices.house.gov.

Allen to receive award

The American Society of Engineering Education (ASEE) has awarded Associate Chair for Student Initiatives and Executive Assistant to the President Sue Ann Bidstrup Allen in the School of Chemical and Biomolecular Engineering the Sharon Kellor Award for Women in Engineering Education, which honors outstanding women engineering educators. The award includes an honorarium of $2,000 and a plaque that will be awarded at the ASEE conference in June. For more information, visit www.csbe.gatech.edu.

Ratliff on advisory committee

The National Science Foundation (NSF) invited Donald Ratliff, UPS and Regents’ Professor of Industrial and Systems Engineering, to serve on the advisory committee for the Office of Polar Programs (OPP).

The committee will advise the director of the OPP in polar research programs and provide policy, offering guidance on how the office can best serve and promote research and education, as well as increase workforce diversity and set investment priorities.

Ratliff, who also serves as executive director of the Georgia Tech Supply Chain & Logistics Institute, will serve from May through May 2011. For more information, visit www.isye.gatech.edu.

NCAA certifies Institute

The National Collegiate Athletic Association (NCAA) announced last week that Georgia Tech was one of 35 institutions granted athletics certification.

The NCAA Division I Committee on Athletics Certification works to ensure integrity in collegiate athletics programs. The process includes a review of governance and commitment to rules compliance, academic integrity, equity and student-athlete well-being. For more information, visit www.ncaa.org.

Tech places third

Students from 10 universities demonstrated their product design and entrepreneurial skills at the April 5 National Idea-to-Product Competition for Social Entrepreneurship, held at Georgia Tech. The Institute’s entry, a tongue-drive system that can be used to access a computer, operate a powered wheelchair or control the user’s environment, placed third in the competition.

Other winners included the University of Sheffield with its first-place recycling project and the Illinois Institute of Technology with its second-place project designed to assist blind and visually impaired athletes.
C A M P U S E V E N T S

Arts & Culture
April 22
The Georgia Tech Symphonic Band will perform at 8 p.m. in the Ferst Center for the Arts. For more information, visit www.coa.gatech.edu.

April 24
Tech’s Music Technology and Digital Media programs present “Listening Machines,” from 8 p.m. to midnight at Eyedrum, located at Suite B, 290 MLK Jr. Drive. For more information visit http://mt.gatech.edu or www.eyedrum.org.

May 2–4
The Atlanta Lyric Theatre presents the Tony Award-winning musical comedy “Anything Goes,” at 8 p.m. in the Ferst Center for the Arts. For more information, visit www.ferstcenter.gatech.edu.

Ongoing
The School of History, Technology, and Society presents the Robert C. Williams Paper Museum exhibit “How Do They Spend It?” from April 23 to Sept. 2. Formed by Professor Gus Giebels and students from HTS 4001, the exhibit examines money and images on money from 10 countries. For more information, visit www.ipst.gatech.edu.

Conferences & Lectures
April 22
Civil and Environmental Engineering Professor Kurt Pennell presents “Transport and Retention of Nanoscale C60 Aggregates in Water-Saturated Porous Media,” from noon to 1 p.m. in room 102A of the Microelectronics Research Center. For more information, visit www.mirc.gatech.edu.

McGill University Professor Peter Brown presents “A Moral Economy for Lesthip Earth,” from 7 to 8 p.m. in the Student Center Theater. For more information, visit www.sos.gatech.edu.

April 22, 23
Tech’s Center for International Business, Education and Research (CIBER) presents the 14th annual Georgia Tech Global Business Forum: Post-Olympic China Business Opportunities and Challenges for U.S.-based Firms, from 8:30 a.m. to 4:50 p.m. in the GTRI Conference Center, 250 14th St. To register, visit www.ciber.gatech.edu.

Northwestern University Professor J. Fraser Stoddart presents “Mingling Art with Science,” the Peter B. Sherry Annual Lecture, 3 p.m. on April 22. On April 23 at noon, Stoddart presents “Chemistry and Molecular Nanotechnology in Tomorrow’s World.” Both lectures are in room G011 of the Molecular Science & Engineering building. For more information, visit www.chemistry.gatech.edu.

April 24
The College of Computing hosts a High-Performance Computing Research Symposium, from 10 a.m. to 4 p.m. in the Klaus Advanced Computing building atrium. For more information, visit www.cc.gatech.edu.

Stephen Spiggle, director of the Center for Assisitive Technology and Environmental Access (CATEA), presents “Assistive Technology Development: The Juggling of Stakeholders,” from 11 a.m. to noon, in the Architecture Library. For more information, visit www.chem.gatech.edu.

April 29
School of Chemistry and Biochemistry research scientist Rytili Solntsev presents “Excited-state Proton Transfer: From ‘Super’ Photoacids to the Green Fluorescent Protein,” from 3 to 4 p.m. in room G011 of the Molecular Science & Engineering building. For more information, visit www.chemistry.gatech.edu.

April 30
The School of Literature, Communication and Culture presents its Digital Media Day, from 4 to 7 p.m. in the Sikes classroom building. For more information, visit www.lcc.gatech.edu.

May 1
Rutgers University Professor Jeehun Lee presents “Damaged DTA: Gas Versus Solution Phase Reactivity and Biological Implications,” at 3 p.m. in room G011 of the Molecular Science & Engineering building. For more information, visit www.chemistry.gatech.edu.

May 7
The College of Management will play host to a town hall meeting on space exploration, presented by the Planetary Society and Tech’s Center for Space Systems. Bill Nye “The Science Guy” will host the meeting, held at 7 p.m. in the college’s LeCraw Auditorium. For more information, visit www.mgt.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.trainweb.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.

The “Defining Customer Service” certificate program provides campus groups and employees with the foundation for offering exemplary service to those both on and off campus. Four required courses and two electives are offered. For more information, visit www.training.gatech.edu.

April 23
The Office of Organizational Development presents a Brown Bag introduction to Tech’s Salal installation (T-Square), from 11:30 a.m. to 1 p.m., in room 203 of the Savant building. For more information, visit www.gtaan.gatech.edu.

Miscellaneous
Ongoing
Online registration for 2008-2009 parking permits begins April 15 and continues through June 30. To register, visit www.applyparking.gatech.edu.

For more information, visit www.parking.gatech.edu.

May 16
GTMAG (Georgia Tech Military Affinity Group) presents a panel session with several Medal of Honor recipients, from 8 to 10 a.m. in the Waddle Center, in recognition of Armed Forces Day (May 17). For more information, visit www.gtmag.org.

C L A S S I F I E D S

AUTOMOBILES & MOTORCYCLES
2000 Ford Windstar. Red ext. w/ grey leather int., 80,000 miles, new trans. exc. cond. 4 captain’s chairs, in-console ent. system (VHS w/ addition- al inputs). V. clean. $5,000. Edmund’s price $5,900. E-mail nate.bennett@mgt.gatech.edu.

1984 Mercedes 500SE. V8, mint. $5,000. Pics avail. E-mail romerochris@yahoo.com.

REAL ESTATE/ROOMMATES
5BR/4.5BA, Buckhead European brick home on 8 acres of natural preserve. Minutes to Tech. Finished daylight terrace level perfect for teens or in-law suite, 3 finished floors. Completely renovated. Private cul-de-sac subdivision. Low-maintenance yard. Desirable location w/ best schools, shopping and restaurants. E-mail enasax.mazaaaza.com or call 404-951-9953.

PSUO 1BR/1BA condo, 401 10th St. Hardwood floors throughout, tile in room 102A. Be sure to check with the Brick Laundry room w/washer and dryer incl. Kitchen w/ cherry wood, pub height. $200. Complete wedding party. View on Craigslist, No. 587334489. Call 678-508-5732.

FURNITURE/APPLIANCES
Kenmore dishwasher: White and black; works great. $65 Craigslist, No. 587334489.

WEDDINGS

MISCELLANEOUS
Lost: Gold, rhinestone and crystal brooch. Last seen in Student Services, Rm. 117, on March 26 in the morning. No questions asked if returned to Victoria at the CRC.

Advis appear and run for three weeks in the order in which they are received. E-mail submissions to editor@comm.gatech.edu.

For more information, visit www.applyparking.gatech.edu.