



Honors Program

March 2010

THE VIEW FROM HERE

BY DR. MONICA HALKA

This issue is all about our students, who never cease to impress us with their innovation, motivation, and follow-through. While we would never claim that Honors Program students are better than the rest of the student body, we do assert that they are different. We find evidence in the results of the CIRP survey, which asks self-evaluation questions of entering freshmen. An entering Honors Program student is much more likely than the average Tech student to seek feedback on academic work, for example, or to discuss politics, tutor another student, ask questions in class, and attempt to develop a meaningful philosophy of life. These are qualities we admire and would certainly screen application files for, if we could, but these indications rarely appear in any of the thousands of files we read each spring (see photo). So how do we find you? It ain't easy. No, we don't have an SAT score or GPA cutoff. Nor do we count the number of awards received. We look for evidence of engagement with the world. We look for thoughtful self-expression. We agonize. We argue with each other over the suitability of a particular student. We get tired (see photo). But our decisions ultimately are based on evaluation of page 4 in the GT application, which lists student activities. This is the page that tells us what a student does in his or her real life, outside the coursework, without thoughts about grades. This gives us an inkling of what kind of person we are considering, and the essay helps us hear the voice of the student—what he or she believes it is important to say. So, *Honors Program admission demystified...* that's how we do it. And it appears we do a pretty decent job, judging from the accomplishments of a good proportion of our students, several of whom you will read about in this issue. We can't admit all the interesting and deserving applicants, sadly, because we have constraints as to the size of the program, but we are happy to have the ones we do. You make our lives richer, if occasionally exhausting (see photo).



Inspiration in a Heartbeat

BY FRANCES CHIANG

Ever wonder what it's really like to be in an operating room? To look at a patient's spine open on the table, to watch open-heart surgery up close? Watching Grey's Anatomy or House just doesn't compare. The shows are medicine filled and all, but I can't exactly say that I am inspired by them to want to be a doctor someday. Instead, my inspiration comes from spending time at the hospital.

I get the opportunity to spend every Tuesday morning volunteering in the operating room at the

See Inspiration pg. 2

**Need funding for a project,
conference, or study abroad trip?**

**Apply for a
Student Challenge Fund Grant!**

Proposals must be submitted by **May 15th**
to monica.halka@gatech.edu. The proposal
template is posted on the Honors Program
website under the Current Students tab.

Honors Program Special Topics

Courses for **Fall 2010**

CHEM 2803	Science of Alternative Energy	MWF 11:00-12:00	Thomas Orlando
CS 4001	Big Ideas about Living and How Computing is Affecting Them	TR 1:30-3:00	Colin Potts
GRMN 4813	The Burden of the Past	TR 12:00-1:30	Frank Pilipp
HTS 2803	Semester in the City: Engaging English Avenue	TR 1:30-3:00	Greg Nobles Andrea Ashmore
HTS 3803	Revolution and Reform in East Asia	TR 1:30-3:00	Hanchao Lu
MTH 4803	Calculus of Variations: The Study of Efficiency in Nature	TR 12:00-1:30	John McCuan Maria Westdickenberg
PST 3127	Biotechnology Law, Policy and Ethics	TR 1:30-3:00	Roberta Berry
PSY 2280	Psychology of Creativity and the Arts	TR 9:30-11:00	Paul Verhaeghen

Inspiration *(Cont'd from Page 1)*

Children's Healthcare of Atlanta at Egleston through the College Volunteers Program. As a volunteer, I re-stock items, help get patients, clean up dirty operating rooms, and best of all, stand in and observe surgery cases.

I was completely unprepared for what I was going to see one Tuesday morning. As soon as I walked into the operating room, I could immediately feel a different atmosphere - I had just walked into an open-heart surgery. Unlike the other rooms I had been in where quiet background music was occasionally playing during surgery, this one was dead silent. The first thing I noticed was that there was no heartbeat sound going off in the background. My first thought was that something had gone wrong and that the patient had died already, but that quickly changed. As I made my first glance around at all the surgeons' faces, this huge machine caught my attention. The heart-lung bypass machine looked like a dashboard with commands, but this dashboard had about five or six different panels. It was then that I realized that the patient didn't have any

blood circulating in his body, but that the machine was keeping him alive.

From where I was standing, I could see the heart directly inside the chest cavity. The nurse and anesthesiologist both took turns explaining to me what was going on. In short, the patient was missing the valve that connects his heart to his lungs. Dirty blood (blood with carbon dioxide) was flowing into the side of the heart that contains clean blood (blood with oxygen) before it could be filtered through the lungs. As a result, oxygen was not being carried throughout the body. The cardiovascular surgeons were fixing the hole that was allowing the unwanted blood flow and were putting in a shunt that would redirect the dirty blood to the lungs so it could be properly filtered. As the patient was slowly taken off bypass, the tiny heart muscle began to beat, and the steady beeping noise came back in the operating room.

It was such an amazing experience to be able to walk into a room where the patient's heart was not beating at all, and to walk out of the room where the patient had a heartbeat again. I can't really explain what was going on through my head at that point, except that it was like nothing I had ever seen before and that I knew I wanted to wake up every morning and do that for a living.



A Letter from the Student Advisory Board

BY SANTIAGO HÄSSIG

Dear HPster,

At the closing of this semester our inaugural class of Honors Program students will be graduating. Warm congratulations to all from the Student Advisory Board (SAB)! We would also like to take this opportunity to thank all the active participants of the Honors Program for their continued support and valuable feedback. Over 50 students who showed up to the first Town Hall meeting voiced their opinion on the program itself and the gears that make it tick. SAB took notes.

A product of this initial Town Hall meeting was the SAB Development Strategy, which you can download from the Honors Program website. In addition to outlining the mission statement and structure of SAB, the Development Strategy documents past, current, and future projects. Some of the projects that we have developed include the Town Hall meeting itself, which we intend to make tradition, the revamping of the Honors Program website, which should integrate an Alumni Organization component, and a Departmental Liaison program, which seeks to recruit and fortify

the relationship with faculty liaisons. Be sure to read about all the current projects in the SAB Development Strategy.

The next Town Hall meeting will take place on in mid-April. The suggested topics will include the Honors Program website, Department Liaisons survey results, and Honors Program student events. In addition to the Town Hall meetings, you are all welcome to attend the open SAB meetings which take place alternate Tuesdays at 11 a.m. at the A. French Building Conference Room. We look forward to seeing you at the first open meeting on April 13th. If you have any questions or suggestions for SAB, simply email us at hpsab@lists.gatech.edu.

Sincerely,
Santiago Hässig,
On Behalf of the Student Advisory Board

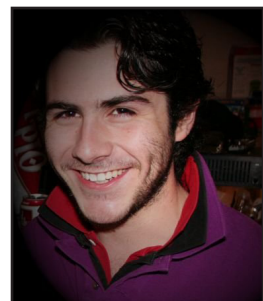


PHOTO STALKED FROM FACEBOOK... SORRY, SANTIAGO :)

A Couple of Cool Spring Endeavors



FROM COUNCIL ON UNDERGRADUATE RESEARCH

Ruchir Karmali (4th year BME major), has been invited by the Council on Undergraduate Research to present at

their annual Posters on the Hill (POH) event, which is taking place April 13. Ruchir is working on a project that assesses the effectiveness of state stem cell policies. The first step in this process was the development of a database containing detailed information on all of the approximately 700 state stem cell grants awarded through June 2009. She analyzed the abstracts of these grants to assess the extent to which each state focused its funding on research ineligible for federal support. The second step is an ongoing survey of stem cell scientists designed to assess how state stem cell policies impact scientists' careers. Ruchir will use statistical techniques to understand how state stem cell policies have affected the mobility of stem cell scientists and their choices of research fields. Together, these analyses will provide an understanding of the importance and limitations of state science policies. Not only will she present her

work at POH, but will be visiting congressional offices to explain her work to government representatives.

Gaelle Behlseine (1st year IAML major), will represent the country of Greece in the National Model United Nations meeting, taking place March 28-April 1 in New York City. During the preparation and participation of the conference she will demonstrate her understanding of Greece, research topics to be discussed, establish Greece's role in various issues, establish possible global solutions, prepare and submit a position paper, refine possible solutions, review the role of the country, and expound on loose ends. One major loose end that may be difficult to tie up will be the country's financial woes. Being half Haitian, Gaelle may have more insight into such problems than many of her student colleagues.



FROM NATIONAL MODEL UNITED NATIONS

Both students will be presenting about their experiences at the Honors Program Student EXPO on April 22, 2010.



April 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 1pm Baseball v. Duke –Russ Chandler Stadium	12pm Nunn Policy Forum –GT Global Learning Ctr 6pm Int'l Coffee Hour –I–House, 4th St Apts.	11:30am Study Abroad Info Session –Savant 211 	Fall Registration 2:30pm M Tennis v. Clemson –Bill Moore Tennis Center	April Fool's Day! 11am Sting Break Festival –Burger Bowl 8pm Pat Metheny Concert –First Center	7pm Int'l Performance Night –First Center 8pm REVIVAL for Haiti –SC Ballroom	11am GT Auto Show –IC Parking Lot 6pm Baseball v. Duke –Russ Chandler Stadium
4 1pm Baseball v. Duke –Russ Chandler Stadium	5 11am Int'l Culture Food Fair –Skiles Walkway 8pm Haiti Casino Night! –SC Ballroom 	6 11am Int'l Language Lunch –Skiles Walkway 8pm Jazz Ensemble & Orch. –First Center	7 6pm City Planning Lecture –CoA Auditorium 7pm Softball v. UGA! –Mewborn Field	8 11am Sting Break Festival –Burger Bowl 8pm Pat Metheny Concert –First Center	9 7pm GT Cheese Tasting!! –Student Success Ctr 8pm Martial Art of Drumming –First Center 	Nat'l Sibling Day 10 1pm Softball v. Virginia –Mewborn Field
Nat'l Karaoke Week! 11 12pm M Tennis v. VT –Bill Moore Tennis Ctr	12 11am Innovation Talk –First Center 	13 11am Innovation Talk –First Center	14 4:30pm Saul Cornell Talk –Clary Theater 8pm GT Band Concert –First Center	TAX DAY! :(15 5pm Rec-A-Palooza –CRC 8pm Wind/Percussion Concert –First Center	16 5pm Relay for Life –CRC 7pm Baseball v. Clemson –Russ Chandler Stadium 	17 7am Pi Mile 5K Road Race –Tech Tower Lawn 5pm Glee Club Concert –GTRI
Nat'l Volunteer Week! 18 12pm M Tennis v. VT –Bill Moore Tennis Ctr	19 5pm When Whistle Blows –Tech Tower Lawn	20 11:30am Study Abroad Info –Savant 211	Secretaries Day! 21 4pm Baseball v. GSU –Russ Chandler Stadium 	Earth Day! 4:30pm HP Expo –Ford ES&T Building	23 8pm Rasta Thomas Dance –First Center	24 9am Wallst Financial Training –On campus TBD Football v. Spring Game –Bobby Dodd Stadium
Dead Week 25 4pm Musical Chorus –St. John UMC	26 6pm Int'l Coffee Hour –I–House, 4th St Apts. 	27 7pm Baseball v. UGA –Russ Chandler Stadium 	28 4pm Baseball v. GSU –Russ Chandler Stadium	29 4pm Baseball v. GSU –Russ Chandler Stadium	Nat'l Honesty Day 30	

Student Spotlight : An Interview with Will Boyd

BY AMANDA DRESCHER



PHOTO STOLED FROM FACEBOOK... SORRY, WILL

What is a Tech student? I cannot say that I have been able to place the “typical Tech student” into a box. There is such a diversity of interests that any attempt to consolidate the student body into a “type” is simply impossible. A

perfect example of a fascinating, out-of-the-box, Tech student is the Honors Program’s very own Will Boyd.

As a freshman, Will helped found the Trailblazers organization. Beginning with a group of friends interested in backpacking and hiking, the goal was to bring the opportunity of environmental service to other Tech students by way of alternative breaks and local weekend projects around the Atlanta area. Initially started with the help of the Honors Program Challenge Fund (in fact it was the very first proposal sponsored by the Challenge Fund), Trailblazers has since become a certified non-profit student organization.

Moving into the sophomore year, Will led a team in Tech’s prestigious InVenture Prize competition. The team’s invention was an algae bioreactor. Because algae grows rapidly when given extra CO₂, the idea was to create a space to sequester CO₂ from the air to deliver to algae crops. Not only did Will and his team become one

of the 8 finalists from among 49 InVenture applicants, but they ended up winning first place. The prize was \$10k and a free patent filing. The foursome started up a company last October, and they are currently raising the capital needed to pursue their innovative idea.

Also during his second year, Will Boyd began conducting undergraduate research with an Honors Program faculty member, Dr. Joe Perry, with whom he continued for two years before setting off on an internship opportunity with CERN (the world’s largest particle collider) in Switzerland. His duties there included creating a simulator for distributing CERN’s data management system, known as the GRID. His involvement with this research continues.

During this interview, Will mentioned that his achievements were probably a bit atypical for an average college student, but that is exactly what makes Tech’s student body so diverse and interesting. Mr. Boyd is a perfect example of how we, as Tech students, are a bit unconventional. So the next time someone pulls out the “nerd” stereotype on you simply because of the institution you attend, take pride in Wikipedia’s definition: “a term often bearing a derogatory connotation or stereotype, that refers to a person who passionately pursues intellectual activities, esoteric knowledge, or other obscure interests,” and understand that their backlash probably comes from their inherent conformity.

Honors Program Expo

Give a poster presentation, perform a Pecha Kucha, show a film, explain an interactive computer project, or use some other form of media to show what you as an Honors Program student have been doing this year, in class or out, at the third annual Student Expo!

April 22, 2010 from 4:30-6:30pm

College of Architecture

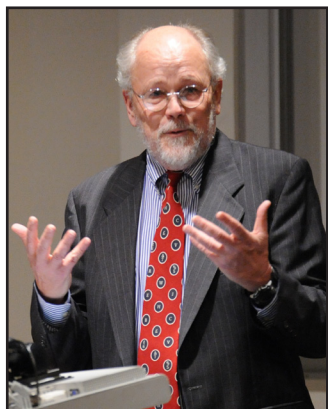


Turn in Student Proposals Now!

Forms are available in the HP office and will be emailed to all HP students. Completed forms must be turned in to the HP Office by 12:00pm on April 9th. If this date has passed, contact Lindsay Anglin about late proposals.

Message from the Director

BY DR. GREG NOBLES



Sometimes students get it right, and everything seems to fall almost perfectly into place. Sarah Weber, a second-year Biology major, gives us a fascinating case in point. She's parlayed two Honors Program courses, not to mention her own considerable smarts, into a plan of action that, to my mind, defines the very

essence of the Honors Program experience.

In her first semester at Tech, Sarah took the Honors Program section of Intro to Biology with Dr. Joseph Montoya, a much-respected professor among our students. She must have done remarkably well, because Dr. Montoya has now invited her to join him and several graduate students in a research cruise off the eastern coast of South America to study the outflow of the Amazon River into the Atlantic. She'll be the only undergraduate on board, and she's understandably excited by the prospects of their project.

This past fall semester, Sarah also took our special topic course, "The Art of Talking Science," taught by Dr. Paul Houston, Dean of the College of Sciences. This course, she says, "got me interested in the importance of communicating science to the general public," and she seems to have done quite well once again. When it comes to understanding science, I'm pretty much as "general public" as you can be, and I was delighted to read Sarah's lucid description of her upcoming Amazon adventure:

"Referred to as the Amazon River plume, this low-salinity, nitrogen-poor mass of water extends several thousand miles offshore and supports massive algal blooms. We are interested in the ecology of diatoms (if you are unfamiliar with these creatures, it's worth looking them up – they are quite beautiful) and their diazotrophic (N₂-fixing) endosymbionts. We will primarily be studying the fates of carbon and nitrogen fixed by these diatom-diazotroph assemblages.

"During the summer months, the river plume hugs the coastline along the northeast following the South Equatorial Current and then travels north into the open ocean. As such, the ship will depart from Barbados and will follow a zigzag path southeast to the Amazon River basin, and will then head back to Barbados. We may have a mid-cruise port call in Paramaribo, Suriname, but that's yet to be determined. The entire cruise is expected to last a little over a month: mid-May to the end of June. After the cruise, I will resume working in Dr. Montoya's lab, and will hopefully begin hashing out a project involving the cruise data for my senior thesis."

So off she goes in May, and back she'll come with her own research agenda prepared for the future. It's hard for me to imagine how any undergraduate could take advantage of Honors Program opportunities better than Sarah Weber has. But then I remember that Sarah is only one of the many remarkable people we have in the Honors Program, and I realize I still have much to imagine about what our students can do. That said, I'll wish Sarah the best for the summer and happily wait to see who comes next.

GT GeT HyPed

NEWSLETTER STAFF

EDITOR-IN-CHIEF:	Dr. Monica Halka, Associate Director Georgia Tech Honors Program
WRITERS:	Frances Chiang, Amanda Drescher, and Santiago Hässig
LAYOUT:	Lindsay Anglin
PHOTOS:	Lindsay Anglin