

THE VULCAN LETTER

Voice of the UAB MSTP

WINTER 2023

Letter from the Editor

Alana Jones, GS-4

Every time I sit at my desk to type this “Letter from the Editor”, the first thought after “Wait, what am I gonna say?” is “Wow, they’ve done it again.” You see, I don’t write this section until I’ve put together the entire newsletter, in part because I like to capture bits and pieces of what everyone has written, but also because I find the work of this newsletter’s contributors inspiring.

Each quarter, while juggling experiments and seminars and NBME exams, the members of this committee continue to produce thoughtful, creative pieces that showcase their personalities, push us to think more deeply about issues that affect our (future) patients, provide frameworks for our training and career goals, and just flat make us laugh. And I’ve seen their dedication persist through grant (re)submissions, dissertation writing, and even personal loss. It’s been a privilege to be trusted to lead the Communications Committee for nearly 3 years and be one of its contributors for 6.5 (literally cannot believe I’ve been here this long).

So as I wind down this PhD and prepare to enter the final phase of the MSTP, I’m navigating all the feels of turning

over the reins. I’m excited for my next chapter personally and for the creativity that these new leaders will bring to the multiple activities in which I was involved. Definitely one of my favorite days in this program. At the same time, as someone who has always been in nearly every non-athletic extracurricular activity since middle school, I’m a little hesitant to be “just” a medical student. But in following the advice from my counselor, I’m going to keep calm (the only exception being these Renaissance tickets because it’s really that serious), take things one day at a time, and view these endings as a natural completion of an era and not a loss.

And compiling this newsletter has helped me do that. In reading Lamario’s interview with Dr. Lorenz, I recalled the day I checked my phone only to hear her voice telling me I’d been accepted into this program. Rob’s reflection on the

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SNMA Dinner with Dr. Satcher, February 2018. Definitely one of my favorite days in this program.

Opportunities for Physician-Scientists in Biotech: an Interview with Dr. Robin Lorenz

Lamario Williams, GS-4

Dr. Robin Lorenz is the Executive Director of Research Management and Research Pathology at Genentech. She previously worked at UAB as Director of the MSTP and is a board certified Clinical Pathologist. Her research has focused on gastrointestinal immune responses to both pathogenic (*H. pylori*) and commensal microbiota and the impact of these responses on systemic autoimmune diseases. Dr. Lorenz has prioritized mentorship throughout her career, and I’ve personally benefited from her generosity and wisdom. I interviewed Dr. Lorenz to learn more about careers and compensation in the Biotechnology industry. When you’re at an academic institution, sometimes it feels like no one talks about industry, but a growing number of physician-scientists are entering this field.

Note: This newsletter does not contain the full interview,

but it is available on the UnABridged blog (link at the end).

What types of jobs and opportunities are there for physician-scientists in industry?

The opportunities are in some ways similar to what people do in academics. There is a reasonable percentage of physician-scientists in biotech and industry who are primarily just functioning as scientists in the same way that somebody that has a PhD and did a postdoc comes in running their own research lab. Let me just preface this: I only have an N of one with how industry works at Genentech.

And Genentech in general is a little bit different than a number of other biotechs because they do allow a lot of their scientists and physician-scientists to really function in more of an academic way in that they’re able to explore some of

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Reflection on Health Equity Rounds: Harm Reduction

Rob Rosencrans, GS-4

This fall, as part of the MSTP's Health Equity Rounds in the Continuing Clinical Education (MSTP 795) course, nearly a third of the MSTP met with Dr. Ellen Eaton and Ms. Suzanne Smith of UAB's Division of Infectious Diseases to discuss harm reduction and drug use. The [National Harm Reduction Coalition](#) defines harm reduction as follows:

Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.

Ms. Smith shared her story as a person in recovery whose life was saved by naloxone, describing her passion about passing the gift along. In her house, her teenagers have easy access to condoms, naloxone, and fentanyl testing strips. If not for them, for a friend or a friend of a friend. That's a vision of community generated public health, delivered without shame or judgment.

Dr. Eaton described how much she has learned from her patients, as well as peer support specialists such as Suzanne, embracing a core tenet of harm reduction: **respect for the expertise that comes from lived experience**. She shared the successes she has seen in treating multiply marginalized patients, facing HIV, addiction, and homelessness, using a harm reduction philosophy.

Students were deeply engaged, staying after the session formally ended to ask extra questions. In this author's opinion, that's a rational response. Everyone knows someone who has used or been addicted to a substance. As one student put it: *"As someone that has lost a loved one to alcohol abuse, this session was very insightful and had reminded all of us that many patients we will encounter may be struggling in ways we can't imagine."* Stigma prevents frank, honest, and effective conversations about this nearly universal experience, even in medicine.

That education is a necessary, lifesaving work, but harm reduction isn't just about changing minds. The movement has a commitment to practical, useful strategies which improve the lives of people who use drugs. This session included links to naloxone training via the [Jefferson County De-](#)

[partment of Health](#). Fentanyl testing strips were distributed, along with pamphlets from [Dance Safe](#), a harm reduction organization.

In medicine, garden variety discrimination persists against people who use drugs. Ms. Smith shared a poignant and tragic story of helping a person in profound pain who was trying to find their way to the emergency room, only to hear other healthcare workers write them off as *"just another addict"*. As if "just another addict" didn't deserve healthcare at all.



MSTP Health Equity Rounds on Harm Reduction & Drug Use

The belief that people with drug use or addictions don't really deserve healthcare flies in the face of medical ethics as well as evidence based medicine. [The number needed to treat \(NNT\) to prevent future opioid use with buprenorphine is two](#). Compare that figure to the NNT for statin use in acute coronary syndrome: 67, or to the use of tissue plasminogen activation (tPA) for acute ischemic stroke: 10 to 50, depending on time window. For \$1.90, anyone can buy a fentanyl testing strip from Dance Safe. To put that in perspective, that's just a little over the cost of metformin, and it can prevent an overdose in someone using opioids, or who might be surprised by the presence of a fentanyl in a stimulant such as cocaine. Treatment that increases the safety and health of people with addiction and people who use drugs is among the best, most effective medical treatment there is, and it's not just a job for addiction medicine specialists or psychiatrists. People who use drugs get sick in as many ways as people who don't use drugs. It's time we start talking about it, and high time we all start using it.

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"The number needed to treat to prevent future opioid use with buprenorphine is 2...for statin use in acute coronary syndrome: 67"

Is this real? Is this just fantasy?

Jenny Hsin, GS-1

Ring in the new year always comes with reflections on the previous year. One of the biggest changes in my life last year was starting my PhD through the NIH Oxford-Cambridge (OxCam) Scholars Program, and I can hardly believe that I'm actually doing this.

I still can't believe that I went to England for the first time in my life last July to attend the annual OxCam workshop, where current OxCam students present their research as posters, oral presentations, and three-minute talks. As an incoming student, I was overwhelmed by being in a new country, exploring both Cambridge and Oxford, and meeting an entirely new cohort of students. I felt like I had just settled in at UAB and gotten to know the MSTP for the previous two years. Suddenly, there I was as a new student again and introducing myself to a hundred new faces. Yet, even though it was overwhelming, I enjoyed all the new experiences. We punted on the River Cam, had afternoon tea, and walked through cobblestone streets with hundreds of years of history. After the workshop ended, I got a chance to stay an extra day in London and visited the Tower of London and Piccadilly Circus. Returning to the US made it all feel like a dream.

Since then, I've started my PhD research at the NIH, which feels both grounded and unreal at the same time. On one hand, I feel like I'm returning home, having done a post-baccalaureate fellowship (post-bac) in the same lab. I even returned to the same bench that I had as a post-bac! Yet, it feels surreal to work at the NIH sometimes, like seeing Dr. Fauci walk right past me in the NIH Clinical Center atrium with Secret Service following close behind him. Occurrences like these are rare though. Most of the time, I get the feeling that doing a PhD feels the same no matter where you're doing it. Talking to other PhD students, whether at the NIH, UAB, or other institutions, the struggles of science are ubiquitous and failed experiments abound. Reality pulls no punches.

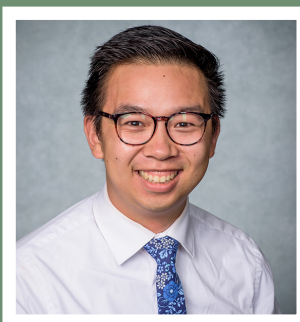
I think my takeaway from this year is to go with whatever life throws at you: enjoy the dreams when you can and keep your head down when reality hits. I'm lucky to be on this rollercoaster training journey. No matter where you are, doing a dual degree will have its ups and downs, but I hope to keep sharing some of the good times with y'all through blog posts when I can!

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Over the next few years, Jenny will share her OxCam experiences via the UnABridged blog. Check it out [here](#)!

Dollar, Dollar Bills

Congrats to these MSTPs for recently obtaining predoctoral fellowships:



Matthew Cheung, GS-3

F30 (NIDDK):

"Response of kidney resident macrophages to proximal tubule injury"

Gelare Ghajar-Rahimi, GS-3

American Heart Association (AHA)

"Regulation of lymphatic and vascular remodeling in acute kidney injury"



Brendon Herring, GS-4

F31-Diversity (NCI):

"Characterizing the role of NOTCH2 in neuroendocrine tumors"



Jay Stone, GS-3

F31-Diversity (NIEHS)

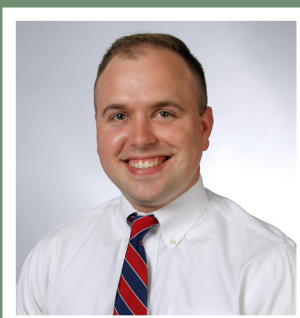
"Role of 14-3-3 theta in environmental toxicant exposure and neuroinflammation in synucleinopathies"



Garrett Wilson, GS-3

F30 (NIDDK):

"Coordination of T cell-derived signals in intestinal epithelial barrier defense"



Dr. Lorenz, cont.



Robin G. Lorenz, MD, PhD, MS
UAB MSTP Director, 2006–18
Genentech, 2018–present

their own ideas and sort of guide their research. One type of job that physician-scientists do is just being a scientist running a team of people, investigating and designing experiments. Coming up with a hypothesis trying to find a pathway or a protein that we can actually drug that Genentech can potentially sell.

Additionally, at Genentech, there are a large number of core labs and support people. For instance, my department in pathology has probably about 100 people in it who are all there solely to provide pathology support in the various types of core functions that people need to do that type of work (i.e., immunohistochemistry to cut a section). You get data much faster with this collaborative approach.

At Genentech, we have these large, interdisciplinary teams which are a real joy to see all of these experts thinking about the same thing in their different perspectives. Sometimes that's a bit more difficult to get in academics because it is a little bit more homogeneous. If you need a chemist or you need a bioinformatician or a pathologist or something like that, they are typically all in different parts of campus.

Now a second type of job for a physician-scientist is where they would utilize their clinical expertise much more. For instance, say they are a medical officer in charge of a disease area. We have physician-scientists that are over our inflammatory bowel disease portfolio. They would be the people who then work much more closely with the scientists who are trying to figure out what are the right biomarkers to make sure that our drug is working, or what the appropriate patient population that we should be observing, or for analyzing and interpreting clinical trial data. So they need the medical part of their training in order to be able to actually understand the patients. They're still doing data analysis from the clinical trials, but they actually are much more involved in design of clinical trials.

Lastly, almost every person in upper-level positions at Genentech (e.g., chief scientific officer, chief executive officer, almost all of our vice presidents) is a physician-scientist. You see more physician scientists moving up into leadership positions. They have the ability to actually both understand the science that somebody's doing as well as understand the clinical perspective.

You mentioned a medical officer, do they serve as kind of like a full-time consultant?

So in a way, yes, they serve as a consultant in providing

their medical expertise to the scientific teams that are helping to develop the trials. We actually also have external consultants that might be somebody that's knowledgeable in a very specific disease.

What is the capacity for individuals with these different types of industry jobs to continue their clinical practice?

Genentech itself actually does allow physician-scientists and physicians working here to maintain an appointment at one of the other academic medical centers. In our case, obviously it's the University of California-San Francisco (UCSF) and Stanford, so you can keep up your clinical skills and really continue to understand. A term that you hear used a lot in biotech is "unmet medical needs", but how do you know what are the unmet medical needs? If you're no longer taking care of patients and you know sort of hearing what some of those needs.

That being said, if you are a physician working at Genentech and you want to have clinical responsibilities, we are not allowed to get compensated for that. You're essentially volunteering your clinical expertise to those places. Genentech only allows us to do basically the equivalent of about three to four weeks a year. So somebody might have an afternoon clinic or something like that. I have pathologists who attend a couple of weeks a year, basically. So it can't be a huge percentage of your time. You are still supposed to be working [in your primary role].

Genentech does allow clinical practice, but not all biotech companies do. That is something important when you're thinking about compensation. A lot of physician-scientists who want to go work for biotech would like to see patients. If you're looking at a position that's something to ask about: is it allowed, and if so, how much could I potentially do? So I do have adjuncts at UCSF and Stanford, but I use them to actually interact with their MD-PhD programs, not necessarily with the clinic.

What are the pay scale ranges compared to academia?

When you think about pay at biotech companies, the thing that is often surprising to people is that if you were to just look at what we would call our base pay, it's not that different from academia. Realistically, my base pay at Genentech is not all that much more than what my base pay was at UAB.

One of the things that most biotech companies do several times a year is comparisons for what their salary is versus the salaries of other biotech companies in the area. It's because that's who we're competing for to hire people. In the Bay Area and a lot of other big cities, the mean cost of living is very expensive. And so in order to get somebody to actually come here you do have to make sure that you're paying

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them a reasonable living wage.

So the salary is almost always a little bit more than what you might make in academics, but not a lot more. Where the difference comes in is almost all biotechs have two other components of their compensation. So in addition to the base salary, the other components of the compensation are an end of the year bonus, and what we call some kind of stock options.

Now at most companies, the level you are on affects your end of year bonus. There always is a target, so let's just say for instance for somebody that's at a director-level like I am. The end of year bonus target is somewhere between 30% and 40% of your base salary. Then that can be higher if you and your company have met all of its milestones that year. It can be a little bit lower if perhaps, you know, we didn't get all the drugs done we were supposed to get done, or you know various other goals that are set for the company during the year. You're probably never more than about 80% of that total. So you can already see that even though my base salary was approximately the same, because I'm getting some kind of bonus at the end of the year it becomes more. Now, granted, it's at the end of the year, so it's not like it's in your monthly paycheck, but it does increase your overall pay. At Genentech I can tell you that those end of the year compensations range anywhere from about 10% to almost 100% depending on what level you are with the company.

The second compensation option is stock options and everybody who works for Genentech also gets somewhere in the range of 10% to probably about 40% or 50% of their salary in stock options at the end of the year. So when you add all three of them together, for instance, someone in my position probably can make almost an additional 100% of their salary from bonuses and stock options. That's why it always seems like people in biotech make more money because they have those additional components of their compensation.

Now the other thing that Genentech does (and not everybody does this) is that they give you a paid 6-week sabbatical once every six years to do anything you want. And so a lot of people really like that. I mean, you get a whole month and half to travel or whatever it is you want to do. I mean, I had one of my pathologists who was like, "Oh I want to take this advanced calculus class!" So there are some perks like that. I mean, some academic institutions still have sabbaticals and people can take them. But people are in general not getting paid their full salaries while that happens.

I always hear people say manuscripts are the academic currency. Is there an expectation to publish regularly in industry? What are some of those aforementioned milestones you are trying to reach?

So it's a good question because one of the things that ac-

tually I was surprised about from biotech was they are very invested in defining what are the goals of each person each year. We sort of talked about this with trainees—set up your one-year goals and your five-year goals. So every year everybody at Genentech actually has goals that we have to set up, and then you're sort of end of the year performance that is, you know, sort of compared against it.

Now at Genentech (and again I have to be very careful that this is a Genentech thing at Genentech), we expect everybody in our groups to publish, just like they were in academics. For instance, one of the goals that our company bases your bonuses on at the end of the year is actually whether we've met our goal of how many manuscripts we want to have in *Cell*, *Science*, or *Nature* publications. At Genentech, it's considered essential that the research that we do actually gets out there and is able to be used by anybody in science. Now, of course, that doesn't mean that our lawyers have not put through some kind of a patent on it before it gets published.

So when I look at promotions for people in my department, one of the things that they're judged on are the publications. Now my pathologists are basically consultants. They don't drive their own research, but they're there to help other people do research. So in that case they are almost always middle authors, but we don't hold that against them.

Other things that often are considered are the number of patents that have been filed. Also, if a physician-scientist has developed some kind of a research idea or found a pathway that could eventually be a drug, then they're attached to that project as it moves all the way through the process for FDA approval. The key thing are research manuscripts, but we also consider presentations and talks.

If you're in academics, part of what you are judged on is whether you've got grant funding. And so obviously our people are not allowed to get external funding. However, about every 18 months or so they actually present to the leadership about how their projects are going and what are their plans for the future. It then is vetted and they are evaluated on their progress and receive feedback on their future plans. So it's a bit different than an NIH grant, because the direct feedback is more immediate.

There are many companies who do not allow publication, and the reason we know that is that when we're hiring people for research one of the things we look at obviously is have they been publishing. So sometimes people applying for one of our scientist positions will have these letters from their company to say they don't have any publications because our company does not allow them to do that.

For the rest of this interview, check out the UnABridged blog (click [here](#)).

DEI Newsletter

Broadening Accessibility to STEM Education for Birmingham Elementary School Students

Just before the start of the holiday season, the UAB MSTP DEI Taskforce launched a Science School Supplies Donation Drive for R.C. Hemphill Elementary School in southwest Birmingham. The school has recently gained access to a lab space for their students but were in need of resources and supplies!

We met with Birmingham City Councilor Crystal Smitherman and Hemphill Elementary teachers and administrators to discuss ways we can support STEM educational efforts for their students. After touring their new lab space, we quickly learned that a major need were supplies.

By the end of this month-long donation drive, we were able to collect or purchase the majority of the requested supplies, with an estimated value of \$500 for all of the donations! Donated supplies, included stopwatches, yard sticks, magnifying glasses, lab goggles, and various stationary items.

The MSTP DEI Taskforce would love to thank everyone who donated funds and/or supplies toward this drive! We would not have been able to accomplish this without your help and generosity!

And we would also like to thank **Lamar Williams** (GS-4) and the [DUBS Foundation](#) for their generous donation of \$250, which went towards purchasing a large portion of the supplies! Given that an initiative of the DUBS Foundation is to promote Scholastic Excellence, especially as it involves promoting STEAM (Science, Technology, Engineering, Art, and Math) education, we are truly appreciative of their contributions in this effort in expanding access to STEM education to the Birmingham community.



Pictured: **Courtney** (GS-2) & **Morgan** (GS-3) with Councilor Smitherman and Hemphill teachers and staff.

Knowledge > Supporting the Next Generation of STEM Leaders through Mentorship

With the focus of supporting STEM education and exposure to young generations, we would like to share resources focused on challenges in encouraging and maintaining students' interests in STEM careers. **A powerful tool in improving the retention of students in STEM-related career paths is mentorship.** Check out the resources below to learn more about the necessity and benefits of having role models and mentors in the STEM field:

Watch v

Read v

"The Power of Mentoring" Reggie Nelson | TED x University of Essex. [Link](#).

"Mentorship in STEM for Social Change" Amy Salter, PhD | TED x Georgia State U. [Link](#)

"The Power of Mentoring & Role Modeling in STEM Disciplines" Sarah Wojiski, PhD | Women in Innovation Webinar. [Link](#)

"Looking at Myself in the Future": how mentoring shapes scientific identity for STEM students from underrepresented groups. K Atkins et al. *International Journal of STEM Education* (2020). [Link](#).

As More Women Enter Science, It's Time to Re-define Mentorship. Grace Huckins. *WIRED Science*. [Link](#).

Survivor: MD/PhD

Kasey Brida, GS-2

The 45th season of *Survivor* takes us to perhaps the most treacherous terrain yet. A place where most men fear to tread, what some consider to be an institution for the insane. That's right, folks. This year, contestants will attempt (dramatic music builds to a crescendo)...graduate school.

And the stakes have never been higher. Instead of a cash prize, the winner will walk away with two doctoral degrees, a fleeting sense of accomplishment, and an eternity of imposter syndrome. Unlike previous seasons, tribes will be merged from the beginning, and challenges will consist of hyper-condensed medical and graduate school experiences. Along the way, contestants will have the opportunity to master out, take the MD-only route, or transition into becoming an insanely overqualified barista at a local third-wave coffee shop. Ultimately players will compete for the prestigious and totally worth it dual degree, the MD/PhD.

Let's meet our contestants:

1. **Danika Davis** is currently a postbaccalaureate at the NIH. Danika dreams of the classic 80/20 split and is here for the right reasons.
2. **Tyler Lewis** is a college senior who comes from nine generations of physicians. Tyler worries about only having 3 first-author publications and is excited he could get his MD/PhD in only 39 days and skip the whole application and interview thing.
3. **Bentley Ferguson** is a 15-year-old who is currently taking a gap year after graduating from Harvard in an embarrassing 3 years. Bentley plans to get his JD after *Survivor*.
4. **Natalia Lemelo** is a Figs influencer who thought she might as well get a medical degree.

5. **Emily McNulty** was unaware that this season of *Survivor* wasn't for cash money and has no interest in being a physician-scientist, although likes the idea of having two degrees and making everyone call her Dr. Dr. McNulty.
6. **Fatemah Patel** is willing to do whatever it takes to make it all the way to the end of *Survivor* 45. She believes that having read Angela Duckworth's *Grit* will give her a leg up in the PhD challenges.
7. **Will Jamson** is thankful for the opportunity to compete on this special season of *Survivor*. That being said, he's really hoping to be able to MD out of this competition.
8. **Josh "Joshster" Adams** is currently working as a technician in an exercise medicine lab. He hopes to combine a career that combine his two passions: muscles and medicine.

Now that you've met the players, we hope you'll stay tuned for the next episode where players will have 24 hours to scour the campus for secondary resources and study for STEP 1.

- Episode 1: Step 1, STEP1
- Episode 2: Qualifying
- Episode 3: Publish or perish
- Episode 4: The best defense is a good offense?
- Episode 5: Boards: Pass the boards to get beyond
- Episode 6: STEP2: The new STEP1
- Episode 7: Match Maker

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Southeastern Medical Scientist Symposium Awards

Congrats to our many MSTPs who presented their research and won awards at SEMSS:

Oral Presentations:

- Kasey Brida, GS-2 (1st)
- Ashleigh Irwin, GS-5 (3rd)

Poster Presentations:

- Sam Gary, GS-3 (1st)
- Ian Miranda, MS-2 (2nd)
- Colin Quinn, GS-3 (3rd)
- Aidan Miller, MS-1 (3rd)



And a special bravo to the SEMSS Committee for putting on a fantastic meeting as the host site!

Go Lie Down: A Reflection on 2022

Taylor Person, GS-3

My grandmother was perhaps the most brilliant, under-recognized scientist in all of history. Without ever looking through a microscope, staining a Western blot, or interpreting any error bar, she singlehandedly held the key to any disease we could possibly study. Her solution?

“Go lie down.”

Where is her Nobel Prize Switzerland???? “Go lie down” was my grandmother’s go-to advice for any physical or even mental malady I experienced growing up. Seems to also be a ubiquitous experience growing up Black. Headache? Go lie down. Stomach pain? Go lie down. Chest cold? Put some ‘Tussin on it and go lie down.

Even when the issue was mental, going to lie down and resting seemed to make whatever mental burden I was carrying just a bit lighter.

During the holiday season, I start to think more about my grandmother and this particular piece of advice. This is common for most of us around this time of year. We all in some way become more reflective: the sentimentality of the holidays and the significance of another year drawing to a close nearly guarantees that we’ll be looking back a bit more.

The world slows down as people prepare to deck the halls, but for those of us in our MD/PhD program, our workloads probably don’t follow that trend. There never seems to be a “good” time to pause and just...go lie down. Especially in graduate school.

There is always something that is coming “next.” I remember passing Step 1, right? Huge accomplishment. One of the hardest exams in the world (According to some sources, IDK. I left thinking about where I should start sending job applications LOL). After celebrating my passing score, no more than a week later, I had to start scheduling meetings with my graduate school mentors for re-entry into lab. I was a month out from the Step 1 exam and I was hurried into the next part of a huge marathon of milestones.

So it is, I feel, for all of us, regardless of where we are in the program. Pass your first organ module final exam, and you maybe have a weekend to chill before the next organ system, bringing with it another round of new exams, new challenges, and anxieties. Complete a massive experiment and your mentor looks you in yo face and goes, *“This is great, what’s next?”*

You pass your qualifying or comp exams, and next week the question of *“What is the next move?”* hangs in the air. For some of us, the thesis defense and obtaining your PhD is looming on the horizon, but after you’re hooded, you’re again sked, *“So, what’s next?”* Clerkships. Shelf exams. Step 2. ERAS. Interviews. On and on.

As I reflect at the end of the year, I’ve realized this whole year has felt like a marathon of massive sprints. There were a few precious moments of pause to proverbially “catch your

breath.” Small lily pads of relaxation and nothingness that I cling to like a life raft, only to have to swim away because I must accomplish the next thing.

Back to the *“what’s next?”* Back to the sprints. What’s the next milestone? What’s the next hurdle to leap over?

This isn’t just an MD/PhD thing. I feel like society conditions us all to constantly need to achieve, to step a bit farther, to always improve.

Since we entered kindergarten, we’ve been conditioned to think that we have to be constantly chasing, pursuing, going after things in order to feel of worth, perhaps to ourselves, our peers, or our society. When you accomplish something, there are congrats, but by next week it’s back to *“What’s next?”*

Sometimes I think, why do I feel pressured to constantly achieve something bigger and better every time? I often place huge pressure on myself to have a groundbreaking career: to become this amazing, outstanding resident, then fellow, then attending, etc. I do this often without looking back and realizing that I have already accomplished so much. For me, I have a problem with looking forward and never back. And because of that, I have a hard time knowing when to rest, sit back, and reflect. Why can’t I just sit here and enjoy what I’ve done from time to time? Why do I have a hard time going to lie down?

Achievement is a good thing. Of course I want to be a good researcher, resident, and physician. I owe it to myself, and also my future patients. It is a good thing to be ambitious, to want more for yourself, to push yourself. It is a privilege to be in a position and program that gives us the ability to achieve our dreams and make a difference in our fields.

But if there’s one thing being in medicine has taught me, it’s that equilibrium and balance are the keys to survival. Too much or too little of a biological process or function often yields a pathological state. As high achievers, we tend to become narrowly focused on the next step, and the seemingly Herculean tasks we have that lie in our future. It can become overwhelming. Like a stenotic aortic valve, pushing against that pressure can feel impossible. If we don’t find a way to relieve that pressure, well, you know what eventually happens to the structural integrity of the heart. (Put away *First Aid*; this ain’t a board question, I swear.

In this season of endings and new beginnings, I invite

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you to stop working and go lie down, at least for a short spell. Reflect on your journey. Allow yourself to appreciate where you are right now. Focus on the experience, the journey, the lessons, without focusing on the best way to be successful and the “next.”

If you’re here, reading this MSTP newsletter, in this whole MD/PhD program, you’ve worked hard. All of your life. From grade school, to high school, to college and beyond. We’ve been running through higher education like the Tomb Raider. We’ve consistently been working for years to chase the next thing, to get that step up, that will get us the grades, then the interviews, then the acceptances and the positions we so ardently covet.

I feel we don’t allow ourselves the time to sit and reflect on how far we’ve come, how much work we’ve put in, and why because of that, we more than deserve to go lie down. A lot of us just want to rest (administrators and directors included. This is for y’all, too). We want to have some sort of inner peace, a feeling that we’ve done enough and we can finally rest.

Perhaps you also want to feel like you are enough for this program, as well as the research and specialties that we’ll matriculate into. The constant milestone checking may start

to convince you that your worthiness of being in this program, of being a physician-scientist, lies in the future instead of right now.

But here’s the thing: you’re already worthy. Even if you’ve done absolutely nothing this year (which I highly doubt). Even if you’ve published no papers. Even if you haven’t presented. Even if all of your experiments failed. Even if your semester of Fundamentals and/or Organ Modules didn’t go as planned, if you aren’t in AOA or you weren’t the stand out student you thought you were going to be.

You’re still here. You still made it. You are worthy of being here. Yes, you, right now, already, deserve to go lie down, to pause, even if you feel you haven’t done anything yet.

So take a moment to pause, rest. Go. Lie. Down. And consider being more intentional about pausing. Make your own “lily pads” of rest, relaxation, and reflection through your weeks of intense study and lab work.

There is importance in looking back and seeing how much you’ve accomplished. You may not think you’ve done enough, but I’m telling you right now, that’s nonsense. You have. Now go lie down.

§



MSTP Book Club



This edition of the Book Club features two of my favorite authors (who also happen to be best friends in real life): *Electric Arches* (2017), a collection of poems by Eve Ewing (professor, poet, sociologist, organizer, and lately a Marvel comic writer) — seriously I want to be her when I grow up — and *How the Word is Passed* (2022) by Clint Smith (also a poet and now staff writer at *The Atlantic*). I was introduced to both authors via Twitter nearly a decade ago, and the rest is history. Over the years, I’ve read Clint’s essays about teaching literature in a Washington, DC, jail and Eve’s book on the impact of school closures across the Southside of Chicago. To me, both represent an alternative path of navigating the very siloed academy while weaving together ideas across genres and disciplines.

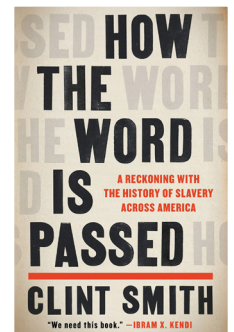


In her collection, Ewing invokes this “electric arch” theme in multiple poems. My favorite is “at the salon”, which is of course, about a little Black girl turned woman’s experience at the hair salon:

*I am in the universe and it is my hair.
each strand arched electric and perfectly still
before my eyes, dancing, crooked,
arranged just so in the air*

The poems are often humorous, even the sad ones, and full of Chicago-specific references.

Smith’s *HWIP* similarly considers the power of memory, but rather how we collectively remember slavery. My favorite chapters were on Thomas Jefferson’s Monticello Plantation — the irony of how the man who wrote that life, liberty, and the pursuit of happiness were inalienable rights also enslaved more than 600 hundred people — and Angola Prison, one of the largest plantations in Louisiana turned state penitentiary that houses a “farm” on which prisoners pick cotton while monitored by guards on horseback (yeah, you read that correctly). You can read an excerpt in [The Atlantic](#), as well as a (non-paywalled) essay in [Buzzfeed](#), featuring a popular wedding venue Smith visited that didn’t make the final cut for the book. §



Communications Committee

Jana Badrani	Aaron Lucander
Kasey Brida	Shreya Kashyap
Brittany Curtiss	Taylor Person
Morgan Greene	Rob Rosencrans
Jenny Hsin	Courtney Swain
Alana Jones	Lamario Williams

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

Letter from the Editor, cont.

Harm Reduction session of Health Equity Rounds reminded me of all the conversations we had as first years about how we could change curricula to promote an educational environment that centered health justice and caring for the most vulnerable communities among us. Kasey's *Survivor* cast reminded me of more than a few people that I met on the interview trail (none of them being UAB folks, of course). The vital work highlighted by the DEI Taskforce took me back to my days at Jackson-Olin High School as a mentor through White Coats Black Doctors. And per Taylor's instructions, as soon as I finish this, I'm going to lie

Student Publications

Estevez-Ordonez D, Gary S, Atchley TJ, Maleknia P, George J, Laskay NMB, Gross E, Devulapalli R, Johnston JM. [Immunotherapy for Pediatric Brain and Spine Tumors, Current State and Future Directions](#). *Pediatr Neurosurg*. 2022. doi: 10.1159/000528792. PMID: 36549282.

Cheung MD, Agarwal A, George JF. [Where Are They Now: Spatial and Molecular Diversity of Tissue-Resident Macrophages in the Kidney](#). *Semin Nephrol*. 2022;151276. doi: 10.1016/j.semnephrol.2022.10.002. PMID: 36435683.

Chandrasekar AP, Cummins NW, Natesampillai S, Misra A, Alto A, Laird G, Badley AD. [The BCL-2 Inhibitor Venetoclax Augments Immune Effector Function Mediated by Fas Ligand, TRAIL, and Perforin/Granzyme B, Resulting in Reduced Plasma Viremia and Decreased HIV Reservoir Size during Acute HIV Infection in a Humanized Mouse Model](#). *J Virol*. 2022;96(24):e0173022. doi: 10.1128/jvi.01730-22. PMID: 36448802.

Wedding Tingz



Congrats to Hunter (GS-5) and Cat on their engagement! I hope you saved an extra 80ish seats for the MSTP section.

down because it always makes things better.

So as always, special thanks to the Communications Committee for making my job easy. And congrats to all of you on your numerous personal and professional accomplishments. It has truly been my pleasure.

P.S. Hopefully by the next newsletter, I'll have some strawberries to share.

Black History Month Trivia

Be sure to participate in the Black History Month trivia game facilitated by the MSTP DEI Taskforce:

- Each Monday, the question for the week will be posted to the MSTP Instagram account. Submit your answer [here](#) by 8 pm (extra points for being the first person to answer correctly).
- At the end of the month, winners will receive gift cards to local Black-owned restaurants.