



# PSSSSSSSSSSST!

A newsletter for alumni and friends of the President's Scholarship Program at Georgia Tech • Winter 2005

## President's Scholar wins Rhodes Scholarship

For Jeremy Farris, named one of 32 Rhodes Scholars for 2005, going to college isn't about getting good grades and a job. College is about the experience of education and an opportunity to expand the mind. An alumnus in the School of International Affairs in the Ivan Allen College, Jeremy believes that "The purpose of an education is to change you - to make you sufficiently human."

Before coming to Tech in 2000, the Bonaire, Georgia, native won a best-of-category award at the Intel International Science and Engineering Fair for his discovery of a new pathogen that can control the invasive plant kudzu. As a result of the award, he was chosen to become an American delegate to the 2000 Asia-Pacific Economic Cooperation Science Forum in Singapore. The trip inspired him to travel to Argentina on a study abroad trip the following summer, where he produced a documentary on the indigenous people of that country. These experiences eventually led to his changing his

major from biology to international affairs.

Since then he has conducted research on the possibilities for post-Castro democratization in Cuba

and traveled to Guatemala to work on reforestation projects and to collect footage for a documentary on illegal immigration networks.

"The thing about Jeremy that is really amazing is his desire to understand how the world works," said Kirk Bowman, associate professor of international affairs and director of Tech's study abroad programs in Latin America. "He studies international affairs, but he feels the need to know science and philosophy so he can understand how the pieces fit together."



Jeremy Farris

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## Over 4,700 applications in for next year's PS class

Although the Office of Undergraduate Admissions is still evaluating data and passing it along to our office, approximately 4,791 applications have been received for the President's Scholarship. This is an increase of more than 200 applications over last year's number; the top 10 percent of the applicants will be selected as semi-finalists and interviewed at the regional level.

## Retention and graduation rates continue to improve

The entering class of 2003 has a 100 percent retention rate to the sophomore year, and retention and graduation rates for all PSees are significantly higher than the Institute average. Of the entering classes of 1999 and 2000, each will have had over 90 percent graduated within five years. The outlook for the entering class of 2004 is very good; they chalked up an average fall term GPA of 3.75.

## Billiee Pendleton-Parker joins PS Program administrative staff part-time

The President's Scholarship Program welcomed Billiee Pendleton-Parker to its administrative staff as Associate Director this semester. Although she has worked with the program in an informal capacity for years, "Miz Billiee," "BPP," or just plain "Billiee" as she is alternately known to students, is now officially working on a half-time basis with the program. She divides her time evenly between the PS office and her job as Assistant Director of the Center for Enhancement of Teaching and Learning, or CETL, a position she has held for 17 years.

Billiee has worked very closely with the scholars in previous years, and although she felt the rewards of working with students were always there,

the formalization of her relationship with the program has allowed her to do more with the students in a more structured, sustainable manner.

"It affords me more stability in my contact with the students," Billiee said. "I think that's very positive and very strong — that I can do more."

In addition to helping PS Program Director Randy McDow with administrative functions, Billiee has worked with Randy on academic advising and mentoring for the incoming freshmen, facilitated faculty-student interaction through Take-A-Prof to Lunch, and orchestrated behind-the-scenes tours of the library and Tech's Aware Home. She is also teaching two GT 1000 sections (the successor to Psych 1000),

all in addition to being the general "go to" person and 'mom' of the President's Scholars while they are at Tech.

When asked what she enjoys most about working with PSees, Billiee gushed: "The incredible energy, the enthusiasm with which they approach virtually everything, the seemingly limitless possibilities as they view the world — it just refreshes and invigorates me and keeps me going."



BPP



Incoming President's Scholars had a great time during fall retreat at Unicoi State Park

## *Incoming freshmen already making their mark*

By Amanda Dugan

Every group of President's Scholars brings something unique to Georgia Tech, and this year's class is no exception. The 64 new President's Scholars started classes just months ago, but they have already started making an impact on campus.

"They've already found good niches," comments Billiee Pendleton-Parker, one of the students' mentors. Indeed, the incoming scholars are involved in many activities. "Everyone has their own talents. We have a varsity runner, a varsity cheerleader, sorority sisters, writers, researchers, and more," explained incoming scholar Beth York. After such amazing high school careers, this involvement comes as no surprise. Before entering Tech, 49 scholars played varsity sports, 27 were team captains, 15 were student body presidents, six performed research, and four were publication editors.

This class is also gifted intellectually. The middle 50 percent of the class scored between 1430 and 1560 on the SAT. They

also boast the highest SAT average ever, which surpasses the previous record set in 1997 when there was still a cutoff for the program. Freshman Christine Dreas said, "Being a PS is very humbling. I'm around so many amazing people."

Freshman Krista Guzelian said, "We bonded really quickly in the rain on retreat." Since returning to campus from the fall retreat, they have stayed close and most are quick to comment on the new community. "We're a very social group. Someone is always stopping by to say hello, and we're always in each other's dorms visiting."

Several members of the class recently held parties in their dorms to write 'thank you' notes to Roll Call donors who helped contribute the \$1.4 million in scholarship donations for this year. "Without the President's Scholarship, I would be getting an inferior education somewhere else, so it's important to say 'thank you,'" said Brian Hollaway.

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at Tech," she said. She is also a Byrd Scholar, a National Merit Scholar, and has a perfect 4.0 GPA.

Bumb said academics aren't the only thing to get out of college. At Tech she served as one of four students on the Georgia Tech Advisory Board, working with prominent business leaders to advise the administration on future goals. She also served in student government, helping to decide how to allocate \$3.5 million collected from the student activities fee.

In addition, she helped found a new Indian dance team at Tech, Nazaaqat. She is also active in Omicron Delta

Kappa, Alpha Phi Omega, and the Techwood Tutorial Program.

Bumb is the sixth Georgia Tech student to win the Marshall, a scholarship established by the British Government in 1953. The scholarship encourages potential leaders to become ambassadors for the United States and to establish personal ties between the two countries.

*The Baker Scholarship was established three years ago to honor the President's Scholarship Program's founder, Dr. E. Jo Baker, on the occasion of the program's twentieth anniversary.*

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At first glance, Farris' holistic approach to learning may seem at odds with Georgia Tech's career-oriented, disciplinary tradition. But the continuing rise of liberal arts, management, and the interdisciplinary focus of Tech's science and engineering programs prove Farris to be a model of Tech's future student body.

"We need to think of education as something very real and important in itself," said Farris. "Georgia Tech can no longer be considered just a math, science, and engineering institution."

Farris credits Bowman and two other Ivan Allen College professors, Jon Johnston and Ken Knoespel, with changing his life. "Bowman introduced me to democratization. Knoespel and Johnston really stimulated the 'life of the mind' for me," he said.

When asked how receiving the President's Scholarship impacted his Georgia Tech experience, Jeremy responded: "The President's Scholarship was the reason I chose Tech for my undergraduate degree. Some of the most impressive people I encountered at Tech were President's Scholars."

Farris is the third Georgia Tech student ever to win a Rhodes Scholarship and the second in three years. The Rhodes Scholarships pay for two or three years of study at Oxford University. The oldest international fellowships in the world, they were established after the death of British statesman Cecil Rhodes in 1902. Rhodes scholars are chosen for their academic achievement, personal integrity, and potential for leadership.

Farris received his bachelor's in international affairs in December. He plans on spending the summer as Bowman's teaching assistant in the Argentina study abroad program. He'll begin a doctor of philosophy program in political theory at Oxford in October.

"His level of expertise is just stunning," said Bowman. "As a professor, I spent a lot of time with Jeremy in a lot of different countries. I have learned more from Jeremy than he has ever learned from me."

## PSes take top honors with nationally prestigious scholarships

Over the past few years, several President's Scholars have received national recognition for their scholarship, leadership and research activities. The following is an overview of our most recent award-winners:

### Nate Watson

#### Harry S. Truman Scholar

A double major in public policy and earth and atmospheric sciences, Watson, a 2003 Truman Scholar, is preparing himself for a life in public service. He spent two years as the executive vice president of Tech's Student Government Association, and last year he served as undergraduate Student Body President.

"I believe in getting involved in the leadership of your community, wherever you are," said Watson.

While at Tech, he has done his best to get as much experience as he can in public life. In addition to his work in SGA, Watson has interned for U.S. Rep. John Linder, State Sen. Steve Thompson, and the Georgia General Assembly.

"I feel a lot of the time that politics has a dirty name," said Watson. "I want to do my best to restore people's faith in politics. If we can focus on the issues, I believe we can do that."

### Monique Gupta

#### Churchill & Goldwater Scholar

Winner of the prestigious Goldwater scholarship in 2003, Gupta captured a 2004 Churchill scholarship for one year of study at the University of Cambridge. Gupta plans to use her scholarship to get a Master of Philosophy in genetics before going to medical school.

Studying industrial systems and engineering at Georgia Tech, she said, has given her a solid foundation on which to base her career as a physician.

"In today's age of medicine, no physician can go forward without knowing more about the research that's being conducted," Gupta said. "By the time I start practicing, all these novel concepts

we see today are going to be in use. I need to have a background in them."

Gene therapy is a novel approach to treating diseases, and most of it is still in the experimental phase, said Gupta.

But the idea is that scientists would first identify a gene in a patient that is causing a certain disease. "A new gene would be created in a lab, and doctors would use it to replace the gene that is causing the problem."

"Diseases that can be helped by gene transfer include rheumatic arthritis and juvenile arthritis," she said.

### Thomas Callaghan and Mark Oliver Barry M. Goldwater Scholars

Two Georgia Tech roommates are winners of the 2004 prestigious Barry M. Goldwater Scholarship.

Math major Thomas Callaghan and materials science and engineering student Mark Oliver met the summer before their freshman year at the PS fall retreat and lived down the hall from each other that first year. They've been friends ever since.

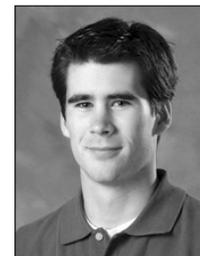
Being so close, it was a bit intimidating applying for the same scholarship.

"I was kind of scared that I had to compete against him," Callaghan said. Oliver, however, was a bit bolder. "I was confident that we'd both get the Georgia Tech nomination," he replied. They both agreed that Tech's emphasis on undergraduate research has been key to their success.

Oliver has been busy researching composite materials for the next generation of space vehicles. Using plastics reinforced with carbon fibers instead of metal saves a lot of weight, but the trick is that they have to perform well in extreme conditions. "We're studying how the materials perform at cryogenic and elevated temperatures," he said.



GUPTA



CALLAGHAN



WATSON



OLIVER



AHSAN

Callaghan has been conducting research with mathematics assistant professor Peter Mucha. The two were puzzled by college football's Bowl Championship Series (BCS) ranking system and wondered if a group of simulated monkeys could rank the top teams at least as well as the expert coaches, professional sportswriters, and the BCS system. They tested their theory through a mathematical formula and produced results mirroring those of the experts.

Callaghan said he's drawn to math because it's the foundation for a wide range of disciplines. "I like knowing why things work. Math is the language of problem solving. All of physics, chemistry, and engineering are based on math."

### Saniya Ahsan Churchill Scholar

A love of teaching, research, and language helped ME senior Saniya Ahsan become the first female student at Georgia Tech to win the coveted Churchill Scholarship in 2003. She is pursuing a master of philosophy in engineering at Cambridge this fall.

Studying at Cambridge is an amazing opportunity, said Ahsan. "It's a place where I'll see a meeting of the minds from all over the world. I'll see people from different cultures and how they approach a problem."

While at Cambridge, Ahsan will perform research projects with auto makers and power companies using tiny machines, known in the industry as Micro-Electro-Mechanical Systems (MEMS), to study how fluid flows through turbines. More fuel-efficient cars and power plants are just two of the possible applications of her research.

She plans on returning to the states next year to get a doctoral degree in me-

## Ambika Bumb named Marshall Scholar and E. Jo Baker Scholar

Ambika Bumb knows firsthand about the importance of technology in medicine. As an intern at GE Healthcare last summer, she helped her team diagnose and repair a problem that caused new blood pressure monitors at Children's Hospital of Philadelphia to take more than 10 minutes to get a reading - time that could mean the difference between life and death in an emergency room.

The experience reinforced Bumb's commitment to developing life-saving medical technologies. She'll continue to chase her dream next fall at Oxford where she'll pursue a Ph.D. in medical engineering as a recipient of a 2005 Marshall Scholarship.

"This may sound idealistic," said Bumb, "but I want to help come up with a new technology or treatment for a disease. I want to be the person who follows it through to make sure it reaches the people I'm developing it for," she said.

Bumb graduates this spring with her degree in Biomedical Engineering and a minor in Economics, just three years after she enrolled on a Reginald S. Fleet President's Scholarship. "Being at Georgia Tech has changed what my future is going to be. It's offered me so many opportunities, and the President's Scholarship gave me the opportunity to be



Ambika Bumb

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## How do I give back?

President's Scholar alumni often ask us how they can give something back to a program they feel benefitted them greatly during their time at Tech — and beyond. There are several ways to do this:

- Give your time by interviewing semi-finalists for the President's Scholarship; this not only helps us select the most outstanding high school students to offer the PS, but it is also a great recruiting tool. We still want semi-finalists who are not awarded the PS to enroll at Georgia Tech; by representing Tech and the PS program well, you can help us achieve these goals.

- Give to the Alumni Association's Roll Call; a portion of all gifts to the Institute's unrestricted funds supports the PS program; online giving forms are available at [www.gtalumni.org](http://www.gtalumni.org).

- Give directly to the PS Program through the endowment created in honor of our founder, Dr. E. Jo Baker. As the fund grows, income from this endowment will be used to support scholarship stipends for President's Scholars. To donate, send a check payable to:

**The Georgia Tech Foundation**

**60 Spring Street NW**

**Suite 400**

**Atlanta, Georgia 30308**

Be sure to write "Dr. E. Jo Baker President's Scholarship Fund" on the memo line of the check. Contributions to Roll Call and the Georgia Tech Foundation are tax-deductible.



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President's Scholarship Program

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