

THE VULCAN LETTER

Voice of the UAB MSTP

MARCH 2017

Editor's Welcome

Paige Souder, GS-1

This month is a month of sports heaven for me: spring training has started for baseball, march madness is just around the corner, and there is no football to be watched in the foreseeable future. To be so cheesy as to make a baseball reference, Spring is a great time to dust off the old bat and glove and make better what was already good last season. The farther you get in "the leagues," it becomes easier to remember the strike-outs and pop-flies, and easier to forget the walks and RBI singles. To our encouragement, our forgetfulness does not make these achievements any less important. Baseball teams don't win with batting averages in the .100s and a few homeruns, and nor do scientists make discoveries by trying to cure cancer in one fail swoop, or physicians cure patients by delivering a single "miracle drug." Yet we continue to forget that our smallest achievements are the ones that add up: finding something in the lab that no one else on this planet has found



before, or making a patient smile in the hospital who hasn't had a real conversation in three months, or getting accepted into an MD-PhD program (which is a BIG DEAL!). In the petty inconveniences of life, it's easy to forget why we're here. But don't. The opportunities each of us has laid out before us are incredible and just waiting for us to grab them up, and will be different for each and every one of us. This is literally amazing. Wherever you are in your career (AAA, AA, A, major leagues), pick up your bat and work your tail off, because you've *made it*—and only you can determine how far you will go. Play ball!

PARAdiGM

Kristina Tymes-Wilbekin, MS-1



It's 11:58 AM on Wednesday and I am two minutes away from "Fried Chicken Wednesday" when I get an email from Dr. Robin Lorenz. Unable to contain my excitement, I read the first few sentences of the email before I leave the room to call my mom and tell her I have been accepted to participate in the PARAdiGM program. The Preparation for Graduate and Medical Education (PARAdiGM) program is run through the Physician Scientist Development Office (PSDO) and has the mission of preparing students from underrepresented and disadvantaged backgrounds for the rigor and challenges of pursuing a career as a physician scientist. During this eight-week program, students are paired with a UAB faculty member and work on a

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House Hunters: Birmingham

Emily Hayward

If you ask any of our students what the draw to Birmingham was for them, almost ubiquitously you will get the answer of affordable housing. Use this article as a guide to the neighborhoods of Birmingham and a peak into the nests made by our current students.

1. Historic Bungalow Near the City

Name: Emily Hayward, MS-1

Residence type: House

Rent/Buy: Rent

Neighborhood: Glen Iris

Distance from UAB: 2.3 miles

Cost: \$1000/month

Description: Glen Iris is quiet, quaint, cozy, friendly, awesome! I chose to pay more than most of my peers here at UAB, but it was really important for me to live along so that I had a quiet place for studying and napping after a long day at school. Thankfully, our stipend is generous and covers everything I need. I wanted to rent because I wanted some flexibility, plus I wanted to have help with housework, yardwork, etc. I initially thought I would live towards the suburbs to have my own little retreat, but I



really hit the jackpot and found a house that had a neighborhood-type feel super close to campus. It's quiet, comfy, and a perfect

place to study. I also feel extremely safe here. Earlier this year, a powerline fell in my backyard and everyone in the neighborhood came running over to check in on me. In general, the diversity in housing in Birmingham is incredible and all so affordable. UAB was the only program I found where I could live in the type of house I wanted on the MSTP stipend without needing to have roommates.

2. Bachelor Pad

Name: Joshua Cohen and Vincent Laufer (GS-4)

Residence type: House

Rent/Buy: Rent

Neighborhood: Southside

Distance from UAB: 1 mile (ish)

Cost: \$1900/month, split 4 ways

Description: Southside is a mix of UAB students (undergraduate and graduate) and families. It's



walking distance from UAB and a very convenient place to live. With roommates, each of us pay \$400-600/month in rent (based on room size/perks) and \$100-150/month in utilities. We wanted somewhere that was walking/biking distance to campus, large enough to entertain guests, and had a backyard for a

dog. It's great to have a gathering place for our group of friends. (Side note: feel free to contact these two about questions related to choosing housing or to just discuss housing options in Birmingham!)



3. Hidden Oasis in Up-and-Coming Neighborhood

Name: Morgan Zipperly, GS-1

Residence type: House

Rent/Buy: Buy

Neighborhood: Crestwood South

Distance from UAB: 3.6 miles

Cost: \$180,000+

Description: Crestwood is great; we are close to practical things, such as Walmart, Publix, Aldi, etc., and Ruffner Mountain is also very close. We are also within walking/biking distance of Avondale, which is very nice! You can get to campus a few different ways, all of which are easy and fairly quick (about a 10-minute drive when traffic is light). I moved here with my boyfriend, Kevin, and our dog, Mars. Kevin is a sculptor and painter and needed some room at home to set up a studio, so we wanted a house as opposed to a condo or apartment. Plus, we wanted a yard for our pup! During my MS-1 year, we rented a house in Crestline Gardens, and we both really loved the area and didn't want to move too far away. Crestwood was perfect for us because of the proximity to everything we needed (including

House Hunters: Birmingham



other MSTP students in the neighborhood)! We've really enjoyed living in the neighborhood itself, too. Our neighbors are friendly,

our dog has lots of room to run around, and it's safe. I love all of the trees in our yard and the open floor plan of our home, which is wonderful when entertaining guests. We were also lucky enough to find a home with an extra bedroom, which I was able to make my office/library . . . it's my sanctuary! (See photo). To those just starting the program (or thinking about it), I would definitely recommend renting at least a year before buying.



There are many neighborhoods around Birmingham [see graphic on pg. 3], and they each have their own "personality." We ended up liking areas that were

different from our friends' preferences, so I feel that it's best to figure out which area suits you before making an investment in a property.

4. Comfortable Condo with a Trendy Vibe

Name: Sushma Boppana, GS-1

Residence type: Condo

Rent/Buy: Buy

Neighborhood: Highland Park

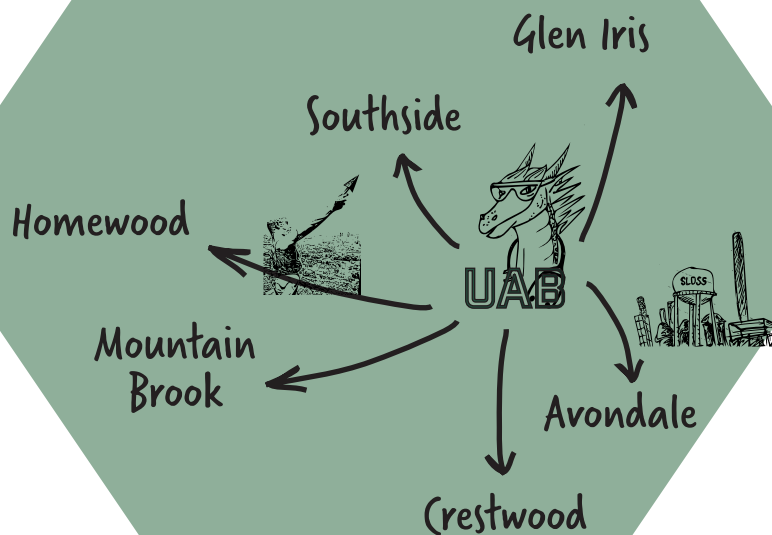
Distance from UAB: 2.2 miles

Cost: <\$130,000

Description: Highland area is a great mix between the city and the suburb. It's a quiet area, there is lots of green, and the street I live on is a mix of apartments and houses. But, whenever I want, I can also walk to many restaurants, coffee shops, and parks. The price and area were perfect, and it didn't need any work before moving in. I also love that I can walk, bike, or drive to school on any given day.



Birmingham Neighborhoods



WHY UAB?

“Because they not only support interdisciplinary collaboration, but also push for it!” -Graham Cochrane, MS-2

Moving

Joe Ladowski, GS-3

I'm assuming you've made the decision to pursue a career in academic medicine. The reality of this choice is that you will likely change institutions more than once in your career, and many of you have already done so for undergraduate and medical school (or in the case of new applicants, are considering moving to UAB). Others are making the tough decision of which residency program to attend. Moving to a new city can be a trying, but rewarding, experience. An institutional change can be a great thing: it decreases intellectual inbreeding (the same ideas being bounced off the same people in the same way), forces you to adapt to a new culture and community, and can reinvigorate your passion for your field as you now have a new audience to listen to your research elevator pitch. However, moving to an unfamiliar location, sometimes on a leap of faith, can be stressful and isolating as well.

As a bit of context, I was born and raised in Fort Wayne, Indiana and did my undergraduate studies at the University of Chicago. I spent my first four years of medical and graduate school at Indiana University School of Medicine in Indianapolis, Indiana before transferring to UAB to follow my mentor, Dr. Joseph Tector. Every time I've moved it seems to follow the same pattern:

A) the first few weeks, everything you do and everyone you meet is a new and exciting experience, and **B)** this becomes a bit overwhelming to process so many new faces, places, and things all at once, but, **C)** eventually you will finally start to settle into a groove and hit your stride. There's a metaphor for life somewhere in there.

Here are a few tips to help you get from point A to point C as quickly as possible:

1) Make sure it's the right fit (for you and for your family)

This might be obvious, but before even considering a commitment, take the time to research the program you are moving to. Quick Google searches for the strengths, weaknesses, history, and prominent individuals can give you some sense how you'll fit in. If this is a long-term commitment (residency/medical school) take the time to walk around the hospital/school outside of interview times and observe the people - do they seem like happy? Is this a place that can benefit your intellectual/career development and is that relationship reciprocal?



If you are married, it also can't

be overstated enough to make your spouse part of the process: it will make a difficult time even more arduous if your partner isn't all in as well (and doesn't bode well for you if you're making a unilateral decision).

2) Get a feel for the city before you move

Ideally, you won't spend your entire time in school, the lab, or the hospital (though it might feel that way), so ask the people who have lived there what to know and Google everything you can about the city itself. This will serve as your baseline and provide context for when you are actually exploring the city. When I was considering the move to Birmingham I found it most helpful to look through the /r/birmingham subreddit because the Reddit community, like myself, tends to be a group of opinionated individuals with far too much free time (Cunningham's law ftw).

3) Explore the area around your house/apartment/condo after you move

Many of our friends and fondness for our hometowns develop from routine—seeing the same individuals every day at the same spots. As soon as you can, start to explore the surrounding area of wherever you end up. The more shared experiences with the people who live there and favorite spots to shop/exercise/play you find, the more it will start to feel like home. A useful tool to interact with your neighbors is the Nextdoor website—a private social network specific to your neighborhood (think of it as a personal neighborhood Craigslist). The Nextdoor website also has a 'Recommendations' tab for restaurants, stores, handymen, etc which can be very useful as well.

4) Be okay with being a little uncomfortable

Moving to a new spot is tough and I doubt there will ever be a situation where you are dropped in and feel instantly at home. It's important to understand that it's a process, and one that everyone goes through at one time or another. If you're feeling down, try to consider the move as part of the journey, knowing you have not reached your final destination yet. We are all in the fortunate position of pursuing careers that we love, and ultimately being a little uncomfortable in your surroundings can help develop a sense of self-confidence.

SEMSS 2017 + First-Annual Physician Scientist Symposium

Paige Souder, GS-1

This year, UAB had the pleasure of hosting the Southeastern Medical Scientist Symposium (SEMSS) adjunct with the first annual Physician Scientist Symposium (PSS) and ROCKED it. The 7th annual SEMSS hosted by UAB, Emory, and Vanderbilt MSTPs was partnered for the first time with UAB's new Physician Scientist Development Office (PSDO) to include the PSS and attracted a slew of undergraduates, medical students, MD-PhD students, graduate students, and residents/fellows to the shiny new Hill Student Center for the weekend. Things kicked off Saturday afternoon with keynote speaker Dr. Steven Rowe from UAB who delivered an inspiring address to budding and blossoming physician-scientists, alike. MS-1 Emily Hayward was especially impressed by his talk.

"Dr. Rowe was proposing that chronic smoking leads to the same changes as cystic fibrosis. In his novel model of COPD, he found that smoking led to acquired disruptions with CFTR function, and he sees both bronchitis and the issues with mucus clearance that are typical of both smokers and CF patients.

PARAdiGM, continued

research project. In addition to their project, the students participate in a weekly clinical shadowing experience, MCAT preparation, and are assigned MSTP student mentors.

Excited and scared about my first research experience, I packed up my things for the summer and headed to Birmingham, Alabama. I did not even have time to be nervous once I arrived, because within the first week I had already met my student mentor, begun working on my research project, and scheduled my first shadowing appointment. PARAdiGM is great because it gives each student the independence to have their own experiences, while also ensuring there is ample time to interact with and get to know their fellow students in the program. One of the activities I most enjoyed was the opportunity to learn about the other students' work through weekly chalk talks, because it gave me a broader exposure to biomedical research, as PARAdiGM was my first introduction to this field. My undergraduate institution was a small college that did not have many resources for students to participate in research, and PARAdiGM provided me with an opportunity to have that experience. I think it is such an influential program because of the focus it puts on students like myself, who represent minority and underrepresented groups and may not always have opportunities where they are.

Side note: he used ferrets as a model to study this, so he showed some videos where he put ferrets in these huge tubes with smoke and they got addicted to it (so they would get really mad when the smoke was turned off) and then they developed the smoker's cough as well... so that was pretty crazy!"

The day continued with breakout sessions, including a panel of current MSTP students representing multiple universities that fielded questions from a room full of curious undergraduates, and later a panel of MSTP/SOM directors from UAB, Emory, and Vanderbilt to give students an insider's scoop on prepping for, applying to, and choosing an MD-PhD program. There were also breakout sessions targeted to those further along in their training. A particularly stellar session I attended was an interactive session with residents and residency directors that took the form of an informal round-table discussion with top-notch doctors from fields such as Pediatric Critical Care, Internal Medicine, and OB/Gyn. It was an awesome opportunity to ask

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Although PARAdiGM is a fairly new summer program at UAB, it is already achieving its goal of preparing and exposing students to biomedical research and the life of a physician scientist. It can impact the career trajectory of students and help them network and develop as professionals, and also give MSTP students the chance to grow as mentors. It is a learning experience for both the mentor and the mentee that creates relationships that continue to develop in the future.

"PARAdiGM is the reason I decided to do medical research. It's been two years since I was in the program, and the mentoring and support I received during those summers continues to pay off." -Alana Jones, PARAdiGM

"PARAdiGM is the best of all worlds! Not only do you get world class research and clinical experience, but you also meet some pretty amazing people in the process." -Thomas Bailey, PARAdiGM

"I enjoyed getting to know Steven Roberts and helping him navigate his first experience in a lab." -Ryan McMonigle (MS-2)

"I'm grateful for the opportunity to be a mentor. It's given me the opportunity to capitalize on my experiences by translating them into advice for younger students, which allows me practice teaching/mentoring and (hopefully) helps my mentee avoid some pitfalls." -Alice Weaver (MS-3)

Did you Know: Hobbies Edition

Emily Hayward

1. Mark Pepin (GS-2): the Woodworker

The Hobby: Sandy (my wife) and I make wood and metal furniture using rustic designs, inspired mostly by the starting materials.



The Origin: Woodworking is something that runs in my family. My grandfather (whom I never met) worked as a mechanic, but his hands were his employment in more ways than that; he was a violinist and a carpenter, too, and he actually made violins for fun. My father learned from him and started making furniture alongside his primary job as a pastor, using wood that still has the bark on it (called “live-edge” design). Also, my best friend’s dad was a contractor, so I started working construction when I was 11, mostly framing houses and roofing (child labor laws didn’t apply where I grew up, so don’t worry). As a side note, this is when I decided to study hard because I definitely did not want to do that forever, and look at me now!

The Matter: My favorite is repurposing wood from discarded items like pallets, wood spools, and once a wood crate used to ship an ultracentrifuge [may nothing go to waste]. I started using metal piping for the legs, going for that industrial “Steel City” look. I’ve made nightstands, tables of all varieties [pictured], a coffee station, shelving, bed frames, and desks. I’ve done larger construction, too. Every piece I make is unique, even if only by mistakes.

The Motive: I’ve often had people ask, “how do you have time for hobbies or family?” But really, (1) there are other variables to consider (productivity = time x intensity x efficiency), and (2) periodically backing away provides a much-needed perspective. Also, I *think* using my hands (that’s why I make those study charts for med school [#infamous]). Interestingly, my best ideas are often generated while performing basic tasks, whether washing the dishes or building things with wood. I used to solve engineering problems that stumped me while out on a long run, and I pieced together my F30 aims page while framing our roof last summer. Ultimately, science is a big inspiration!

2. Tim Kennell (GS-2): the Entomologist

The Hobby: While there are different aspects, I think the primary core involves three steps. (1) I search for insects to collect and then kill using a non-damaging method, (2) I preserve and catalogue them for both display and, later, (3) identification, which can be done with books or software tools.



The Origin: I think I had always been interested in insects and other similar arthropods since a young age (my mom would probably say shortly after learning to walk), and in college I took an entomology course for enjoyment that gave me the tools to begin formally collecting.

The Matter: Insects can obviously be found almost anywhere, and I have found some very interesting insects in places like the UAB parking deck. However, if I have a day to set aside solely for collecting, I will typically visit a nearby wooded area or a hiking trail that doesn’t mind if I collect. I would have to say I didn’t find the coolest insect I have in my collection, but was instead gifted it by my grandfather. This insect is a large rhinoceros beetle that he found in Venezuela during his time as a missionary in the country. For what I have personally caught, I find the scorpion fly to be the coolest, which is an insect that resembles its name. The process involves killing the insect with acetone and drying them, which is sufficient for most insects with an exoskeleton, then mounting with a pin. I spread butterflies’ wings and soak dragonflies in pure acetone to preserve their color. The most tedious part is recording information about the insect and where it was caught. I have several books that identify most insects down to family level, and I identify dragonflies and damselflies down to species. I use software for beetles. While preservation is relatively easy, long-term storage has one extra step: moth balls.

The Motive: This is a fantastic excuse to get outside (definitely not the only one, but my excuse). However, I think the most enjoyable parts for me are finding and identifying an unusual insect and then showing off my collection to those who are interested and have found out about my rather unusual hobby.

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Letters to a Pre-Scientist

Hayden Pacl

With so much to look forward to and so much left to do, sometimes it is difficult to remember just how far we have come as MD/PhD students. High school and the SAT/ACT are behind us, as are the cumulative tens of thousands of hours we spent throughout college in labs, clubs, volunteer work, and studying for classes and the notorious MCAT. Any part of the path we have already traversed can be covered in pitfalls and problems for aspiring scientists and clinicians, and though our experience may seem limited looking forward, we can serve as unique guides for the students following behind us. One way I try to put this action into practice is with the “Letters to a Pre-Scientist” program.

This program pairs you with a pen pal, currently in middle school, with the aim of putting a face to a scientist and conveying lessons successful scientists have learned along the way to younger children. While I may not know much in the grand scheme of things, I do feel qualified to help give advice to my pen pal—a 7th grade

girl going to school in Chicago. Sound like something you would be interested in? Try signing up for the next school year! Not sure what to write? Below is the last letter I sent to my pen pal.

Dear -----,

I haven't received your letter yet, but I'm sure it will get here soon. I can't wait to read it! In the meantime, I want to share with you a couple of things I have learned since I was your age. They all have to do with success, in some way or another. As you experience success—as I'm sure you will—you might find these things helpful.

I will be the first person to tell you that success means making a lot of mistakes—and that is a GOOD thing. Does this seem a little confusing? This lesson is difficult to learn. It is easier to think of it like this: if you want to succeed at something, you have to practice. You practice so that you make mistakes and learn from them. When you learn from your mistakes, you can keep yourself from making them again—and then you are better than you were before! For example, if you want to succeed in school, you need to practice. Practicing for a class might mean studying or doing homework. The mistakes you make in class, on your homework, or while you study are showing you where you need to get better. On the test, you will find the same sort of questions you missed before, but what you learn from your mistakes will be the key to succeeding.

Below is a list of a few of my mistakes and failures on the way to where I am today (feel free to laugh!):

1. In high school, I got a 17% on a math test—that was my worst grade on a test ever! I took this same subject a total of three times and got the following grades: D, C, and B.
2. In medical school, I failed a histology test—looking at cells with a microscope. This is funny because I have spent the months and months looking at cells with a microscope in my lab!
3. In my first lab, I mixed some chemicals wrong. I used the mixture in experiments for two weeks before I realized that I had made a mistake and couldn't use any of the work I had done.

I also want to tell you that success—for me—is a feeling, not a thing. As time goes on, it becomes more important to feel successful when you are working toward a goal instead of only feeling successful when you accomplish a goal. This is because many goals can take years and years to achieve. If I only feel successful on the day that I become a doctor (my main goal right now), I wouldn't feel successful for another 6 years! Instead, I feel successful every day because I work toward my goal. I spend at least a little time studying every day. If I don't, it's because I need to take a break to keep going. All of this is necessary for me to reach my goal—so I am successful every day!

As you work toward your big goals in life—like being a pediatrician—it is very important to realize that every step you take toward that goal is a success. Sometimes those steps are mistakes or a failure, but these things are necessary to success, too. Thinking like this will help you realize that success is not something you can measure, but something you feel.

Sincerely,
Hayden



WHY UAB?

“Because Dr. Lorenz and our admins are amazing. Medical school is hard, and who is on your side is important.” -Ashleigh Burns-Irwin, MS-1

What Does “Literacy” Mean?

Hayden Pacl

The conversations about health and science are confusing, at best. At worst, they are misleading and dangerous. While we are learning more about our world and ourselves at a record rate, science and healthcare are facing a problem caused by their own success. The information we are gathering and the way we apply it is too difficult to understand for anyone not educated in given topic. Even in conversations between physicians in different fields, gaps in common knowledge become apparent. In other words, even experts have a difficult time understanding each other.

In healthcare, teams of medical experts come together. These teams are composed of pharmacists, therapists, nurses, and physicians of different backgrounds, well over ten members at times.

Each person is responsible for different parts of the patient’s care. If a patient very sick in the intensive care unit (ICU), the ICU physician can make a plan involving different medications and non-pharmacological therapies to get the patient past reliance on a ventilator, nurses and techs can execute this plan, another physician specialized in infectious diseases (ID) can work to clear the patient of an infection, and the pharmacist can look over dosing and drugs to make certain that combination of drugs for the patient is as safe as possible. The ICU physician may not know the best way to fight the infection, and the ID physician may not know the best way to help a patient get off the ventilator, but they rely on each other to help the patient via a mutual trust in the knowledge of their peer.

Researchers have taken a seemingly different approach. In science, healthy skepticism—the need for evidence—is all-important. Every research article showing data from a new experiment begins with an introduction that talks about different studies that explain why the group did that experiment in the first place. For example: “We know from previous research that if you play with fire, you will get burned. Therefore, we wanted to see if fire-twirlers get burned.” A good research paper will not only make the reason for the experiment seem obvious, but also the final conclusion will seem obvious based on experimental data. To continue the example: “Fire-twirlers are more likely to get burned than people who don’t twirl fire. We conclude that if you don’t want to get burned, you

should avoid twirling fire.” The conclusion reached can then be applied to a policy or technology, and as evidence for future research in the same area. The evidence used by scientists, however, is terribly difficult to understand. Even scientists experienced in one area of science are unable to understand the work of scientists in another. To make things even more confusing, not everyone agrees that the same research means the same thing.

In fact, it is fairly uncommon that new findings are accepted by everyone in a particular field. This leads to different theories relying on different interpretations of the same evidence. Usually, as the evidence grows, a single unifying theory emerges. The process, however, can leave those who are tangential to the conversation confused,

and unable to trust the conclusions drawn thereof. Yet with trust and evidence, the uncertainty of the advancing frontiers of science and healthcare can in fact be navigated.

With the body of knowledge growing so fast, it is impossible for any lay person to evaluate new scientific evidence and draw their own conclusions; this should be left to the experts. That leaves the public with the sole option of trusting these experts if we want to reap the benefits of our ever-advancing science and healthcare technologies. This confusing view of the normal scientific debate and its patchy, sensationalistic coverage undermine that trust, and science and health literacy are the keys to building it back. By literacy, I don’t mean specific facts or knowledge, as is typically intended. Instead, I mean familiarity with the process. It is important for the public to be aware of the back-and-forth that comes along with every scientific advance, and how to recognize when there is no longer a contentious scientific debate, and it is in our best interest to trust a conclusion on a topic. It is also important for the public to understand how much evidence is required to end a debate on a question—this process lets us know when to ignore the wild claim of a single study and trust the consensus from the scientific community. In this light, it becomes clear why we should ignore the unverified claims that so regularly jeopardize our health. This is a problem that science and healthcare have accidentally created for themselves—it is also within the hands of scientists and healthcare providers to solve and fix.

“...with trust and evidence, the uncertainty of the advancing frontiers of science and healthcare can in fact be navigated.”

Student Sketch: Travis Hull, MS-4

Paige Souder

Featured in this sketch is MS4, Travis Hull. Travis grew up in Summerhill, Pennsylvania (a small town about an hour and a half from Pittsburg) and stuck around the Keystone State for his undergraduate education at Juliata College, a small liberal arts institution. He always knew he wanted to be a doctor in the medical sense, but went into undergrad not really knowing what a PhD entailed or what being that kind of “doctor” meant. After deciding to do some research to check off a box on his CV, he ended up in the lab of an enthusiastic, young PI working as her lab manager and member and accompanied her to scientific meetings. His newly developed love for science led him to a summer research program at Brigham Women’s Hospital in Boston, where he studied diabetic vasculopathy in his first exposure to academic medicine. Read our interview below to find out more about Travis’s career path thus far and what’s up next for him:

Paige: What made you choose UAB’s MSTP?

Travis: My undergraduate health professions advisor met Robin (program director, Dr. Robin Lorenz) at a meeting and told me about her. I decided to submit an application and ended up getting an interview. The day after my interview I remember calling my dad and saying, if I get in I’ll go here. I loved the interview, the program, Robin, all of it. I had another offer, but decided to defer and come down here.

Paige: When is a time the MSTP or Dr. Lorenz specifically has supported you?

Travis: I had a son in July 2010, during the Neurology module of my MS-2 year. I wasn’t married at the time, so soon after I went to Dr. Lorenz and asked when would be a good time to get married, and she suggested the next summer.

Paige: What was your experience like having a child during medical school?



Travis: My son wasn’t planned, but it was the best thing that ever happened to me, because it taught me how to manage both my personal and professional time. I also had a daughter, Olivia, in the middle of my PhD. That time, it was more laid back, but I grew more as a person with the first kid.

Paige: Can you talk about any challenges you’ve come across having a family during the program?

Travis: I am extremely fulfilled with my personal/home life. At SEMSS, I got advice from Dr. Standaert, who has twins, on work-life balance. He reflected that he may not play legos with his kids as much as other fathers, but when he does, he puts down everything and is the best lego player on earth. You have to make the most of your time. I may have less time to spend with my family, but the time that I do have we make very good use of. We love outdoor activities, like camping and white water rafting. I also coach my son’s baseball team and make it to my daughter’s dance recitals when I can. I’m apprehensive about how that’s going to change as I transition to residency, but everyone told me I wouldn’t have time to do all of that now, and I do.

Paige: That’s a great mindset to take. Switching gears a bit, can you tell us about your PhD training?

Travis: I wanted to do transplant immunobiology, and I found James George, who was the only PI on campus studying this at the time. I fell into his lab because of the research rather than the kind of mentor that he was, which is actually an awful

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WHY UAB?

“Meeting the students and faculty during the interview and experiencing the atmosphere of the program confirmed that this was the right place for me.” -Andrew Schroeder, MS-1

MSTP Hobbies, continued

3. Shreya Kashyap: the Performer

The Hobby: I make videos of myself singing, dancing, and acting. I have a very, very rudimentary YouTube channel.

The Origin: I started making YouTube videos at the end of my high school/beginning of college. I have sang and danced for almost my whole life, though; my mom is a singer by training and I've trained in Indian classical dance for ten years. I'm pretty sure I started watching Bollywood movies before I could walk. In fact, I learned Hindi thanks to the Bollywood film industry.

The Matter: I love when people come up to me and tell me that one of my videos made them laugh. It takes a lot of courage to put yourself out there. I like making medleys of Bollywood and American pop songs, too. I try matching melodies first, before making sure the Hindi or English lyrics match in meaning. Lately though, I've been making pop song parodies about medical school, mostly to make my friends laugh. Med school is hard, and we are all going through our own battles. This series of videos is an attempt at a humorous representation of what we are all going through.

The Motive: When I make a video I can detach myself from the reaction of the viewer. So often I find myself stuck in the mindless cycle of saying or doing something and agonizing over another person's reactions. When I make a video, I control the act of making and expressing myself; it's my form of stress relief. Most of the time I make videos when I'm done studying for the day. Also, I'd really like to be on the Ellen show [word, girl].

4. Paige Souder: the Artist

The Hobby: I like the basics—drawing (charcoal is the deal), painting (mostly acrylics/watercolor), and graphic design (such as was used to make this newsletter).

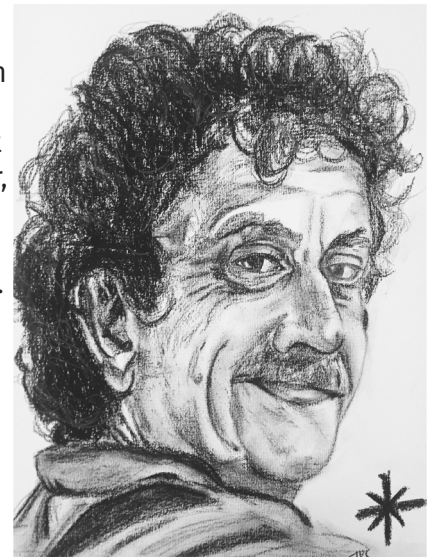
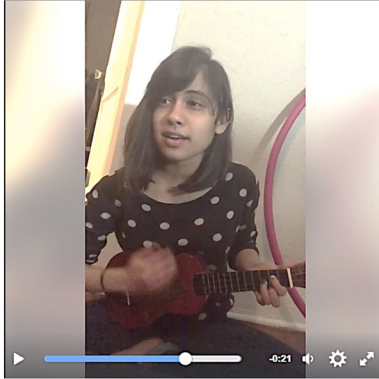
The Origin: I've always been interested in art. My dad is a super talented jack-of-all-trades, so he inspired me growing up to just create things and find new hobbies. I joined art clubs and found other friends who liked drawing/painting in middle and

high school, and kept it up after that. Now it's a great adjunct to the creativity and rigor of science/medicine. Having friends here who are passionate about art (i.e. Kevin, Morgan Zipperly's boyfriend [see "House Hunters" article for reference], has also inspired me to continue and better my art despite the demands of MD-PhD trainee life—worth it.

The Matter: Lately charcoal has been my jam (see Kurt Vonnegut charcoal pictured; if you haven't read his work, do it now). It's quick and low-maintenance compared to painting or sculpting, but produces such a beautiful and detailed product that can really convey an emotion or story. Acrylic painting is similarly appealing because of the quick drying time and plethora of materials available to work with that are (relatively) inexpensive. I'm

mildly obsessed with sports, so athletes/arenas serve as a lot of my subject matter, though musicians are equally as interesting to depict. I recently attended a workshop at UAB titled "Visualizing Biology" that focused on the use of animations, both rudimentary and exquisitely detailed, to tell the story of your work and develop new hypotheses, and was wildly inspired to combine my science and art interests. Science is art, really.

The Motive: Giving my "right brain" a chance to exercise its capability, whether that's through visual arts or music or writing, has been so important to keep me balanced on this crazy journey of training to become an established physician-scientist. I think being balanced—combining hard work in the lab with good clinical knowledge and interpersonal skills, making friends you can have fun with, having a creative outlet where you can just be yourself (painting, music, insect collecting, etc.), and taking care of your body (running is the best form of exercise, hands down)—is essential to being successful, no matter what your field, and especially so for a field as demanding as ours.



SEMSS/PSS, continued

questions to program directors directly about how they chose their field, why they love their job, and what they look for in a residency applicant

Other notable events on Saturday were two poster sessions, highlighting the ongoing research of students at various levels of training and from a diverse array of scientific and clinical fields, and a second keynote with none other than Dr. Robert Satcher—his resume casually includes things like being an MD-PhD at MD Anderson, performing orthopedic surgeries, and being an astronaut (really). His talk included his current cancer research AND videos from space training, alongside other insights into living that space life. The night ended in style with a swanky reception at the Florentine building in downtown Birmingham where the networking was even better than the hors d'oeuvres (and let me tell you, those were hard to beat).

The party continued on Sunday with a talk by Dr. Anna Han from the NIH on the ever-present and ever-important topic of implicit bias and how we can

prevent workplace bias in our future careers. After listening to oral presentations given by students on topics such as cardiovascular health and disease, an additional round of breakout sessions provided students with professional development for dayz. A rather unique session featured a representative from UAB's theater department who led an interactive practice highlighting the art of public speaking. This hands-on session had students open their minds and their mouths to learn how to effectively engage an audience and even untangle themselves from the tried and true human knot. Closing out the conference was an awards ceremony recognizing the undergraduates, MD and MD-PhD students, and residents/fellows who won awards in their respective categories for posters and oral presentations (and cash prizes!).

SEMSS 2016 was definitely a weekend well-spent. Shout-out to the SEMSS leadership and student committees who made this conference a reality, and get ready for next year's event!

WHY UAB?

“The environment is very collegial...it's very easy to collaborate and talk to people, something I'm finding is pretty critical for pursuing good research and that is not always true across institutions.”
-Elizabeth Ma, GS-4

Student Sketch, continued

strategy. But I was so incredibly lucky for how it worked out because he is an absolutely incredible mentor and an incredible person outside of research. I also developed a co-mentor relationship with Anupam Agarwal, who is a well-respected leader in the field and also a phenomenal person. Even though I would not advise doing things the way I did, I got the best mentors I could ask for. Co-mentorship was incredibly important for me because it broadened the horizons of my PhD. Instead of being really focused on one topic, I was able to study immunology and nephrology more broadly, which is especially useful for a physician-scientist.

Paige: Definitely. What is your “elevator pitch”?

Travis: I was interested in how the innate immune system, like macrophages and dendritic

cells, affect the outcome of acute kidney injury and transplantation of the kidney. I studied how trafficking of these cells between the kidney and peripheral organs influenced recovery and graft fibrosis in transplanted kidneys, and found that manipulation of heme-oxygenase 1 affects outcomes. I would advise having a really good interview pitch for interviews; everyone will ask that.

Paige: Sounds like cool science. What are some strategies you used to help navigate the PhD years?

Travis: The most important thing is mentorship. Always be on the lookout to expand your mentorship network. Don't be afraid to approach a speaker at a conference and ask for help if they're doing something you're interested in and use them to get to know people from other institutions and expand

continued on pg 12

Student Sketch, continued

your network nationally, because these connections can be your advocates when applying to residency. Don't rely on your mentor to do this for you, even though a good mentor will. I've made connections by just sending an email to say I'm interested in learning something that a group does, and asking to stop by their lab and watch them do it, or going a step further to ask for help in applying it to my research. Don't be afraid to get turned down, either. If you get one response out of five emails, the one response you get could be the person who makes a call for you during residency applications. Second, try to find your own sources of funding. Third, get involved somewhere outside of UAB professionally, such as APSA. People will expect that your goal is to become an academic leader, and it's important to say you've taken steps outside of the lab to show you're interested in that.

Paige: You've been very influential in the development of APSA, which is now such a great program and offers opportunities to so many students like ourselves. Can you talk about your experience with that?

Travis: I was an institutional representative my MS-1 year, and wanted to be more involved, so helped plan SEMSS my MS-2 year. I noticed that APSA wasn't as involved with SEMSS as it should have been, so I started a local chapter here at UAB, assuming that was a thing (it wasn't). I thought that was ridiculous, so I joined the national committee and, along with Stephanie Robert, drafted an application process and resources for other institutions to start local chapters. We recruited 30 schools and are still recruiting more, so it's been very successful. I went on to become vice chair and now chair of Membership.

Paige: How was balancing the responsibility of this thorough involvement with normal work?

Travis: I look at it as practice. If you look at successful physician-scientists (like Robin and my mentor, Jim), they are a practicing physician and a scientist and do administrative work, both here at UAB and within extramural societies. It's important to start practicing for this kind of career now and integrate extracurriculars into your professional and personal lives. It's not something you should say you don't have time for—make time for it.

Paige: Great advice. What was it like going back to medical school after the PhD?

Travis: Having the PhD is useful, because attendings that have an interest in research will take an interest in you. Realize that this bond exists and take advantage of that to find additional mentors.

You don't want to be continuously talking about research, but when an attending takes the initiative to ask you about your research, have a pitch ready. Common interests can help expand your network.

Paige: What are your clinical interests?

Travis: I always wanted to be a surgeon, and spent four years trying to talk myself out of it. About halfway through my PhD I gave in. I like the technical aspect and the ability to offer patients a definitive treatment. Initially, I wanted to do cardiothoracic surgery, so I shadowed throughout my PhD and really liked it. Going back to medical school, however, my first service on my surgery rotation was hepatobiliary, then I did an AI in liver transplant and realized that what I enjoy most is transplant—the science behind it, the way you think, the technical aspect. I met Dr. Tector, who is doing xenotransplant here at UAB, and he became a role model of mine. After this, I decided that instead of applying to an integrated cardiac surgery residency, I would apply to general surgery and keep all of my options open. My goal is to work at an academic medical center and have my own lab and be engaged in a collaborative atmosphere. I think the easiest way to do this is to find a niche in a surgical specialty so that you can be a good surgeon by doing similar surgeries day-in/day-out as opposed to the gamut of general surgery, and then integrate scientific interests into this field.

Paige: What excites you most about residency?

Travis: To have more responsibility as far as patient care goes. I learn best under stress and pressure, and you're insulated as a medical student because any decision you make filters through so many levels of supervision. As a resident, you can have direct influence on patients. I'm also excited to take the things I've learned over the past 8 years and apply them to my own patients, and interested to see what my path will be.

Paige: Last thing—what was your favorite part of the MSTP program and a few parting words?

Travis: I really liked all of the years of the program for different reasons and can't choose a favorite. The whole lure of the physician-scientist pathway is the strength you gain through all of these different perspectives at each step along the way, and they all integrate into your overall perspective on helping patients through biomedical research. My parting words are, the 8 years go fast. I remember moving stuff into my first apartment in Highland Park and living on my own for the first time and thinking that 2017 is never going to be here—and it goes fast.

See Travis's full interview and previous Sketches of our students on our blog, UnABridged (unabridgedmstp.wordpress.com)

MSTP Gone Social



MSTPs just want to have fun! Ask Nick Eustace (GS-3) or Mark Pepin (GS-2) about upcoming social events, which have thus far included ice-skating at the indoor Pelham Civic Complex (pictured left), a drive-in movie, and rock-climbing at a brand-new climbing gym <20 minutes from campus (pictured right).



Awards

- ♦ **Morgan Locy:** Four-year F30 fellowship awarded from NIH/NHLBI for "Protein o,o'-Dityrosine Cross-linking in Lung Injury and Wound Healing"
- ♦ **Jeremie Lever:** Two-year AHA Predoctoral Fellowship awarded for "Myeloid Expression of Heme Oxygenase-1 in the AKI to CKD Transition"
- ♦ **Will Webb:** Four-year F30 fellowship awarded from NIH/NINDS for "NF-κB Methyl-Lysine Signaling in the Epigenetic Regulation of Memory"
- ♦ **U.S. Citizens:** Continuing to hang in there . . .

Upcoming Events

- ♦ Symposium for Advocates of Women in Science and Medicine, Saturday March 25, UVA
- ♦ March for Science, Saturday April 22
- ♦ APSA National Meeting, April 21-23, Chicago, IL
- ♦ MSTP Retreat, June 23-25, Marriott Grand Hotel and Resort in Fairhope, AL

it's at the beach!!



In the Family

Wedding bells coming soon for:
Muhan Hu (GS-2) and Matt Hess
Brandon Pope (GS-1) and Rachel Jackson
Asher Krell (MS-2) and Dani Kahn

Bun in the oven:
Mark (GS-2) and Sandy Pepin



In Other News...



Sushma Boppana (GS-1) featured by UAB Medicine for her work with the Red Crescent Clinic of AL as a Schweitzer fellow.



GS-3 Shima Dowla acknowledged for her research during the state of the SOM address by Dean Vickers



GS-1 Brandon Pope, GS-2 Tyler McCaw, and Randy Seay representing UAB PARAdiGM at ABRCMS 2016



Article by GS-4 Anna Joy Rogers highlighted in UAB feature on repeat C-sections

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