Goldbart Named Dean of College of Sciences

Following a national search, Georgia Tech’s College of Sciences has a new leader.

Rafael L. Bras, provost and executive vice provost for Academic Affairs, has announced that Paul Goldbart, professor and chair of the School of Physics, will assume the responsibilities of College of Sciences dean, beginning July 1.

Goldbart succeeds Paul Houston, who, last August, announced plans to step down in June 2015 and retire in 2014. Before joining Tech’s School of Physics in 2011, Goldbart spent 25 years at the University of Illinois at Urbana-Champaign (UIUC).

At Tech, Paul Goldbart, we get a scholar and a leader with a wealth of experience from his years at UIUC, and at the same time, an individual who in a couple of years has adapted and integrated into the One Georgia Tech fabric,” Bras said. “I am delighted to count Paul among the university’s academic leadership.”

Goldbart said he intends to build upon Houston’s work. “My sincere thanks go to Dean Paul Houston for his superb leadership and initiative, under which the College of Sciences has truly thrived,” he said. “I feel honored to take on the role of dean; I look forward to helping the College’s outstanding faculty, students, and staff realize their aspirations. I relish the opportunity to pool my ideas with theirs to drive the College forward.”

Having spent the past 35 years as a physicist and teacher, Goldbart acknowledges a “lifelong romance” with science and mathematics. “I think the task of the College of Sciences is to be a passionate advocate for the full range of scientific and mathematical endeavors, especially those whose potential for application cannot — at the present time — be known,” he said.

Since Goldbart’s arrival at Georgia Tech, the School of Physics has appointed five new faculty members — two in biophysics and three in astrophysics. Two of the newly appointed faculty members are from historically underrepresented groups.

Goldbart’s participation in campuswide activities includes infrastructure development to help generate plans for shared, wide-use experimental facilities, as well as involvement in retreats for faculty that focus on identifying new career challenges. He also launched a popular program of lectures for the general public on cutting-edge ideas in science.

As chair, Goldbart has partnered with his colleagues to initiate reforms in undergraduate and graduate education, to infuse teaching with best practices, to create new classes, and to foster the development of a massive open online course, Your World is Your Laboratory, led by Professor Michael Schatz. He has also collaborated with the College of Sciences on numerous activities devoted to building partnerships with alumni and friends of Tech, and to generate resources.

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In November 2009, Bob Guldberg was appointed director of the Petit Institute after serving as associate director since 2004.

In 1999 and was designed to break down barriers to working across disciplines by creating open research neighborhoods composed of investigators with complementary collaborative interests. Part of the uniqueness of the Petit Institute lies in the amazing breadth of research, spanning from cancer biotechnologies, regenerative medicine, and drug delivery, to multiscale biomechanics, molecular biophysics, and chemical biology. The Petit Institute currently supports 16 interdisciplinary research centers focused on applications related to pediatric health care, military medicine, cardiovascular disease, stem cell engineering, and even the origins of life itself.

The Petit Institute’s success can be attributed to a clear mission to add value by catalyzing research and education initiatives. As one example, the income from our endowment is used to support collaborative seed grants between faculty from different colleges. We also support a broad range of experimen
tal core facilities, conferences and seminars, industry interactions, student activities, and outreach, combining to create a dynamic culture and ecosystem for interdisciplinary research. Another critical element of the Petit Institute’s success has been coordination and partnership with participating academic units on campus and with external entities such as Emory and Children’s Healthcare of Atlanta.

How does the Petit Institute support education throughout the bio-community?

Although the Petit Institute is not a school or department with traditional classes, we are involved in graduate student education on many levels. For example, the Petit Institute is home to four research seed grants that provide scholarships, fellowships, or stipends for graduate and postdoctoral fellows. Graduate students who are supported by training grants often get to experience deeper relationships with industry through internships and often develop an understanding of a specific field — all while building their life experiences. The Petit Institute is also the administrative home for both the Bioengineering Graduate Program and the Bioinformatics Graduate Program. In addition, the Petit Institute is home to the Bioengineering and Bioscience Unified Graduate Students group. The Petit Institute supports this group, which organizes more than 30 of their own events each year as well as provides graduate students with a more well-rounded training experience, integrating social, policy, and industry activities into the classroom and lab work.

The Petit Institute is also supportive of undergraduate initiatives, including the Petit Undergraduate Research Scholars Program, a competitive scholarship program that supports undergraduates majoring in any of the biosciences or bioengineering fields. The program offers undergraduates a 12-month mentored research opportunity, providing a solid foundation to pursue advanced degrees in science or engineering. After graduating, 80 percent of Petit Scholars go on to obtain advanced degrees. Since its inception in 2000, the program has supported hundreds of undergraduates who have established careers in research, medicine, and industry.

How does the Petit Institute support interdisciplinary research?

More than 140 faculty and nearly 1,000 graduate and undergraduate students, and postdoctoral fellows make up the Petit Institute community.

The Petit Institute facilitates collaboration between engineers and scientists to create new opportunities through seed grant programs, innovative education programs, and staff support of grants, facilities, public relations, proposals, and industry relations.

Innovative scientific research in the 21st century requires three critical factors: the ability to form and deploy teams with diverse skill sets, the availability of state-of-the-art facilities, and the engagement of the world’s brightest minds to understand and solve complex research problems. The Petit Institute, through its faculty, trainees, and partners, is fortunate to possess all of these essential ingredients.

The Q&A, in its entirety, is available at http://c.gatech.edu/1okwQTb
Campus News

Prof Educates Seniors About Tuition Benefits

AMELIA PAVLIK
INSTITUTE COMMUNICATIONS

On a chilly day in late January, Claudia Rébola led a group of 10 seniors on a walking tour of campus. But these weren’t the high school seniors that you might expect to see.

They were senior citizens from the Toco Hills Naturally Occurring Retirement Community (NORCs) are communities where the majority of older adults have decided to remain in their homes as long as possible.) And they were here to learn more about attending Georgia Tech.

“A law was passed in Georgia in 1977 that allows older adults to access a free college education — but it’s not well known,” said Rébola, an assistant professor in the School of Industrial Design and co-founder of the Design and Technologies for Healthy Aging initiative at Tech. “My goal is to change this.”

According to the University System of Georgia’s (USG) Board of Regents Policy 4.2.1.5, Georgia residents age 62 and older may be eligible to enroll in any of the state’s institutions tuition free. (Enrollment is limited by available space.)

But, according to numbers from Enrollment Services, out of 19,961 students who are enrolled for classes at Tech this spring, only 15 of them are age 62 or older.

As part of her research, which focuses on design for aging, Rébola has ongoing relationships with communities for older adults, including Toco Hills NORC. She regularly attends the community’s lunch-and-learn events to present on topics of interest to the residents.

“We know that older adults are eager to try new things, but they’re very concerned about costs, given their limited income,” Rébola said. “So I worked with the community to organize an activity where the residents could learn more about the tuition benefits and visit Georgia Tech.”

She worked with the Office of Admissions to modify the typical campus tour for people with limited mobility to what she thought was a manageable 1.5 hours. The tour included campus highlights such as Clough Commons and the Student Center and ended at the Campus Recreation Center.

“But about 50 minutes into our tour, I realized just how hilly this campus is and how hard it was for several of the tour participants to get around,” Rébola said. “So I had to improve.”

She got the electric car that belongs to the College of Architecture and started to shuttle people. (Keeping walking to a minimum will be a priority with future tours.) But in spite of the last-minute change of plans, Rébola received positive feedback.

“The group was really impressed by our facilities and was blown away by how things have changed since they were college-age,” said Kippelen. “Another unintended benefit of the experience was that many of them also mentioned that they now wanted to bring their grandchildren to Tech to see how amazing the campus is.”

And the community has already asked Rébola to coordinate additional tours in the future. Going forward, she hopes to work with the Office of Admissions to develop a more sustainable version of the tour that also includes lunch on campus with current students and faculty.

“I want older adults to have a chance to interact with faculty and students and see that they really are welcome here,” she added. “Older adults want to remain active and stay connected, and taking college classes is a great way to do that.”

To become involved with future tours or to learn more about Rébola’s work with aging adults, email her at crw@gatech.edu.

For more information about the USG’s tuition discounts for older adults, visit http://c.gatech.edu/16rwN3n

Trees Used to Create Recyclable Solar Cells

JASON MADDER
INSTITUTE COMMUNICATIONS

Solar cells are just like leaves, capturing the sunlight and turning it into energy. It’s fitting that they can now be made partially from trees.

Georgia Tech and Purdue University researchers have developed efficient solar cells using natural substrates derived from plants such as trees. (In this case, a substrate is a material that provides a surface — cellulose nanocrystal or CNC — on which something is deposited — the solar cell.)

Just as importantly, by fabricating them on CNC substrates, the solar cells can be quickly recycled in water at the end of their life cycles.

The researchers report that the organic solar cells reach a power conversion efficiency of 2.7 percent, an unprecedented figure for cells on substrates derived from renewable raw materials.

For instance, if cells fabricated on glass were to break during manufacturing or installation, the useless materials would be difficult to dispose of. Paper substrates are better for the environment but have shown limited performance because of high surface roughness or porosity. However, cellulose nanomaterials made from wood are green, renewable, and sustainable. The substrates have a low surface roughness of only about two nanometers.

“Next steps will be to work toward improving the power conversion efficiency over 10 percent, levels similar to solar cells fabricated on glass or petroleum-based substrates,” Kippelen said.

The group plans to achieve this by optimizing the optical properties of the solar cell’s electrode.

www.cope.gatech.edu

The group plans to achieve this by optimizing the optical properties of the solar cell’s electrode.

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trees used to create recyclable solar cells

From www.whistle.gatech.edu

For a more comprehensive listing of events updated daily, visit www.gatech.edu/calendar.

EVENTS

MISCELLANEOUS

April 5
Join the Friends Beyond Borders Language Cafe from noon to 2 p.m. in the O’Keefe Courtyard. The program provides an opportunity for English speakers to practice their Korean, French, Arabic, Spanish, Japanese, and Chinese while helping Language Institute students improve their conversation skills.
http://esl.gatech.edu

April 6-7
Join Georgia Tech faculty, staff, and students as they raise money for Relay for Life. The all-night event runs from noon to midnight at Tech Green. To sign up, go to http://c.gatech.edu/ZF8kJE

April 11
The Student Center and Dining Services have partnered to bring local, sustainable food to the Georgia Tech community’s fingertips on Thursdays from 11 a.m. to 2 p.m. on Tech Walk, through late April.
http://c.gatech.edu/15JP3W7

April 13
The 41st annual Pi Mile 5K Road Race will begin at 7 a.m. at Tech Tower Lawn. Register at http://c.gatech.edu/9H6vAq

April 19
The 2013 Georgia Tech Earth Day Celebration will be held from 11 a.m. to 3 p.m. on Tech Walk. Festivities will include more than 70 exhibitors, eco-friendly giveaways, recycling opportunities, a clothing swap, an office supply exchange, live music, and organic popcones. To learn more or volunteer, visit www.earthday.gatech.edu

For a more comprehensive listing of events updated daily, visit www.gatech.edu/calendar.

CLASSIFIEDS

AUTOMOBILES

2007 Prius, 78,390 miles. Excellent condition. Smoke and pet free. Clean title. Backup camera, Bluetooth connection, radio/CD/aux music system. Fuel efficient. $14,000 OBO. Contact 404-784-4468 or gladyt0@gmail.com.

REAL ESTATE/ROOMMATES

3BR/2BA newly renovated home in Marileta. 15 to 20 minutes to Tech. Easy access to I-75/S and I-285. New kitchen appliances with granite countertops, plus alarm system. $1,325/mo. Available now. Call 678-327-5212.

Large, furnished house in Chastain Park area, near park and campus. Available for 2013-2014 academic year, starting July 2013. Minimum of 10 with lease. Below-market rate for university- and co-op students. Email vikram.nandakal@mg.titech.edu or call 404-769-4368.

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Balance Is Key to Foulger’s DramaTech Role

AMELIA PAVLIK
INSTITUTE COMMUNICATIONS

From a witch in Macbeth to an Andean grandmother in Condor Qatay, Melissa Foulger has played a lot of parts in her life. But her current role as artistic director with DramaTech is one of the most challenging — and rewarding — she’s ever experienced.

“This balancing act between advising the students and letting them make their own decisions — and sometimes mistakes — is challenging,” said Foulger, who has been in the position since 2008. “Each group of students I work with year to year has different needs when it comes to how much I assist them.”

There are certain tasks that she’s always responsible for, such as working with them on the budget, but when it comes to everything else related to putting on the productions, Foulger makes it a point to ask the students what they do and don’t want help with.

“To avoid stepping on their toes, communication is really key to success,” Foulger said. “When I feel strongly about what they should do, I try to be transparent regarding the reasons why.”

Foulger also makes it a point to be available to communicate with the students more frequently than her predecessor, which sometimes means responding to emails or texts after 9 p.m.

“Being this responsive turns this into more of a 24-hour job, but that’s OK with me,” she said. “I love how intelligent these students are and how engaged they are with DramaTech. Getting to work with them is what makes this job so satisfying.”

Recently, The Whistle delved more about Foulger and her time at Tech.

Did you always want to be in theater?

Absolutely. My mother tells stories about how when I was a toddler, I would clear the hearth at my grandparents’ house, stand on it, and put on plays. That was just the beginning.

How did you arrive at Tech?

While I was working on my master’s of fine arts in directing at the University of Memphis, I was required to get an internship and found one at Atlanta’s 7 Stages Theatre. This internship evolved into a paying job as the associate artistic director. After that, I went to work in a one-year professorship at Georgia College and State University. Then, I decided to apply for this job at Tech, and here I am.

What does your job entail?

As you might imagine, I do a little bit of everything. I teach a three-credit-hour course on theater each semester and occasionally teach a course on a special topic related to theater. (I’m currently looking into working on a course with the School of Music that would focus on musical theater.) Some days, I drive around buying props for shows. Other days, I sit in on meetings to advise the students on decisions ranging from show choices to marketing. And then there is the time that I spend directing many of the shows that DramaTech stages. A lot of days, I’m here from 10 a.m. to 10 p.m.

What is your favorite type of play to direct?

The shows I tend to gravitate toward are more contemporary and deal with darker subject matter.”

Tell us something about yourself.

In 2005, while I was working with 7 Stages, I took a show on tour to Bosnia, Romania, and Serbia. It was striking to see the aftermath of the conflict. I saw buildings that were riddled with bullet holes. The experience was just unbelievable.

Tell us something people might not know about DramaTech.

People often think it’s only for students. Sure, they get priority when it comes to participating in the productions. But we also love to have faculty and staff get involved. If you’re interested in acting, set design, or anything of what we do, let me know. And the shows are open to anyone in the community to attend. Our latest production, How to Succeed in Business Without Really Trying, opens April 5. More information can be found at http://dramatech.org.

Where is your favorite spot on campus?

The secluded garden near Skiles and the Library. It’s so peaceful there.

Where is your favorite spot to have lunch?

La Parilla, and I love to order the enchiladas suizas.

If you’re interested in acting, set design, or anything related to theater, you should check out the shows at DramaTech stages. A lot of days, I’m here from 10 a.m. to 10 p.m.

Lydia Buckner of Graduate Studies Dies at 43

On Saturday, March 16, Lydia Buckner, a senior administrative professional in Graduate Studies and Admissions, died. She was 43.

“We lost a committed and caring member of our community with the passing of Lydia Buckner,” said Susan Cozzens, vice provost for Graduate Education and Faculty Affairs. “Her brother-in-law described her as stubborn, stubborn, stubborn.” This trait was a great asset to us, because Lydia knew what work would and would stand firm until everyone was on board.”

Lydia Buckner

Buckner began working at Tech in 2000, serving units including human resources, graduate co-op, and graduate admissions. She was active around campus and was a member of Georgia Tech’s Breast Cancer Survivors Group. Buckner was buried in her hometown of Cincinnati, Ohio.