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LETTER FROM THE EDITORS
Dear Readers,

Thank you for taking the time to read the latest issue of H&P. This edition, entitled Expressions, illustrates our tendencies to reflect on science and medicine through art. Physicians and researchers are capable of channeling emotions evoked by their experiences in medicine and science into creative venues, ranging from sculpture to poetry and from music to fiction. As shown by Stanford’s annual Medicine and the Muse Symposium and the stunning Chihuly chandelier in the atrium of the Lokey Stem Cell Research Building, both of which are featured in this issue, it is no secret that the inventiveness of physicians and scientists is not restricted to the bench or the bedside but rather extends to encompass the arts. This issue of H&P showcases the talents of students at Stanford Medical School who have used artistic means of expressing not only their experiences as medical students but also their reflections on the past and their aspirations for the future.

Physicians and medical students alike often fuse their talents in medicine with their passions for other fields, ranging from anthropology to fiction, reflecting their interdisciplinary creativity and artistic ingenuity. Victoria Boggiano (SMS II) discusses the pursuits of non-traditional MD/PhD students at Stanford who have integrated additional academic fields into their medical education. Hamsika Chandrasekar (SMS II), Victoria Boggiano (SMS II), and Frank Yang (SMS II) interview Dr. Khaled Hosseini and explore the motivations behind his novels as well as the impact of his medical training on his writing, probing into the compatibility of an artistic career and a medical career.

This edition also features reflections on the journeys we embark upon as medical students and our interactions with patients who will shape the doctors we become. Through poetry, Larissa Miyachi (SMS II) and Jennifer Wang (SMS V) express the emotions and closeness evoked by patient care and the parallels drawn between patient experiences and our own lives. Through a short story, Woody Chang (who graduated in 2014 as an SMS V student) vividly portrays the life of a geriatric gentleman whose story, while fictional, likely mirrors the true struggles of today’s aging patients. Jeff Choi (SMS II) poetically and eloquently aspires to become a physician whose kindness and courage his patients will remember with gratitude. Anita Lowe (SMS II) considers the conflicting debate about the role of female physicians in medicine.

On a lighter note, we continue H&P’s satire column as a creative parody of the life of medical students, from the mundane daily routines in school to the stressful transition to residency. Sasidhar Madugula (SMS II) provides a humorous “update” on LKSC Catering. Recently having begun residency, Woody Chang gives current SMS students the benefit of his experiences along the residency interview trail, reminding us that humor can be the best medicine for handling the missteps that we might make and for the hurdles that are difficult to avoid.

In addition to these written pieces, this issue features photos taken by medical students, whether during medical missions abroad or simply on Stanford’s own picturesque campus. We also bring to you photos from the 2014 Medicine and the Muse Symposium to exemplify Stanford Medical School’s annual celebration of the fusion of medicine and the arts. A photoessay by Victoria Boggiano (SMS II) illustrates snapshots from her experiences in Vietnam. We also welcome the imaginative “Sketchy MD” to H&P. This creative section, intended to be a recurring section of the journal, features medical illustrations by Michael Nedelman (SMS III) and Larissa Miyachi (SMS II). Their sketches are the epitome of the fusion between the arts and sciences, highlighting the ability of medical students to express their knowledge and experiences through creative channels.

We are honored to present to you this portfolio of the artistic and creative expressions of medical students, showcasing the creative talents at the heart of Stanford medicine. We would like to welcome the Entering Class of 2014 to the Stanford School of Medicine family. We look forward to welcoming many of them to our editorial board for future issues of H&P and hope their journey in medical school fuels their excitement for their careers in medicine as it has for the generations before them.

Sincerely,
Sarah Waliany & Diane Wu

SUBMISSIONS
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Interview with Khaled Hosseini

VICTORIA L. BOGGIANO, HAMSIVA CHANDRASEKAR, FRANK YANG

We sat down for a conversation with Dr. Khaled Hosseini during Stanford School of Medicine’s 2014 “Medicine and the Muse” symposium. Dr. Hosseini is a highly acclaimed author of many best-selling novels, including The Kite Runner, And the Mountains Echoed, and A Thousand Splendid Suns. Before beginning his career as a writer, he attended medical school in California and practiced as an internal medicine physician for several years. Dr. Hosseini is currently a Goodwill Envoy to the United Nations High Commissioner for Refugees and the UN Refugee Agency as well as the founder of The Khaled Hosseini Foundation, a not-for-profit organization dedicated to providing humanitarian assistance to Afghans in need.

Victoria L. Boggiano (VB): In the past, you mentioned that your training as a physician has influenced your career as a writer. In what ways has your medical training influenced your writing?

Khaled Hosseini (KH): I found it useful to have medical knowledge about human pathology as it helps me create characters. My last book dealt with end of life issues, and in medical practice, I had many geriatric patients. I dealt with situations with people who have dementia [and] the strain that it puts socially on the support system, the family. The first-hand experience with those situations as a professional and in personal life helped me create characters that at least seem credible and believable. Talking about illness and talking about how disease affects people’s lives, their families, and those around them is not an insignificant part of my writing. There’s a lot of it in this book [And the Mountains Echoed], there’s a lot of it in my first novel, and a lot of it in my second novel. So it’s a tool that comes in handy creating stories.

Hamsika Chandrasekar (HC): The theme of family is a theme throughout your books, and it’s something that you’ve emphasized in your books. Can you speak to what draws you to this theme, and how your own family also impacts that?

KH: Well, where are you from?

HC: I’m from all over the place. My parents are from South India. I was born in New Zealand.

KH: But your parents are from South India? Okay, I’m sure you understand that from that region of the world, it’s hard to understand your life outside of the context of family. People are very family-oriented. They hang with their own immediate, extended family. There [are] much stronger bonds to cousins, aunts, uncles, brothers, sisters, and grandparents than certainly in the West in the last 50 years, in this country especially. It’s such a defining part of who you are, and it’s the same in Afghanistan. Because family is such a huge part of your identity, it’s hard for me to write characters without exploring their families. It’s hard for me to write about a character that just exists and has friends and has a girlfriend or a wife and then just goes to work and has encounters with other people - and not think about what
his relationship is like with his mom, brother, sister, or his cousins. It always comes into play, and I can’t conceive of the characters as existing like islands. So it’s not that I set out to write these family stories, but it gravitates naturally.

**Frank Yang (FY):** Your latest book [*And the Mountains Echoed*] features two doctors, Idris and Markos. In the story, both of them have the chance to use their craft, medicine, outside the clinic. However, they deal with these opportunities in different ways. Recently in the medical community, physician political advocacy has been hotly debated [when it comes] to what the role of physicians should or could be. Do you have any thoughts as to the role of physicians in [using] their craft outside the clinic?

**KH:** Well, Markos is still working in the clinic and goes back to Afghanistan, and he makes a decision that his services are best used in a different kind of setting and with a different kind of population. He is spiritually dissatisfied with his plastic surgery work in his home country, doing liposuctions and whatnot, and he decides that going to Afghanistan and working on children who have been damaged by war or have suffered facial traumas is much more rewarding. Well, at least that’s his hope. It turns out that that’s not quite the case. For me, medicine will always be about the physician-patient relationship. It’s a very honorable and sacred thing. It becomes politicized just out of necessity as we live in a very complex world now. But at the core there’s always the patient-physician relationship that belongs in the exam room.

**FY:** And Idris in the story - he meets the little girl in Afghanistan when he goes back, and he promised to help her, but life happens and he never follows through.

**KH:** I think that says a lot more about him as an individual than about his career. He had the chance to do something, but I think that he comes home and finds that real kindness, real philanthropy, is actually hard work. It’s more than just the visceral reaction to feel sorry for somebody and shed a tear and have this kind of feeling that “I should really help this person,” but it actually takes a lot of work, sacrifice, and reprioritizing. It takes patience and the willingness to put up with frustration and obstacles, and you have to be very obstinate. And he learns a lesson about himself as an individual, as a person - that his make-up is not suitable for that. And then, to add insult to injury, Timur is the person he’s kind of been looking down on all this time—his uncouth, very vulgar, and immoral cousin—but Timur actually has that kind of make-up. And he’s able to see through helping that girl and doing the things that Idris can’t do.

**VB:** In the past, you’ve stated that medicine was a little bit of an “arranged marriage” for you and that you don’t have a desire to practice medicine again.

**KH:** I should never have said that. (Laughs)

**VB:** Can you explore this thought a little more? And do you have any ideas on what factors could maybe change your mind that might lead you to start practicing again?

**KH:** No, I never will practice again. I love writing too much. It was never my dream to become a doctor. As a boy, my favorite thing to do was to write. But I didn’t think of it as something that you can do. Books are out there, you read them - but the people who write those books that you’re reading exist in some kind of other sphere. It [did not seem like] something that one does for a living. So I love writing - I can’t remember a time in my entire life when I didn’t. That was kind of my private fantasy. Some kids want to be firefighters or cops or astronauts. I always wanted [to be a writer]. Even when I was in medicine, I used to think - some days, in the middle of a hard day - how cool would it be to just be home and think of a story and work on that and get published. It was just like a dream. But then, it kind of came true, which was shocking. When I was a kid, I never imagined myself a doctor. I went to medicine for an entirely different set of reasons, very pragmatic reasons. I personally think that is the reason why recently immigrated families and children end up in very sturdy professions that provide self-esteem and security and safety.

**VB:** Just as a follow-up, can you speak at all to the process of going from being a doctor to being a writer — when you had that “aha!” moment that you could transition into being a writer — and what that was like?

**KH:** It wasn’t based on my ability. It was really a practical decision. Even after I wrote my book, I thought, “Oh, I’ve written a book, that’s great. It’s been published, that’s great, too. You know, I’m going to keep practicing, because that’s what I do.” A lot of people are published, but they’re still lawyers, or they’re still teachers, and they have a real job. I never thought this would turn into something more real. But it really wasn’t until a year and a half later when my book really took off in paperback. I was in the midst of writing the second book and was running out of time, and suddenly, I was in demand for appearances. I used up all my vacation time. I hung on as long as I could, but I realized that I couldn’t just see patients on the side. Medicine is much too serious and important. You really have to be present for your patients, so I decided to take a year off and write my book. At the end of that year, I wasn’t done, and so I needed another year, and at that point, the choice was whether to go back or resign. So I resigned.

**HC:** There are a lot of people in our class who aspire to be physician-writers or at least balance those professions. Do you have any advice for those students?

**KH:** As a physician-in-training, your time is very limited. So
that’s a pragmatic consideration. But otherwise, my advice is the same as [for] any other person who wants to write. It’s very boring, kind of stodgy advice: you have to read a lot. If you love to write, you have to love to read. I never trust people who want to write, and when I ask them what they’re reading, they say, “Well, I don’t have time to read.” I know right off the bat that there’s nothing there. You have to have a love for books and the written word if you want to produce it yourself. It’s like wanting to be a movie director and never watching films. It just seems unfathomable to me. You have to read a lot, and then you have to write all the time. And in a way, it’s the same thing as medicine in that the more you do it, the more experienced you become, and the better you get at it. You learn as you go on and get better and better the more you do it. So it’s not earth-shattering advice. Actually, becoming a published writer and professional writer is partly luck and partly the things you have to do, like get an agent and write the query letters. It’s really about you having to produce something that means a lot to you. You have to write because it feels very compelling to you and you can’t imagine not doing it. I meet far too many people who are writing because they want to write a bestseller and that’s just a sure way to get disappointed.

KH: So you wrote The Kite Runner while you were practicing?

HC: Yes.

KH: What was that like?

HC: I got up around 4:30 or 5 AM, wrote for about 3 hours, went to work, saw patients, and did it all over again the next day. It’s just a matter of carving out time for writing if you have a full-time job. You have to make that time. It has to be a commitment.

FY: Since you’ve published The Kite Runner, in what ways do you think that you’ve matured as a writer?

KH: I know that I’ve changed over the last ten or twelve years. My books have become a little bit more subdued. There’s a little bit more context — subtext — and a little bit more texture with more subtlety and moral ambiguity creeping in. My characters aren’t as black and white as they used to be. Sometimes they’re more complicated. Part of that is just getting older and seeing the world differently, and part of it is becoming a little bit better at writing.

FY: In what ways do you see the world differently since 10 years ago?

KH: When I started writing my first book, I was 36 and just had a 3-month-old boy. Now, I’m 49. I’ve seen people die in my family. My kids are much older. Being a parent changes your perspective. You start to see the world very differently.

In your 40s, when people close to you begin to get sick, and some of them terminally, mortality becomes a much bigger presence in your life, for instance, than it is in yours right now when you’re still young and invincible. But twenty years from now, it will feel like it’s encroaching on your life a lot more urgently. So, all those things inform you and also inform your writing. Write about what feels most important to you at the moment.

VB: Can you talk a little about your motivation for writing The Kite Runner, A Thousand Splendid Suns, and And the Mountains Echoed and what message were you trying to get across?

KH: I’ve never really needed any motivation. I write largely because I have an idea that feels like a dripping faucet that you have to address. And you have to sit and see it through. I get excited about something, and it feels like something. For The Kite Runner, I thought about these two boys and the whole idea of a kite runner flying. There was something in there that I didn’t understand initially but that I wanted to explore. And so, you just need a spark. And it’s always about the story for me. It has always been about understanding those characters that I’m creating and seeing them through. I have never wanted to pass any message to anybody in my writing, with the exception of my second book [A Thousand Splendid Suns]. I did want to write about that topic because I thought that the issue of women in Afghanistan was an important subject matter to the future of Afghanistan and one that hadn’t been addressed in the West as fiction. It’s usually in the form of a documentary or in the news, and they always told the same stories, about the burka and so on. So I felt like there was an opportunity there to explore a rich subject matter that was important but also really fertile for creating stories.

HC: Did you do a lot of research and planning before starting each book?

KH: No, I researched as needed. There are people who read ten books just to prepare and then they use 0.1% of what they read. To me, that seems exhausting. I hate reading as a matter of duty – like work. I want to read. For me, reading is always about pleasure, whether it’s non-fiction or fiction, or whether it’s a serious subject matter, a difficult one, or something light-hearted. I want to enjoy it. I hate to read just to learn about a subject matter. I learn much better if I pick up something because I’m really interested in it.

HC: What about your characters? I know some authors flesh out entire backstories.

KH: No, I don’t do that either. I just let them snowball. I start very flat and they just slowly come into being. Like those Star Trek characters. First they were grainy and pixelated, and then there was William Shatner in all his glory.
fully, that will happen. The characters start very vaguely, made of different little particles and barely held together. But with each draft, they become a little bit more solid, a little bit more real, and then they’re perfect.

HC: How do you create different characters by following that strategy? Because I feel like the more you write, the more you tend to gravitate towards certain personalities and characters, right?

KH: Yes, that’s true. You know, you have to hope that each person you’re writing is unique, and that you connect with them in a different way each time. Otherwise, you’re writing the same thing over and over. And there’s a market for that, too, with people who write serials that are 20 books long.

FY: Do you ever think about the main characters – or minor characters – in any of your three previous books? What sort of relationship do you have with them?

KH: Especially when I’m writing, [my characters are] very present and very in my mind all the time. They’re almost like real people because I think about them all the time, and I’m trying to hear their voice and see what they look like and what they would do in this situation or that. I feel like once it’s done and the book is out, then there are so many other people that have a relationship with those characters that there’s a sense that they don’t really belong to you anymore, and there’s a kind of letting go that happens. Not that you completely let them go. They still have a place and you still have a relationship with the way they each came to be, but then there’s rapport that people have with those characters that have nothing to do with you.

FY: They have to form their own relationship with the characters.

KH: You’re all from your own backgrounds and you three can read the same stuff and get something completely different out of it because you each bring your own sensibility into the experience.

HC: You mentioned that your second book was about an important topic that wasn’t addressed as much, particularly in the West. Have you seen any social or political attention or change come from your books?

KH: Those things are really hard to measure. You have to be modest and humble about how much you can get done. And a lot of times, impact is difficult to quantify. Let’s say somebody read my book and said that before they read the book, they had little idea what happened to women and didn’t care. But they read my book and six months later, there was a news story about Afghanistan and women and they perked up and felt a personal connection to that story. To me, that’s meaningful because a small number of those people will take it even further and maybe try to do something. The whole point of literature is to get you to live somebody else’s reality for a while, and maybe through that experience, a part of you changes also. And that’s very hard to quantify. But we’ve had people, in more measurable ways, say, “You know, I became very interested in Afghanistan after I read your books. Now I’m working with this organization and we’re doing this for widows…” and that kind of thing happens. But I think a lot of a book’s impact in readers’ minds is hard to measure.
I originally intended for this article to be about the practical aspects of residency interviews and traveling. Things like what kind of luggage to get (Eagle Creek Weekender or Tom Bihn Tristar), how to pack without needing to check in baggage (use packing cubes liberally), or how to organize travel information (Tripit and Google Calendar are your friends). I suspect, though, that this information has already been addressed by the hundreds of now-residents who have written similar guides to the residency interview process, many of which our illustrious 4th-years will likely read over the next few months. No, my words have nothing to do with the practical aspects of interviewing.

Let us also get this out of the way. The residency interview process is a drag. Yes, the first few interviews will be fun as something different from the humdrum of being a clinical student. But once you've answered the same questions over and over again, you realize that you can do your interview blindfolded and half-asleep. You lose track of time and end up doing really stupid things like sleeping through morning report, signing your thank-you letter with the wrong school name, or deciding that you want to be a veterinarian.

Keep in mind that things will be out of your control. Interviews may be canceled, as some of my compatriots who were victimized by the polar vortex can attest to. Luggage will get lost. Hotel rates will stay just a few dollars above what you would want to pay if you stayed there on vacation. And you will always seem to get interview notification e-mails when you are on an inpatient rotation so that by the time you get to answer them, the only dates left are right around New Years.

And of course you have the strange things that will happen on the interview trail.

For example, during a bus ride from one interview site to another, I began talking with a colleague about the television show "Arrested Development" and mentioned the character Steve Holt. That character always emphatically raised his arms and yelled "Steve Holt!" whenever he was on camera. In my haste to expound the virtues of this particular piece of comedy, I continued my impression of that character during the ten minute bus ride. I kept hearing a faint "What?" behind me as I kept plowing along.

When the bus stopped at the other hospital, I looked behind me to find a confused middle-aged gentlemen that I remembered seeing at the morning introduction session. I recognized him as one of the residency directors. Then I remembered his name: Steve Holt. I had been saying his name for 10 minutes. He stared me down and then asked me what I wanted. I was speechless; I had never meant to talk to this guy in the first place.

Then there was a later incident when I got an email from a school asking me to change my interview time because it had already filled up. I sent a reply back and thought nothing of it. I was surprised when I was offered the original interview date a week later. I ended up deciding that the original date was more ideal. Everything seemed to be in place. When I showed up the day before my interview, I looked through my e-mails and found out that my email changing my interview date never made it to the school in question. It did, however, make it into the inbox of Dr. Norman Rizk, Stanford's illustrious ICU medical director. When I sent the e-mail on my phone, "Res" became "Rizk."

Then there was the time I almost fell over using a “spun...
chair,” a chair shaped like a top. After a long day of interviewing, I wanted to take a spin after a bunch of other residents and interviewees had done it. While almost falling over, I bumped into the chief. Not the Chief Resident, mind you, as I am sure she would have thought it was funny. I mean the Chief of Medicine of the hospital, who proceeded to make fun of my lack of coordination. Not the best impression I could have made on a possible future boss.

My main advice to you all is this: let things happen the way that they do. As Stanford students, you probably have enough of a mind to keep yourself above water even in times when the residency interview routine becomes rote.

There is no need to waste your energy worrying about embarrassing moments or situations that are less than ideal. Part of the fun is to have the fortitude to get past these difficulties that are either out of your control or exacerbated by your own foolish actions. You will get through them, and they will soon become stories that you can tell to the next generation of doctors, hoping they do not repeat your mistakes. At the very least, they become fodder for little asides that one writes in medical journals.

Also, expect the unexpected. You never know when a residency director will be right behind you silently judging you. Even if he says that it won’t be brought up at the committee meeting.

Woody Chang was a 5th year medical student who graduated in 2014 and started his Internal Medicine residency at the University of Pittsburgh Medical Center, Montefiore in June. The above incidences may or may not represent the tip of the iceberg of crazy things that happened to the author during his interview season.

“My main advice to you all is this: let things happen the way that they do. There is no need to waste your energy worrying about embarrassing moments or situations that are less than ideal. Part of the fun is to have the fortitude to get past these difficulties that are either out of your control or exacerbated by your own foolish actions.”

Rashmi Jasrasaria
New Avenues for MSTP

Non-Traditional MD/PhD Students at Stanford

VICTORIA L. BOGGIANO
At Stanford, the “non-traditional MD/PhD student” encompasses a diverse and vibrant group of students who are passionate about combining their love of medicine with the interests they explore during their dissertation work. Through this article, I hope to paint a picture of how the Stanford School of Medicine has created a place for the non-traditional MD/PhD student within the institution. I also explore who is included under the umbrella of “non-traditional,” what these students are studying, and what they hope to do with both of their degrees in the future.

Nationally, the Medical Scientist Training Program (MSTP) began in 1964. Stanford was part of the second set of universities to apply for funding to become an MSTP institution, and it has had a successfully running MSTP for the past 45 years. Indeed, Stanford’s MSTP program has been a leader in the field for quite some time, according to Dr. P.J. Utz, MD, the current director of the Stanford MSTP.

And the department has been growing. When the previous dean of the medical school, Dean Philip Pizzo, started as dean, there were 55 students in the MSTP program; when he stepped down eleven years later, the number of students enrolled had almost doubled to a total of 97 students. The current dean of the School of Medicine, Dean Lloyd Minor, remains equally as committed to expanding Stanford’s MSTP program. “Dean Minor announced last month that he is increasing the size of the MSTP from a current cohort of 81 students up to 120 students; another 50% increase over the course of about five years,” Dr. Utz said.

It therefore comes as no surprise that the Stanford MSTP has begun enrolling a diversity of students outside of the traditional bench lab research setting. “[Being a] traditional physician scientist meant that you were doing mostly very intensive wet lab research,” Dr. Utz said. “Beginning around 2010, we started to make changes.” Part of this impetus to change came from the National Institutes of Health (NIH), which funds the MSTP. The NIH began to stress the importance of MSTP students pursuing doctoral degrees in the social sciences, ranging from clinical trials and outcomes research to anthropology and sociology. Another part of the impetus to change came from students themselves, and from faculty in departments across Stanford.

One of these students, Amrapali Maitra, is Stanford’s first MD/PhD student in medical anthropology. Maitra first became interested in pursuing a dual degree while she was conducting MedScholars research on domestic violence in Dhaka, Bangladesh. The summer abroad left her wanting more: “I felt like the two months I had in MedScholars and the more public health approach I was taking to domestic violence in this study didn’t answer all of the questions that I had about this topic,” Maitra said. She added that she found the field of medical anthropology enabled her to focus more on what domestic violence means as a medical and legal category in South Asia. Maitra, along with a few other interested students and with the support of Dr. Tanya Luhrmann in the Anthropology department, began to meet with deans and administrators about applying internally into the MSTP program to pursue a PhD in medical anthropology. Dr. Utz and Dr. Luhrmann together devised a well-organized timeline for her remaining years at Stanford: after her second year in medical school and two months of clerkships, Maitra would take two years of graduate school coursework in Anthropology, followed by a year of core clerkship rotations at the medical school, a year of field research, writing a dissertation, and finally applying to residency. Maitra recently finished her second year of graduate school and is currently doing her core clerkship rotations.

Maitra’s path to anthropology was something that she did not expect. “I could not have predicted this four years ago, and I think if someone had predicted this for me I would have thought they were crazy,” she said. “And it was really only after taking my first anthropology graduate seminar while in medical school that it became more of a reality. And then I realized that so many of the people who are either doing global health or thinking about illness and suffering in these more scholarly ways have trained in anthropology and it started to click that that would be a really perfect community.” Maitra is not sure whether, when she graduates, she wants to bring anthropology to the medical community or vice versa; she is sure, however, that she wants to continue to practice medicine and do research at an academic institution.

Apart from Maitra, there is one other student pursuing an MD/PhD in medical anthropology at Stanford. Cordelia Erickson-Davis is in her second year of graduate work in the anthropology department, and plans to study emerging neurotechnologies and neuroethics during her PhD. As an undergraduate, she majored in neuroscience and has been working in the field of neurology on clinical research projects since the age of 18. Long-term, Erickson-Davis hopes to become a neurologist and work with these devices.

There are also several students pursuing non-traditional MD/PhDs outside of the Anthropology department. Laura Bloomfield is in her third year of graduate work in Stanford’s Emmett Interdisciplinary Program in Environment and Resources (E-IPER) program. “I’m trying to marry ecosystem health and environmental systems with human
health,” Bloomfield said. “I am hoping to understand what the interplay is between degradation and environmental sustainability and all these different things that I think are linked very tightly with human health but are often difficult to delineate.” Her research site is in Uganda, where she conducts social network analysis and household surveys to better understand what the social connections and relationships are between people in communities. She also engages in landscape classification using remote sensing, and takes biological samples from individuals who have had contact with nonhuman primates.

Long-term, Bloomfield, like Maitra, hopes to work at an academic institution where she can have a joint appointment at a medical school and an interdisciplinary environmental science institute. Unlike Eriksson-Davis and Maitra, Bloomfield completed only one year of pre-clinical coursework before beginning her graduate degree, in part because she was excited to begin tackling some of her research questions and in part because she applied for grants that were time-sensitive. While Bloomfield is technically part of the MSTP, she is funded by outside sources.

There are also two other non-traditional MD/PhD students currently finishing their degrees at Stanford but who are not members of the MSTP. Ben Seligman is currently pursuing a PhD in ecology and evolution, where he uses demography to study the impact of social forces on health and mortality on a macro-level and epigenetics and DNA methylation patterns on a micro-level. “Poverty, and stress in its many forms, affects how we express our DNA and that in turn will obviously have a huge effect on our health,” Seligman said. Patricia Foo just completed a PhD in economics and is now in her fourth year of medical school. During her PhD, Foo focused her research on incentives in the U.S. healthcare system. Seligman and Foo both indicated that they hope to work at academic institutions that would allow them to see patients as well as conduct research.

Today, the MSTP department is excited about the possibility of non-traditional applicants – within reason. According to Utz, there have been medical students who have tried to apply for PhDs in fields like music and the arts. “It’s a little harder for us to grasp how you would tie a degree in art or music to a MD,” Utz said. “I’m not sure how you would tie those two together, and given the amount of funding it would take I think we would have a hard time with the NIH saying we funded someone to have a PhD in piano.”

For students interested in joining the MSTP program as non-traditional applicants, they must apply to the MSTP internally. The MSTP department still views non-traditional applicants as a new initiative, so they prefer to accept students into the program who are already part of the Stanford community. Like more traditional internal applicants who must have a lab mentor identified, non-traditional internal applicants must find a university tenure line professor or a research professor to serve as their mentor. Applicants must also apply to and be accepted into the graduate program of their choice.

Above all, according to Dr. Utz, now is a great time for medical students to consider applying into non-traditional PhD programs. “I think that some of the biggest problems we need to solve as a society, in medicine in general, and in the world are sociological more than anything else,” Dr. Utz said. “World health, world peace, global warming – these are all things that involve sociologic and behavioral change, and political change, and policy change. Why not have really smart MD/PhD students trained to be able to be the next leaders in those areas? That’s what excites me.”
Jim Nashes awoke in the lobby of the doctor's office and remembered he had a doctor's appointment that day. He was a man in his 40's, wearing a button-down plaid shirt of green and blue tucked into his khakis. He was muscular, though some of his muscle was starting to turn to fat, as evidenced by his slowly expanding waistline. Still, with a clean-shaven appearance and a full head of hair with just a splash of gray at the back of his head, he looked relatively young.

He blinked his eyes as he awoke and recognized the white wallpaper and clean tiles, almost inviting despite its slightly aseptic appearance. His wooden chair was comfortable, though not overly so, reminding him that this was not a place that he would like to stay long term. As he sat, he stared at the receptionist who was across the room behind a glass window. Time seemed to pass slowly, until a familiar face approached the sitting man.

"Dad," the younger man said, "the doctor is ready for us now."

"Oh, thanks, son," said Jim, "I must have dozed off in the seat."

He looked at his son as he stood up. "Well, Kenneth, son, now that I look at you, you look older than I thought, you know? It seems like yesterday that you graduated from college."

Kenneth, a well-built man in his 20's, smiled slightly and chuckled. "Well, Dad, it seems that way to me too."

The two walked together through the door to the receptionist down a long hallway with the same white wallpaper as the lobby. They walked past doors on their left and their right, seeing white-coated physicians holding clipboards while sitting patients talked to them as if they were seeing an old friend, updating them on what had happened since they last met. The two men walked until they saw a wooden door to their right with the number 47 written on it. The two walked in, entering a white room with a corner counter featuring a sink on the near side of the room. Jim walked to the bed and, after removing his shoes, sat on it. Kenneth sat on one of the folding chairs next to the sink.

A few minutes later, a woman with a white coat filled with pens and papers walked into the room. She had a smooth face and long curly blond hair, though the blond had turned whiter over the past few years. She walked in with a casual manner, placing her clipboard next to the sink before approaching Jim.
“How are you today?” she asked the man sitting on the bed while shaking his hand.

“Fine, Dr. Williams,” said Jim smiling. “It’s been a few months since our last visit. The office hired a new receptionist… I don’t recognize her.”

“Yes, she started about a week ago,” Dr. Williams said, now sitting next to Kenneth near the sink. “It seems like things have been pretty good for you in the last three months. I wanted to make sure you weren’t feeling any side effects from the Coumadin, like bleeding or anything like that.”

Jim assumed that she was talking about the pills that he had taken that morning. “I don’t remember any side effects. I’ve been right as rain.” He mimed an imaginary pill container with his left hand. “It’s not as if I’ve taken that stuff for more than a week.” Jim noticed that after saying those words, his son started to scratch his back. “Everything all right, son?”

Kenneth nodded, indicating that he was fine.

“Well,” Dr. Williams continued, “your latest test results show that the medication has been effective. I want you to stay at your dosage for your medicine and remember to take the Coumadin every day like you have been.”

“Of course, I will,” Jim said.

During the few minutes of polite conversation, Dr. Williams shined a light into Jim’s eyes and asked him a series of questions. She then asked him to squeeze her fingers as hard as he could. He thought his right hand could have gripped harder, but Dr. Williams seemed satisfied. After she used her stethoscope to listen his heart, he got off the bed and opened the wooden door to the hallway.

“I’ll be a sec, Dad,” Kenneth said, rising from his chair. “I need to speak with Dr. Williams.”

Jim nodded and walked through the hallway until he came across the same chair where he had awoken in the lobby. Smiling at the receptionist, he sat down. A few minutes later, Kenneth walked out from the hallway into the lobby and motioned for Jim to walk with him. “Everything is fine,” said Kenneth as he led his father to the car.

The drive home was uneventful, as were the night’s events. A plain meal that Kenneth prepared of chicken, potatoes, and carrots was accompanied by a glass of milk, which Jim was accustomed to drinking with his dinner. After watching The Tonight Show, Jim went to bed. “Boy, that Leno guy was funny, but Carson was funnier,” he thought to himself as he fell asleep. When he awoke, he was in the lobby of the doctor’s office and remembered he had a doctor’s appointment that day. His wooden chair was comfortable, though not overly so, reminding him that this was not a place that he would like to stay long term. As he sat, he stared at the receptionist who was across the room behind a glass window. Time seemed to pass slowly, until a familiar face approached the sitting man.

“Dad,” the younger man said, “the doctor is ready for us now.”

“Thanks, son,” said Jim, “I must have dozed off in the seat.” He looked at his son as he stood up. “Well, Kenneth, son, now that I look at you, you look older than I thought, you know? It seems like yesterday that you graduated from college.”

Kenneth, a well-built man in his 40s, smiled slightly and sighed, “Well, Dad, that was some time ago.”

They found room 47 and Jim climbed onto the bed, feeling a bit more tired than he thought he should have been for someone who just woke up. Kenneth sat down next to the sink and the two waited, Jim stroking his unshaven face. An older woman with a wrinkled face and white hair carrying a clipboard walked into the room. She was wearing a white coat filled with pens and papers. She casually moved toward Jim, discarding her clipboard next to the sink before approaching Jim.

“Well, Jim,” Dr. Williams said with calmness, “you look great for a man your age, though you seemed to have lost a bit of hair.”

Jim sighed. “That’s true. I always lose a bit of hair in the shower.” He brushed his hair only to find that it felt thinner than he remembered. As he dropped his hand from his hair, he noticed some white hairs, which he had never seen before. He looked at his son with some confusion, but kept calm. “Of course, you look like you’ve gotten a few more wrinkles too, Dr. Williams,” he said with a chuckle.

Kenneth looked at his father as he scratched his back. “Well, Dr. Williams,” he started, “Dad has been sleeping well and eating well. Everyone helps out to make sure he gets his medication on time.”

“Everyone has been a big help,” said Jim smiling. “It’s been a few months since our last visit. The office hired a new receptionist… I don’t recognize her.”

“We haven’t hired a new receptionist in the last 15 years,” Dr. Williams said, now sitting next to Kenneth near the sink. “She has tried a new hair style, so she seems unrecognizable.
though.” She paused and then continued, “It seems like things have been pretty good for you in the last three months. I wanted to make sure you weren’t having any side effects from the Coumadin, like bleeding or anything else.”

Jim assumed that she was talking about the pills that he had taken that morning. “I don’t remember any side effects. I’ve been right as rain. It’s not as if I’ve taken that stuff for more than a week.” Jim noticed that after saying those words, his son started to scratch his back. “Everything all right, son?”

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“I’ll be a sec, Dad,” Kenneth said, rising from his chair. “I need to speak with Dr. Williams.”

After being in the lobby for a few minutes, Kenneth appeared and motioned for Jim to follow him to the car. The drive home was uneventful, as were the night’s events. A plain meal, prepared by Kenneth, of chicken, potatoes, and carrots was accompanied by a glass of milk, which Jim was accustomed to drinking with his dinner. During The Tonight Show, he noticed something different. “Who is this Fallon guy?” he thought to himself as he fell asleep on the sofa.

When he awoke, he was in the lobby of the doctor’s office and knew he had a doctor’s appointment that day. His metal chair was uncomfortable and kept moving around as he twitched, leaving him somewhat anxious. As he sat, he stared at the receptionist who was across the room behind a glass window. Time seemed to pass slowly as his bones and joints ached, until an unfamiliar face approached him.

“Mr. Nashes,” a thin woman in her 40s said in accented English while kneeling down, “The doctor will see you now. I’m going to get you over to his office.”

Jim had a look of worry on his face. “His office?” he intensely whispered, “Dr. Williams is a woman.”

The woman sighed and put a hand on Jim’s shoulder. “Mr. Nashes, your son is at his daughter’s graduation,” she said as if it was something she had said many times that day.

Jim, now confused, shouted, “He’s not old enough to have a daughter! He just graduated from college yesterday!” He tried to punch the air with his right arm but found that he could not even swing his arm without moving his body.

The woman had a pained expression on her face. “Well, Dr. Nguyen,” she said with forced calm as she turned toward the young doctor, “he has been getting more agitated. It’s as I told you over the phone before coming here.”

The doctor nodded as he took out his stethoscope and listened to Jim’s heart. After speaking to the woman for a minute, he turned to Jim. “Well, it’s been wonderful to see you. Things look good, and I think you’ll be okay. Just remember to take the Coumadin every day.”

As Jim was wheeled out of the doctor’s office, he angrily thought, “of course I’ll take it every day. I’ve only just started taking them.” His anger then turned to fatigue as the thin woman who had accompanied him to the doctor’s appointment pushed him into a van. As the van moved through the city, Jim found that the streets were almost unrecognizable to him. He sleepily thought of the comfort of his own bed and about what his son would cook for him that night, not noticing that the car had pulled up to a gate, which read, “Fielding Senior Living.” He started to fall asleep, wondering whether or not Johnny Carson would be funny on The Tonight Show that night as the day’s events slowly slipped from his mind once again.

Woody Chang was a 5th year medical student who graduated in 2014 and started his Internal Medicine residency at the University of Pittsburgh Medical Center, Montefiore in June. He hopes to focus on geriatric primary care when he finishes his residency.

Photo by Max Liu
REMEMBERING
Larissa Miyachi

Dim lecture hall and early morning, and I am sitting in the seat I always take, watching the words flashing against the wall. Pruritus. Urticaria. Angioedema.

Immunoglobulins, the E isotype, not the A isotype...so many letters to keep straight.

I am a child again, tracing out the alphabet, learning to spell like when you were born, and I had to remember to write your name with an “a” two letters from the end, not an “e.” A child again learning my ABCs: airway, breathing, cardiac. Treatment includes epinephrine.

And suddenly, we are children again.

Flashes of images in my mind, a moment remembered, transected from the whole.

The stroller with its small wheels, and you in it, and Mom bending over to give you a bite of our sandwich because you are hungry on that sunny walk in the park, and we are carefree.

So ordinary, the child and the peanut butter and jelly sandwich and the young family paused in time on the sidewalk.

And then the next image, more sound than sight: your sneeze and the worry in Mom’s voice.

And then you buckled in the car seat and Grandpa getting into the car beside you and Mom rushing because you had to go to the emergency room. An impression of puffiness, of you and your elfin ears and fine brown hair and a body suddenly too full of that which should have been life.

An empty driveway, lonesome gray against the sky.

Me waiting.

You came back—you came back to us before your lungs could squeeze out the last thin tendrils of your breath and the surging current of medicine drew your tiny boat back from a shore we could not reach.

And I am the medical student in the lecture hall caring about the mechanism of epinephrine, and I am the sister caring about nothing other than that you came back.
DAY 1

Jeff Choi

May I be remembered by my patients
not as curer of diseases
but as healer of people

may I have the fortune
to build on the wisdom of great mentors
and teach mentees who will stand on my shoulders

may I have the kindness
to give courage to those who were offered none
and be the hope when medicine cannot be

may I have the strength
to speak for those whose voices aren’t heard
and to vest in my beliefs towards what is good and right

and may I have the blessing
to look back on my last day wearing the white coat and say,
I lived out my life by this prayer

and no more could I have done for my patients in this lifetime
Pulmonary Fibrosis
*Larissa Miyachi*

Pulmonary fibrosis
One of the first terms I learned last fall
As I emerged, wet-winged and wide-eyed,
Into the blinding dawn of medical school

Black ink, white page
Written in a journal article

Eight months have passed
We met in the hospital today, in your room
My tentative stethoscope pressed against the whispers in your chest
I had to go, but I wanted to ask more

Life stories
Silent worries
Past journeys

Pulmonary fibrosis
The words crackle now with life
Life stolen from your lungs, leaving you breathless
Two dimensions turning to three as our journeys become one

Same sequence of syllables
Same letters…but now
I see you
Skin Check

Jennifer Wang

As you sit there shivering
in the flimsy checkered gown,
I run my fingers over your shoulders,
my eyes across your back, and
explore the landscape of your skin.

I traverse roughened plains parched by
the winter air, punctuated by tiny strands of silver
doubled over like wild grass in the breeze
where you used to play as a child.

I note the stony ridges across your palms
and the sandy valleys between your knuckles
as you recount to me your days on the tractor
combing through infinite rows of green each spring.

I sail around islands of mahogany strewn across
the beige sea of your arms, born from decades of
youthful summers on the Riviera where you met
your Annabelle, whose memory now casts
a pale shadow across the base of a calloused finger.

I trace canyons carved into your brow that run
deep with age and deeper with sorrow,
and the shiny pink mesas scattered across your barren scalp,
marking where rocky deserts once erupted
before they were cut out like granite from the earth.

And as I have you turn around
in the flimsy checkered gown once more,
I end my journey across your skin, having found only
the weathered terrain of a life well-lived
and nothing so extraordinary that would threaten
to take it all away.
Duty and the Female Physician

ANITA LOWE

The other day, I got into a discussion about the duties of a physician. The debate was not whether physicians have a duty to care for people – strangers and enemies included – but where and when that duty ends. Are doctors morally obligated to maximize the number of patients they care for because not doing so might leave someone, somewhere, unhealed? Or is it ethical to see fewer patients in pursuit of personal balance?

In 2011, Dr. Karen Sibert took a controversial stand in The New York Times on this matter by arguing that working part time, or reducing the number of patients a physician sees, is unethical. According to Dr. Sibert, every minute a physician is not doctoring is a minute that a patient could have been treated, and said physician took up limited space in a medical school. Perhaps some other person, more willing to save lives around the clock, might have taken the spot in their stead. The part-time doctor is costing lives that someone else, given the opportunity, could have saved. Dr. Sibert implicates female physicians in particular, whom she argues are particularly likely to work part-time. These women, she implies, exacerbate the physician shortage in a way that their full-time male peers do not.

That is a heavy accusation, and one that I would argue is both irrational and impossible. Are women to do no good out of fear of not doing constant good? Should women divert their talents to finance, law, or tech and sacrifice their opportunities in medicine to someone more single-minded? Isn’t the burden on female doctors already high enough? Beyond positions in medicine to someone more single-minded? Isn’t that a heavy toll on women’s emotional wellbeing. In fact, according to the American Association for Suicide Prevention, female physician suicide rates are 250-400% higher than those of women pursuing other careers. Male physician suicide rates, by comparison, are 70% higher than their nonmedical peers. Furthermore, women physicians experience burnout at 1.6 times the level of their male counterparts. Clearly, pushing women to work longer and harder is not only harmful to their health but also counterproductive. After all, a physician who is no longer practicing medicine because of burnout or suicide is a far less productive physician than a part-time one.

I doubt anyone disputes the notion that physicians have a duty to take care of their patients. Yet there are limits to this obligation, and physicians have an equal duty to take care of themselves. Yes, in an ideal world a physician would work around the clock, see an infinite number of patients, advocate for health policies, publish an encyclopedia of research papers, raise a pack of children, support and love a spouse/significant other, hit the gym daily, and make scrubs seem as glamorous as on Grey’s Anatomy. But when you replace the word “physician” with the word “person,” that list of expectations starts to look much harder to achieve. Something has to give, and the first thing to go should not be personal well-being. Given the types of personalities (A, perhaps?) that medicine attracts, I think this is exactly what gets thrown out first, hence the skyscraper-high rates of depression and suicide in this population. Yet women who choose a balanced part-time career in order to prioritize their children and their own mental health are scapegoated by individuals like Dr. Sibert.

Maybe it’s selfless to be a little selfish. Maybe the hours lost due to female physicians working part-time are regained when those women stay in medicine longer. Maybe we shouldn’t be blaming childrearing women or part-time practitioners for the physician shortage at all. Maybe the problems with our healthcare system were brewing even before women flocked to medicine, and maybe they would still be there even if every part-time practitioner gave up her position to a full time counterpart. Blaming women is not going to solve the problems with our health care system. We should look to intelligent policy for that.

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Breaking News: LK Cookie Crisis
SASIDHAR MADUGULA AND THE BROKEN 4TH FLOOR PRINTER

In a stunning turn of events, LK Catering Services, run by Stanford Catering, has announced the decision to cease production of their line of cookies and cookie-related products.

The motivation for the dramatic change is yet unclear. An employee of Stanford Catering, who wished to remain anonymous, stated, “Look, it’s not fair to expect us to continue doing the same thing day in and day out. I need a challenge just as much the next guy—you just run out of types of cookies to make. Heck, after oatmeal cranberry, we peaked and never came back.”

Eugene Keebler, another employee of the catering service in charge of setup and cleanup for lunch seminars said, “I heard, and this is just speculation now, that the higher-ups had a big meeting last week. They want to try something new, maybe brownies or chips and dip. Maybe go a little European, make some of that marzipan, maybe whip up a little Sacher torte.”

A high-ranking administrator within Stanford Catering dismissed concerns, stating, “I don’t know what people are making such a fuss about. It’s not like students go to lunch seminars for the food or anything. At most, I say 10% will notice the change.”

Despite welcoming an apparent change of catering, the administration may soon come face to face with unexpected changes. A petition has been started amongst the medical students, along with a new student org named “Care 4 Cookies,” which involves students breaking up into small groups to discuss their feelings towards the sugary snacks as well as their hopes for the future of dining. There has also been an enthusiastic push to create and implement evaluation forms for cookies in the hopes that positive feedback will spur caterers to new heights. In fact, at the back of both lecture halls in LKSC there can now be found evaluation forms with boxes for overall taste, sweetness, texture (a “soft yet a smidgen unyielding” being 10 out of 10), and even extra points given for a “surprise” factor.

Not all the response has been constructive, however. A vigorous black market for cookies has developed, with trays disappearing in seconds from seminar rooms and bundled away. Certain students interviewed went as far as to trade Costanzo’s Physiology for a pair of gingersnaps. The organization behind the operation is yet unidentified but is purported to have ties to certain SMSA members and members in the Dean’s office, illustrating the insidious spread of corruption to all levels of management. Additionally, some employees have received ominous emails (thanks to Stanford Lookup) and Keebler came back one evening from a day’s work to find his car full of marzipan. “The damage will cost at least several thousand bucks to repair. I’ve gotten tired of trying to eat the stuff. Keep this hush, hush, but sometimes I want a good old double chocolate cookie.” Whether Mr. Keebler will get his wish will remain to be seen.
The Medicine and the Muse Symposium that took place on April 16, 2014 featured various performances and artwork by students at Stanford School of Medicine, several of which are illustrated here. The guest speaker of this artistic exposition was Dr. Khaled Hosseini. Photos Courtesy of Norbert von der Groeben Photography.
SMS Around the
The Traveling Medical Scholars program gave Stanford Medical Students, including Jordan Apfeld (SMS II) and Lee White (SMS II) pictured here, the opportunity to spend the summer of 2014 volunteering abroad in medical settings in countries such as Zimbabwe, Uganda, Rwanda, and Ethiopia. Photos Courtesy of Jordan Apfeld.
With colleagues from the Institutes for Population, Health, and Development, a Hanoi-based non-governmental organization, at Bái Đính Temple in Ninh Bình Province, the largest assortment of Buddhist temples in Vietnam.

"Colors of the Rainbow," a three-day camp in Ba Vi hosted by Save the Children in Vietnam to raise awareness among parents about the importance of integration of children living with HIV/AIDS in public schools and the detrimental impact of stigma against HIV/AIDS.
Left and Center: A PEPFAR-funded shelter for women and children living with HIV/AIDS in Ho Chi Minh City / Right: Myself alongside two Save the Children in Vietnam staff members, interviewing two street youth in Ho Chi Minh City

Support group meetings for street youth living in Ho Chi Minh City, organized by Save the Children in Vietnam and funded by PEPFAR

Support group sessions for street youth living in Hai Phong province in northern Vietnam

The wrap-up conference for Project Nam, Save the Children in Vietnam’s five-year HIV/AIDS prevention program for young adults, funded by PEPFAR/USAID
Ms. G presents with proptosis and diplopia.

It worsens throughout the day.

How many fingers am I holding up?

4?

"Tensilon"?

This disease is associated with...

- hyperplasia
- atrophy
- thymoma
- 50%
- 20%
- 15%

Your attending wants to order a "Tensilon test" and check thymus pathology...
You suspect Myasthenia Gravis, an autoimmune neuromuscular disease that causes fluctuating weakness and fatigue due to autoantibodies to the ACh receptor.

The Tensilon test is the brand name for edrophonium, an anti-cholinesterase.

If symptoms improve upon administration of this short-acting drug, you've got myasthenia gravis.

1. AChE inhibitors (e.g., pyridostigmine)
2. Corticosteroids (pot... it's autoimmune)
3. Thymectomy (can be curative, can also be exacerbating)
4. Plasmapheresis

That sounds pretty... grave. Are there any treatment options?
**Gabapentin**  
*(Gabba Painting)*

**Mechanism:** inhibits high-voltage-activated calcium channels *(bone channel thing)*, GABA analog *(Gabba on a log)*

**Side effects:** sedation *(tranquilizer dart)*, ataxia *(crazy wiggly arm)*

**Indications:** seizure *(Caesar’s laurels)*, peripheral neuropathy, postherpetic neuralgia *(herpes = chirpies, with algae on head)*, migraine prophylaxis *(rain; not much data for this)*, bipolar *(bear)* disorder. Also has been used for cocaine and methamphetamine withdrawal symptoms.

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**PICA strokes**  
*(pikachu)*

**Symptoms:** Vomiting, vertigo *(rapidash’s move)*, nystagmus *(pika’s eyes)*; Decreased temp/pain sensation *(fire/electricity)* on ipsilateral face and contralateral body; Hoarseness *(rapidash)*, dysphagia *(muzzle)*; Decreased gag reflex *(pika’s tongue)*; Horner’s *(beedrill)* syndrome, ipsilateral; Ataxia, dysmetria

**Keep in mind:** Lateral Medullary Syndrome *(ekans, because it indexes medusa)*; nucleus ambiguous effects are exclusive to PICA lesions.
Distribution of adrenergic subtypes

Dilated pupil
(pupillary dilator
contraction)

Vascular smooth
muscle contraction
(Most)

Pilomotor smooth
muscle contraction

G1 sphincter
contraction

Prostate
contraction,
Bladder
urethral
sphincter
contraction

Increased
force of
contraction

Vascular smooth
muscle contraction
(Some)

Postsynaptic
neurons in CNS

Platelet
aggregation

Inhibits neurotransmitter
release (adrenergic and
cholinergic)

Feedback control

Fat cells

Lipolysis
of fat
Increased force and rate of contraction

Renin release

Glycolysis + GNG (fuel)

Inhibit GI+ GU walls

Relaxation of vascular smooth muscle in skeletal muscle

Lipolysis

in a tree
SMS 20
September 20, 2014 was the second annual SMS Cup event. Organized based on Educator-4-Care groups, the teams participated in flag-making, trivia, and various field day games (including a highly contested dodgeball tournament) all while competing for the SMS Cup. The event was developed and organized by the Office of Medical Student Wellness, with help from medical students Frank Yang (SMS II) and Genna Braverman (SMS II). Photos Courtesy of James Pan.