

# The Lion Ledger

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## **Editor's Note:**

*Welcome to the Lion Ledger Spring Issue! With the returning sunshine, leaves, flowers, and color, it is nice to finally be able to get outside and enjoy some fresh air again, as long as allergies are manageable. Also returning this season are candidacy exams, comprehensive exams, and a good amount of thesis defenses, but let's just ignore those for now, enjoy our beautiful scenery through watery eyes and sniffly noses, and read the excellent batch of articles contributed by fellow Penn State COM grad students! As the famous WWII UK poster used to say: Keep Calm and Read The Lion Ledger!*  
*-The LTS Editors*



## **Spring Events: GSA & Harrisburg / Hershey**

[Regular XL Live Concerts](#)

[Regular Senators Baseball Games](#)

**May 12** - GSA Happy Hour at Cassel Winery

**May 13** - Hummelstown Hunger Run

**May 27 and 28** - Flavor Fest Wine Tasting

**May 27 - 29** - Harrisburg ArtsFest

**May 28** - GSA Hiking Social

**June 10** - Music on Chocolate in Hershey

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## Science in the News

### The Not-So-Ironclad Trials of Deferiprone

By: Stephanie Baringer

In honor of Parkinson's disease Awareness Month (April), here is [the story](#) of a promising new treatment for Parkinson's disease (PD) which ended up making patient's symptoms worse, and the lessons we can take away from this failed treatment. PD is a neurodegenerative disease that results in uncontrolled motor movement and cognitive decline. One of the hallmarks of PD is accumulation of iron in the region of the brain that controls movement. [A small clinical trial published in 2017](#) tested if *deferiprone*, an iron chelator that binds to and neutralizes iron, could remove excess iron in the brain of PD patients, and if this would improve their symptoms. Patients showed some reduction of brain iron and a trend of improved motor function. The study was followed up with a [large trial that was published in 2022](#) and was deemed a disaster. While deferiprone was successful at reducing iron, patients receiving deferiprone treatment had worse motor function and quality of life than patients treated with a placebo.

So what happened? The theory is that the answer is in the timing. A [recent study](#) out of PSCOM's very own Dr. Xuemei Huang's lab shows that newly diagnosed PD patients have *lower* brain iron levels than normal, and it is only

after conventional drug treatment (levodopa) they display brain iron accumulation. The patients in the somewhat-successful 2017 study had been taking levodopa for years, while the patients in the 2022 study were newly diagnosed and had only received deferiprone, not levodopa.



What does this mean for patients with PD? Based on the combined data from the clinical trials and Dr. Huang's group, the field is moving towards a theory that PD starts as iron deficiency in the brain, leading to impaired motor function. Only later in the disease, or after treatment with conventional drugs like levodopa, does a buildup of excess iron occur. Despite the findings that deferiprone is an ineffective PD treatment, these studies have led to a new understanding of the pathophysiology of PD, and this knowledge will be used in the development of a better course of treatment for the one million people living today with PD.

### Spilling the CAR T on Antibiotic Usage with Cancer Therapy

By: Victoria Pearce

An increasingly common cancer treatment, CAR T therapy has resurfaced in the news but this time relating to the gut microbiome. [CAR T cell therapy](#), in short, is a way of engineering an individual's T cells to destroy cancer cells in the body, making this an effective [gene therapy treatment](#) for some cancers, specifically hematologic malignancies. As with most therapy options, CAR T therapy has numerous potential [side effects](#) such as cytokine release syndrome, nervous system issues, or other effects from the infusions themselves. While successful treatment and disease remission rates vary from patient to patient, scientists are looking to the gut microbiota for a potential reason why.

One of the many roles of the gut microbiota is to aid in modulating the immune system. When the microbes in the gut are altered, this can change the immune system response to certain threats. The use of antibiotics can drastically change the types of microbes living in the gut, indiscriminately killing harmful as well as beneficial bacteria. This is something that many cancer patients know all too well because of their common antibiotic usage due to an already weakened immune system.

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As such, [a recent study](#) from the Memorial Sloan Kettering Cancer Center and the University of Pennsylvania focuses on CAR T cell therapy success rate and antibiotic usage prior to therapy.

exposure led to a reduced overall survival (Fig 1A); antibiotics specific to anaerobic organisms (those living in the gut) further reduced the survival regardless of the cancer (Fig 1B). Further, exposure to anaerobic-targeting antibiotics led to increased [immune effector cell-associated neurotoxicity syndrome \(ICANS\)](#), a potential neurotoxic side effect of CAR T therapy (Fig 2).

## Science of The Season: Spring Edition

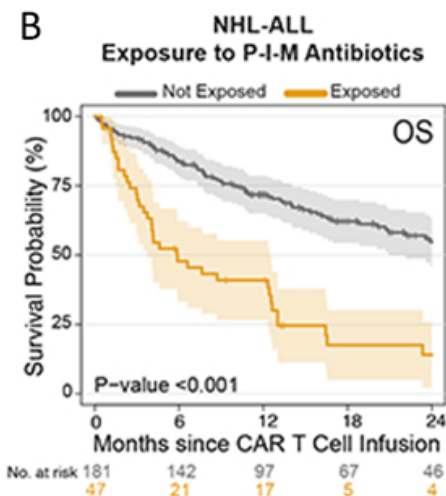
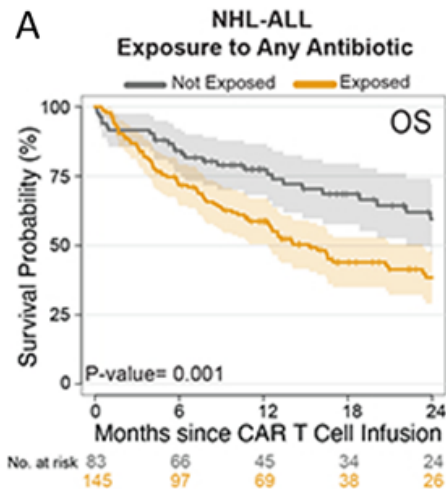
### The Science Behind a “Green Thumb”: How to Better Care for Houseplants

By: Alexis Isely

The elusive “Green Thumb.” We’ve heard it used to describe many a gardener throughout our lives, and when March 2020 hit, let’s be honest, many of us thought that we should give caring for a few plants a try. If you’re like me, you thought “how hard could it be?” and bought one or two to keep yourself company during quarantine. Well, for some of us, two quickly turned into ten and we realized it was MUCH harder to keep those plants alive than we thought. There are three main take homes that I’ve found keep my plants alive and happy.

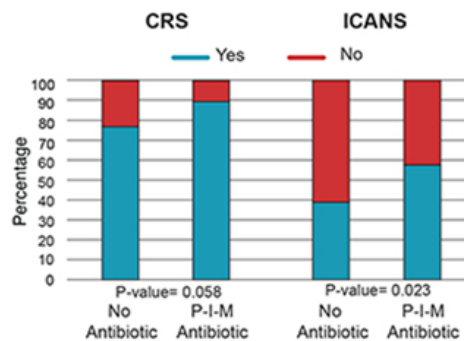
1. Soil mixture is key.

Some plants like their soil to be damp most of the time while others like to dry out completely between waterings. Regardless of preference, a well-draining soil mix is key to healthy plants. Without it, after watering, your soil may become compact, resulting in poor nutrient, oxygen, and water flow to the roots. After much trial and error, I decided to make my own soil mix from an 80/20 combination of standard potting soil and cactus mix (essentially pebbles.)



**Figure 1.** Overall survival of NHL and ALL patients with exposure to any antibiotic (A) or anaerobic-targeting antibiotics (B).

Patients with either non-Hodgkin lymphoma (NHL) or B cell acute lymphoblastic leukemia (ALL) were monitored and any antibiotic exposure prior to therapy were noted. Antibiotic



**Figure 2.** Incidence of ICANS in patients without antibiotics or exposure to anaerobic-targeting antibiotics.

So, what does this mean for CAR T cell treatment? It may be beneficial to assess the patient’s fecal microbiome prior to treatment as well as assess antibiotic exposure beforehand. These findings could explain why some patients have better outcomes than others based on their microbiome composition.



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2. Overwatering is much deadlier than underwatering.

Water is helpful in the “synthesis” part of “photosynthesis,” but how much water is too much? Overwatering without proper drainage or with poor soil quality can lead to root rot and an almost assuredly dead plant in a short period of time. To avoid this, I like to bottom water my plants and make sure they have a nice chunky soil mix to allow drainage. Bottom watering is extremely simple if you keep your plants in nursery pots. Fill a large bottom bowl with room temperature water (I like to add some miracle grow to mine once or twice a month to add nutrients), place the potted plant in the bowl, and allow to soak for twenty to thirty minutes before removing, drying the base, and putting the plant back where it belongs.

3. Don't fry your plants.

Light/Sunlight is where the “photo” part of “photosynthesis” comes into play. It sounds weird but believe me, drying out your plants is almost too easy to do. The key is to understand the different types of light different plants require and how your preferred home temperature affects your plants. If you place a plant in direct sunlight for 7-9 hours a day and keep your home at 75F, you better be prepared to water the plant constantly because it WILL dry out.

[ReRootGardens](#) has a helpful guide to understanding different light preferences of plants and which windows in your home will provide the ideal light based on your plants' preference! See Figure 1.

It's always helpful to look up some basic plant care tips when you're unsure of how to care for your new leafy babies. ReRootGardens has some great



tips for how to combat spider mites and how to winterize your plants, but I always make sure to get some basic information about each plant I buy from the gardening center I purchase them from. Congrats plant parents and happy gardening!

## Let's Go Birdwatching!

By: Mariam Melkumyam

Walking around the College of Medicine campus, you may have spotted all the birds that have become abundant in the area with the arrival of spring. If

you're like me, you may have wondered what kind of birds are around us and how to easily identify them. This is a short guide on identifying birds in the area – a fun and relaxing hobby for easy, nature-based distraction from the hum of -80 freezers and the ambient stillness of filtered laboratory air.



Figure 1: The American Robin. The big difference between males and females is that the females are paler than the males.

The most common bird I have spotted in the past few weeks has been the **American Robin** (*Turdus migratorius*). The American Robin is a round, orange-bellied bird, commonly seen on the ground looking for worms to feed on. The male and the female Robins don't differ much from each other, except for the slightly paler color of females (Fig. 1). If you try to use a bird feeder to attract these birds, you'll have little luck, as Robins mostly feed on invertebrates and

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fruit. These birds are found all over the US, and many remain in the same place year-round, [forming nomadic flocks in the winter](#). In the spring, the American Robin's [cheerful song](#) fills the air.

Another common bird that you may see in this area is the Downy Woodpecker (*Picoides pubescens*). These woodpeckers have white bellies and a mostly black back that's spotted and streaked with white. The male Woodpeckers have a red spot on the back of their head, while the females do not (Fig. 2). If you are so inclined, the Woodpeckers are easy to attract to your backyard – they love eating suet, sunflower seeds, and peanuts. So if you want to see these beautiful birds around your house, buy a [suet cage](#) and [suet](#) from any grocery store, pet store, or online shop, and watch as these birds appear all around you. Downy Woodpeckers communicate with a [high-pitched whinnying sound](#), so be sure to go out and listen for their calls.

Like Downy Woodpeckers, Hairy Woodpeckers (*Leuconotopicus villosus*) are also very common, and at times are hard to distinguish from Downy Woodpeckers. Hairy Woodpeckers are comparatively larger overall, and have a longer bill, almost the length of their

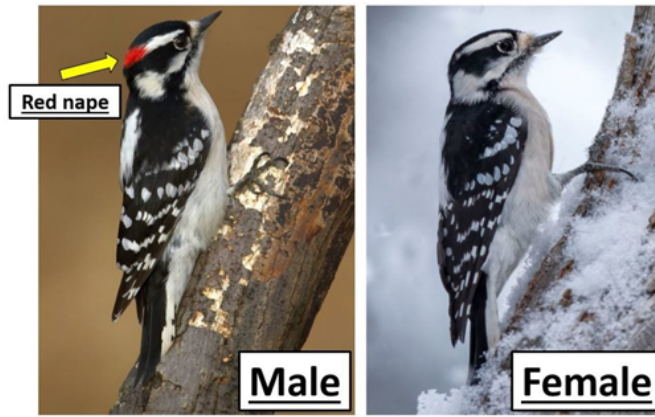


Figure 2: The Downy Woodpecker. Males have a distinct red spot on the backs of their heads while females do not.

heads. Like the Downy Woodpeckers, the male Hairy Woodpeckers have a red patch on the back of their heads which is absent from the females of the species. The [Hairy Woodpecker's call](#) is commonly a short, sharp “peek,” although they also make the whinny sound that Downy Woodpeckers are known for.

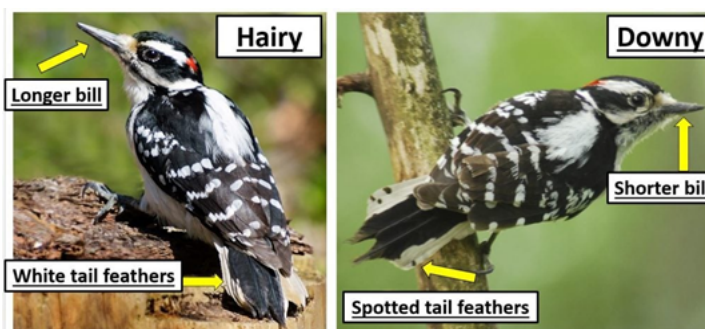


Figure 3: The differences between Hairy and Downy Woodpeckers.

One of my favorite childhood birds is the House Sparrow (*Passer domesticus*). These birds are found all over the world, and are now one of the most abundant birds in Pennsylvania.

Unfortunately for native ecosystems, House Sparrows are an invasive species that compete with many native birds for nest cavities (and usually win). These Sparrows can live anywhere, including most urban and suburban areas, as they easily adapt and live near humans. If you want to have more of these birds in your backyard, give them corn, millet, and milo – Sparrows love grains, and many will not hesitate to eat your popcorn at sporting events! Male sparrows have predominantly brown backs with black streaks, while the females are duller and lighter brown overall (Fig. 4) Sparrows make a nice [“cheep” sound](#) that can be heard all across the world due to their widespread populations.

The last bird I want to mention here is the Northern Cardinal (*Cardinalis cardinalis*). The Cardinal is one of the most popular birds in PA and is commonly seen at bird feeders. The male Cardinals have beautiful red coloring with a black mask and throat, while the females are orange-brown with some red coloring on their wings, beak, and tail.

These birds absolutely love seeds, so if you want to attract them to your backyard, fill your birdfeeders with sunflower seeds, safflowers seeds, corn, and peanuts. Since Cardinals have short beaks, provide them with a birdfeeder

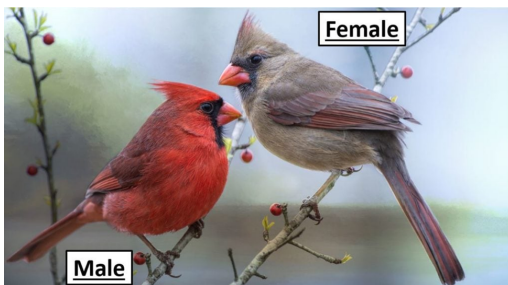
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**Figure 4: The male and female house sparrow.** Males have gray crowns, black bib, and white cheeks with a brown back. Females are tanner, with a lighter brown back and a tan belly.

that is easy for them to access and use, such as [trays](#) and [hoppers](#). Both male and female [cardinals](#) sing, making clear whistled melodies.



**Figure 5: Male and female cardinal.** Males are red, while females have an orange-brown coloring.

If you want to learn more about these or other types of birds in our area, there are many useful websites, such as [Bird Watching HQ](#), that will provide you with everything you want to know about these birds. Additionally, it just so happens that the director of the BMS program, Dr. Ralph Keil, is an avid hobbyist birdwatcher, so if you're in search of a certified bird enthusiast to talk to, you need

wander no further than the College of Medicine's fifth floor hallway. As the days warm and the evenings stay brighter later, give yourself a well-earned metaphorical and literal breath of fresh air, and go for a walk to look for all the amazing birds in our area.

## **Annuals vs Perennials**

By: Jackson Radler

Have you ever wondered why some cultivated plants need to be grown from seed and planted anew every spring (e.g. tomatoes, sunflowers), while others return year-after-year with little human intervention (e.g. rhubarb, chicory)? As a kid, I was told that all plants were either *annuals* or *perennials*, as if it were a fact inherent to their existence. While this explanation is partially true, there's a bit more nuance to it than that. In celebration of spring's arrival, let's dive into the wild world of plant reproductive strategies!

All organisms grow and reproduce, and in doing so must balance allocating limited resources between the two. Multiple strategies have emerged for doing so, and it's useful to the gardener and botanist alike to

categorize plants based on the strategy they employ.

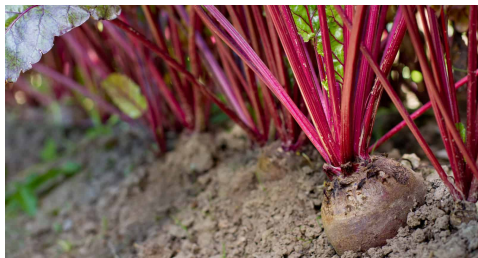
Plants that complete their life cycle in one growing season are termed *annuals*. This means a seed germinates, grows leaves, flowers, and produces seeds in one year – in other words, they prioritize rapid reproduction over prolonged growth. Annual plants typically reproduce only once, a reproductive strategy that jokester biologists termed “big-bang reproduction” (this is actually true). Common examples in the garden are sunflowers, beans, and cucumbers.

In contrast, some plants' resource-allocation is more evenly balanced between growth and reproduction. These plants spend their first growing season investing energy in vegetative structures (stems, leaves, roots), and store excess sugars underground (biologists make distinctions between *roots*, *tubers*, *bulbs*, etc. – but they all serve a similar role) which allows the plant to survive through the winter. Then, after spending a season establishing themselves, these plants flower during the second growing season, produce seed, and die. Such plants are termed *biennials*. Many vegetables grown for their edible root are biennial, such as carrots,

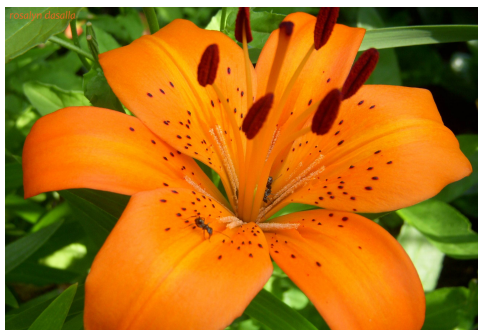
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beets, and onions. These plants are typically harvested at the end of their first year (never getting the chance to flower), when their root is large and packed full of energy.



Plants that live for more than two years – with their resources devoted more towards longevity than quick reproduction – are termed *perennials*. This term is typically used to refer only to *herbaceous perennials*: plants that grow and flower during the summer, die back in the winter, and return in the spring year after year (lilies are a common example).



Herbaceous perennials have an ongoing presence underground, with hardy root systems that can weather seasonal changes, while their above-ground parts must regrow every year. Plants that have a presence above- and below-ground regardless of the

season (e.g. trees) are called *woody perennials*; however the term *perennial*, when used unqualified, usually refers only to the herbaceous variety.

Because of interaction with humans, some plants today grow far outside the habitat they're adapted for, and this can influence their life cycle. For example, tomatoes are commonly treated as an annual plant; in North America they live for one year and are regrown from seed each spring. However, the wild ancestor of cultivated tomatoes (native to Ecuador and Peru) exhibits perennial behavior in its warmer habitat. Tomatoes can't survive cold North American winters, so appear to exhibit annual behavior even if their genetics would allow for year-after-year growth.

Next time you see a plant in the garden or growing wild, I hope you stop to consider what strategy it uses to make a living, and how this changes the way in which humans interact with it!



## Spring Recipes: Drinks

The Transfusion  
By: Mindy Johnson



*We taste: mental freedom*

*Pairs well with: golf, Goldfish crackers*

For those of us graduate students here at Penn State College of Medicine, we might think of a relatively common medical procedure when we hear the word “transfusion.”

That is not the case here. Meet the Transfusion: presidential cocktail turned beloved golf club concoction.

The Transfusion, also known as “golf’s greatest drink,” is a light purple, bubbly cocktail that is



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easy to make and even easier to drink. Have no fear – there’s no rule that says you need to be on the golf course to enjoy it!

While the origin of the Transfusion and its name are largely unknown, the cocktail was a favorite of former President Dwight D. Eisenhower. It has been said that he would enjoy a Transfusion following his daily round of golf upon retirement.

The name is also believed to suggest a hangover remedy. The vodka is the ‘hair of the dog’, concord grape juice provides sugar and electrolytes, ginger ale offers carbonation that, with ginger root, helps to soothe nausea, and lime juice is high in vitamin C and antioxidants.

So, whether you need something to keep you in the game or a taste of mental freedom from the weekly woes of grad school, the Transfusion should do the trick. Cheers!

## Ingredients

- 2-3 oz vodka
- 1 1/2 oz **concord** grape juice  
(Note: the concord grape juice is what makes this cocktail. I do not recommend swapping it out for other juices.)
- 1/2 oz fresh lime juice

- Ginger ale
- Lime wedge or frozen grapes for garnish (optional)

## Instructions

- 1) Fill 3/4 of a glass with ice
- 2) Add vodka
- 3) Fill remainder of glass with ginger ale, leaving 1 1/2 in. of space at the top
- 4) Add concord grape juice and lime juice
- 5) Garnish with a lime wedge or frozen grapes (optional)

*Editor’s Note: An alarming amount of vodka can be used in this and still be absolutely delicious. Proceed with revelry/caution.*

## Pimm’s Cup

By: Greg Kincheloe

Have you ever found yourself sitting in the warm sun, having the thought “Damn, I really wish I had a bubbly English-gin-liquor-based drink with a cucumber in it”? Well me neither, until I had my first Pimm’s Cup. This recipe requires a very specific type of alcohol called Pimm’s, which is a fruity English gin and can be found usually at your local Fine Wine and Good Spirits store. While this may be an investment, it is completely worth it, as this is a perfect spring and summer

drink that is as delicious as it is refreshing.



## Ingredients:

Pimm’s No. 1 Gin  
Lemon Juice  
Ginger Ale  
Cucumber

## Instructions:

- 1) Take a tall glass of ice and add 2 oz. of Pimm’s and 1/2 oz of lemon juice. Mix.
- 2) Fill glass the rest of the way with ginger ale
- 3) Slice a cucumber and put multiple slices in the glass as well. This gives the drink a refreshing cucumber taste while also giving the illusion of drinking something healthy.
- 4) Enjoy!

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## Current Student Feature: Mindy Johnson

By: Natasha Morales

Mindy Johnson came to the College of Medicine in 2020 to pursue a PhD in Anatomy after receiving a B.S in Kinesiology and Exercise Science at the University at Buffalo and a M.S in Anatomy at The Ohio State University. I have known Mindy for over three years and have worked closely with her as her friend and only other Anatomy co-TA, and can say with full certainty that Mindy's commitment and passion for teaching, in addition to her professionalism, dedication, and complete selflessness for the success of her students, is unparalleled. Mindy spent countless hours in Anatomy lab daily, offering as much help and guidance as she could to her students all while also conducting her dissertation research on Parkinson's Disease with Dr. Xuemei Huang. Her hard work does not go unnoticed by faculty, as Dr. Evan Goldman, Director of Education in Human Structure and Associate Professor at Penn State College of Medicine, expressed that "being an anatomy teaching

assistant takes more than just knowing the names of structures." Anatomy is the story of the human body and Mindy is an excellent storyteller who brings life to every muscle, bone, and organ! Students love her for her knowledge, dedication, and teaching and we are very lucky to have her as part of our team!"





Other teaching assistants have also remarked on these qualities that make Mindy a leader within the Anatomy department, as Laura Odom, a 2<sup>nd</sup> year Anatomy PhD student who has TA'ed with Mindy expressed "if you don't already know Mindy and her passion for being an educator and leader, let me start by lauding her (and Natasha's!) recent achievement of being

honored for this year's Leaders Celebrating Leaders banquet for their teaching efforts. Over the past year of working with Mindy, I've witnessed her unparalleled dedication to education, research, and peer mentoring. On several occasions, Mindy has taken time out of her tremendously busy schedule to provide guidance whenever I had questions about making lectures, where to find resources, and how to approach research topics. Lastly, and certainly not least, is the fact that Mindy is an invaluable friend and supporter to have in your corner. Graduate school is riddled with seemingly impossible circumstances, and having a friend like Mindy who listens and encourages you is a necessity."

Medical students, physician assistant students, and graduate students that have had Mindy as their TA are always immensely grateful for having such a knowledgeable and devoted teacher. Natalie Pahapill, a medical student at the Penn State College of Medicine, stated that "Mindy was an amazing TA. She always was always very kind and approachable. She went above and beyond to make sure that students developed a comprehensive understanding of anatomy, and always made herself readily available especially during exam times. Anatomy lab would not have been as amazing an experience without her!"

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Students and friends at the College of Medicine, like Rebecka Serpa, a Neuroscience & Clinical Translational Sciences PhD student, have nothing but good things to say about her, as she expressed that her “personal experience with Mindy has been that she has been dedicated and passionate about teaching and she's great at it. She took time out of her day to help me before a Neuroanatomy exam because I could not understand the concepts and she was so patient with teaching me the basics and techniques that would help me prep for the test. I passed that class because of her. Everywhere I go with Mindy, all the medical students come up to her to say hi and catch up and I can see why. She loves what she does, and it shows through her teaching and personality.” Fellow Anatomy PhD student and friend Greg Kincheloe stated that “I can say I have never been disappointed spending time with Mindy. She is hilarious, down to earth, and always down for a caffeinated drink. A+ human being and a fantastic friend.” In essence, Mindy is an invaluable member of the Anatomy department and the student body of the College of Medicine, as her knowledge, kindness, and perseverance will surely take her far.

## **The Workout Playlist: A Curated Sample and Tips on Making Your Own Mix**

By: Anthony Habib Rahawi

As the weather begins to warm up, the motivation to be more active begins to increase. This can include going on outdoor runs, lifting weights, joining group classes, hiking, or any other outdoor activity. While that internal motivation or external sources like caffeine can be effective in getting you to start your workout, maintaining your workout can be difficult as you become more exhausted physically or mentally. To combat this, you can listen to a playlist designed for exercising!

Workout playlists are intended to induce physiological responses that are favorable to the environment: spike up your heart rate to give yourself some extra energy and motivation to continue the activity at a steady rate or push through that last bit with some extra strength. Even the transition between songs can bring some extra excitement that makes you physically forget your exhaustion. However, the songs that are in a workout playlist can be as important as the workout itself; choosing the wrong songs can have an inverse effect if they cause you to feel too relaxed. This article will primarily focus on the qualifications for effective song choices in a workout playlist so that you can create as efficient a mix as possible. At the end of

this article, I will include a link to a playlist I curated for this occasion. As a disclaimer, this guide will focus more on creating playlists for exercises that require high energy or encourage serious amounts of sweating; these tips are not recommended when creating mixes for mindful exercises or activities that focus on meditation.

A classic workout playlist primarily consists of music with faster tempos. Tempo is defined as the speed of the song dictated by the number of beats per minute (bpm); effectively, tempo is measured the same as heart rate. As a result, multiple studies support the claim that the tempo of a song can directly influence one's heart rate; a song with a tempo faster than your current heart rate will stimulate an increase of your heart rate. While any upbeat song will work well, I recommend including songs with a tempo of 120-160 bpm. At a heart rate between 120 and 160 bpm, your heart can pump blood to your muscles at a rate that most efficiently delivers the oxygen they need and removes any waste buildup that is produced in the process. Listening to music with tempos of 120-160 bpm can keep your heart rate at a favorable range for exercising. However, songs with a tempo of 160-180 bpm are advantageous for anaerobic exercises such as sprints or lifts with a higher rate of perceived exertion.



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While up-tempo songs are the most ideal to listen to while working out, personally impactful music also holds great weight in workout playlists regardless of tempo. Other musical characteristics such as dynamics, lyrics, and instrumentation can elicit excitement from the listener for a multitude of reasons, but this is usually very subjective. For example, to an avid consumer of music from the Baroque period, [Bach's Suite No.3 in D Minor, BWV 1068: II. Air](#) might be more invigorating than an [upbeat rock song](#). Whether the music comes from your favorite movie, a nostalgic album, or anything else that brings you excitement, there's nothing wrong with including a slower song on your personal workout playlist so long as it motivates you to keep pushing forward.

Fast and impactful music are key additions to any playlist when you want to keep yourself as motivated as possible. Remember this and you'll be able to create a playlist so powerful you'll be able to power through that last stretch of your run or complete that last set with ease. If you'd rather listen to a pre-made playlist, you can follow the link below or scan the QR code to check out Boosted Beats, a mix I created that hopefully keeps you energized!

<https://open.spotify.com/playlist/6CBTpuZwj4R798Ao5BmOM1?si=8ebd520648374dee>



## The Cocoa Beanery: Roast in Peace

By: Greg Kincheloe

In case you have not heard, The Cocoa Beanery location by HCAR has finally closed its doors after many years of serving the Hershey Community. In its place will be another, different, coffee shop owned and run by Englewood. Though this lapse in service will likely only last a couple of months, I think it is time to acknowledge the contribution of The Cocoa Beanery to both our hearts, stomach acid, and taste buds.

First and foremost, The Cocoa Beanery, owned by Hershey Entertainment & Resorts Company, was an endangered animal from the start, being practically the only non-Starbucks coffee shop even remotely close to the Hershey Medical Center. As such, it attracted patrons such as myself, who prefer supporting local businesses over chains (because why support one multinational megacorporation when you can support a *different* multinational megacorporation, amiright). And let's all acknowledge that The Cocoa Beanery was genius.

Competition breeds excellence. Competition breeds innovation. Competition breeds competence. These are all phrases that The Cocoa Beanery probably would have lived by, if it ever had any competition. Instead, The Cocoa Beanery lived a peaceful, mediocre life knowing that there were only two other coffee shops that were walking distance from the Medical Center: the hospital Starbucks, which was often inundated with online orders and long lines and, incredibly, *another* Cocoa Beanery located in the Hershey Lodge. As a result, the bar for coffee shop superiority was low, and The Cocoa Beanery often liked to dance on that bar instead of wasting the unnecessary energy to jump over it.

All of this being said, it is obvious that The Cocoa Beanery became the target of many jokes among friends. A cigarette butt on the street may prompt a "looks like someone spilled some Cocoa Beanery coffee beans" or a particularly bad day of acid reflux would call into question whether or not I had Cocoa Beanery drip coffee the day before. An anonymous quote from a long-time patron of The Cocoa Beanery put it best, "*The aroma of a recently lit campfire emanates from your cup. The taste of ash hits the tongue. You wonder, am I having a stroke? No. These are in fact the charred beans used in a Cocoa Beanery cup of Joe. Enjoy.*"

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However, with all of its mediocrity -and possibly because of it- there was charisma. There is something undeniably charming about a place that looks at its patrons and says “I’m your only choice. Deal with it.” Whether it be the breakfast sandwich consisting of soggy eggs squished between two microwaved Eggo waffles, or the back room that is seemingly always closed for a private event (though none have ever been witnessed), or the spotty-at-best wi-fi connection, or the incessant loop of high-tempo elevator music, The Cocoa Beanery somehow held a place in our hearts. Happy memories were had there. Sitting in the sun, sipping the cold brew (which in all fairness, was excellent) and catching up with friends outside The Cocoa Beanery will always be a pleasant memory. So with true sincerity, I’d like to say Rest in Peace, The Cocoa Beanery. We loved to hate you and you will be sorely missed.

*If you enjoyed what you read and want to contribute to the Summer 2023 issue, please don’t hesitate to reach out to us at [lionstalkscience@gmail.com](mailto:lionstalkscience@gmail.com) with your idea or keep an eye out for sign-ups when it becomes shorts weather!*  
*Stay sunny,*  
*The LTS Editors*

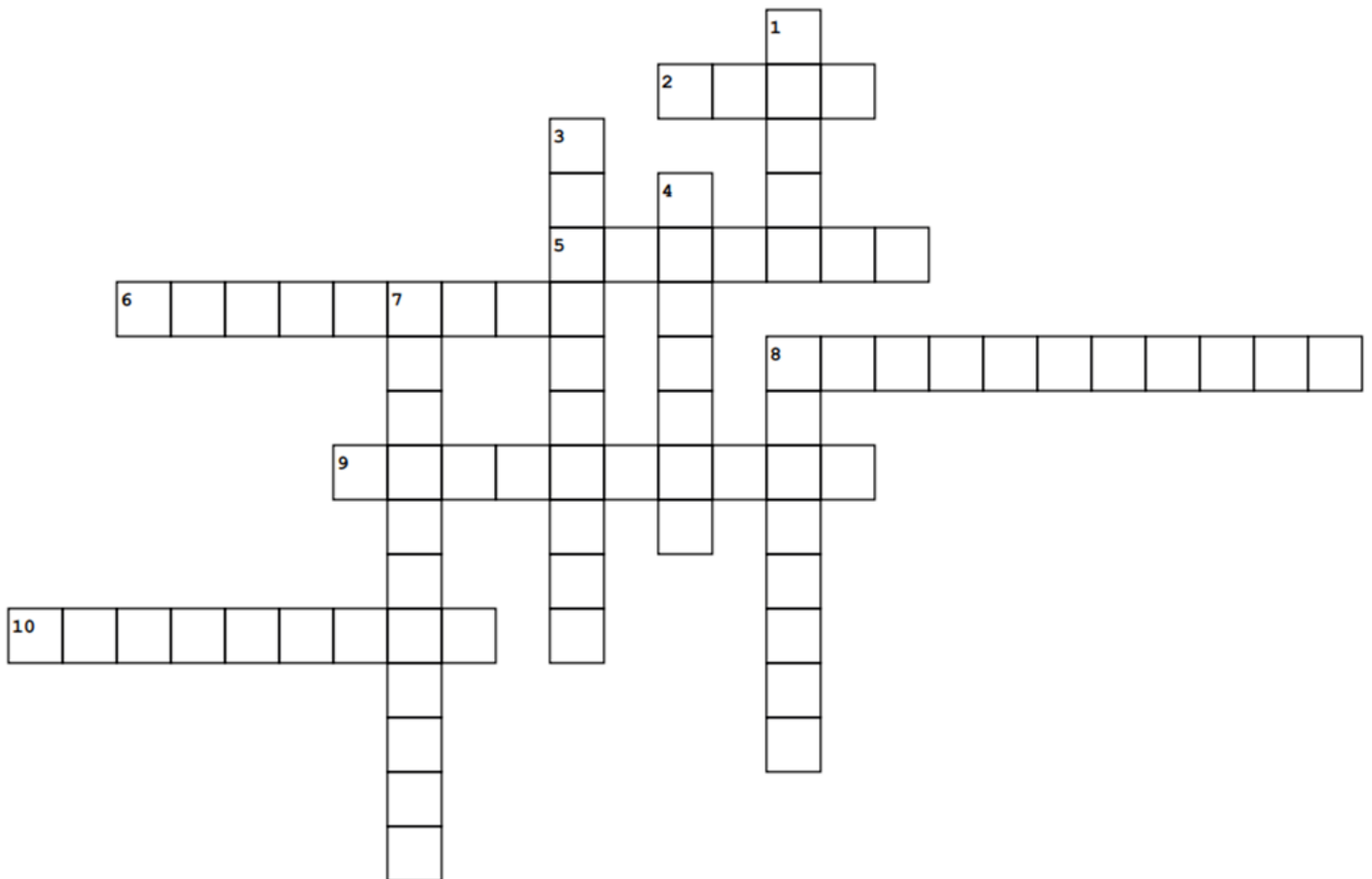


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Puzzles, Games, and  
Artwork

## Spring Issue Crossword



### Across:

2. Downy Woodpeckers love to eat this
5. Type of grape juice used in Transfusion cocktail
6. GSA social event in early May
8. Mindy is a \_\_\_\_ when it comes learning about the human body
9. April is \_\_ disease Awareness Month
10. birds with most noticeable color differences between males and females

### Down:

1. the speed of a song based on beats per minute
3. Can have a huge impact on CAR T therapy responsiveness
4. Pimm's gin is a \_\_ gin
7. The specific type of malignancies that CAR T therapy is effective for
8. The 'photo' part of photosynthesis

Puzzle by Stephanie Baringer

*Link for online version:*

<https://crosswordlabs.com/view/spring-issue-crossword>