THE VULCAN LETTER Voice of the UAB MSTP

OCTOBER 2023

Letter from the Editors

Kasey Brida (GS-3) & Aaron Lucander (GS-2)

Our first real letter from the editors. Honestly, a little intimidating because whether Alana knows it or not, she set a high bar. We're hoping that this transitional letter from the editors is giving peak fall foliage rather than brittle, dying tree.

We always like to plan this newsletter introducing the newest class with the MSTP retreat. While retreat doesn't always fall (get it) in autumn, retreat always reminds us of the changing seasons. Fall is a season of reset. Leaves are shed to prepare for new growth in the



Photo from Outdooralabama.com

spring, and school years start anew, providing fresh opportunities for learning and development. And like the leaves on a tree, we as students progress to different phases throughout this program.

And yes, sometimes that phase is crusty brown leaf barely clinging to the branch we started on. But inevitably we sprout anew, unfurling fresh and green.

This special time of year is an opportunity to reflect and be grateful for the people and experiences that have culminated in our present, and to identify how we can best prepare for the coming year and to build our future. Time to celebrate and miss our recently graduated students and welcome our newest members with open arms. Each of us progresses to a new phase of our training experience, while pondering those from prior years.

We hope that you enjoy learning about new colleagues, new publications, and new horizons in this Fall edition of the MSTP newsletter.

Dr. Yacoubian and Dr. Payne reflect on recent legislation

Lamario Williams, MS-3

The recent supreme court decision to end affirmative action has created considerable uncertainty for institutions and programs that value diversity. For applicants that are underrepresented in medicine (URiM), there are concerns that this new federal opinion will lead to decreased diversity in medical school similar to what occurred in the state of California several years ago [Bowman NPR 2023]. To prevent this, institutions and programs must be diligent and intentional in ensuring that the future of the physician scientist workforce represents diverse perspectives that are representative of the United States demographics. I had the opportunity to interview MSTP leadership for them to explain how they will accomplish that.

Why does the MSTP consider it critical that the future of the physician scientist workforce includes diverse backgrounds and perspectives? Talene Yacoubian, M.D., Ph.D., Professor of Neurology and Neurobiology and Director of the UAB Medical Scientist Training Program:

There are several reasons. First of all it's important to bring new perspectives, and new ways of thinking to solve complicated challenges in medicine.

There are certain questions you might not be asking in science and medicine because from one perspective, you may not even know it's a problem. So you really want to have your physician scientist pool to represent society as a whole. One example of a challenge in medicine and science is medication adherence. Based on lived experiences, not all physicians initially think about issues of potential disadvantages in regards to transportation, financial, or literacy barriers to filling prescrip-

Get to know the MS-1s!

Brittany Curtiss, MS-2

Andee Beierle (she/her)

Undergrad: Iowa State University Chemical Engineering)

Hometown: Bismarck, ND

What led you to MD-PhD: My journey at UAB started in 2013 as an undergrad and has led me to the MD/PhD route

here a decade later. As an advanced transfer, my project is focused on using a three-dimensional bioprinter to create pediatric glioma models.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? A cow-bison hybrid is called a beefalo.

Skye Opsteen (she/her)

Undergrad: UAB (Biology; BS) & (Multidisciplinary Biomedical Science; MS)

Hometown: Muscle Shoals, AL

What led you to MD-PhD: I work in Dr. Nathan Erdmann's lab studying the impact of chronic HIV infection on the immunologic basis of long COVID and how

this underlying immunology may influence the predominant clinical manifestations of long COVID. Soon after starting my CCTS TL1 training year and working toward my masters degree, I realized one year wasn't enough for me to develop into the physician scientist I hope to be, which led to me applying as an advance transfer to the MSTP.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? I'd give them a link to this video that has helped me through a lot of hard times: https://youtu.be/j5a0jTc9S10

Alyssa Flint (she/her)

Undergrad: Purdue (Health & Disease) *Hometown*: Indianapolis, IN

What led you to MD-PhD: I've always been passionate about helping children. I hope by pursuing an MD/PhD I am able to improve quality of life for children with cancer in the short term, by providing excellent clinical care, and in the long

term, by advancing treatment options through my research.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? I'd pass down ChatGPT. I feel like you could conquer anything if you had ChatGPT.

Alex Kahn (he/his)

Undergrad: University of Florida (Biomedical Engineering; BS/MS)

edical Engineering, 65/M5) Hometown: Parkland, FL

What led you to MD-PhD: I have always been fascinated by the brain because it is one of the final frontiers in science and medicine. I am motivated by how physician scientists can intimately inter-

act with both patients and research as well as help to continue to improve the standard of care.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? "It's nice to be important, but it's important to be nice."

Abdulraheem "Abdul" Kaimari (he/his)

Undergrad: Mercer University (Neuroscience)

Hometown: Atlanta, GA

What led you to MD-PhD: Hello friends! I am currently interested in neuro-related research, especially research relat-

ed to drug discovery for neurodegenerative diseases. During my undergraduate years, I was heavily involved in a drug discovery lab related to diminishing bacterial communication and biofilm production. My love for medical volunteerism and research solidified my passion to become a physician-scientist.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? If at first you don't succeed, then skydiving definitely is not for you- Almost had to learn it the hard way.

Yassin Mreyoud (he/his)

Undergrad: Saint Louis University, (Biology/Bioinformatics; BS/MS)

Hometown: Saint Louis, MO

What led you to MD-PhD: My original goal was to pursue straight MD, until I had the opportunity to do bioinformatics research in the BS/MS program at

SLU which then changed everything. I became very interested in the application of bioinformatics to science and medicine, and joined a lab that studied host pathogen interactions of mycobacterium tuberculosis before deciding to pursue a career as a physician scientist through the MD/PhD route!

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? "It is what it is." Because it simply is what it is.

Get to know the MS-1s! cont.

Becky Lin (she/her)

Undergrad: University of Pittsburghb Chemistry)

Hometown: Pittsburgh, PA

What led you to MD-PhD: I was initially interested in drug discovery when I entered college. I didn't began thinking about a career as a physician until I was a second year in undergrad, working in a

lab that studies rare neurodegenerative diseases. I was given the opportunity to meet a young girl who suffered from the disease and her family. The lab had previously shown that a certain diet could help manage the symptoms others with the disease commonly experience. This interaction, among others, were pivotal for me as I came to the realization of the correlation between the results of research and its influence on patients. I am currently interested in immunology research and developing therapeutics for future patients.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? I would give them a two-way radio (walkie-talkie) because being able to communicate with each other over a longer distance is very powerful: information is power.

Frank Xu (he/his)

Undergrad: Carnegie Mellon Universi-

ty (Chemistry)

Hometown: Brookline, MA

What led you to MD-PhD: I like research, science, and helping people. I like cells.

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Uh oh, the world has ended... You can pass down one sentence of information,

advice, or an object to whatever creatures take over. What would it be? And why? $\stackrel{\text{\tiny d}}{\mathrel{\leftarrow}}$

Andrew "Drew" DePass (he/his)

Undergrad: Quinnipiac University (Computer Science, Biology; Math minor)

Hometown: Freehold, NJ

What led you to MD-PhD: I'm interested in Artificial Intelligence applications to translational research. I am open to any disease area and hope to mix my

computer science background with the wet lab.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? Sentence to pass down: "It wasn't me." - Shaggy, Why: Because I didn't do it.



What led you to MD-PhD: Going into college, I knew that I was interested in medicine, but hadn't had any previous exposure to research. It wasn't until my senior year in college, when I was com-

pleting independent research on the topic of the early detection of age-related macular degeneration that I realized my passion for research. After working in an immuno-oncology lab at Dana-Farber Cancer Institute in Boston following my graduation, I came to realize that I couldn't give up on either clinical medicine or research, and that my passion lies in serving as a bridge between the two.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? I would leave them the Voyager's Golden Record, just so that NASA's efforts to communicate with extraterrestrials can finally be put to use.

Jisue Kang (she/her)

Undergrad: Washington University in St. Louis (Biology)

Hometown: Fair Lawn, NJ

What led you to MD-PhD: I'm really fascinated by the relationship between our diet/food, gut microbiome, and epithelium!

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? Life is short so make the most of it!

Faris Zaibaq (he/his)

Undergrad: Texas A&M University (Biomedical Sciences)

Hometown: Sugar Land, TX

What led you to MD-PhD: I was born in

Palestine, raised in Houston, and attended Texas A&M for undergrad. I did organic chemistry research there and later shifted towards biochem. This led me to my NIH postbac, where I studied cancer metabolism and worked with brain tumor patients.

Uh oh, the world has ended... You can pass down one sentence of information, advice, or an object to whatever creatures take over. What would it be? And why? Best advice I could give: It's not that deep bro, just be chill and vibe.

Dr. Yacoubian and Dr. Payne reflect on recent legislation cont.

tions. When I was in training for my fellowship, one of the attendings I was working with gave this patient a medication to treat their condition and wrote out how to take it and just left the room. Then as the patient was walking out a family member whispered to me, "He can't read, he's not going to know what to do." It was something none of us thought about. It wasn't a super complicated drug regimen but we had to go over everything verbally with him on how to take it. I just remember that being eye opening like I'd never thought about that.

For the same challenge of medication adherence, it's important for the science perspective to represent diverse perspectives. Diverse perspectives can drive the motivation and enhance creativity to solve this difficult challenge. A specific example is the HIV prevention medication Pre-Exposure Prophylaxis (PrEP). This medication now has options where patients do not have to take it every day in order to facilitate drug efficacy over longer periods of time. The ability to have a drug that can do that requires scientific discovery and rigor. A lack of diversity creates a barrier to recognizing challenges like this and puts a limitation on creativity to solve the problem.

It's important to keep a diverse pool of future physician scientists, so you have examples for the younger generation, where they can see themselves in a person who is a successful physician scientist. If you don't make a conscientious effort to keep a diverse pool of trainees that ultimately become practicing physician scientists, then that pipeline to continue to replace them will ultimately dry up.

Gregory Payne, M.D., Ph.D., Associate Professor of Medicine in the Division of Cardiovascular Disease and Assistant Director of the UAB Medical Scientist Training Program:

Inherently, both science and medicine are benefited by diverse perspectives. If you have someone with a shared background, and both are minority or marginalized groups, there may be some shared understanding that groups are missing that are really critical to the management of the patient. It's the same way in science. People have experiences, ways of approaching problems and questions that may be culturally based that really just enhance the group dynamic of trying to answer difficult questions. The AAMC quotes that more diverse groups are more effective in answering challenging questions. The way you limit your blind spots is by empowering a diverse group of folks to be involved and have a seat at the table.

It's also important to consider equity. If you're trying

to be representative of the groups you're trying to take care of, you have to actually represent the groups. When community individuals know who is doing the work it can help them feel comfortable with participating.

Diversity can help with the creativity side of science as well. If you're stuck in an echo chamber and we think about these problems the exact same way, then you're never going to really have an out of the box thought. If everybody feels empowered to speak up, even if their idea is good, bad, or otherwise, then I think you're giving yourself more creativity and just better ideas that can be fleshed out to identify the best option for moving forward. Sometimes the commonsense answer is not always apparent to one group or another for whatever reason.

How will the MSTP ensure that applicants receiving interviews and admission offers represent diverse backgrounds and perspectives?

Dr. Yacoubian: So far, we have not been greatly impacted by this because ultimately, we always had a holistic approach to application review. We're looking for somebody who's committed to a career as a physician. Do they have the scientific experience to make sure that they want to do this? And then what can they bring that is unique to our program which might be from lots of different ways. It's not just if you represent one subgroup or anything. We're looking for motivated, hardworking individuals who have had broad experiences where they know they want to do science and be a physician and seem committed to this type of career.

There are factors that are still on the med school application to make sure we're considering people who might be from a disadvantaged background. There are specific questions to about whether they are first generation and socioeconomic status indicators. The medical school has specific questions like: "What kind of diversity do you bring to the institution?" "How do you work with diverse groups?" "UAB is a very diverse place. How do you handle your interactions with people who might have different values or backgrounds from you?" A lot of students use their personal statement to explain how their background informed their desire to become a physician scientist. At the end of the application there is a completely optional question "what else do you want us to know?" where students have the opportunity to provide more specific details about their background. The Supreme Court has not ruled out these other aspects that let us determine students that have had a broad range of experiences.

Dr. Payne: We're in transition with figuring this out, to

Dr. Yacoubian and Dr. Payne reflect on recent legislation cont.

say the least. But I think we're frustrated because it was an absolute misnomer that race, ethnicity, or anything was giving people a leg up into these programs. We just thought it was important to have a representative group of students. To ensure this we are looking for all the soft indicators of diverse backgrounds. Right now, the onus is on the applicant to disclose that type of information. Some people's background really informs where they are today. We are still avidly looking for that.

What type of support and/or protection has the NIH offered for MSTPs that desire to prioritize diverse applicants receive interview invites and admission offers?

Dr. Yacoubian: The NIH has not done anything in particular that I am aware of. For a long time now, part of the application process for the T32 grant that supports MSTPs is to explain what you're doing to recruit diverse applicants. At the MD-PhD Annual Meeting this year, there were leadership from different institutions saying that some of MSTPs are in states at public institutions where certain words regarding diversity cannot be used. This could put those institutions at a disadvantage for receiving funding. So the NIH has now heard these concerns and hopefully they consider them moving forward.

How could the NIH better support MSTPs that wish to ensure diverse applicants are interviewed and extended offers for admission?

Dr. Yacoubian: In general, there are already cases about diversity and inclusion programs that will end up before the Supreme Court which will eventually impact the nation, and perhaps impact the legality of NIH being allowed to have diversity-related funding opportunities. I'm not implying this is a good thing at all. For now, the NIH could help to recognize that there are certain MSTPs in states that are trying to prohibit certain language around diversity. These institutions should still push for diversity and inclusion in their programs. So, the NIH can help by being aware of this and maybe offering alternative diction for discussing these topics in applications so that institutions can avoid legal action from their respective states.

What recommendations has UAB Legal instructed for admissions committees at UAB? for MSTPs that desire to prioritize diverse applicants receive interview invites and admission offers?

Dr. Payne: What I've heard is somewhat secondhand, but I think it's been generally conservative. There is a concern of not knowing exactly how to proceed so therefore people are not proceeding. Some things have stalled until they get some more clarity. Legal is just

It's challenging because as an institution, one of our missions is diversity so I think it's important we continue to advocate for that. I think it's important at a minimum that you let everybody know how diversity can improve health, both at a research level and clinical level. I would encourage Legal to find where the wiggle room is so that we can reach our stated mission without getting in trouble.

In an effort to keep up with the evolving times, we have rebranded our diversity, equity, and inclusion committee to be named the justice, equity, diversity and Inclusion Council, or the JEDI Council. During interview days we will continue to have dedicated time for addressing these issues.

What efforts will the MSTP continue to put into diversity recruitment?

Dr. Yacoubian: We still need to be proactive. For the past few interview cycles, the diversity committee (now called called the JEDI council) does a breakout session during interviews to help all applicants understand that even though we're in Alabama, Birmingham is a very diverse and welcoming city. We continue to educate prospective applicants on how Birmingham is a nice place to live. We continue to recruit at national conferences like ABRCMS and SACNAS. UAB has been ranked in the top 5 in diverese campuses among all universities. We hope to continue that trend in our MSTP as it is a major strength of our program.

Dr. Payne: As stated before, our diversity committee has been rebranded to the JEDI Council. The JEDI Council has already started several community-based initiatives that address healthcare disparities and expose young minds to healthcare and science. We have plans to create what is basically a health equity certificate that students can earn while they are in graduate school. It will consist of health equity rounds once a semester, bias training, and some type of a community-based project. The idea is that students can come here in a location of the country where health disparities are strikingly evident and learn about how to address these problems with a tangible outcome.

MSTP JEDI COUNCIL



A MESSAGE FROM THE COUNCIL

As we gear up for our retreat and march forward into the fall semester, the MSTP Justice, Equity, Diversity, and Inclusion (JEDI) Council, formerly known as the MSTP D&I Committee/Taskforce, is delighted to reintroduce ourselves!!In the following sections, you'll find captivating videos and thought-provoking readings, as well as information about our upcoming events. We encourage everyone to continue sharing your ideas and joining us, as together, we can create engaging and enriching experiences for our entire MSTP community.

THE MORE YOU KNOW



PEOPLE SKILLS = BETTER SCIENTISTS (& SCIENCE!)

In the article titled "To prepare science students for a range of careers, I teach them people skills," Dr. Tomasz Glowacki discusses the importance of equipping science students with interpersonal skills for future success. We are sharing this article to underscore our MSTP's commitment to cultivating well-rounded physician-scientists who can positively impact the medical field and our collective future.

"HOW DO WE HEAL MEDICINE?"

Dr. Gawande's TED Talk emphasizes holistic healthcare, stressing improved communication, collaboration, and trust in patient-doctor relationships. It serves as a reminder of our MSTP's mission to advance this proactive approach in medicine. Let's continuously evaluate our practices for better outcomes and patient satisfaction in our ever-changing healthcare environment.



MAKE IT A HABIT

WEDNESDAYS @ 6:30AM

MORNING YOGA

JOIN THE JEDI COUNCIL AND THE MENTAL
HEALTH/WELLNESS COMMITTEE AT THE UAB REC TO ENJOY
EARLY MORNING YOGA! KICKSTART YOUR DAY WITH A RELAXED
AND POSITIVE MINDSET.

DAILY PRACTICE

GROUNDING

PICK ONE OF YOUR FIVE SENSES TO INTENTIONALLY FOCUS ON FOR 1–5 MINUTES. TRY SITTING OUTSIDE, CLOSING YOUR EYES, AND NAMING AS MANY SMELLS AS YOU CAN. SIT IN YOUR LIVING ROOM AND IDENTIFY ALL THE THINGS YOU HEAR. PAY ATTENTION TO ONLY THAT SENSE AND PRACTICE GRATITUDE FOR ITS INCREDIBLE ABILITY TO PROVIDE YOU WITH INFORMATION.

Wellness Corner

UPCOMING EVENTS



LOCAL ESCAPE

BRUSHY LAKE RECREATION AREA

BANKHEAD NATIONAL FOREST

BEAUTIFUL ROCK FORMATIONS, A TRANQUIL LAKE, AND COPIOUS AMOUNTS OF MUSHROOMS TO FIND. IT IS AN HOUR AWAY FROM BIRMINGHAM, SO YOU COULD VISIT FOR THE DAY OR STAY OVERNIGHT IN THE CAMPGROUND. JUST DON'T FORGET YOUR BUG SPRAY!



Photo from theDyrt.com

A Day in the Life of MS-3 Alana Jones

Shreya Keshyap, MS-3

We are about 4 days away from our second shelf exam and truly there is no way to fully describe the combination of dread and exhaustion that accompanies each one of these. During weeks like this it's easy to forget how rewarding this experience has been thus far. I'd be lying if I said this transition wasn't chaotic, but I am so thankful for the incredible class I've gone back with. We are the largest MS3 class in UAB MSTP history, and I am so excited to chronicle our experiences throughout this year. There is incredible diversity both within clerkships, and within student experiences of each clerkship. Today I'm excited to chat with Dr. Alana Jones, who recently defended her PhD in Epidemiology in the UAB School of Public Health. Alana is currently finishing up her Internal Medicine clerkship and was kind enough to give us a little snippet of her day. I love her positivity-her love for medicine is infectious. So, without further ado, I hope you enjoy Alana's thoughts about IM as much as I did:

When do you start your day? How do you start your day?

It takes me a while to defrost in the mornings. So even though I could realistically wake up and be in the hospital in under 30 minutes, I need at least 90 before I can start socializing with other humans. For me that looks like:

- First alarm at 4:45.
- Snooze until 5.
- Lie there for 5 minutes contemplating why I chose this life (just kidding, sorta).
- Do my Latin and English Wordles.
- · Finally get out of the bed, stretch, make

- my breakfast, get dressed, etc.
- Leave home around 6 (or 5 if I'm postcall).
- Blast my curated playlist of 90s gospel music from the parking deck to the hospital.



In the weeks leading up to my first clerkship, I had a TON of anxiety about being back in med school, which I didn't particularly enjoy on the first go-round. So my best friend has made a ritual of texting me a joke or encouragement, usually around the time I'm walking inside the hospital. Essentially, I make every effort to be as zen as possible because the Tinsley days are never predictable and at times, a little chaotic.

What is something on the service that you're on that you look forward to every morning?

My favorite part of the morning is pre-rounding. At that point, I've reviewed any new data and started to flesh out a plan for my patient. Sometimes I'll skim UpToDate for something I'm curious about as it pertains to my patient(s). And when I'm finished, I'll go to the patient room and check on them. It's the moments when I'm thinking about what questions to ask the patient or nurse or what physical exam I want to perform that morning when I feel like, "Hey, I can actually do this."

continued on pg 8



Money ain't a thang



Sam Gary (GS-4)

NINDs Supplement to Promote

Diversity in Research



Skye Opsteen (GS-1)

UAB Immunology T32

A Day in the Life of MS-3 Alana Jones cont.

- 6:30-7:15ish: Chart review. I try take up to 20-30 minutes per patient because I'm still learning the HER system, but if they're a new admit I may come in earlier so I can spend more time on them. I also use the Scut Sheets on the Med-Fools website (thanks, Dr. Payne!), for trending labs, keeping up w/ pending imaging or special tests, and writing out my plans. I also may check UpToDate to help inform my plan.
- 7:15-7:30ish: Pre-Round/Check on my patient(s). I try to wait long enough for the patients to wake up but also give myself at least 5-10 minutes per patient.
- 7:45-7:55 Run the List (RTL): The senior resident will go over plans for each patient that morning and make suggestions and modifications.
- Morning Report 8-9. A resident and/or faculty member will discuss a case, and it's very interactive. Even though MR is technically for the residents and interns, medical students are highly encouraged to participate in the discussion too.
- Rounds 9-until you finish. This is where you give the SOAP presentation each day and the attending gives feedback on the plan. This is also a time to "shine" if you've read up on a topic or have a question about the rationale behind a certain medication or test. I also print a cover sheet of the entire patient list so I can follow along. That way, if the intern or AI is off the next day and I temporarily pick up their patient, I'm at least somewhat familiar with their hospital course.
- Post-Rounds (11-11:30ish if you have a full list). You'll come back to the team room, RTL again, and modify plans based on the discussion during rounds. The priority for interns is to put in orders, get any updates from subspecialty consults, etc. If you're done very early, the attending may do some teaching as well.

What do you do at noon? (noon conference/lunch? Lectures/sim lab?)

This depends. On a non-call or non-post-call day, we attend noon conference, where lunch is provided. If we're post-call or on short call (admitting patients 7 am – noon in addition to rounding on current patients), we're probably just trying to catch up. If we're on long call (admitting patients noon – 6 pm after rounds end), we'll grab food, come back, and get to work.

What do you do after lunch?

After noon conference, we have various didactics and simulations that we attend 1-2ish. Unless you're on long call, you're typically finishing up notes, calling family, or observing any procedures (e.g., paracentesis, POCUS). The senior residents may do some teaching; sometimes the attending will return for teaching and/or to listen to a chalk talk they've assigned the med student(s).

Something that inspires you:

Easy, my residents. During my Tinsley month, we had a full list pretty much the entire time. Quite a few were medically complex, but many of our discharge barriers were social: unhoused patients; people who were essentially discarded by their families and had become wards of the state; substance use while in the hospital; a COVID outbreak that affected every team on our service. It's a lot. And if I'm there for 60+ hours/week, that means the residents are there for 70-80. One of my interns has family living in Sudan, and there's a major conflict happening right now. My senior had barely seen his wife in 3 weeks because she's also a resident and their schedules were flipped day/night. Yet these people show up to a broken system every day, sleep-deprived and underpaid, to improve a stranger's life. And then are eager to teach and help me after all that. We should never have to sacrifice so much for this life, but they're an inspiration.

Something that keeps you going even after a really tough day:

My community. They may not "get it", but my village knows that I am not in a position to reciprocate right now. My best friend has my location, so when she sees I'm not at the hospital, she'll Facetime regularly so my goddaughter doesn't forget my face. A relatively new friend literally scheduled her housewarming/monthly game night around my off days. My family will send me handwritten notes or gift cards for food at random. There are people who keep me up to date on the latest NBA trade shenanigans or R&B album releases. And my silly friends always have something in my DMs that will make me laugh. And it goes without saying that I could not make it without the MSTeaP Divas.

A Day in the Life of MS-3 Alana Jones cont.

Challenges of returning to MS3 after PhD?

For sure, the deficits in my fund of knowledge compared to a "regular" MS3 who has just completed Step 1. On my first rotation I was a little slower to participate in the discussions. The attending is talking about a differential diagnosis and I'm just trying to remember what is the difference between Lambert-Eaton and myasthenia gravis. However, to some, that came across as being unengaged. Contrast that with my current clerkship, it appears that the key to being a "good MS3" is to 1) be a professional and 2) be curious. Show up on time, own your patient, do some background reading, ask questions, and be helpful to the team. And the "pimping" literally doesn't phase me because grad school broke any fear I had of "looking stupid". There's nothing an attending can ask me that can strike as much fear in me as having to explain the minutiae of a polygenic risk score to a room full of people who understands epidemiology, biostatistics, genetics, and computer science. Wards are light work in comparison.

Advice to students in their final years of GS life: I don't care what you have to do, take the FULL MONTH between the dissertation defense and the clerkship. And plan it out early. On July 29, 2022, at 1 am, after completing my first listen of the Renaissance album, I said to myself, "There is no way I'm missing Beyoncé's tour next summer." So I looked up the clerkship schedule, cross-checked the dissertation deadlines on the Graduate School website, and gave my committee a 30-day range of dates for my defense 8 months early. And then I gave them monthly updates on my progress and did everything they asked me to do. My defense was on June 23 and I started Neurology on July 24. In the time between, I visited my family, went on vacation, met my goddaughter, and yes, I experienced the Renaissance World Tour live. I'm so glad I filled up my "fun tank" before I started MS-3 year.

Idk about you, but I loved reading this so much. Keep an eye on this space for another inspiring MS3 Day in the Life next month featuring Dr. Nick Boyle!

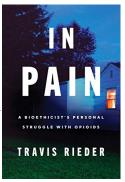


MSTP Book Club



Travis Rieder, PhD, shares a haunting tale of his personal experience with opioids following a traumatic motorcycle collision. He endured multiple reconstructive surgeries and years of navigating pain management. As a Professor of Bioethics at Johns Hopkins, Dr. Rieder provides unique insight into the opioid epidemic with his firsthand experience and the ethical obligations of healthcare providers. Following his traumatic injuries, Dr. Rieder was prescribed a range of opioids through his surgeries and recovery process. He describes his journey to dependence on opioids and how he overcame with the help of his community. I was shocked to learn of the battle he went through to free himself from addiction. This is a man who has resources, a supportive family, and a background in higher education, not to mention his desire to stop taking opioids. Without those factors, the difficulty (which is an understatement) of overcoming opioid addiction increases exponentially. As healthcare providers, we need to work together to take responsibility for the role we play in opioid use. Dr. Rieder contacted many

physicians about safely stopping the opioid use, but many did not know how to properly taper him off or who to send him to. Several of the physicians told him to just keep taking the pills. I am grateful for the advances in withdrawal medication and ways to reverse an overdose. These resources are only part of the story of our role



as physicians. As we seek to provide the best care for our patients, it is important to take a wholistic approach including, when appropriate, making a long-term plan to taper off addictive medications. In Pain provides valuable insight from an ethicist and a patient giving us perspective on how we can contribute to improving healthcare for those we care for – no matter what specialty we end up in.

Brittany Curtiss, MS-2

Student Awards



Sam Gary (GS-4)

3rd Place Oral Presentation
CDIB Retreat



Kasey Brida (GS-3)

1st Place Oral Presentation
CNC Retreat

Student Publications

IL-2-induced Stat3 Signaling is Critical for Effector Treg Cell Programming.

Dean EC, **Ditoro DF**, Pham D, Gao M, Zindl CL, **Frey B**, Harbour SN, **Figge DA**, Miller AT, Glassman CR, Garcia KC, Hatton RD, Weaver CT.

bioRxiv. 2023 Sep 28:2023.09.26.559434. doi: 10.1101/2023.09.26.559434. Preprint.

PMID: 37808649 Free PMC article.

Novel Roles for the Transcriptional Repressor E4BP4 in Both Cardiac Physiology and Pathophysiology.

Mia S, Sonkar R, **Williams L**, Latimer MN, Rawnsley DR, Rana S, He J, Dierickx P, Kim T, Xie M, Habegger KM, Kubo M, Zhou L, Thomsen MB, Prabhu SD, Frank SJ, Brookes PS, Lazar MA, Diwan A, Young ME.

JACC Basic Transl Sci. 2023 Jun 14;8(9):1141-1156. doi: 10.1016/j.jacbts.2023.03.016. eCollection 2023 Sep.

PMID: 37791313 Free PMC article.

Metabolite profiles and DNA methylation in metabolic syndrome: a two-sample, bidirectional Mendelian randomization.

Jones AC, Ament Z, Patki A, Chaudhary NS, Srinivasasainagendra V, Kijpaisalratana N, Absher DM, Tiwari HK, Arnett DK, Kimberly WT, Irvin MR.

Front Genet. 2023 Sep 15;14:1184661. doi: 10.3389/fgene.2023.1184661. eCollection 2023.

PMID: 37779905 Free PMC article.

Sustained Increases in Cardiomyocyte Protein O-Linked Beta-N-Acetylglucosamine Levels Lead to Cardiac Hypertrophy and Reduced Mitochondrial Function Without Systolic Contractile Impairment.

Ha CM, Bakshi S, Brahma MK, Potter LA, **Chang SF**, Sun Z, Benavides GA, He L, Umbarkar P, Zou L, Curfman S, Sunny S, Paterson AJ, Rajasekaran NS, Barnes JW, Zhang J, Lal H, Xie M, Darley-Usmar VM, Chatham JC, Wende AR. J Am Heart Assoc. 2023 Sep 26:e029898. doi: 10.1161/JAHA.123.029898. Online ahead of print.

PMID: 37750556

Evidence of neuroinflammation in fibromyalgia syndrome: a [18 F]DPA-714 positron emission tomography study. Mueller C, Fang YD, Jones C, McConathy JE, **Raman** F, Lapi SE, Younger JW.

Pain. 2023 Oct 1;164(10):2285-2295. doi: 10.1097/j. pain.000000000002927. Epub 2023 Jun 15.

PMID: 37326674 Free PMC article.

Transcriptional subtypes of glottic cancer characterized by differential activation of canonical oncogenic programming. Panuganti BA, **Carico C**, Jeyarajan H, Flagg M, Tamayo P. Head Neck. 2023 Sep 8. doi: 10.1002/hed.27514. Online ahead of print.

PMID: 37682073

Communications Commitee

Jana Badrani Kasey Brida **Brittany Curtiss** Zoe Fokakis Morgan Greene Jenny Hsin Alana Jones

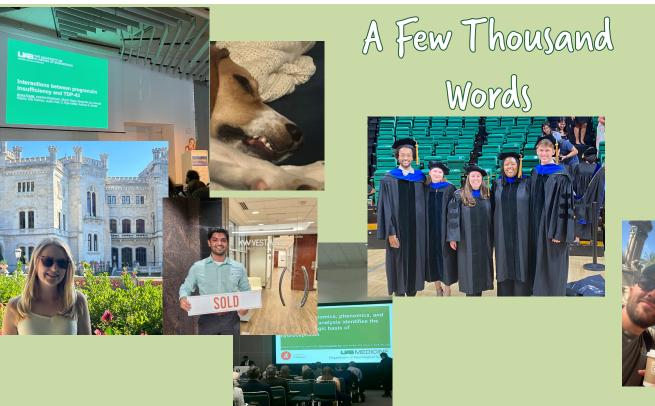
Aaron Lucander Shreya Kashyap Hayden Pacl Taylor Person **Rob Rosencrans**

Kate Smith

Lamario Williams

Check out our our blog, UnABridged, at unabridgedmstp.wordpress.com.

Want to contribute to the next newsletter or join Communications? Email Aaron (lucander@uab. edu) or Kasey (kbrida@uab.edu) to get involved!





Student Publications, cont.

NAD(H) homeostasis underlies host protection mediated by glycolytic myeloid cells in tuberculosis.

Pacl HT, Chinta KC, Reddy VP, Nadeem S, Sevalkar RR, Nargan K, Lumamba K, Naidoo T, Glasgow JN, Agarwal A, Steyn AJC.

Nat Commun. 2023 Sep 6;14(1):5472. doi: 10.1038/s41467-023-40545-x.

PMID: 37673914 Free PMC article.

Community-Acquired Bacterial Co-infections and COVID-19.

Patton MJ, Gaggar A, Might M, Erdmann N, Orihuela CJ, Harrod KS.

Physiol Rev. 2023 Aug 17. doi: 10.1152/physrev.00010.2023. Online ahead of print.

PMID: 37589392 Review. No abstract available.

Metabolic adaptation to tyrosine kinase inhibition in leukemia stem cells.

Qiu S, Sheth V, Yan C, Liu J, Chacko BK, Li H, Crossman DK, **Fortmann SD**, Aryal S, Rennhack A, Grant MB, Welner RS, Paterson AJ, Wende AR, Darley-Usmar VM, Lu R, Locasale JW, Bhatia R.

Blood. 2023 Aug 10;142(6):574-588. doi: 10.1182/blood.2022018196.

PMID: 37192295

Circulating SARS-CoV-2+ megakaryocytes are associated with severe viral infection in COVID-19.

Fortmann SD, Patton MJ, Frey BF, Tipper JL, Reddy SB, Vieira CP, Hanumanthu VS, Sterrett S, Floyd JL, Prasad R, Zucker JD, Crouse AB, Huls F, Chkheidze R, Li P, Erdmann NB, Harrod KS, Gaggar A, Goepfert PA, Grant MB, Might M

Blood Adv. 2023 Aug 8;7(15):4200-4214. doi: 10.1182/bloodadvances.2022009022.

PMID: 36920790 Free PMC article.

Acetylglutamine Differentially Associated with First-Time Versus Recurrent Stroke.

Kijpaisalratana N, Ament Z, Patki A, Bhave VM, **Jones AC**, Garcia Guarniz AL, Couch CA, Cushman M, Long DL, Irvin MR, Kimberly WT.

Transl Stroke Res. 2023 Aug 2. doi: 10.1007/s12975-023-01181-1. Online ahead of print.

PMID: 37531033

Reviewing PTBP1 Domain Modularity in the Pre-Genomic Era: A Foundation to Guide the Next Generation of Exploring PTBP1 Structure-Function Relationships.

Carico C, Placzek WJ.

Int J Mol Sci. 2023 Jul 7;24(13):11218. doi: 10.3390/ijms241311218.

PMID: 37446395 Free PMC article. Review.

Faulty Metabolism: A Potential Instigator of an Aggressive Phenotype in Cdk5-dependent Medullary Thyroid Carcinoma.

Gupta P, **Herring B**, Kumar N, Telange R, Garcia-Buntley SS, Caceres TW, Colantonio S, Williams F, Kurup P, Carter AM, Lin D, Chen H, Rose B, Jaskula-Sztul R, Mukhtar S, Reddy S, Bibb JA.

bioRxiv. 2023 Jun 14:2023.06.13.544755. doi: 10.1101/2023.06.13.544755. Preprint.

PMID: 37398342 Free PMC article.

Distinct subpopulations of D1 medium spiny neurons exhibit unique transcriptional responsiveness to cocaine. Phillips RA 3rd, Tuscher JJ, **Fitzgerald ND**, Wan E, **Zipperly ME**, **Duke CG**, Ianov L, Day JJ.

Mol Cell Neurosci. 2023 Jun;125:103849. doi: 10.1016/j. mcn.2023.103849. Epub 2023 Mar 24.

PMID: 36965548