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# Farewell, Dr. Siderovski

After six years in program leadership, Dr. S has accepted a new position

Dr. David Siderovski, the Thomas J. Dark Research Director of the UNC MD-PhD program, has accepted a new position. He will soon begin his responsibilities as E.J. Van Liere Professor and Chair of Physiology and Pharmacology at the University of West Virginia School of Medicine.

Dr. Siderovski has been at UNC since 1999. Prior to that, he was involved in drug discovery as the head of the Quantitative Biology Lab at Amgen.

Upon arriving at UNC Dr. S was not involved in the MD-PhD program, but that soon changed. Shortly after establishing his lab, a young MD-PhD student named Randy Kimple took an interest in his work, rotated with him, and asked to join his lab. Since the Siderovski lab was new to campus, and was without an RO1, Dr. Orringer was initially hesitant about the arrangement but he soon saw the worth of the Siderovski lab and Dr. S himself. Before long, Dr. O had recruited Dr. Siderovski into the program, eventually convincing him to become co-director and director of research.

Dr. S has served as co-director since 2006. In this position, he has met with scores of interviewees and students, learning about their

research interests and working tirelessly to make sure they find a successful lab "home."

While he has been the mentor and thesis advisor for three MD-PhD students (Randy Kimple, Adam Kimple, and Dustin Bosch), he has also served as an invaluable re-



Dr. Siderovski will begin as Chair of Physiology and Pharmacology at the WVa SOM.

source to students in the entire program. We have turned to Dr. S for advice on rotations, dealing with PIs, and even life's struggles.

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### MD-PHD PROGRAM

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Andrew Morgan Christian Parobek Photography: Dr. S , Carol, et al.

# Record-setting application cycle in 2012

The 2011-2012 application cycle was a great one for UNC's MD-PhD program. All told, a record 370 aspiring physician scientists applied for a position in the incoming class. Fifty applicants were interviewed; and from these, 9 students have matriculated to form the class of 2020ish.

This class is one of our very best. These 7 men and 2 women hail from hometowns all over the country. They come from 9 different universities, where they majored in psychology, chemistry, biology, astronomy, anthropology, bioengineering, biotechnology, microbiology, and ecology. On average, they scored a remarkable 37 on the

MCAT. Their research interests, which are quite diverse, range from transplant immunology to stem-cell biology, from genomics to the epidemiology of reproductive health. See their personal introductions on pages 5 - 6.

Additionally, the current G1 class has gained a new member. Kevin Mangum, joined the program during his second year of medical school at UNC Med. Kevin graduated from Davidson College in 2010 with a major in Biology. He is interested in vascular biology and is rotating through labs that study angiogenesis and vessel regeneration.



## Wrightsville Beach, here we come!

# Students, admin, faculty anticipate weekend of science and fun

It's not often that you get to go to the beach on someone else's dime. Throw in delicious meals, the best entertainment, and ample science-related intellectual stimulation and you've got yourself an eight-times-in-a-lifetime experience.

This summer's retreat (August 3-5) will be the 19th annual UNC MD-PhD Program retreat. As in years past, NC's sunny Wrightsville Beach is our destination. Since 2005, the retreat has been held at the Blockade Runner Hotel.

A highlight of the experience is Friday night's team draft—our answer to Hogwart's sorting hat. By the end of the evening, each first-year student will have been assigned to one of the five UNC MD-PhD Teams: Cell Yeah, Gene's Knockouts, Gene's Dream Team, Team Wildtypes, or EPO-Induced Progenitors.

Each year, a physician-scientist husband-and-wife-dream-team delivers the keynote address, which covers relevant topics like how to be a leader in your field yet balance science with life's other demands (e.g. family).

Drs. Aysenil Belger PhD and Murat Arcasoy MD are this year's duo. Both Dr. Belger and Dr. Arcasoy immigrated from Turkey to the United States in the late 1980s for graduate school and residency. They finally ended up in New Haven for a postdoc and fellowship, respectively. Dr. Belger now holds faculty appointments at both Duke and UNC, serving as the Director of the Neuroim-

aging Research Laboratory at UNC-Chapel Hill. Dr. Arcasoy is a board-certified hematologist at Duke who has a particular interest in the myeloproliferative and myelodysplastic disorders.

(Continued on page 6)

## UNC-Duke MSTP mixer Students enjoy a first-ever gathering at TOPO

The UNC and Duke MD-PhD programs came together in style at the first annual UNC-Duke MSTP mixer. Hosted in the Great Room at Top of the Hill Restaurant, the event was attended by over 50 members of the combined programs and featured UNC's Dr. Wesley Burks as the keynote speaker. In addition to being a leading clinician and internationally renowned researcher, Dr. Burks is Professor and Chair of Pediatrics, and, appropriately, was recruited to UNC from Duke in December 2011.

Students and program leadership enjoyed antipasto platters and slow-roasted pork ribs as Dr. Burks delivered remarks on his allergy/immunology research and his thoughts on leadership and translational medicine. Afterwards, students descended on the icecream/desert bar and were not Tarheels or Blue Devils, but simply graduate students sharing the common bond of enjoying food paid for by their programs.

Working with Duke students and leadership, including Director Dr. Chris Kontos, was a great opportunity and one that will continue in the future. Given the similar sizes and goals of the two programs, and the excellent science and clinical learning going on at two institutions less than 9 miles apart, the potential for collaboration and training is high.

We hope that this event is the first of many, and are currently planning on it being a yearly event, with additional opportunities for joint seminars or conferences during the year. Efforts to collaborate on getting basketball tickets to UNC games at Duke are currently stalled.

Contributed by: Chris Dibble, a grad student in Pharmacology who is working in Gary Johnson's lab. He was instrumental in organizing the Mixer.



ABOVE: Drs. Orringer and Chris Kontos, Duke's MD-PHD director. BELOW: Jason Goldsmith (MS3), Chris Dibble (G4), and Reid Roberts (G5) with some dukies.





## A message from Dr. O

Dr. Orringer offers a historical perspective on the emergence and growth of MD/PhD programs nationwide, and comments on UNC's upcoming MSTP renewal effort.

Both the growth of the NIH and the accompanying expansion of federal funding for biomedical research became increasingly apparent in the 1950s. These changes led most medical schools to grow the size of their respective faculty, primarily by identifying and then recruiting investigators who would be able to compete for the federal research grants that had by then become increasingly available. Thus, a major goal of each medical school, particularly those considered to be "research intensive," was to leverage their own institutional funds using the federal grant dollars that could be obtained by these new faculty members.

As the medical schools sought the new recruits who would enable them to grow their faculty, it became increasingly apparent that many of the best and most attractive candidates were individuals who had been trained as both clinicians and scientists. Based on this observation, many medical schools also began to implement their own combined-degree (MD-PhD) training programs that would enable them to turn out more "physician-scientists." As they developed these training programs, most medical schools not only sought to increase the number of physician-scientists on their faculty, but also to employ such programs to attract the best and most talented students, particularly those interested in and committed to academic, research-oriented careers.

Initial support for these training programs came almost exclusively from institutional funds. However, the NIH soon recognized the long-term benefit that was to be derived from the graduates of these programs and therefore developed what soon came to be referred to as the Medical Scientist Training Program (MSTP), the purpose of which was to provide the funds that were needed to support these combined-degree trainees. The history of the MSTP began in 1964 when the NIH announced the competition for the first MSTP grants. At that time, three institutions were able to compete successfully for MSTP grants. Since then, the number of institutions holding MSTP awards has grown to reach approximately 45. MSTP grants employ the T32 mechanism, through which each institution is provided with a defined number of "slots" that are used to support their combined-degree students. Each slot includes tuition, fringe benefits, and an annual stipend. An important point to emphasize is that the funds from each MSTP grant can be used to support a student not only when he/she is in graduate school completing the PhD phase of his/her education, but also during the years as a medical student. Finally, it should be noted that not all MD-PhD programs receive MSTP funding from the NIH. In fact, there are more schools of medicine with combined-degree training programs that are supported almost entirely by their own institutional funds. However, most pre-



Eugene Orringer, MD
Professor of Medicine
Director, UNC MD-PhD Program

medical students as well as their undergraduate advisers view having an MSTP grant as the "stamp of approval" of a given institution and its MD-PhD Program. Therefore, without such a grant, most institutions find it very difficult to compete for the best and most highly qualified students.

The University of North Carolina at Chapel Hill (UNC) received its initial MSTP award in 1999, and we are now just entering Year 14 as an MSTP-funded institution. Because the tenure of each grant is no more than 5 years, we will soon be writing an application seeking the renewal of our MSTP award that would support our program in Years 16-20. The success of an MSTP renewal like ours is based on a variety of factors. A few examples include: the quality of the research opportunities that are available to the trainees across both disciplines and departmental lines; the maintenance of high standards for intellectual rigor and creativity; the strength of both the overall applicant pool and the classes of students who matriculate in the program; the ability to recruit and retain a diverse trainee population including students from underrepresented racial and ethnic groups as well as individuals with disabilities; a variety of training program activities that include cutting-edge research opportunities, coursework, and seminars that are appropriate to the focus of the training program; high quality laboratory rotations, training in the responsible conduct of research, and proactive mentoring; and additional program activities that enhance the training experience such as retreats, journal clubs, and opportunities for students to describe their own research progress.

Our MD-PhD students have proven to be very successful as medical students. They are also enjoying exceptional research experiences, publishing their results in high-quality journals, receiving a wide variety of individual honors and awards, and matching at the best and most competitive residencies. Finally, our students are competing successfully for their own, independent grant support. For all of these and many other reasons, we are optimistic that the MSTP renewal application that we will submit in January 2013 will be successful in the upcoming cycle.

### Marriages, match results, and babies:

# Milestones in the life of an MD/PhD

### Match results 2011

Lillian Brown Internal Medicine UCSF

Leon Coleman Prelim-Surgery UNC

Soren Johnson Pediatrics Wake Forest

Adam Kimple Otolaryngology UNC

Bob Mango Internal Medicine St. Louis Univ

Sean McNally Plastic Surgery UC Irvine

Jason Simmons Internal Medicine UW Seattle

Nate Sowa Psychiatry UNC

Kwun Wah Wen Internal Medicine UPenn



ABOVE: Graduating class by the Old Well. From left to right: Soren Johnson, Jason Simmons, Bob Mango, Lillian Brown, Adam Kimple, Leon Coleman, Nate Sowa, Sean McNally. Kwun Wah Wen not pictured.

### **UW** Medicine









## Recent PhD defenses

**George Chao** March 29

Genomic instability in basal-like breast tumors

### Jason Goldsmith April 16

Mechanisms of μ-opioid receptor mediated protection from multiple models of acute injury

Katy Liu May 11

Functions of myosin-X in polarized epithelial cells

Alex Raines May 18

Functions of myosin-X in neuronal development

Meg Duncan June 13

Probing the mechanisms of antibiotic resistance in the gonococcus

Naman Shah June 18

Reducing malaria transmission: the epidemiology and treatment of P. falciparum gametocytemia



**ABOVE:** Jordan Jarmul was born April 7, 2012 to Jamie Jarmul (MS2) and her husband Jonathan. Watch out—Jordan may make an appearance at the retreat.



# The incoming class

Out of the 350+ applicants to UNC's MSTP, we are proud to present the incoming class of 2012. To get to know them better, they've shared their research interests, favorite genetic locus (or food), and an interesting fact about themselves.

### Tim Dinh

Rutgers University, 2012

Major: Biotechnology & Ecology

Research Interests: Cancer biology

Genetic Locus: Wherever the Drosophila locus

swiss cheese is located—mutants have holes in their brains.

Interesting Fact: During college, Tim developed a great inter-

est in dinosaurs. He even does a good impersonation.

### **Dean Nehama**

UC Berkeley, 2009

Major: Bioengineering

Research Interests: Aging, cancer, stem cells

Genetic Locus: 9p21 (human): INK4A/ARF codes for p16, a

possible biomarker for aging.

Interesting Fact: When I was in kindergarten, I wanted to be

the other kind of engineer, the one that drives trains.

### Collin-Jamal (CJ) Smith

University of South Carolina, 2012

Major: Biology, Astronomy

Research Interests: Immunology, genetics, experimental pathology

Genetic Locus: 5p15.33 (human): telomerase, the line between death and immortality [Eds: we like this quote.]

Interesting Fact: CJ is a British Jamaican. You oughta chat

with him—he has a pretty cool accent.

### **Bryna Harrington**

Yale, 2009

Major: Anthropology

Research Interests: International reproductive and public health, particularly in eastern Africa

Favorite Food: lime sorbet

Interesting Fact: I pushed a 1985 Volvo wagon weighing just under 3000lbs over 1 mile home one night when the clutch

gave out.

### **Casey Rimland**

UNC Charlotte, 2011

Major: Biology, Psychology

Research Interests: Stem cells; use of iPS cell technology for regenerative medicine and

disease modeling

Genetic Locus: chrX 1-4.0 cM (Drosophila): dm/myc. I worked on this gene for three years and still don't know why it's my favorite. Maybe in honor of all the flies I killed...

Interesting Fact: I have two cats: Mango and Wonton.

### Matt Lipner

Denison University, 2012

Major: Chemistry, biology

Research Interests: Cancer genetics

and pharmacology

Genetic Locus: chr3 75E1-75E2 (Drosophila): Indy, for "I'm not dead yet;" mutants have double the normal life expec-

tancy. The name is a Monty Python reference.

Interesting Fact: I love to cook, and my favorite foods to

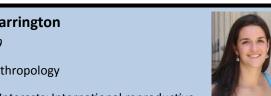
make are sushi and steak.

### Matt Makowski

Purdue University (2006), electrical engineering

Matt is a student in the MSTP at the Indiana University School of Medicine who is completing his PhD in biomedical engineering at Purdue. When his mentor, Albena Ivanesevic, moved to the UNC/NCSU joint department of biomedical engineering, he came with her. We welcome him as an honorary member of UNC's MSTP until he defends (April 2013) and returns to Indiana to finish medical school. His interesting fact? He is just a few hours shy of earning his private pilot's certificate.









# **The incoming class**

### Lucas Sjeklocha

University of Minnesota—Twin Cities, 2008

Major: Biochemistry

Research Interests: Stem cells, immunology and regenerative medicine / transplants

Genetic Locus: Beta-Globin Locus control

region. I did research on gene therapy for sickle cell disease. The LCR has regulation, switching hemoglobin type throughout life in sequence.

Interesting Fact: I haven't been outside Minnesota for longer than a week before moving to North Carolina.



### **Kurtis Host**

Ohio State University, 2011

Major: Microbiology

Research Interests: Microbiology and infec-

tious diseases

Genetic Locus: mucA in Pseudominas

aeruginosa. My research was looking at this pivotal protein as it controlled the shift to chronic infection in cystic fibrosis

patients.

Interesting Fact: I brew my own beer (Sticky Finger Brew).

### Taylor Nipp

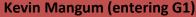
UNC Chapel Hill, 2011

Major: Biology

Research Interests: Genetic determinants of susceptibility to dietary risk factors for atherosclerosis

Genetic Locus: 9p21.3 (human): ANRIL, a long non-coding RNA which is implicated in heart disease without having a role in lipid metabolism.

Interesting Fact: My favorite activity is inshore fishing on the NC coast.



Davidson, 2010

Major: Biology

Research Interests: arteriogenesis and formation of new blood vessel collaterals in disease states; blood vessel regeneration

Genetic Locus: VEGF (6p12), because of its relation to angiogenesis and vessel biology.

Interesting Fact: While working on a historic tobacco farm, Kevin attained expert tobacco looper status. (Looping is the process of hanging tobacco in a barn to cure.)



(Continued from page 1)

Dr. S has taken a lead in many aspects of the program. He was instrumental in designing and them implementing our

"F30 Bootcamp," a thriceyearly crash course that helps to prepare students for the F30 application process. More recently, Dr. S spearheaded the "Rotons of the MSTP," a summer series of research presentations given over lunch by MS1s and MS2s.



Dr. Siderovski was a big fan of UNC basketball

His departure from UNC for Morganton, WV, will leave a very big hole both in our hearts and in the program. It is hard to imagine Dr. S anywhere other than in Chapel Hill. We wish him the very best of luck on his future pursuits.

Contributed by: Adam Kimple, a 2012 MD-PhD graduate and a first year otolaryngology resident. Dr. S was his thesis advisor.

(Continued from page 2)

Last year's speakers were Drs. Jen Jen Yeh, MD, Assistant Professor of Surgery at UNC, and Billy Kim, MD, Assistant Professor of Medicine and Genetics at UNC. Dr. Yeh is a surgical oncologist. Both she and Dr. Kim run cancer research programs that are housed in the Lineberger Cancer Center. Dr. Kim is also a faculty advisor to the MD-PhD team Cell Yeah.

Apart from business and science, this year's pilgrimage of fun and sun and science promises to be just as exciting as last year's. Gene's Knockouts have been hard at work planning daytime and evening activities. In light of last year's harrowing relay race, a non-relay-race competition will kick off Saturday's activities. This will be followed by kayaking, surfing, and bocce. At night, expect mixers, capture the flag, and/or beer-pong.

Finally, a word to the MS1's—relish this retreat, because once this one is over, you'll only have seven more left.

-CMP





# MD-PhD arts page

# The MedUNCedoos MD and MD-PhD colleagues sing for fun and for a good cause

When Perry Tsai (G2) arrived on campus in the fall of 2009, he felt something was missing. "I've always had a passion for music and performing, having sung in a cappella groups during and after college," Perry says. "I really wanted to continue singing in medical

school." But UNC Med didn't have an a cappella group. In fact, as far as anyone could remember, UNC med had never had an a cappella group.

Perry brought up the idea to med-school classmate Brittany Johnson (now Brittany McIntyre). Together, they envisioned an a cappella group that would be a "fun and creative outlet for med students, as well as a way to provide some entertainment for students, faculty, staff, and patients at UNC."

But would busy medical students be interested in participating? Turns out, yes. The duo sent out some emails, found some interested students, and formed the MedUNCedoos (á la

med.unc.edu). In the two-plus years since those first emails were sent, the group has grown to 19 members, including 7 MS1s, 6 MS2s, 1 MS3, 1 MPH, 1 MS4, and 3 grad students. The MD/PhDs in the group are Lee Hong (MS2), Jason Melehani (G1), Ejiofor Ezekwe (G2), Perry Tsai (G2), and Alex Raines (MS3). Sabrina Heman-Ackah (G1) has previously sung with the group.

The same love of music that drove Perry and Brittany to form the group now fuels the group's growth and draws new members like Lee Hong, who joined the group last year. During undergrad, she played violin with Duke's orchestra and when she came to UNC she wanted to continue pursuing music. "I joined MedUNCedoos because I wanted a creative outlet from the daily grind of med

school," she says. "I had never sung in an a cappella group before but I definitely wanted to do something music-related in school."

Since the beginning, the MedUNCedoos have been service oriented.

They perform about ten times a year at venues such as the Student National Medical Association's fall banquet, medical school alumni banquets, the Cadaver Memorial Service, and Skit Night. In December, the group performed for several departments' holiday parties (radiology, anesthesiology, ob/gyn) and went caroling throughout the medical school campus and hospital.

The group's impact extends beyond campus as well. For the last two years, on Valentine's Day, the MedUNCedoos have sold their hearts and voices in the form of Valentine-grams. For a few bucks, the group rings your Valentine to sing him/her a love song.

The money raised each V-Day (\$200 last year and \$300 this year) was donated to the American Heart Association.

The MedUNCedoos hold auditions twice a year, in early September and late January, which are open to any MD student at UNC. The audition is a short 10 minutes, where students sing scales, match pitches, and perform a solo. If you appreciate fine music, but can't sing, Perry asks you to remember that they are available for hire.

Check out the following links for videos of MedUNCedoo performances. Some recommendations: Wannabe, Med School State of Mind, Disney Medley, and O Holy Night. You can also browse the MedUNCedoo webpage and YouTube channel.



The MedUNCedoos, with Ejiofor Ezekwe (G2), Alex Raines (MS3), Jason Melehani (G1), and Perry Tsai (G2)

## Stage IV - Actin' Out: First-year MD-PhDs pull off performances of classic plays

When Patrick Lang (MS2) arrived on campus in the fall of 2011, he felt something was missing. "I've been acting since I was a kid, and

had done numerous plays, musicals, short-films and even a couple of commercials and TV shows," Patrick says. But undergrad got in the way of acting. He says, "Medical school seemed like an opportune time to re-acquaint myself with this personal passion." But UNC Med didn't have a theater group. As far as anyone could remember, UNC med had never had a theater group.

Patrick recruited colleagues Chris Giardina (MS2) and Chris Webel, who have a similar in-

terest in theater, and set to work creating a spring production. They planned a performance of two plays: Parson's Pleasure by Roald Dahl and The Bear by Anton Chekhov). In all, 6 MDs and 2 MD-PhDs acted, while 2 MDs and 3 MD-PhDs played supporting roles.



Chris Giardina (MS2) with other cast members of Parson's Pleasure.

More than 200 students and faculty attended the performances. Bisset Lee, a UNC grad student in attendance, said "The perfor-

> mances were sharp, smart, and quick-witted. It's amazing how the actors balanced rehearsals with med school."

> When asked about that balancing act, Patrick said, "It wasn't easy . . . Chris and I tried to take on too much this time around . . . outside of 4 hours of rehearsal each week, we also did everything in terms of logistics, which probably ended up taking an additional 10 - 15 hours per week. Next time, we plan on delegating . . ."

Nevertheless, for the intrepid actors, it was worth it. Chris Giardina said, "It's been an incredible creative outlet for me."

Stay tuned for more details about a Winter production. If interested in more info, visit the group's website or email Patrick.



## **Not just scientists**

We are involved in a variety of political, entrepreneurial, musical, and civic pursuits at UNC and beyond.

### **Quick Updates:**

Patrick Lang (MS2) is the 2012-2013 student attorney general for the School of Medicine.

Jason Melehani (G1) is a member of the Executive Committee of the Libertarian Party of North Carolina. He works as part of Libertarian Gary Johnson's (former governor of New Mexico) campaign for President of the United States.

Catherine Fahey (G1) is one of this year's co-leaders of the School of Medicine's Queer-Straight Alliance.

Perry Tsai (G2) is national co-director of the American Medical Students' Association (AMSA)'s Sexual Health Scholars initiative, and coordinates national LGBT programming for AMSA's Gender & Sexuality Action Committee.

Doug Ornoff (G3) helped put together a free, semester-long review course for the USMLE Step 1 for current second-year medical students.

Jason Goldsmith (MS3) takes call for the North Carolina Office of the Chief Medical Examiner. He also owns and operates a mixed martial arts studio.



Kat Liang (G3) plays electric fiddle and keyboard in the local indie/folk band Scarlet Virginia and serves on the board of the Cool Mountain Educational Fund, a charity which supports primary education in the Lianshan region of China.



Naman Shah has just completed his PhD in epidemiology and is taking time off before returning to med school in order to serve as Consulting Medical Epidemiologist at the Indian govern-

ment's National Institute of Malaria Research. As their only trained epidemiologist, he will be leading the design and implementation of clinical, epidemiological, and operational research studies to improve malaria control in India.



Rhexis Surgical Chris Giardina (MS2), as part of a team of seniors at

Georgia Tech, developed a new device (the Auto-Rhexis) to automate the key step in cataract surgery. He has started a company and attracted investment capital to commercialize the device, which is now patent-pending. It was also featured on the White House Tech & Policy blog.



Andrew Morgan (G1) directs the School of Medicine's Student Health Action Coalition (SHAC) clinic, a weekly free medical clinic serving Chapel Hill, Carrboro, and Durham.

## Recent F30s awarded

Sarah Rutstein

Optimizing HIV therapy: virological monitoring, adherence & costeffectiveness.

This brings our total as a program up to 28, which is (as far as we know) the most of any MSTP.

## Goodbye for now, Sabrina . . .



Sabrina Heman-Ackah (G1) has joined the NIH OxCam program and will start this fall in the lab of Dr. Mahendra Rao, MD PhD, director of the NIH Center for Regenerative Medicine. After two years there, she will complete her PhD at Balliol College, Oxford, with Professor Matthew Wood, MD DPhil. Sabrina is interested in stem cells as both models for and treatment of neurodegenerative diseases. See you on the wards!!!



# The year in pictures

# Dr. S's farewell party...

















FIGURE 1: On June 22, Dr. O hosted a going away party for Dr. S. Thanks to Carol Herion for her generous photography expertise. (A) A lot of students attended. This is just a small fraction of the number that squeezed into Dr. O's home. (B) From left to right: Isaac Chan (G5), Will Jeck (G4), Naman Shah (G4), Matt Makowski (G4; see p5), Dustin Bosch (G4, doing his PhD with Dr. S), Erin Steinbach (G4), Tricia Lenhart (G4), Tom Jarrett (G4). (C) Ejiofor Ezekwe (G2), Alison Regan, and Leon Coleman (now a surgical intern), with Patrick Taus (G2) and Michael Iglesia (G2) playing supporting roles. (D) Erin Steinbach (left) and husband Jeff (right) with Dr. S. (E) Christian Parobek (G1), Matt Lipner (MS1), and Katherine Liang (G3). And Will Jeck (G4). (F) Dr. Raines Jr. raiding the cooler. (G) Dr. S and Ryan Phillips (G5). We think this is an excellent juxtaposition of hair extremes. (H) Students enjoying Dr. S's company on the patio.

# The year in pictures

## ...And the rest of the year













FIGURE 2: (A) Some of the second-lookers. (B) February's second-look tour included a tour of the helicopter launch pad atop the Neuro Hospital on campus. This one is preparing to travel to the Carolinas Medical Center in Charlotte. (C,D) Audre Verde (G3), Ejiofor Ezekwe (G2), Jordan Walter (G1), and Justin Low (G5) at Dream Team's Habitat Build. (E) Erin Steinbach (G4), Meg Duncan (MS3), and Michael Durando (G5) at the National MD/PhD Student Conference in Keystone, CO, July 6-8. And who's the tall guy? Oh wait, doesn't he direct the NIH? (F) Christian Parobek (G1), Perry Tsai (G2), Chris O'Conor (G3), and Reid Roberts (G5) at the Gene's Knockouts Habitat Build. (G) Lee Hong (MS2) and Chris Giardina (MS2) at the Museum of Modern Art in NYC. (H) Adam Kimple (now an ENT resident), Will Jeck (G4), Katherine Linag (G3), and Andrew Morgan (G1) at a Team Wildtypes service event at the Forest Theatre on UNC main campus.







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### Next time you run into one of these guys . . . pat them on the back