

(TOO GOOD TO BE TRUE?)

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Nope,  
these Carolina seniors  
are the real thing

There's no way to capture the amazing achievements of Carolina undergrads in the simple text message above, so we decided to introduce just a few of our College seniors in these pages ...

Their academic and service accomplishments would make any parent proud. They are definitely superstars by our standards. These amazing students have tackled infectious diseases, environmental challenges, human rights and quantum field theory — and that's just for starters. And as they wrap up their final semester, they are already making a difference in their campus community, the state of North Carolina and the world.

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## NICK ANDERSON

### Seeing the world through green-colored glasses.....

BY JB SHELTON

Barack Obama made becoming a community organizer cool. At 21, UNC senior Nick Anderson shares that passion, and he already has a world of experience in student activism — with a particular focus on energy and the environment.

The Robertson Scholars Program has allowed the public policy major (who's pursuing an environmental concentration) to explore that focus and to make a difference.

The full four-year merit scholarship provides students at rivals UNC and Duke with the resources to take classes at both schools and to participate in summer community projects in the U.S. and abroad. The program was created in 2000 through a gift from 1955 UNC graduate Julian Robertson and his wife, Josie.

"As a Robertson Scholar, I attended classes about renewable energy and public policies to facilitate the transition to a low-carbon economy," says Anderson, a UNC Honors Program student who is fluent in Spanish and conversationally adept in Portuguese.

Fascinated by the challenging issue of global warming and the link between tropical forests and climate change, he traveled to Brazil's four largest cities in summer 2008 (Rio de Janeiro, Brasilia, Salvador and Sao Paulo), interviewed scholars and business executives, and bunked with an indigenous tribe in the rain forest of Rondonia, Brazil.

The trip was research for his Honors thesis, which will focus on the implications for indigenous tribes in Brazil of incorporating deforestation into the international climate treaty.



CLOCKWISE FROM TOP LEFT: Nick Anderson at Bolivia's Laguna Verde; at Machu Picchu in Peru; with an indigenous chief and friends after spending a week in a Mapuche village in Chile.

"The design of incentives for tropical forest conservation to reduce greenhouse gas emissions is one of the most important and as yet unresolved issues of global climate change policy, and I am hopeful that Nick's thesis will make a valuable contribution to this," said Richard "Pete" Andrews, chair and Thomas Willis Lambeth Distinguished Professor of Public Policy.

In summer 2007, Anderson fused his environmental and educational ideals at a remote school in Argentina, and he returned there again in August 2008.

"I lived at a small rural school and installed solar equipment for heating water," says Anderson.

Studying abroad with the School for International Training in Chile in fall 2007, Anderson investigated the copper mining sector's impact on the Chilean economy and prepared a 30-page policy report in Spanish.

Closer to home, Anderson serves as

UNC chapter president of the Roosevelt Institution, the nation's first student think tank focused on advancing pragmatic policies and fostering public debate. He also founded its Center on Energy and Environmental Policy.

His journalistic ambitions originated in his hometown of Weston, Conn., where he started his high school newspaper. He moved on to work for UNC's *Daily Tar Heel*, launched *Rival Magazine* (between Duke and UNC) with four friends, and reached an international readership with a *Christian Science Monitor* essay on mountaintop-removal coal mining.

The mining essay resulted from summer 2006 work with a community organizing group in rural Kentucky, where "the violations of nature and human dignity" awakened Anderson's environmentalism. He hopes to go to law school to pursue a focus on environmental law.

"The design and impact of well-targeted environmental laws are crucial policy questions for my generation," says Anderson.

"My energy comes from identifying problems, bringing people together and generating entrepreneurial, policy-oriented solutions."

A crystal ball reveals Anderson's future as a rosy shade of green. •

#### More on Nick Anderson:

- Co-founder of nonprofit *Crayons2Calculators* in Durham, N.C., a store where teachers can select free school supplies
- Co-founder of *Coalition for Community Access* (advances college access for disenfranchised and undocumented students)
- Campaign adviser for UNC student body president campaigns

# AISHA SAAD

## Carolina helped her become a global mediator

BY KIM WEAVER SPURR '88

Senior Aisha Saad has been living her own *National Geographic* adventures since her family moved from Egypt to North Carolina when she was 6 years old. The hundreds of yellow magazines lining the walls of her Cairo home were a glimpse into her future.

Growing up as a Muslim woman in Greenville, N.C., thrust Saad into the role of mediator early. It is a skill she has embraced passionately. It has thrived at Carolina in her roles as president of the Interfaith Alliance and as outreach committee chair for the Muslim Student Association.

She has moderated a campus forum on “Jihad in America,” co-chaired a Jewish-Muslim Arts Festival and helped to organize a winter break relief trip to New Orleans.

“We have the critical mass of diversity on this campus, but from my experience that’s not enough to bridge these really isolated spheres that coexist,” Saad said. “My tagline this year has been moving from coexistence to community ... integrating these very rich and diverse heritages toward collective goals.”

In summer 2008, the Morehead-Cain Scholar and Honors Program student traveled to Bhopal, India, where she came face-to-face with an opportunity to use her ability to mediate across cultural chasms.

Saad was working as an intern with Cherokee Investment Partners in

Raleigh, N.C., a leader in redevelopment of contaminated land. Cherokee had offered to clean up the Union Carbide site in Bhopal, the location of a disastrous chemical leak 24 years ago. After repeated e-mails and phone calls brought no resolution, Saad stuffed her blue backpack and headed to India, where she was able to bridge the perspectives of Cherokee’s team with that of the cynical activists in Bhopal.

“Many of the slum-inhabited, marginalized communities in Bhopal were Muslim, [yet] I was also an American that could connect to them,” she said. “I rode on the back of a motorcycle through these slums, climbed the actual location of the disaster and met with women activists.”

Saad returned to the United States to present a comprehensive report of her recommendations on the Bhopal cleanup to Cherokee executives.

When she graduates from Carolina in May, the environmental health science

and Spanish major will head off on another adventure. As a Rhodes Scholar, she’ll pursue a master’s in nature, society and environmental policy at Oxford University. She is interested in environmental law.

A summer 2006 study abroad project volunteering in the blood diseases ward of a Cairo hospital was an eye-opening experience; it taught Saad that education alone is not a cure-all to global health problems.

“It can pave the road toward answers, but knowledge is not power without voice or money to give it value,” she wrote in an article in the policy journal, *Health Affairs*. “I realized

that the drive to educate others had to give way to my own perceiving and understanding.”

Biology lecturer Jean DeSaix, a health professions adviser, said she has seen Saad grow in her ability to understand global challenges and how to create solutions.

“Aisha is one of the most remarkable women I have met in my three and a half decades teaching at Carolina,” DeSaix wrote in a Rhodes letter of recommendation. “She will, I believe, be an instrument of powerful change in this world, not just because she wants to, but because she is so well equipped to.” •

### More on Aisha Saad:

- *More UNC study abroad: dimbing a volcano in Peru, trekking the Amazon, volunteering in hospital labor rooms in Hyderabad, India*
- *Public Service Scholar*
- *Martin Luther King Jr. Bridge-Builders Award*



ABOVE: Aisha Saad (second from right) at a community center in Delhi, India. TOP LEFT: Saad (center) leads a summer enrichment program in Aloor, India. BOTTOM LEFT: Saad (center) preparing meals for a childcare program in Arequipa, Peru.

UNC senior David Sneed begins a law-school application quoting theologian John Piper: "I don't want to waste my life."

Not to worry. With a Robertson Scholarship, admission to UNC's Honors Program, and responsibilities as deputy student attorney general, and president of a Christian fraternity *and* a campus ministry, Sneed has no time to waste.

To what end does he direct such ambition? The deeply religious son of a pastor finds the answer in Proverbs: "Speak up for those who cannot speak for themselves."

Sneed knows it takes both hard work and opportunity to succeed in life. When he was in middle school in Burke, Va., his mother made him enroll in an academic enrichment program for minority students. That meant extra classes on Saturdays and during the summer.

The academic overtime paid off: He was admitted to Thomas Jefferson High School for Science and Technology, a magnet school in Alexandria, Va., where he would be one of three African Americans in the 2005 graduating class.

Soon after Sneed got to Jefferson, he started reaching out to others. He tutored middle-school students through the same program that had prepared him for high school. And as soon as he arrived at Carolina, he continued helping others through elementary school tutoring and counseling in the student Honor System.

Sneed says Carolina was always at the top of his college wish list. But the clincher was the Robertson Scholarship, supporting four years of study at UNC and Duke, and support for three summer field experiences. The program is funded by a gift from Julian '55 and Josie Robertson.

After Sneed's first year at Carolina, he spent the summer in Indianola, Miss. He taught computer skills to children and

## DAVID SNEED

Speaking up for others,  
no time to waste.....

BY DEE REID



also visited Soweto where Nelson Mandela had lived.

"It was mind boggling ... I saw the connections between the struggles the people of South Africa had been through and the history of my own culture in the United States," said Sneed, a political science major, with minors in African and Afro-American studies and religious studies.

It was his third summer experience that cemented Sneed's desire to "speak up" for others. He served as an intern for a human rights organization in Accra, Ghana, where he learned of a man who had been in prison for two years without access to an attorney.

"After considerable effort, I found myself inside a Ghanaian jail, on a bench next to two handcuffed men, interviewing our client through the bars of a common cell holding about 20 other inmates," Sneed wrote.

He learned that the man's court date was set for the following day. Despite the short notice, Sneed helped the lawyers gather information to protect the man's right to a fair hearing.

"I started seeing on a practical level how law really in essence can help people," he said. This inspired him to pursue a legal career, "to advocate for my understanding of justice." •



TOP: David Sneed advises a child in a Mississippi library. BOTTOM: Giving a presentation at a freedom of information conference in Accra, Ghana.

recorded the stories of community leaders for the local library's archives.

Sneed also traveled to Memphis to see the National Civil Rights Museum, located at the site where Martin Luther King, Jr. had been assassinated.

The next summer, Sneed traveled abroad for the first time. He worked in Durban, South Africa, where he taught computer skills to blind children. He

### More on David Sneed:

- Honors Semester in London
- Campus Alcohol Task Force Policy Committee
- Order of Omega Honor Society
- Black Student Movement Umoja Award for service to Freshman Class Council

# JONATHAN TOLEDO

## Studying the hidden beauty behind ordinary things

BY ANGELA SPIVEY '90

In the “office” of the Society of Physics Students (translate: slightly dingy spare room in the basement of Phillips Hall), senior Jonathan Toledo picks up a mechanical pencil and draws the carbon atoms of graphene, the molecule he’s been studying. Graphene may have applications in electronics and is a form of graphite, which makes up the lead in pencils.

“These are the carbon atoms; they’ve all bonded together in this honeycomb structure,” he says, sketching. Then his pencil point breaks. He stops. “Actually what I’m writing with here is what happens when you take this sheet of atoms and put many more on top of it,” he says. “They are just sitting on top of each other; there is some attraction, but it’s not a chemical bond. That’s actually why graphite writes so well; because the sheets just flake off onto the paper.”

He makes a mark on his notebook’s green graph paper. A typical pencil mark contains graphene sheets of many different thicknesses. “Like here, maybe 10 sheets flaked off.” Another mark. “And then over here, maybe only one layer flaked off.”

Toledo plans to make a career out of figuring out the hidden world behind ordinary things like pencil marks. He got hooked on theoretical physics in high school at the N.C. School of Science and Mathematics, when he first learned about Einstein’s theory of special relativity — that time and space are not absolute concepts but must be different for observers in relative motion. In 2007, Toledo won a Goldwater Scholarship, a distinguished national scholarship awarded to college students who demonstrate a strong



ABOVE: In summer 2008, Jonathan Toledo received a Burch Fellowship to study quantum field theory at the Institute of Materials Science in Madrid, Spain.

commitment to careers in mathematics, natural sciences or engineering.

“Things behave a lot differently when they travel near the speed of light. And that really made me realize that behind the things around us that we can see, like behind the light that’s coming from the bulbs there,” he says, pointing to the ceiling, “there’s actually very fundamental, beautiful processes going on. That’s when I started to realize that I could spend a life studying this.”

Toledo grew up in Sylva, N.C., west of Asheville, and as a child he spent many days “just running around in the woods.” As a college student, he’s run a marathon and is training for another. How does he have time for that while also doing his class work and research, tutoring high school students in math and science, co-teaching a sophomore class with physics professor Sean Washburn and serving as president of the student physics society?

“If I go out and just run for an hour, when I come back, my head feels completely cleared out, and I feel ready to think,” he says.

And, by the way, when he graduates with a B.S. in spring 2009 he’ll have also finished all the course-work for a master’s in physics.

In summer 2008, a Burch Fellowship enabled Toledo to travel to Spain to study quantum field theory at the Madrid Institute of Materials Science. In addition to being his first trip outside the United States, the experience humbled him academically.

“It taught me that I need a lot more school before I’m ready to dive

into the really hard problems in research. Everyone that I worked with in Spain was so highly trained,” he says. “It’s exciting because it’s good to know that there’s so much more to learn.” •

### More on Jonathan Toledo:

- *UNC Shelton Award for outstanding research in physics*
- *William P. Smallwood Undergraduate Research Fellowship*
- *Attorney general staff, UNC Honor System Office*
- *Published work in journals Molecular Physics and Physical Review E*

A relationship with a young HIV-infected Rwandan girl who had lost both of her parents to the disease transformed Lisette Yorke's dreams and aspirations. She wanted to do more to help her new friend and other HIV-positive children in their fight for survival.

The Morehead-Cain Scholar counts her summer 2006 experience as a volunteer at Shyira Hospital in a remote region of northern Rwanda as among her most memorable Carolina experiences.

"Sometimes I close my eyes and try to remember that overwhelming breath I took when I first arrived, with a cocktail of smells, like rich earth, coffee plants and banana trees," she wrote in a UNC student magazine.

While there, Yorke helped the doctors and nurses, collected information from HIV patients, taught English lessons and conducted surveys in the malnutrition center. She also organized donations of goats and watering cans to families.

"With something as tragic as genocide and war, you look at the lives of the young generations in Rwanda and what they've had to go through and you'd think these people would be bitter," she said. "But I was inspired to see the hope and the work they were doing in their own lives to rebuild and to carry on."

Now Yorke, a senior biology major and chemistry minor, can add this to her list of accomplishments: She was one of two UNC students chosen last fall for prestigious Rhodes Scholarships. As a Canadian Rhodes Scholar, she'll pursue a master's degree in immunology at Oxford University. She also hopes to earn a medical degree.

Yorke returned to UNC from her Rwandan summer with a passion for learning everything she could about HIV research. She took a graduate-level course on the biology of blood diseases and is pursuing an honors thesis in molecular biology and immunology. Her volunteer work at UNC Hospitals' Jaycee Burn

## LISETTE YORKE

### Her Rwandan summer inspired a commitment to AIDS research.....

BY KIM WEAVER SPURR '88



TOP: Lisette Yorke (far left) participated in a variety of hospital duties while at Shyira Hospital in Rwanda, here assisting in the operating room. BOTTOM: Yorke plays with children in the hospital's malnutrition center.

Center also has a connection to her HIV research.

"One of the direct similarities between HIV patients and burn patients is that both have suppressed immune systems," she said. "They are both susceptible to opportunistic diseases and infections. [In my honors thesis work] through the Burn Center lab at the UNC School of Medicine, I'm looking at cytomegalovirus, which is one of these opportunistic infections."

In summer 2008, Yorke headed to Thailand and Cambodia, where she worked for the American Foundation for AIDS Research.

Her voyager spirit has been a thread throughout her life. She has climbed the Yukon Mountains, founded an International Student Ambassadors Program at UNC and been a volunteer firefighter in her hometown of Cape Breton Island, Nova Scotia.

Organic chemistry professor Bessie Mbadugha said Yorke "has the brightest future ahead."

"Lisette's analytical and academically inquisitive nature leads me to borrow a cliché," Mbadugha wrote in a Rhodes recommendation letter. "The sky is the limit for this exceptionally talented and intelligent individual."

There also seem to be no boundaries for Yorke's athletic pursuits. She'd never done rowing before, but made the women's varsity rowing team her first year. When she found out there was no women's ice hockey team at UNC, she joined the men's team, and later founded a club for women. The women's team is growing strong in its second year.

"If you have the passion and the drive and the opportunities we have at Carolina, there's really nothing that's going to hold you back," she said. •

#### More on Lisette Yorke:

- N.C. Fellows Leadership Program, four-year leadership development program at UNC
- Student Advisory Committee to the Chancellor
- Volunteer, Interfaith Council Homeless Shelter