The Lion Ledger

Summer 2025

Sizzling Summer Cover Art by Arrienne Butic, 5th Year PhD Candidate

Note from the Editors:

Slip on your lab goggles and grab your floaties—this summer, we're making waves with science that's *deeper* than the deep end and *cooler* than your advisor's vacation autoresponder. Trying to stay hydrated by the pool? Allison reminds us why keeping our electrolytes in check is just as important as remembering sunscreen. Our bug-loving readers will be buzzing with excitement as Natale explains science behind fireflies and as Habiba discusses the effects of climate change on ants. Looking to plug into the community? Ikram recommends the Harrisburg Palestine Coalition, Jeniece suggests a workout with the Harrisburg bicycle club, and Julia proposes a visit to the Book Bar. If you're planning a pool party, we have the perfect menu: Sweet Potato Tempeh Tacos and Thai Chicken Bowls provided by Natale and Jenny along with a side of Paige's bean salad. And don't miss some poolside page turners recommended by Jeniece! Grab your iced coffee, lather up in SPF, and dive into some sizzling articles written by your fellow graduate students! Have any burning ideas for a Lion Ledger piece? Reach out to lionstalkscience@gmail.com to have it featured in the next (Fall) Edition!

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This Season in Science

Sweating the Small Stuff: The Science of Electrolytes in the Summer Heat

By: Allison Krebs

When the summer sun starts beaming down, gloves stick to your hands, and the lab thermostat fails to combat rising temperatures, your first instinct might be to reach for a cold drink. But beneath that simple act lies a complex physiological response: your body is actively regulating fluids, ion gradients, and thermoregulatory pathways. Through mechanisms such as vasodilation and sweat secretion, it works overtime to maintain homeostasis—keeping neurons firing, muscle cells contracting, and maintaining the baseline core temperature. But what does that temperature regulation cost us? What do we lose when we sweat? The answer to that question is also the answer to why our instinct is to reach for that cold drink on a hot day.

What are Electrolytes, Exactly?

Electrolytes are substances that break up into ions when dissolved in water or bodily fluids. These include sodium (Na^+), potassium (K^+), calcium (Ca^{2+}), and magnesium (Mg^{2+}). Our sweat isn't just water: it's a cocktail of electrolytes, primarily sodium and chloride, though other electrolytes are present at lower levels

Each of these electrolytes play unique and valuable roles in our bodies' everyday physiology; for example, sodium maintains extracellular fluid volume and enables action potentials—the electrical signals our neurons and muscle cells use to communicate. Potassium dominates the intracellular environment and helps regulate membrane potential; calcium, meanwhile, drives muscle contractions, neurotransmitter release, and coagulation. Magnesium supports hundreds of enzymatic reactions, including those involved in DNA repair and ATP production (Figure 1). These ions move across membranes in our bodies via pumps, channels, and cellular transport.

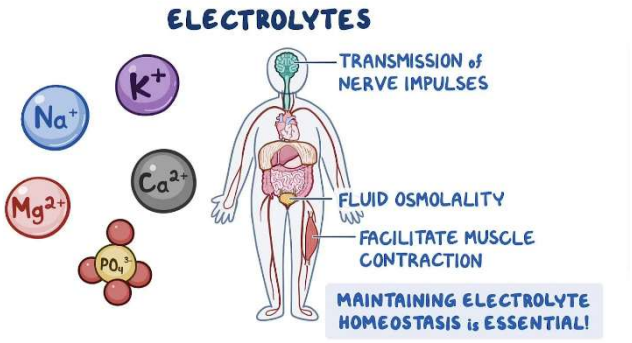


***Figure 1**. Electrolyte balance is essential. Adapted from Osmosis*

When we sweat, we lose these ions in significant amounts. Fluid loss is purposeful for thermoregulation, but it comes at a price. Dehydration or electrolyte imbalance can impair the physiology of cellular function, muscle contraction, and nerve conduction. In hot environments, such as during the summer season or sustained physical activity, losses can be rapid and significant.

Avoiding Electrolyte Imbalance

Too much heat, too much sweat, not enough electrolyte replacement – suddenly, your body's homeostasis is on thin ice (ironically). Symptoms of electrolyte imbalance can be subtle: loss of sodium can lead to dizziness, nausea, or confusion, while loss of potassium can lead to muscle weakness and fatigue. Shifts in the concentration of magnesium and calcium can result in twitching, cramps, and even arrhythmias in severe cases. It is important to be alert to signs of electrolyte imbalance and to not underestimate how quickly it can escalate.

One particularly dangerous scenario is overhydration without electrolyte replacement; think of a marathon runner consuming large volumes of plain water under high heat. This situation can lead to hyponatremia, where blood sodium levels become dangerously low, causing fluid to shift into cells. If that happens in the brain, it can cause cerebral edema, seizures, and, in extreme cases, death. It's a dramatic example, but a real one, highlighting how quickly electrolyte disturbances can escalate when the system gets overwhelmed.

Hydrate Wisely

Water is great in the summer heat, but sometimes water alone is not enough. When you're sweating heavily or for prolonged periods, plain water can't fully replace what your body is losing. That's when an electrolyte-containing beverage or even a salty snack can make all the difference. It is important not to

rely on your thirst alone: oftentimes, by the time you're thirsty, you are already behind on hydration! This summer: stay cool, stay salty, and don't underestimate the science of proper hydration. Your cells, synapses, and sarcomeres will thank you.

Summer Sparks: How and Why Fireflies Light Up the Night

By: Natale Hall

There's something magical about summer evenings in Pennsylvania – when the sun finally sets after a long hot day, the air cools, and the sky turns soft shades of pink and purple. In the hazy glow of twilight, just before the stars come out, you can often see tiny, blinking lights sparkling across people's front yards and corn fields: fireflies. Peak firefly season in Pennsylvania spans from the summer solstice to the middle of July, bringing with it swarms of these unique glowing insects. As enchanting as their rhythmic, blinking lights are, the science behind these bugs is even more captivating.

Image Credits: Adirondack Life

Despite their name, fireflies are not *flies* at all! Rather, they are a type of winged beetle belonging to the Lampyridae family, which contains more than 2,000 different firefly species. All Lampyridae larvae emit light, often giving off a steady glow in contrast to the flashes or blinks we are used to seeing – signifiers of firefly maturity. Interestingly, not all firefly species retain the ability to emit light as they develop into adulthood. One of the most common glowing species in the eastern U.S. is *Ellychnia corrusca*, also known as winter fireflies or *daytime dark fireflies*, is active during the day and does not produce any light.

Firefly larvae and the adults capable of glowing are bioluminescent organisms – that is, those that produce and emit light through a chemical reaction that happens inside of their bodies. In fireflies, this reaction occurs specifically in a part near their abdomen called the *light organ*

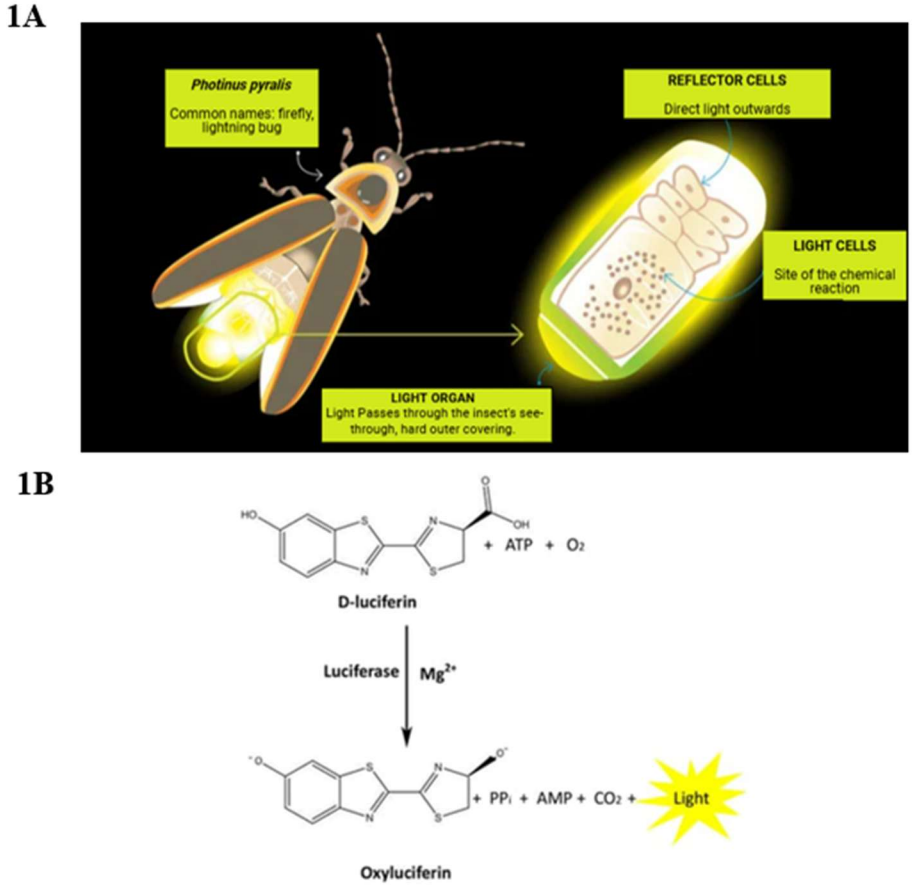


***Figure 1**: Diagram of a firefly light organ and bioluminescent reaction. Image Credits: (A) Adapted from Scholastic Science World, (B) G-Biosciences*

Photinus pyralis, endearingly known as lightning bugs, which you've likely seen lighting up your backyard or a nearby cornfield at dusk here in south-central Pennsylvania. This species, like many others that glow, is most active at night, when we can see their light show on full display. On the other hand, a species called

(Figure 1A). The light organ contains specialized cells that carry out the reaction and transmit the light outwards. Inside this organ, oxygen combines with a few key ingredients: a molecule called luciferin, an enzyme called luciferase, and energy from cells in the form of ATP. When oxygen enters the light organ, it helps

luciferase use ATP to change luciferin into a new molecule called oxyluciferin. As this reaction happens, light is given off (Figure 1B). For biologists-in-the-know – yes, this luciferin/luciferase duo is the very same one that forms the basis for the widely used *luciferase assay*, one of biochemistry's most illuminating (ha!) methods for studying gene expression.

Firefly light isn't just for show; biologically, it serves several important purposes. First, the light helps to ward off predators from both glowing larvae and flashing adult insects. Most species of fireflies produce a chemical called lucibufagens that has an unpleasant taste and can be toxic to animals. When an unlucky predator eats a firefly, it is conditioned to associate the light with that taste, and thus learns to stay away from the glowing bugs. Additionally, some fireflies use their glow to attract mates. Each species of fireflies has its own unique flashing pattern, and males and females of the same species will flash signals back and forth to communicate.

From warning off hungry frogs to lighting up summer nights in the hopes of finding love, fireflies are much more than just pesky bugs. They're a fascinating mix of chemistry, biology, and wonder, right in your own backyard!

Science in the News

Coming together: The Discovery of The Largest Black Hole Merger to Date

By: Zoe Katz

Black holes are mysteries – invisible to non-radio telescopes, they are detected and studied based on how they affect their surroundings. Long ago, two black holes 10 billion light years away from Earth started to swirl around each other. This summer, physicists discovered that these two black holes had collided to form an even more massive black hole. This cataclysmic event is the most massive binary black hole collision to have been observed thus far and makes scientists question how large stellar objects form, pushing us to rethink what we know about the known universe.

How can we begin to understand how black holes could have formed or how two black holes can collide and become one? Albert Einstein postulated in the early 1900s about the existence of gravitational waves – ripples in the fabric of space-time – in his general theory of relativity. According to this theory, two black holes orbit around each other and slowly lose energy through gravitational waves, allowing them to come closer and closer together over billions of years. Eventually the two will come close enough together to collide, and during this collision they would expel a large amount of energy in the form of gravitational waves. Though predicted to exist, many physicists, including Einstein later in his career, were skeptical.

The detection of these gravitational waves is immensely difficult because by the time they reach Earth, they are very weak. It wasn't until 2015 that Einstein's general theory of relativity was proven correct. The Laser Interferometer Gravitational-Wave Observatory (LIGO) first detected gravitational waves from a binary black hole collision in 2015 (Figure 1).

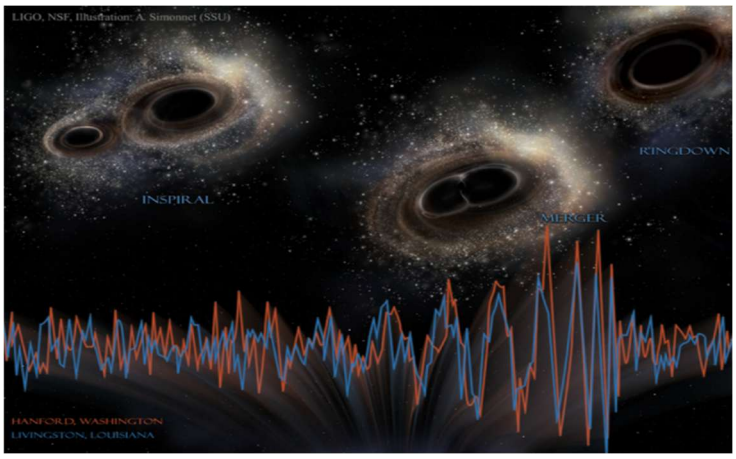


Figure 1: *An illustration of the first binary black hole collision event detected in 2015. Image Credit: LIGO Caltech*

Recently, a gravitational wave observatory network in the United States, Italy, and Japan detected the most massive binary black hole collision to date – a phenomenon previously thought impossible to on this scale. The two black holes that came together were, respectively, 100 and 140 times the mass of our sun – the black hole that formed from their collision is now 225 times as massive as our sun. These black holes were massive – so massive, in fact, that current theories posit that stars this massive would have exploded instead of forming black holes. Detection of an event this immense brings into question our understanding of how black holes this massive form and highlights how much we currently do not know about how the universe works. By continuing to detect gravitational waves, we can observe the previously invisible and delve into the impossible to begin to better unravel the secrets of our universe.

Hot Ants in the City: Can Tiny Insects Survive Climate Change?

By: Habiba Abdelhalim

Ants might seem like tough little creatures, but like all insects, their bodies are at the mercy of the environment. Unlike humans, who can sweat or shiver to stay comfortable, ants rely on the temperature of the world around them to stay warm or cool. As cities get hotter and climate change pushes temperatures higher, scientists are studying whether ants can adapt to the changes around them. Two recent studies shed light on how ants handle the heat, and the results are surprising.

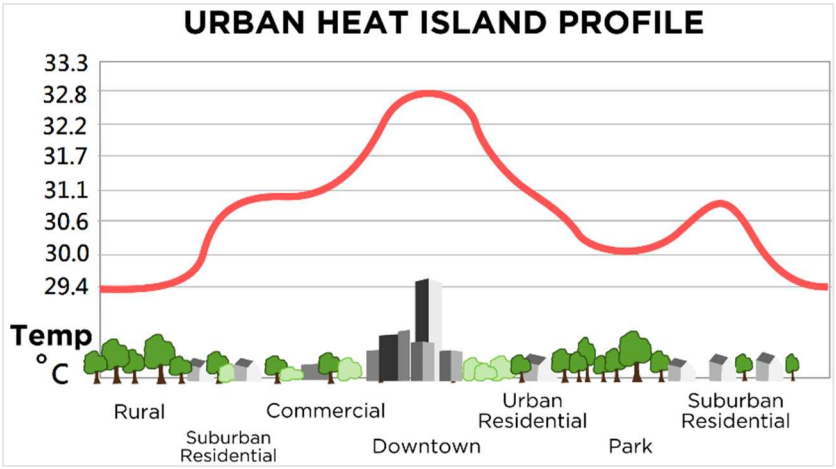


Figure 1: *The 'urban heat island' effect refers to the tendency of urban areas to have noticeably higher temperatures compared to nearby rural regions, primarily due to factors associated with urbanization like heat-retaining materials and diminished green spaces. Adapted from: Proc. B Special Issue: City Ants Adapt to Hotter Environment.*

One study, led by researchers in North Carolina, looked at ants living in forests both inside and outside cities. Urban areas are often warmer than surrounding rural ones, a phenomenon called the "urban heat island" effect (Figure 1), making them a perfect testing ground to see how ants respond to rising temperatures. The scientists tested how much heat different ant species could handle and looked at whether the ants changed their behavior to cope with high temperatures. The results showed that city ants had not evolved a greater tolerance for heat compared to their forest-dwelling relatives. In other words, they were not inherently better at surviving hotter conditions, nor did they make major shifts in their daily schedules, such as foraging only at night, to avoid the hottest times of day. Instead, they adapted in a more limited way; during their usual foraging times, they simply avoided the warmest spots, choosing shadier or cooler areas along their routes. While this strategy helped them avoid extreme heat in the moment, it did not eliminate exposure to higher temperatures overall, because cities tend to be hotter than forests at all times of day. This means city ants are not necessarily more heat-tolerant than rural ants; rather, they are just making small, localized adjustments to cope, which still leaves them living in warmer conditions and potentially under more thermal stress.

Another study reviewed decades of ant research to understand how different species cope with extreme temperatures. Some ants can handle scorching desert heat, while others thrive in chilly mountain climates. But when temperatures shift too fast, like in quickly growing cities or due to global warming, many ants struggle to adjust. Some species make small adjustments, such as becoming more active at night to escape the daytime heat, but these changes often don't

prevent negative impacts, like reduced foraging success and slower colony growth, which can cause immediate population declines. The study also found that ants from tropical areas, where temperatures are stable, might be especially vulnerable to sudden warming because they're not used to big swings in heat.

So, what does this mean for the future of ants and the ecosystems they support? Ants play crucial roles in nature, from spreading seeds to controlling pests. If they can't adapt quickly enough to rising temperatures, some species might decline or disappear from certain areas. On the other hand, heat-loving ants could expand their territories, potentially disrupting local ecosystems. The good news is that scientists are now tracking these changes closely, using everything from tiny ant-sized thermometers to high-tech lab setups that mimic the heat waves of tomorrow.

While ants may be small, their fate is a big clue about how climate change will affect the natural world. If even these resilient insects struggle with rising heat, it's a sign that other creatures, and the environments they live in, could be in trouble too. So next time you see an ant scurrying by, take a moment to appreciate its struggle against the heat. After all, these tiny survivors might just be telling us something important about our planet's future.

Small Business Spotlight

Your New Favorite Book Nook: Book Bar

By: Julia Simpson

A few steps up, then through a heavy door, and the street traffic falls away. The aroma of coffee reaches your nose as the door closes and your eyes adjust to calm yellow lighting splashing onto dark green, plant-adorned walls, across wooden flooring, between high bookshelves with books positioned cover-forward as if to greet you. Come in the evening, and there's a good chance your ears will be filled with a smattering of chatter and laughter from the couches to the right: a community book club, deep in discussion. This is Book Bar, and though the establishment has only resided on North Railroad Street since October, it has already become a welcome and – if you'll indulge the pun – *novel* cornerstone of the community.

Image Credits: Julia Simpson

I recently sat down with Brittany Haynes, owner and CEO of Book Bar, to learn more about what she built Book Bar to be, and how it grew from concept into reality.

"I sell new and gently used books here; the overall concept is just… a place where people can hang out, like a third space outside of work and home. They can grab a drink – we do coffee, tea, mocktails, locally baked goods…" For Brittany – lifelong book-lover and self-described 'beverage goblin' – the decision to incorporate the coffeeshop side of the enterprise began as a business decision, something to supplement the shop if book sales ever slowed, but it quickly became a passion project.

"I work closely with a local roaster – Cleona Coffee Roasters in Annville – and the owner there, Matt, was super helpful… teaching us more about the science behind coffee than I already knew… there's things that affect the beans like static, and humidity, and where it's from, and how long ago it was roasted, and what the water's like… it kind of surprised me how much I do love that side of it!"

This attention to detail shines through in every element of Book Bar: from the décor, to the book selection, to the events hosted and community collaborations forged, Brittany has a vision. Originally from Missouri, Brittany and her husband met when they both were attending masters' programs in Ohio. When her husband's teaching profession brought them to the Hershey area, she continued her ongoing career in academic publishing, but the desire to own a bookshop was always there. "I put together my business plan and I

looked around, and I found this vacant location, and I could just… picture it in here."

And here it is: Book Bar. "I wanted it to be very 'dark academia,' cozy, whimsical," Brittany says – other aesthetic descriptors included "scholarly library" with a healthy dose of "cottagecore." Much of the furniture has sentimental value – the solid wooden table at which we sat, as well as a sturdy hutch to our side, was passed down from her husband's grandmother. The bookshelves were a gift from the owners of Cupboard Maker Books in Enola, while some antique chairs hail from Heart and Soul Books in Linglestown.

The local community brought Book Bar to life, and Brittany has brought life to her local community in turn. She hosts nine genre-themed book clubs a month – ten, if you count Recommendation Book Club, which requires only that attendees bring suggestions and a penchant for conversation. She collaborates with local libraries, businesses, debut authors – and now, Lions Talk Science, as the host for our 2025 Orientation event. When asked how often she thinks about science, as a non-scientist, Brittany smiled.

"Probably every day, to be honest. Science is such a big part of everyday life… obviously there's a lot of discourse around science, trusting science, and how science changes because [it] learns new things." Beyond this, though, sometimes you just need an escape – and that is exactly what Brittany hopes you will find at Book Bar. "I want people to come in, feel like they're escaping reality, or maybe even stepping back in time or [to] a different place – feeling very comfortable at the same time, and welcomed," Brittany says, and in that, I certainly believe she has succeeded. Want to see for yourself? Book Bar is open until 7pm on most days, so there's plenty of time to swing in for some tea and a good book after a long day in lab!

Get Involved

Meet the Harrisburg Palestine Coalition: A Local Movement for Global Justice

By: Ikram Mezghani

Are you passionate about human rights, social justice, or advocacy work? You might want to learn more about the Harrisburg Palestine Coalition (HPC), a grassroots group organizing right here in Central PA that supports Palestinian liberation and amplifying voices often ignored in mainstream conversations.

Formed by local residents, students, educators, healthcare workers, and faith leaders, HPC brings together people of all backgrounds to take a stand against injustice. Their mission is rooted in intersectional solidarity. They care not just about justice in Palestine, but also about how that struggle connects to other local and global issues like racism, sexism, xenophobia, inequality, and militarization.

So, what does HPC actually do? Well, as a people-powered coalition rooted in human rights, HPC believes change starts with action.

- **They organize protests**: Since October 2023, HPC has been organizing protests at the Pennsylvania State Capitol in Harrisburg to raise awareness about the ongoing genocide happening in Palestine, as well in Sudan and the Democratic Republic of Congo. These actions also draw powerful connections to the historic and ongoing injustices faced by Native and African American communities in the U.S. What began as Capitol protests has since evolved into biweekly demonstrations outside General Dynamics in Red Lion, PA, a U.S. based weapons manufacturer whose arms are used in the Israeli occupation's attacks on Gaza. These peaceful protests call for divestment from companies profiting from war and demand accountability from the U.S. government.
- **They push for institutional change**: Whether it is within our prisons or school systems, HPC works closely with impacted communities throughout the Harrisburg area to confront discrimination and systemic injustice. For example, earlier this year, HPC successfully pressured a local school district to take action after a Palestinian student faced racist remarks by a teacher, contributing to that teacher's resignation and a

broader call for anti-bias training in schools.

- **They build community**: HPC hosts many teach-ins, art-builds, social events, book clubs, and public education campaigns to raise awareness about Palestinian history, current political events, and U.S. involvement in anti-Palestinian military action. They have also joined local parades and community festivals to build broader solidarity.

Why should students care?

As students and future scientists, we are already shaping the future. Whether you are a compassionate scientist, studying global health, or just care about human dignity, your voice and actions matter. HPC's work is a powerful example of how local advocacy can make an impact. They create spaces for learning, community, and action, all of which help to get students involved at any level, from showing up to a protest to simply listening and learning.

To follow their work or get involved, check out @hbgpalestinecoalition on Instagram or email hbgpalcoal@proton.me.

Harrisburg Palestine Coalition

Image Credits: HPC Instagram

HBC: The Harrisburg Bicycle Club

By: Jeniece Regan

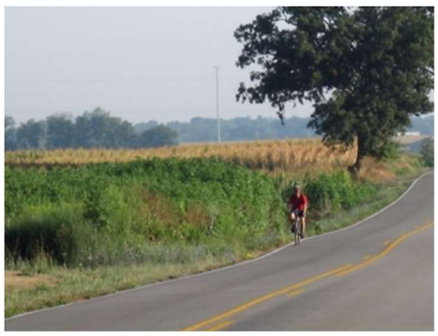


Image Credits: HBC Website

When I first moved to Hershey, I was getting into cycling. Hershey is a fantastic area for cycling, with a plethora of trails such as the Eshenour Trail that runs right by the hospital and many gravel rail trails nearby. Looking to get more serious about cycling and connect with my new community, I searched for a local cycling club and discovered the Harrisburg Bicycle Club (HBC). HBC hosts rides every Monday and Thursday at 6 PM from the Briarcrest Shopping Center, across from the College of Medicine. These rides always finish before dark and are precisely categorized from A to D, so you know what to expect:

- **A:** 20+ mph average, varying distances, few stops, competitive (riders lagging may be dropped)
- **B+:** 17-19 mph average, up to 50 miles, few stops (riders lagging may be dropped)
- **B:** 15-17 mph average, 25-50 miles, few stops (riders lagging may be dropped)
- **C+:** 13-15 mph average, 25-45 miles, usually 1 stop (riders within speed range won't be dropped)
- **C:** 11-13 mph average, 15-30 miles, at least 1 stop (riders within speed range won't be dropped)
- **D+:** 9-11 mph average, 8-20 miles, at least 1 stop (no riders dropped)
- **D:** 8-10 mph average, 8-15 miles, at least 1 stop (no riders dropped)

Typically, the rides that start at Briarcrest offer C, C+, and B options for intermediate level cyclists. If you are looking for more variety, the club organizes numerous rides throughout the greater Harrisburg area, including scenic routes along the Susquehanna. The club's insurance covers all rides. Membership is just $25 per year (your first ride is free!) and includes a premium RideWithGPS membership. RideWithGPS provides access to the club library of routes that you can print or download to a bike computer and the ability to design your own routes. If you want to take on a more active role in the group, you can become a ride leader. A ride leader is a volunteer who plans a route and leads a group of riders on the ride. All HBC rides require ride leaders, so these volunteers are integral to the club. These rides are great for meeting people, exercising, and exploring local roads. For more information, visit the HBC website: www.harrisburgbicycleclub.org

Summer Recipes

Beans, Beans, Good for Your Heart... and Your Wallet

By: Paige Bond

Want a vegetarian-friendly recipe with plenty of protein and a variety of veggies? This three-bean salad is the perfect meal to prepare for all you busy bees this summer. I recommend you tweak the salad to fit your taste; this recipe is about as flexible as it gets. Made with a balsamic vinegar, lemon, and hot sauce dressing, this salad is bright and flavorful. Beyond the veggies, the three-bean salad is packed full of protein to keep you going through these long summer days.

Image Credits: Simply Recipes

Ingredients (makes 4-6 servings):

Salad

- 2 8-ounce cans of black beans
- 2 8-ounce cans of red kidney beans
- 2 8-ounce cans of garbanzo beans
- 3 bell peppers
- 5 seedless mini cucumbers
- 1 large jalapeño
- 1 small red onion
- Cilantro, to taste
- Feta cheese, to taste
- Salt and black pepper, to taste

Dressing

- 1 cup of balsamic vinegar
- 1 cup of olive oil (vegetable or canola oil works as well)
- ½ cup of hot sauce
- ¼ cup of lemon juice from concentrate

Instructions:

1. Wash all the beans poured from cans in a colander. Let dry while preparing the vegetables.
2. Chop the bell peppers, mini cucumbers, jalapeño, red onion and cilantro. Remove seeds of the jalapeño prior to chopping for a milder salad.
3. In a large bowl, combine the beans and vegetables together and mix. Season with salt and pepper to taste. In a separate bowl, combine all the ingredients for the dressing.
4. Store the salad and dressing in the fridge for a couple of hours. Add feta cheese and dressing to salad right before serving.

Smoky Sweet Potato and Tempeh Tacos

By: Natale Hall

If you, like me, are constantly looking for healthy meals that are easy and quick, then this delicious and unique taco recipe is perfect for you! The star of the show in these tacos is tempeh, which is a soy-based protein like tofu. However, unlike tofu, which is made from coagulated soymilk, tempeh is created from fermented soybeans. This gives tempeh a nutty taste and a chewy, meat-like texture perfect for pan-frying with some sweet potato for a filling and delicious meal. Sweet, smoky, and plant-based, these tacos are a great addition to your weekly dinner rotation!

Image Credits: Well Plated

Ingredients (makes 4 servings):

Taco filling

- 2 tablespoons of olive oil
- 1 8-ounces package of tempeh (I get mine from Trader Joe's)
- 1 medium sweet potato
- 3 tablespoons of soy sauce
- Flour or corn tortillas
- Cilantro, avocado, lime wedges, sour cream, and any other toppings of choice

Sauce

- ¼ cup of water
- Juice and zest of 1 lime
- 1 tablespoon of maple syrup (can also use honey)
- 2 teaspoons of liquid smoke
- 2 teaspoons of smoked paprika (if you don't have liquid smoke, use 1 tablespoon of smoked paprika to give it more of a smoky flavor)
- 2 teaspoons chili powder
- 1 teaspoon garlic powder
- 1 teaspoon onion powder
- 1 teaspoon cumin

Instructions:

1. In a large pan, heat the olive oil over medium heat.
2. Add the tempeh and break it up in the pan, cooking until golden brown (about 5 minutes).

3. Grate the sweet potato and add to pan, stir, and cook for 2-3 minutes.
4. Add the soy sauce, stir, and cook for another 5-7 minutes until sweet potato is soft.
5. As the tempeh and sweet potato cook, add water, lime juice and zest, maple syrup, liquid smoke, and spices to a bowl and whisk to combine.
6. Add the sauce to the pan, stir, and cover until sauce thickens.
7. Add the taco filling to warmed tortillas and top with chopped cilantro, avocado slices, sour cream, or any other taco topping that you enjoy!

Thai Chicken Bowls

By: Jenny Lausch

This summertime meal was inspired by my love for kimchi and a friend of mine who sent me a similar recipe a few months ago. Packed with lots of vegetables, lean protein, and healthy fats, you cannot go wrong! This recipe feeds 4 people but is easily scalable for more! Also, this recipe is both dairy-free and gluten free (as long as the rice is certified GF).

Image Credits: I'm Bored Let's Go

Ingredients (makes 4 servings):

- 1 pound of chicken breast or tenderloin
- 1 can of coconut milk
- 2 cloves of garlic
- 1 container of spinach
- 1 ½ cups of brown or jasmine rice
- 1 cucumber, quartered
- ½ package of baby carrots, cut into small pieces
- 1 small bag of snap peas, cut in half
- 2 bell peppers, diced
- 4 green onions, chopped
- Cilantro
- 2 avocados, cut into small pieces
- 1 bag of Cleveland's kimchi
- 2 tablespoons of peanut butter
- 2 teaspoons of honey
- 1 piece of fresh ginger
- 1 teaspoon of fish sauce
- Dry roasted peanuts (optional)

Instructions:

1. Marinate chicken with half a can of coconut milk, 1 clove of clove, 1 teaspoon of honey, salt, and pepper for 6-12 hours in the refrigerator.
2. When you are ready to make the bowls, preheat the oven to 375º C.
3. Cut vegetables and combine into large bowl.
4. Cook rice per packaged instructions and then add in the remaining half a can of coconut milk to the cooked rice and stir (note: the jasmine rice will soak up the coconut milk better than brown).
5. Blend 1 garlic clove, piece of ginger, peanut butter, fish sauce, 1 teaspoon of honey, and 1 tablespoon of water in blender until smooth.
6. Remove chicken from coconut milk marinate and bake in the oven for 20 minutes.
7. Add the coconut rice to the base of the bowl, then chicken and vegetables. Top with peanuts, kimchi, and more cilantro if desired and cover with peanut sauce.

Reviews & Recommendations

Summer Book Recommendations

By: Jeniece Regan

Image Credits: Amazon

Sophie's World by Jostein Gaarder

This book offers a concise synopsis of famous philosophers' lives and ideas, presented as an engaging mystery. The main character, Sophie, receives letters and eventually arranges mysterious meetings with a philosophy teacher. These interactions both unravel the central mystery of the book and explore philosophical concepts. Something I found immensely enjoyable about this book is its

clear and understandable explanation of philosophy. It serves as an approachable introduction a variety of philosophies, including those of Socrates, Hume, Kierkegaard, and Darwin. If you wish to delve deeper into the subject, I recommend following up with Will Durant's *The Story of Philosophy*.

Custodians of Wonder: Ancient Customs, Profound Traditions and the Last People Keeping Them Alive by Eliot Stein

Some books, like this one, expand your "To Be Read" list rather than shortening it. Eliot Stein explores twelve traditions slowly fading into obscurity through the lens of the master artisans keeping the crafts alive. For example, Stein visited Cuba's last cigar factory readers to investigate the democratic process for electing a reader, also called a lector, and their significant influence over the cigar tradespeople. The role of the lectors is to read newspapers and literature to the cigar rollers as they perform the tedious task of rolling cigars and sorting tobacco leaves. In another segment of the book, Stein travels to Italy to find out more about making the rarest kind of pasta in the world, filindeu. He skillfully interweaves Sardinia's history with the concrete challenges of crafting this ethereal pasta for pilgrims, highlighting the difficulty in acquiring such specialized technical expertise. Before reading this book, I knew little about Sardinia or the pasta makers, and now I find myself wanting to learn more about this ancient tradition! Another fading practice that I enjoyed reading about was his exploration of telling the bees, the tradition of recounting local happenings to beehives. Stein eloquently illustrates the invaluable role bees play and makes a personal connection to his own family tragedy with bees. Overall, this book makes you more curious about the world and the work of artisans to hone their craft, even crafts that may be fading from human knowledge.

As You Wish: Inconceivable Tales from the Making of the Princess Bride by Cary Elwes

You might have grown up watching The Princess Bride, quoting its lines without ever knowing the story behind the making of this cult classic. In his book, Cary Elwes, the actor who played Westley in the 1987 film, discusses the extensive work that went into the iconic sword scene. The producers aimed for a sword fight that would rival the one in Scaramouche, which necessitated rigorous training for the actors, even though Cary Elwes had no prior sword-fighting experience. Consequently, a major theme of the book is the sheer amount of dedication and effort required for this sword fighting scene. Other entertaining anecdotes include André the Giant's four-wheeler, which nearly caused a production delay when Cary Elwes had an accident while using it. These tales will make you view the movie in a new light and wish for a blooper reel to catch Billy Crystal's improvised lines. This book pairs perfectly with a re-watch of the film and a read of William Goldman's original novel, The Princess Bride, that the movie was based on.

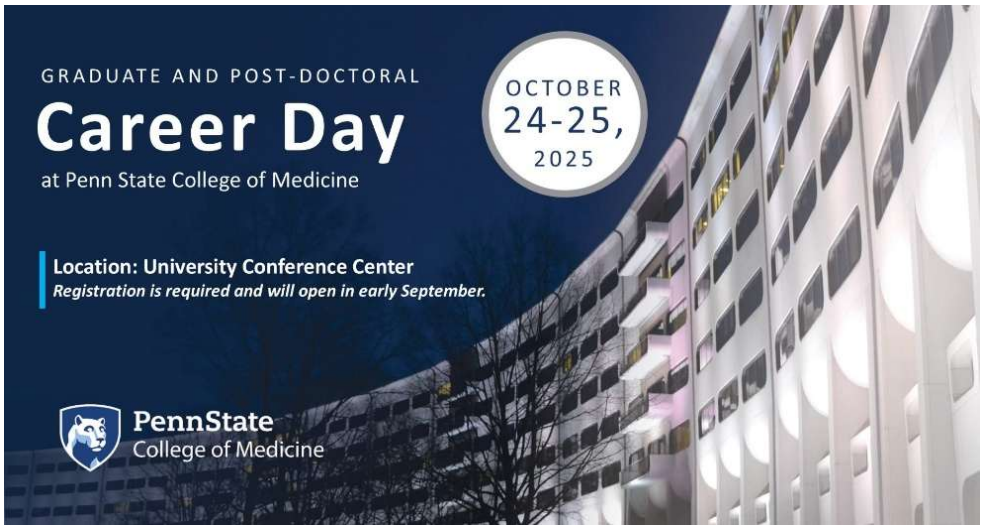
The Arbornaut by Meg Lowman

Ever wonder what a PhD not confined to a lab or hospital looks like? Dr. Meg Lowman's work offers a fascinating glimpse. A pioneer in treetop research, she recounts her efforts to shift the scientific focus from tree roots to the canopy. Her journey to becoming a PhD scientist was an unlikely one, starting in rural New York and continuing with thesis work in Australia. Along the way, she became a sheep farmer's wife, gaining insights into the challenges of balancing a demanding academic career with motherhood, a struggle exacerbated by unsupportive relatives. She details how she overcame these roadblocks. Other highlights include her innovative approach to community integration, engaging both locals and tourists in her tree top studies. It's particularly fascinating to read about her collaboration with an Ethiopian priest, who later became a botany PhD student, to preserve sacred church forests for future generations. Finishing this book will undoubtedly spark a new interest in the trees around you, perhaps even making you curious why PSUCOM landscape architects adore sycamore trees.

SAVE-THE-DATE!

13th Biennial Graduate and Post-Doctoral Career Day

University Conference Center, Penn State College of Medicine



Welcome Kick-off and Networking Reception

Friday, October 24th – 5:15-8:00 p.m. (registration starts at 4:45 p.m.)

This is an in-person event featuring a keynote speaker, Doug Dluzen, Ph.D. '14, followed by a networking reception. Food and beverages will be provided.

Career Panels and Networking

Saturday, October 25th – 8:30 a.m.-2:30 p.m. (registration starts at 8:00 a.m.)

This event includes three career panels featuring: Careers in Academia and Government, Careers in Science Communication and Writing, and Careers in Industry. Each panel will have 4-5 professionals, including College of Medicine alumni, within those career fields.

Lunch will be provided and there will be ample networking time.

Registration is required and will open in early September.

Thank you for reading the Summer 2025 Edition of the Lion Ledger! If you have something you'd like to contribute to the next edition, email us at lionstalkscience@gmail.com

- The LTS Team: Julia, Paige, Jay, Natale, Sarah, Zoe & Jenny