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# White Coat Central

# Preface

#### What is White Coat Central?

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We are thrilled to present you with the inaugural edition of the White Coat Central. This magazine reflects the brilliant, creative minds of our Central Michigan University College of Medicine (CMED) community, including current students and alumni. We are grateful to every author that contributed their work to this edition.

This magazine is a product of the CMED Student Magazine SIG, which was newly formed in 2019-2020. The goal was to provide a creative writing outlet for all members of the CMED community, including students, faculty, staff, alumni, and other affiliates. We wanted to create a platform that honored their unique talents and skills beyond the classroom and clinical context.

In the pages that follow, you will find creative works ranging from podcasts to visual arts and poetry. This edition truly fulfilled our mission to represent the diverse talents and interests of our CMED community, and we are excited to share their work with you. We hope you enjoy our first edition, and we look forward to many more!

Archana Bharadwaj, MPH, CHES and Alexander Mortensen, MPH

#### Why Art in Medicine?

S. Sethu Reddy. MD, MBA and M. Ariel Cascio, PhD Chair, Discipline of Medicine and Asst. Professor in the Art of Medicine

We are a logical, rational lot, espousing evidence-based medicine and rewarded for what we know. But, are we the best physicians that we can be? In his book A Whole New Mind, Daniel Pink makes a case of future dominated by Right-Brainers. For the past century, the Left-brainers have led the way, with individuals being trained in technical skills and armed with an MBA. The components of an iPhone are not revolutionary but the design and co-mingling of functions sets it apart from the competition.

Although physicians must have adequate foundation of knowledge, how does one gain more satisfaction from one's occupation and provide a more nuanced, textured care to one's patients? Exercising our right brains is one way to enrich our day to day lives and enhance our working relationships with our colleagues and patients.

Everything we do interfaces with design, art, and literature. How are our white coats designed (and how do they operate as symbols)? Why are patient examination gowns styled in a certain manner? Why does your EMR look the way it does (and what plot does it convey)? Can a hospital bed be improved upon? What does the architecture of the patient room symbolize (and how can it exude a positive sentiment for our patients/relatives)? How do we read and interpret the patient's story to arrive at a diagnosis and treatment plan? How do we tell the story of that diagnosis and treatment plan to the patient in such a way to come up with a shared meaning? These questions invoke some of our important end-goals. To reach them, we must exercise our right brain – imagination, reflection, storytelling, empathy and innovation.

Art is a broadly inclusive term. Perhaps it's a blog you post on a weekly basis. Perhaps, it's a short story or poem about one of your recent experiences. Perhaps it's your 30 pictures of a nature scene as you experiment with framing and lighting a particular setting. Perhaps, it's your sketches of a patient with her pet dog or a brave person enduring IV chemotherapy.

There's increasing realization that we need to more humanistic in our delivery of healthcare. After all, we are human, even if institutions may dehumanize. Through the arts, we seek to combat that dehumanization. Humans respond to stories. Humans remeber stories. Humans learn from stories. Each of our patients have their own story to tell. As care providers, we play a small but critical role in their story. As we communicate with each other, we must not only rely on and relay the facts, but also tell the story. Renaissance Humanism advanced "the new idea of self-reliance and civic virtue" among the common people, combined with a belief in the uniqueness, dignity, and value of human life. Reflection and deep thought about our patients in a three-dimensional manner rather than as a compilation of symptoms/signs and lab values will make us more effective physicians.

Participating or enjoying the art of medicine and exercising our right brains will help us embark on this fulfilling journey. We enthusiastically congratulate our CMU College of Medicine students and the Student Magazine SIG for launching this inaugural edition and look forward to many more.



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## A Picture that Transcends Time and Healthcare Culture Andrei Tuluca

his painting is a press commentary piece that came from the time of the French Revolution in 1789. In its simplest terms, this image shows how the commoner class of France was subjected to hard work and underwent suffering that benefited the upper classes within the French hierarchy. This discrepancy in distribution of work, labor, money, and suffering is what ultimately culminated with the revolution, at least from a bird's eye view. During the spring of 1789, there was an on-going general assembly called the Estates General of 1789. Within this assembly, there was representation from the three "estates of the realm", also known as the general social classes of the time. The three classes were the clergy (people of the church), the nobility (the royals) and the commoners (the working class). This image shows the three classes: the third class on the bottom carrying the clergymen (front) and nobility (back). In its most direct translation, "A faut esperer g'eus jeu la finira bentot," translates to "You should hope that this game will be over soon." Taken at surface level and in the context of the French Revolution, one could argue that the "game" in this quote, the revolution, eventually ended. However, the undertones that drove the third estate (class) to revolt against the nobility and clergy during the famed French Revolution have remained themes of inequality beyond the 18th century and well into the 21st. While these undertones may have shifted in perspective, specifics, and context, the core has remained the same, inequality in access to fair labor, health, and happiness (A Faut Esperer).

In order to fully understand how social determinants affected equality and access to healthcare in 18th century France and contrast them to today's inequalities within the United States, we must first establish the context of this image. During the 18th century, France was at the peak of its healthcare inequality. Generally, during this time period, seeing a Physician for illness or pain was reserved for only the wealthiest. Those who could not afford such luxury were forced to go to so called "barber-surgeons" that were able to do similar work compared with the highly exclusive Physicians. However, with the lower cost came higher risks of infection, disease, contaminations, and death from improper procedures. In periods of epidemics with cholera, smallpox, and typhus, rippling effects were seen throughout the lower classes. Known as the world's oldest operating hospital, the Hotel-Dieu was established in roughly 650 AD.



The establishment of the hospital was seemingly rooted in a specific cause, providing healthcare to the poor. This healthcare was to be financially supported by the bourgeois and nobility of France. Specifically, during the 16th, 17th, and 18th century, the Hotel-Dieu was providing medical care to those with no income, no family, and no shelter. All at the expense of the higher estates. However, this care was associated not with charity or benevolence, but with death, disease, and all together despair. To further the example, Hotel-Dieu had a bed capacity of roughly 1,200 but was housing and caring for up to 3,500 patients, necessitating at times 3 persons to a bed. As one can imagine, spread of disease, sanitation, and treatment were at the worst end of their respective outcomes; in the 18th century alone 25% of patients who walked

into that Hospital would not walk out. This begs the question as to what those who contributed financially were doing in terms of health care. It does not take a genius to figure out that higher classes within France were still getting care from the best Physicians who much preferred working privately for the higher classes than in the dirty and infection ridden hospitals that were generously provided to the poor (The Curious History of L'Hotel-Dieu De Paris.). Relating this to the image, the man who is carrying the other two men in the image is clearly in distress and is longing for a change. While not evident in the picture, this similar distress and longing for change within the healthcare establishment was also mirrored by the lower classes. One could make the connection, perhaps far-fetched, that in providing care to the lower classes through their donations, the upper classes appeared to be generous and charitable people. They were applauded for their actions by the general public and surrounding European nations for their consideration and progressive generosity for their fellow, less fortunate Frenchmen/women. However, while they were being applauded, the care being received by the lower classes was atrocious and burdening. Seemingly so, the upper classes were then being carried on the backs of the lower classes, raised above in a celebratory manner, while the lower classes were suffering and on the losing end of this healthcare system. Just as in this picture, the lower class were suffering, and the upper classes were thriving, being celebrated, and creating their own demise that led to the French Revolution.

While this image and the French Revolution may seem to be distant from the modern world of health care, there are many similarities and important connections between them. Unfortunately, in the United States today, health care is not a right of all citizens. The Affordable Care Act was an attempt to create better access to health care for underserved populations, but the results have been less than ideal. While in theory the ACA is a soundproof and beneficial idea for the people of the United States, its execution has proven more difficult than previously thought. Additionally, there are still large gaps in care and coverage

for many Americans who are eligible for the ACA. Similar to pre-revolutionary France, if you had enough money or employment that offers health coverage, then you had few worries when it came to your personal health care. In fact, those with steady jobs or jobs that pay enough for one to afford their own private healthcare do not even need to think about the ACA or learn about what it means. On the other hand, if you have limited financial resources, it is not as easy to get the care you need. In totality then, the ACA has been able to cover many citizens with Medicaid who are income eligible, but this program is not comprehensive enough to make-up for the enormous discrepancies across the country.

The French Revolution was focused on changing ideals in the monarchy to democratic ideals that ensured rights to all people, not just the noble and rich. When considering this with regards to health care, should healthcare be a right that the government guarantees? Surely, there is injustice when middle-class families are faced with outrageous bills for not only the care and treatment that they receive but the mere insurance premiums to access a basic standard of coverage. As the third class of France was on the unfortunate end of health care, the "core of America", as the middle class is colloquially referred to, is in the unfortunate medium of not being poor enough to fully benefit from ACA rather than private insurance sectors, but not rich enough to be immune from outrageous medical costs.

As medicine has shifted, one last important concept to address is the idea of "epidemiological transition." Simply put, epidemiological transition is the changing patterns in health care and disease within the population leading to altered mortality, fertility, and causes of death. Whereas in the context of our image the leading causes of death were from disease due to lack of sanitation, today's society suffers from much more ominous chronic diseases like diabetes, obesity, heart failure, and cancer (which undoubtably was also present in the 18th century but just less characterized). These epidemiological transitions can really be rooted in two main causes in the context of these

arguments; 1) increased population size due to innovations in medicine that allow people to live longer and have healthier pregnancies and 2) the creation of man-made diseases from increased access to unhealthy lifestyles. Of course, one could delve into the specific nuances of Omran's Five Propositions and attribute more specific causes to this argument, but that is outside the scope of this discussion. Regardless of this epidemiological transition, the core of the argument remains the same in the context of the picture (Jütte, 1989). The lower classes of both societies, 18th century France third class and today's lower middle class in America, are both at the bottom of the totem pole in terms of health care. While in the 18th century, this was because of unsanitary living conditions and detrimental/poor healthcare access, today it is because of the easy and cheap access to unhealthy food, sedentary lifestyle, in addition to poor healthcare access. Instead of having epidemics and pandemics from the black plague or influenzas like in the 18th century, today we have chronic diseases like diabetes and heart disease that are becoming epidemics.

While the medicine has improved from the 18th century, this has only given rise to uglier heads in human disease. We no longer worry about if a child will live past their first birthday, instead we worry about what age a child born into a poor family will develop Type 2 Diabetes that will eventually lead to heart failure, obesity, neuropathies, strokes, and a laundry list of other extremely burdening conditions. On the other end of the spectrum, the rich remain healthy, and if they do not, they have access to the bigger and better medical centers, the more expensive pharmaceuticals, and to resources that allow them to become healthier should they choose to do so. Medicine in the 18th century existed as a commodity, similar to buying a loaf of bread. Medicine was not that prevalent, and wherever it was, the upper classes had access to better care while lower classes had access to rudimentary and disease-ridden care. Today, the paradigm has shifted to a more complex situation. Medicine is available widespread, but it has now become a luxury good that only the wealthy and powerful members of our country get to enjoy. In other words, lower class members can access healthcare and can get medications that symptomatically control their issues, but it is still the upper classes that have access to the care that can cure and prevent morbid medical conditions. This again boils down to not only the access of health care, but to the access of a lifestyle. While the poor man will eat McDonald's and get diabetes, the rich man will eat organically grown food and remain healthy.

In summary, the contrasting social determinants that allowed one to access healthcare in 18th century France and 21st century America are not all that different at their core. While the concept of epidemiological transition surely changes the contexts in which these social determinants are present, the idea is the same; rich people have better access and quality of care than the poor. With this, the lower classes suffer, sometimes at the expense of the upper class. Perhaps not warranting an entire societal revolution like in 18th century France, a health care revolution is absolutely needed in the United States. We are headed in the direction of massive health care costs and mortality rates sky-rocketing from chronic diseases that will bleed our society and healthcare infrastructure financially.

#### A Lesson to Remember Tom Stuut

He lay in bed and cried himself to sleep,

Losing his wife of 30 years enough to make him weep,

The sorrow that consumed him grew bigger every day,

Then he lost his faithful dog and really went astray,

The demons in his head danced around all night,

And he would fight them, sleepless until first light,

He turned to scotch to make them go away,

But relentless they came at him and forced him to the fray,

Showing up late to work smelling of booze,

He was fired from his job, he had nothing left to lose, Not really feeling himself, he decided to see his physician,

Who told him, I think I know what you mean, I have a proposition,

It is normal for someone who has lost so much to feel so very sad, You need to talk with family, stop drinking and you won't feel so bad, Get out of the house and get some sunlight,

These are simple things you can do to win this fight,

He went home and tried and tried, but still nothing improved,

No matter what he did his mind could not be soothed,

After drinking heavily, he climbed up on the chair,

Put the noose around his neck, life was too unfair,

As he stepped off, he thought about his life,

And how it all started coming apart after he lost his wife,

As the physician was making his rounds he noticed some commotion, When he saw the lifeless man on the

gurney he was overcome with emotion,

It wasn't but a few days ago that this man asked him for help, Telling of a darkness rooted inside him enough to make him yelp, He didn't take him seriously and dismissed him as a drunk, But now realized the man was coping with how far he had sunk,

It was too late now to right this grave mistake,

But to himself that day an oath he did take,

To be a listening ear for those in ample pain,

Without waving them off with a simple "this will fix your brain",

The root cause lies much deeper in the broken soul,

One that may take years to find as you make them whole,

He would not make this mistake again, that he did embrace,

Carrying with him all his years; memories of the dead man's face.



Going left. Grand Traverse Bay, Lake Superior

#### A Lake for Yourself Mike Huber

Ave you ever tried surfing? How about surfing freshwater? If road trip adventures and swimming in cold water is your thing, you are in luck. Surfing the Great Lakes is a great way to explore Michigan and the surrounding Great Lake States while enjoying some fun exercise. Although Great Lakes surfing is becoming more popular each season, it is still in its infancy. With 10,900 miles of Great Lakes coastline, new surf spots are out there still waiting to be explored, which is all part of the certain mystique for those adventurous ones who surf the lakes.

Brace yourself for the cold truth about this sport. Surf season is September to April on the Great Lakes. This is when the air and water temperature drop and storms churn up the lakes making excellent conditions, at times, for surfers of all abilities to enjoy. Unlike ocean swell, which is created by weather systems sometimes thousands of miles away, waves on the Great Lakes are generated by wind from local storms. This means that the waves are choppy and less predictable, and when the wind dies, so do the waves. To find the best surf on the Great Lakes, you need to be at the right place at the right time and have the right gear.

Whether you are a beginner or pro-surfer or maybe just interested in seeing some local surfing, practicing medicine in Michigan may provide the perfect opportunity to venture out to find some local fresh-water waves. Here are five tips to help you start safely surfing the Great Lakes:

#### Weather

You no longer need to be an expert on interpreting weather forecasts to find the best surf on the Great Lakes. There are many apps and websites to check wind speed, direction, and the forecast. My favorite weather app is SailFlow, a free forecast app used for sailing. I use the forecast map to check the wind speed and direction on the lake for the upcoming week to predict which coastal locations will have waves. For checking wave height, you can use data from buoys scattered throughout the Great Lakes. I use the National Oceanic and Atmospheric Administration's National Data Buoy Center (NOAA NDBC) website (https://www.ndbc.noaa.gov).

#### Location

The most common places to surf in the Great Lakes are located next to manmade structures, such as breakwaters and jetties. These structures alter beach topography and enhance the shape and size of the waves. An energy-saving bonus of breakwaters and jetties is that surfers can use these structures as a walkway to get past the waves breaking on the beach instead of paddling out through the waves. These structures definitely create a win-win situation for surfing. They also provide wind protection that helps keep the face of the waves smooth. Ideally, you want a storm that will create waves that hit the breakwater or jetty in a direction that allows diffraction of rideable waves in an area protected from the wind and choppy irregular surf.

No article on Great Lakes surfing would be complete without mentioning perhaps the most famous and photographed spot which is Stoney Point located on the west end of Lake Superior north of Duluth, Minnesota. This spot is formed by a rock reef that creates a consistent wave shape that simultaneously breaks in both directions. It works when a strong northeast wind blows across the large fetch of Lake Superior. Then locals will wait for the wind to die off, so it is only groundswell that reaches this spot creating barreling waves that look similar to the ocean with no wind to misshape them.

#### Wetsuit

The key to staying warm and having fun is a proper wetsuit. The thicker the wetsuit, the warmer you will be, but you will sacrifice flexibility and paddling ability. In September, you can get away with a 3/2 millimeters (mm) wetsuit. Wetsuit 101:'3' refers to the millimeter thickness of neoprene found around the torso.



Keweenaw Waterway. McLain State Park, Lake Superior

The '2' refers to the millimeter thickness of neoprene found on the arms and legs of the wetsuit. In October and November, a 5/4 mm is needed. In the winter months when you are walking through snow, there is ice in the water, and ice is forming on the visor of your wetsuit, you really need a 6/5 mm. 7 mm wetsuit boots work well for all times of the year.

#### Boards

Surfers usually have boards of various shapes and sizes for different waves and conditions. There are many board options out there. Many surfers have a collection of boards called a "quiver." If a whole collection is not right for you yet, I think the one-board solution for the Great Lakes is a 7-foot foam "softtop" board such as the "Odyssey Log" by Catch Surf. This type of board consists of foam (similar to a bodyboard) rather than hard fiberglass-covered foam that we typically think of when we picture modern surfboards. Although with a foam board you will lack maneuverability and speed compared to traditional fiberglass surfboards, on the Great Lakes a foam board will help you catch waves easier and paddle around faster because of the greater buoyancy of a board this size. Increased buoyancy is helpful to counterbalance the added weight that results from wearing a thick wetsuit. Additionally, this board size seems to perform well in almost every type of wave in the Great Lakes and they are also much cheaper and safer than traditional fiberglass surfboards. Which takes us to our final tip for surfing the Great Lakes...

#### Safety!

Surfing comes with many risks ranging from minor bruises to drowning. Always use your best judgement when deciding to hit the waves. Be sure to take breaks to rest up a bit, and never surf if you are fatigued or feel uncomfortable with the size of the waves. Lifeguards are rarely at surf spots on the Great Lakes, so you are, more often than not, surfing at your own risk. Always surf with a friend and keep an eye out for each other. For beginner surfers, I would recommend trying to surf waves around 1-2 feet high, which is generally enough to push a board.

Your board is your flotation device that allows you to rest between sets of waves. Staying buoyant and relaxed in the water is key to being safe while surfing. If your board gets away from



Shelter Bay, Lake Superior

you, you will quickly learn that treading water is very physically demanding. A leash is a heavy cord attached from your board to your ankle, which is crucial to keeping you connected to your board at all times. Avoid leashes with a small diameter cord. Leashes with larger diameter cord will not break as easily when they become brittle from the cold. Other hazards to look out for when surfing the Great Lakes are floating debris, driftwood, and ice chunks. Always use your best judgement before hitting the waves. Have fun and always remember to never underestimate how powerful the waves can be on the Great Lakes.

#### The Paradigm of Mindfulness Samuel Borer

Have you ever considered how strange it would be to explain the point of daily physical exercise to an average American 100 years ago?

Throughout human history, both manual labour and sport provided unintentional health benefits to many. However, the idea of going to a gym to lift weights or perform calisthenics, isolated from being a professional bodybuilder or athlete, did not become mainstream until the work of Dr. Ken Cooper in the late 1960's [1]. There had been many anecdotal reasons to exercise in the treatment of certain diseases, but Dr. Cooper helped us see daily physical exercise as a powerful tool for the prevention of disease.

Attempting to explain to a banker in 1920 why he should put on shoes and run two miles before work in the mornings would be difficult because the paradigm for thinking about physical exercise as a physiological tool of preventative medicine did not exist. They did not have the scientific understanding, nor the societal and social buy-in, to look at physical exercise the way we see it now.

This begs the question: what paradigm shifts do we not yet see coming on the horizon in preventative medicine? Our scientific understanding has grown in an exponential fashion over the past several decades. Technology races to give us access to our own health data, as well as generate significant amounts of health data, at alarming rates. Advances in medical treatments provide hope to addressing some of the greatest health ailments of our time. Nonetheless, if I were to place a wager on a paradigm shift we have not yet adopted but will eventually, I would posit that we will look back on this time and remark at how little we as a society understood the benefits of a daily mindfulness meditation practice.

# What Mindfulness Meditation Is, and Isn't

Over the past few years, meditation has become extremely chic. It is often marketed as a pseudo-spiritual stress ball, the likes of which will make you seem very cultured and mysterious to those around you. However, even the slightest push for a more detailed definition tends to dissolve into a thesaurus-powered exposition on 'emptying your mind.' I know this because this is how I reacted for the first half of my decade-long journey in meditative practice.

I stumbled headfirst into meditation roughly ten years ago when I started to become interested in the philosophy and perspectives of Buddhism. As a 16 year old kid who only had a feeble understanding of how to balance a check book, attempting to break down the framework for conscious experiences was a tall order. Looking back, I can understand why I casually toyed with the idea of meditation for many years until I developed the intellectual honesty and discipline to treat it seriously. It was not until I went through a significant period of tragedy and emotional ailment that I stepped across the line of demarcation separating superficial and deep practice. For me, it was the difference between owning a pair of running shoes, occasionally jogging around the block, and identifying oneself as a runner. This seemingly small leap in convention altered the trajectory of my life in ways that seem impossible to express.

To characterize meditation as a tool of relieving stress and preparing you for future stress would be accurate, though

I would argue not complete. The secret sauce of mindfulness meditation lies in the profound revelations one gains along the way about the nature of your mind.

If this is starting to sound a bit woo woo, I assure you that I am going to try my best to un-woo it by the end of this read. For my first act, I will show you the stupidly simple steps of mindfulness meditation.

Sit in a comfortable position. Many find it useful to have their back aligned with the backside of a chair. Close your eyes (to begin with, mindfulness meditation can be done with your eyes open but it takes more practice).

Bring your attention to your breath. You are not thinking about your breath, you are simply paying attention to the raw data of the sensation of breathing. As soon as you begin to do Step 2, your mind is going to wander. Inevitably. You are going to start thinking about your grocery list, why Pilot G2s are the best pens in the world, or how GOT did their fans dirty with the last season. When you notice that your mind has wandered, that is the money shot. Most people take this as a point of failure, but this is the biggest misconception in meditation. The aim of meditation is not to clear your mind indefinitely. In medicine, we call that brain death. The point of meditation is to find yourself at Step 3 so that you can initiate Step 4. Once you notice that your mind has wandered, you return your attention to your breath and begin again at Step 2. Rinse and Repeat.

This is the basic tenet of mindfulness meditation. There are many more advanced techniques, tools, and objects of meditation that one can work up to, but these four steps are the essential components of any serious practice.

#### No Ingredients Necessary, Just Add Stillness

One of the most surprising predictable discoveries you will make when you begin meditating is just how frequently and uncontrollably your mind wanders. It is an excruciating exercise in self-torture to sit still and observe the tumultuous hamster wheel in your head. When



"The Touch" - Rebecca Bogin

aggregated over time, this experience can bring about some substantial insights. I would argue that these insights are the most convincing reason why everyone could benefit from mindfulness meditation.

The best answer to "Why meditate?" I have encountered is one I heard from Joseph Goldstein, co-founder of the Insight Meditation Society and a pioneer in bringing this kind of meditation (known as Vipassana meditation in the Buddhist terminology) to the United States. While on his first trip to Bodh Gava, India, where the Buddha is said to have achieved enlightenment, he asked his first teacher this question. His response was "If you want to understand your mind, sit down and observe it." [2] This simple and practical answer is so useful because it does not require any other baggage. You do not need to be Buddhist to meditate; you do not need to believe in spirituality at all. You only need to have the capacity to observe your mind as it is in this present moment.

Observing your mind in the present moment gives you an intimate view into the nature of your thoughts. We talk a lot about the power of being in the present moment. However, we seldom discuss how the constant conversation we are having with ourselves inside our skulls is counter to this aim of being present. The very nature of most thoughts are grounded in either the past or the future. You are either remembering something that has previously occurred, or you are predicting and contemplating the possibilities of the future. When you are lost in thought, you are woefully unable to be in the present moment fully.

There are some fascinating new insights from neuroscience that can help us unpack the power of mindfulness even further. There has been a surprising lack of research on what is happening in the brain during mindfulness meditation, though there has been increasing academic interest over the past few years. As a scientist myself, I am going to be intentional in not exaggerating the findings or making claims that we cannot make in confidence at this point. The science is giving us hints to the underlying mental processes, but it is still too early to go any farther in our scientific claims that hints.

#### What Neuroscience Suggests About Mindfulness

In 1892, a young aspiring German mathematician Hans Berger was participating in a military training exercise [3]. Growing up in the quiet regional town of Coburg, his move to Berlin had been too dizzying and he was using his one year of military service in artillery to recompose himself. While taking part in the exercise, his horse unexpectedly bucked and threw him in the path of the front wheel of an artillery cannon. Berger narrowly avoided certain death as the horse pulling the artillery cannon stopped before the wheel reached him. Later that evening, Berger received a telegram from his sister, the first time his family had reached out to him since joining the military, inquiring about his wellbeing and stating that she had a strange feeling that morning that something terrible had occurred.

Berger cites this event as the defining moment that spurred his decision to pursue medicine, believing that there must have been a mental connection between the siblings. Writing in his diary, he states "it's was a case of spontaneous telepathy in which at a time of mortal danger, I transmitted my thoughts." Many years later, following his obsession with the brains and thoughts, he attempted to record the electrical activity of the human brain. His first attempts relied on applying weak electrical currents to the surface of the brain, all of which generated no significant findings. Then in 1924, he decided to plug the electrodes into a modified galvanometer, originally used for measuring electrocardiogram recordings. The galvanometer began oscillating and the first crude electroencephalogram was born.

We have come a long way since those first crude readings from the EEG. With

the advent of positron emission tomography (PET) and function magnetic resonance imaging (fMRI), we can look at the activity of the brain in ways Berger could never even imagine. These new tools allow us to expound upon something that Berger had noticed but was bound by the technology of his time in investigating: the resting state brain.

Berger noticed that his EEG machines were recording electrical signals even when the subject is 'at rest'. This was followed by several key findings throughout the 20th century that led to the development of what neurologist Marcus Raichle called the Default Mode Network. In the early 2000s, Raichle showed that the brain has a high level of activity even when the subject is not actively focusing on work. PET scans and fMRIs identified specific anatomical regions of the brain that seemed to be interconnected and active during this period of supposed inactivity, specifically the posterior cingulate cortex (PCC) and the medial prefrontal cortex (mPFC) [4]. These brain regions are closely correlated with our sense of self, reflection about one's emotional state, thinking about others, remembering the past, and thinking about the future. In laymen's terms, the DMN is active when your mind is wandering or in times when you are trying to comprehend a story.

At this point, you might be thinking ahead and guessing where this could be connected to mindfulness. When researchers use EEGs and fMRIs to look at experienced meditators' brains while practicing mindfulness, they see a marked decrease in activity in the Default Mode Network [5]. This may be an underlying reason why mindfulness is able to bring a sense of attention to the present moment, because you are quieting the parts of your brain that are active in your resting state of generating thoughts.

Another interesting, but newer and less rigorous, finding from these studies is the activation of a functional brain region called the dorsolateral prefrontal cortex (dIPFC). The dIPFC has been shown to be a key region in our central executive network, which activates during tasks that require executive control [6]. It has been broadly suspected to play an important role in decision making, the regulation of attention, working memory, and control of behaviour. In fact, there are recent studies that suggest that mindfulness practice may strengthen connections between the dIPFC and the DMN, which could mean that the dIPFC plays a role in the quieting of the DMN.

All of this, while still infant in its scientific confidence, helps frame a larger picture that has been seen in behavioural studies of meditators, the generation of focus. When you are able to dampen your resting thoughts and have more conscious control, that is the very definition of focus. Mindfulness meditation seems to give one an ability to be more present and have greater focus and intention.

#### Self and the Lack Thereof

I made a small comment in the previous section that I want to come back to and expound upon. The areas of the brain that are activated when we remember the past or think about the future, the Default Mode Network, also seem to generate our sense of self. This idea of a sense of self as something that must be activated is a difficult position to take within a standard Western philosophical framework, but is one adopted early by Eastern philosophies.

When you think about your self, you usually imagine yourself as some thing that exists in your head. We have a body, but I do not believe most of us identify ourselves with our body. You do not feel identical to your hand, you feel like you have a hand. There are people born without a hand and have just as prominent a sense of self as you do. I find that most people I talk to imagine themselves as a passenger in their body, viewing it more as a tool from which to move and experience the world.

Your experience with the world is a combination of the raw data from the senses your body possesses. You see an object because of the light waves being translated into electrical signals by your optic nerve. You smell an object because of the chemicals that activate your olfactory nerve. You feel objects through the pressure receptors throughout your body. Your brain takes this raw data and converts them into a coherent story.

However, when it comes to thoughts, most of us diverge from this physiological principle. Instead, we believe that we are the authors of our thoughts and we identify ourselves with them. But, to those who believe this, a question can be posed: where are the thoughts coming from?

In order to think a thought, we must have a choice in what to think. Sure we can consciously say "I want to think about hot dogs", but then we could take one step back and ask, why did you specifically pick hot dogs when you could have said elephants? To say that we are the authors of our thoughts is to imply that we could have picked a different thought to think instead, but is that really true?

This is the paradigm shift that arises when you begin to pay close attention to your experience of thinking. You do not pick your thoughts in the same way that you do not pick what sounds you hear. Thoughts just arise in consciousness and then you take note of them. There is a quote I heard once, but am unable to attribute it to an author, that says, "The body tells the I, 'Feel hunger!', so the I says 'I am hungry!''.

One may feel as if their self, or ego, lives in their head, but the neuroanatomy simply does not add up. We know that as you experience your life, you are using all the parts of your brain in different sequences and patterns. If there is a center for your I, it has not shown itself in the studies we have conducted on the brain. This does not mean that we have any concrete understanding of the sense of self. The science is still elucidating the physiological basis of our experiences, though we are farther along this journey than society tends to believe.

#### **Meditation as Prevention**

Why is this important to even think about?

In the same way that daily physical ex-

ercise would have been a hard sell 100 years ago, I think it is difficult to express the utility of mindfulness meditation as a daily practice for well being. The ability to have greater control of your thoughts and the self-awareness that comes with the observation of your conscious experience cannot be understated in its advantages.

As much as we strive to live a life free of suffering, we all inescapably fail. The bad times are coming and there is simply no way to know if they will arrive tomorrow or in ten years. When those times come, the degree to which you suffer hinges upon one thing: your mind. Your mind will dictate how you respond to these hardships and the amount of friction you face when trying to recover from them.

As the moral philosopher, neuroscientist, and experienced meditator in his own right, Sam Harris says, "Meditation is preparation for the worst day of your life." [7] Alongside the landmark bad times we encounter throughout our lives, we also experience a baseline level of daily suffering. Each day we tend to ebb and flow from positive feelings and negative feelings. Someone compliments our shoes and we feel great. But then we accidentally step into a puddle and we feel every molecule of water absorbed in our sock.

We might not even be fully aware of how much power we give our negative emotions at any given moment of our day. Many spend a majority of their day worrying about the future or lamenting some aspect of the past. As Harris puts it so precisely, "Your life has the character of a kind of long emergency." [7]

This is where the power of a daily mindfulness practice lies.

Every time you are able to become aware of your thoughts and pull yourself back to your object of meditation, it is a bicep curl for your mind. Over time and practice, you will generate a potent ability to view your thoughts as objects separate from yourself. You will be able to measure your interest in entertaining that thought or emotion, and if you choose, have the tools to let it pass without engaging in it. You will be able to remove yourself from the past and future and step fully into the present moment.

And that is a paradigm shift worth considering.

#### **Mindfulness and Medical School**

As a current medical student myself, I wanted to finish by making a targeted plea to my fellow medical students. There is a lot of buzz around the growing physician burnout, and rightfully so. However, there has been less of a conversation about medical student burnout. A study in the Annals of Internal Medicine found that approximately 50% of medical students experience burnout by the time they enter residency training [8]. The amount of information we must consume, the little time we have, and the stress of examinations and the residency match have only grown from year to year.

Mindfulness meditation should never replace actual clinical treatment if you are experiencing burnout or feel yourself inching closer to burnout. However, I believe it would be a mistake to not consider mindfulness meditation as another tool in your wellness toolbox. There has been no known significant negative consequences to mindfulness practice, but as I hope to have shown in this article, the potential benefits are substantial.

Is there a reason not to give it a go?

#### Who Am I? Lauren Aiello

am completely burned out. Never will I say, I did my absolute best. I failed out of medical school. It is false to say that I succeeded in accomplishing my goals. I want to be doctor; I thought Nothing could change that. I worked so hard to get here, But failed every exam. Never will I say I tried my hardest

Because people don't care. All I am is worthless. I will never believe that all Doctors are hero's! So, who am I; Lauren the MD? I wish I was Anything else in this world. I can't say I want To finish what I started. It is time I take off My white coat. I will put on My apron and bus tables. I will never again put on A happy face. All I see when I look in the mirror is A failure. Don't ever say I am Worthy of my degree. There is no doubt I am A disappointment. I will try to not be Lauren the MD. So, who am I?

(Now read bottom up)

#### Scaling Mt. Everest

Kayla Flewelling

I'm writing this, and it is past 2:00 am. Today, I spent the better part of 12 hours studying. At the close of my fourth week of medical school, I've had a flood of reflections that I haven't had the opportunity to share. I thought I would record them, and my effort in doing so is two-fold. First, I would love to shed some light on my experiences thus far for my friends and family who so kindly ask how I'm doing. Second, I'm hopeful that explaining these thoughts will serve as an outlet during a stressful time.

Let's start with the basic question. How am I doing? This is a question I get frequently, and I'm very lucky to have people in my life to ask it. I understand it's a well-intentioned question. But it's also a difficult question to answer, and my answer changes drastically by the day, hour, and minute. Since my classes started a month ago, I've learned that nothing can predict the quality of your day, except the quality of the lecturers talking at you for hours on end. From the outside, it's truly impossible to imagine a reality in which your life revolves completely around studying. This fact alone makes it difficult to relate to anyone outside of the immediate "bubble" of med school. Medical students are misunderstood by default, on a fundamental level, and in a manner that cannot be reconciled. This gap in understanding can't be bridged by one who is not a colleague in the school system. I realize that this sounds melodramatic, and in all likelihood you're probably thinking, Kayla must be exaggerating. How bad could it really be? I had to study a lot during undergrad/ grad school too.

If that's what is running through your mind, it's completely fine! But it also drives me towards my point. My desire is not to undermine anyone else's experiences, but instead to try to describe my own. The point I am trying to make is that someone outside the culture of medical school is not capable of understanding what we do on a daily basis. Working the brain at such high capacity so often is very tiresome. On that note, I want to delve into some of the thoughts I've had.

Think about the things that you dislike doing every day. Make a mental list of the most annoying, cumbersome, and inconvenient tasks that comprise your daily regimen. For many, it may be an aspect of your job. It may be cleaning, doing laundry...the options are virtually limitless. Over the past four weeks, the tasks on my own list have become my main source of reprieve and enjoyment. Many of the activities I used to view as hurdles, like exercising and eating healthy, have become the high points of my days.

Based on that, you might infer that my life has become so terrible that the things I used to hate doing are now fun for me. That's not quite accurate though. It would be more correct to say that daily life is so monotonous that all distractions are welcome.

Every day, I spend 4-6 hours in classes. I go home. And I spend 4-8 hours study-

ing. The amount I study in one day now is equivalent to all the studying I would do for an exam in college. In one 50 minute lecture, we easily cover a week's worth of undergraduate class material. Some simple math will demonstrate that four lectures in a day suddenly become four weeks of undergraduate material, covered in a handful of hours. Nothing could have prepared me for the sheer volume of information with which we are presented regularly, or for the utter mental exhaustion that hits every night.

I want to try to put you in my shoes. Imagine, like we discussed, that your most hated daily tasks are the things you most look forward to now. You wake up early, spend half of your day sitting through extremely dense lectures that often leave you stressed and confused, and as soon as you get home from class for the day, you immediately start studying because you don't want to get behind. Let me rephrase: you can't get behind. Because if you do, you could never possibly catch back up. You would have to simply omit a section from your learning. And if you omit too many sections, you won't pass your exams.

The running joke is "C's get MDs", but you have lost all confidence in your ability to get a C. You look forward to the weekends, mostly so you can catch up on everything you couldn't study during regular business hours. You realize that you know nothing about most of your med school friends because all you ever talk about is school. On the other hand, you really have nothing to talk about to your older friends either, because they couldn't possibly understand the joy you felt when you finally understood PFK1's regulation of glycolytic flux through PFK2 and insulin. And if you just read that sentence and had no idea what those words meant, then you've experienced how I often feel during class. On that note, you eventually realize that you just aren't sure what to talk about anymore.

If you decide to take some time for yourself, you will quickly discover that no activity exists that will allow you to ignore your recently acquired (but very compelling) Med School Conscience (MSC). By the way, hopefully you LOVE (Linguistics Of Visual English) acronyms because every day of medical school requires a personal copy of an acronym field guide just to understand the onslaught of indecipherable capital letters being thrown at you.

That tiny, nagging voice in the back of your head, the MSC, (which has somehow become the prevailing voice of reason in your thoughts after just one month) never goes away, even when you try to do something you enjoy. If you must get up at night to pee, chances are high that the first thought the MSC will grace you with while urinating concerns essential fructosuria, or maybe crystalluria if you're lucky, and that the next thoughts in line are I have to get through 5 lectures today to catch up. That's about 8 hours of work. Do I have any homework due today? When am I going to study those clinical correlates? And then your ever-present MSC will ignite an unwelcome spark of panic, mid-stream, in the pit of your stomach as you question whether it's possible to get through all your work that day. If you get too behind, it tells you, you won't pass your exams. So you make sacrifices for days on end, neglecting to eat, exercise, and relax.

And when you finally take your exam, it will be perhaps the single most demoralizing event of your life. Countless hours spent studying will feel like an utter waste as you stare at the questions, unable to decipher most of the convoluted words and phrases. You will wonder how you could possibly know so little when you worked so hard. Your MSC will pervasively send you into a mid-exam panic, whispering in your head, You can't pass this. You can't become a doctor if you can't pass.

I think that last part is what looms over so many of my colleagues' heads. We are all driven; we despise the idea of failure, and our whole lives, we have been confident that we would not fail. We've always known that the right amount of effort would see us through any task. More importantly, we've always been positive that we could produce the right amount of effort to scale any mountain. Now, many of us are unsure.

Medical school is Mt. Everest, and we

are inexperienced climbers. We are filled with doubts every day, nearly every waking moment, and maybe even when we dream. We look around the room when we are confused, wondering if our neighbors feel the same way. We waste precious time fearing that we will not make the cut, fearing that we are inadequate, and fearing that we are the mistake in a room full of 104 people.

I've always believed that, if nothing else, I could rely on my driven nature as a fallback in the face of struggle. I think I still believe that, although I have many moments of doubt each day. Self-doubt of this magnitude takes a toll over time, and it's honestly a wonder to me that most students survive med school. For the record, I'm not convinced that medical school is a healthy environment for the average person. Some of my friends here have opened up about feeling very hopeless, and I'm hopeful that some of them read this and realize they're not alone in whatever they feel.

In closing, my MSC is beckoning me to sleep so I can prepare to study tomorrow. So this is goodbye! If you made it this far, I hope you enjoyed reading my thoughts.

#### **Thoughts From 2nd** Avenue Anonymous

Do you know the little thought in your head that reminds you that at any moment you could be found out? What if your acceptance into medical school was an oversight? Maybe people are watching your every move, every exam, every evaluation just waiting for the chance to correct that wrong?

I've fought against that nagging for most of my life, and it grew stronger when I started medical school in 2016.

As winter began in my 4th year I discovered myself standing in the Mayo Clinic Gonda Building, looking up at the towering two-story statue reaching for the skies from its pedestal on the wall. I



Statue in Mayo Clinic Gonda Building

was enveloped in absolute silence in the massive, imposing building of marble and glass. There were no thoughts, nothing reminding me I didn't belong, nothing telling me to get out of Dodge before I was found out. I was hushed.

Outside the windows of the Gonda building I saw the original Mayo Clinic, now called the Plummer Building. Still, everything was quiet. Then a thought: "I'm here for a residency interview. They wanted me to come here. They know my scores, saw my grades, saw my past... they see my future." Chills tickled down my arms and back and I fought the choking feeling you get when your body wants to cry but you just can't let yourself be seen with tears.

Match day is yet to come and rank lists have yet to be submitted... who knows where my future lies? No matter the outcome of March 20, 2020 I'll never forget the day my imposter syndrome started to fade as I stood inside the

silent Gonda Building just off 2nd Avenue in Rochester, Minnesota. That day I saw and acknowledged my future self. That day I truly felt like I had started to belong.

## **Home Away From Home:** An Out of State Story

Alexandra Piselli

People always tell you that home is where the people that you love are. Where your family is. As an Out-of-State student coming to CMU College of Medicine, I was so excited to be able to continue my journey toward my lifelong dream of becoming a doctor, even if it meant leaving behind my boyfriend in Georgia and my family in Maryland. So upon acceptance, with extremely high hopes, I moved alone to a new state I

had only been to once.

My first year was filled with a lot of adjustments. Though I found wonderful friends very early on, I still felt sadness that everyone I loved and held in my heart was so many states away. I couldn't see them because I needed to study/because there wasn't money/because there wasn't time. So, I struggled to strike a balance between maintaining those relationships and figuring out how to be happy without them. As I have gotten more involved in the community, I have learned to love this place even if it didn't initially feel like home. But funny thing about home, sometimes you don't recognize it when it's right in front of you.

On November 11 of my second year in medical school, I was driving down 131 and the car in front of me hydroplaned on a patch of ice. In trying to get around that car, I hydroplaned and smashed into them. My car shuddered and went off the road into a snowbank. When everything stopped shaking, I couldn't move my left hand. There was pain shooting up my arm, and I was screaming. Fear and guilt flooded my system. How do I fix this? I'm such a screw up. I wrecked my car and can't move my hand. Who do I call, how much will it cost? Do I call my insurance, do I get out of the car, is the other person okay? God I'm missing mandatory the week before my exam. How could I not have everything under control; I always have everything under control.

In the times I've had to go to the hospital before and I was not with my family, I knew that I had to handle things alone. My parents are wonderful people who, as soon as they know something's wrong, try to come to my side and be the parents that every child deserves, but I was no longer a quick trip from them like I had been in college. No, I was a 12 hour drive away. So as I was being loaded into the ambulance, I knew that I was going to have to handle this alone. While they were hooking me up to the IV, the pain in my broken wrist kept me from using my left hand, so I had the EMT text my friend. I asked him to tell her to tell the professor that I wouldn't be in mandatory because I was in a car accident and was being rushed to the

ER.

I then proceeded to get 10 phone calls from that friend until the EMT finally said "this Jade Foldie really wants to get ahold of you."

Family are people that you never have to ask for the things you need because they know. I sent her the location of the ER I was in, fully expecting her to just come after mandatory class to pick me up. Everyone should be so lucky as to be gifted with a Jade Foldie. She went and got everyone in our little friend group to get me in the ER, an hour away from school, in a snowstorm. Everyone should be so lucky to have an Olivia Lossia to have a car to get them there and the presence of mind to stop for food. Everyone should be so lucky to have an Adriana Calderon to reassure them in their lowest moments that accidents happen and there's no need for guilt.

They brought McDonald's and lit up that ER with laughter and smiles. I was flooded with hugs as they made sure I was okay. They even took me to get my medication before taking me to class, even when they knew I wasn't ready to go back yet and I insisted. They didn't let me go home before my orthopedic appointment that night because they didn't want me to feel alone.

Over the next few days I would find out that the reason they gave to administration for leaving school and missing mandatory was "She has no family here. We're her family. We have to go."

Because of my wonderful medical school family, I wouldn't cry that night because of a twelve hour day filled with a car crash, a trip to the ER, or a broken wrist. I would cry that night because of how lucky I felt to have my family here. To feel at home.

#### The M.D. Odyssey Christopher Twilling

The story of how a student becomes a doctor is one traditionally only shared between those involved in the medi-

cal school process. Doctors share their clinical experiences with other doctors to help refine treatments and medical students share their study strategies with other medical students to make sure they have the best study resources, but rarely do individuals in the field of medicine have the time or ability to effectively share their "origin story" with others, such as their patients. Wouldn't a patient like to know how a doctor, the individual they are trusting with the fate of their health, got to where they are now? As a patient, I was always curious as to how my doctor became who they were and now, as a rising physician, I have the opportunity to share my story with others.

When I first started medical school, I wanted to document my experience as a way to reflect on my journey from student to physician. I do not consider myself to be a writer, I seem to lack the creativity or patience to put my stories into text. However, I do enjoy the art of storytelling and using my voice to convey a message. So, as a means of producing an audio journal of sorts of my medical school adventure, I created a podcast by medical students for those curious about the medical profession. Proposing this idea to my peers was met with much enthusiasm, and after a few days, M.D. Odyssey was born. Over time, the podcast began to gain the attention of my peers and faculty. This once private audio experience quickly became a much larger project involving many members of the Central Michigan University College of Medicine family.

The podcast became more than a means for me to document my story: it became a resource for people to learn more about what makes a doctor a doctor. Additionally, it provided a much-needed outlet for medical students to vent their experiences to the world outside the walls of the medical school. Since its creation last year, many medical students have been on the podcast. I asked some of the more frequent featured guests to share their favorite memories and experiences from recording.

"There are times when being a medical student is really hard but being able to reflect on the most salient memories of



"Waiting" - Stephanie Kado

the past week and talk about what we're looking forward to in the future helps to solidify why we're doing this in the first place."

- Abigail Stearns, 2nd Year Medical Student

"I love sitting down with everyone and discussing the past week of med school activities. The regular guests on the podcast have been a phenomenal support through all my ups and downs in medical school and I look forward to recording every week. I'm thankful to have this outlet because the segments Chris has incorporated help me remind myself that my life isn't just medical school." -Erik Clutter, 2nd Year Medical Student "I really enjoyed interviewing Russel about his experiences as a patient with HIV. It was an educational experience for me, and I hope for listeners who may not be as familiar with the story of HIV in the United States." -Luke DeHart, 2nd Year Medical Student

Since the first episode last year, the podcast has grown and evolved. The mission, however, has always remained the same: to provide genuine recollections on how a doctor is formed and chronicle the events during medical school that impact our daily lives inside and outside the classroom. If you would like to join us on our medical journey, the MD Odyssey Podcast can be found on all major podcast platforms. I look forward to the episodes ahead and the stories that will be shared along the way.

To listen, use the link below. https://soundcloud.com/mdodysseypod

> Finding Your "Something" in 2020 Kayla Flewelling

I hroughout life, many people seek to find their "something." It may be something you love or something you are exceptionally skilled at; just something that makes your life worth living. Fresh, shiny medical students and weathered, rusted medical students alike spend much of their lives pursuing the vague, nondescript "something" known as medicine. We all know we want to become doctors.

Personally, I know I want to help people; I want to understand the beauty and terror of the human body on a deeper level (and terrifying it is when you have to learn all the pathologies for an organ system in a matter of days!). But when I plopped down in my seat during my first days of medical school, I was quickly barraged with an ocean of unknowns that I had never even considered. The unknowns I fought with encompassed the obvious, like clinical knowledge and basic scientific understanding. But they pushed my mind towards a deeper (and at the time, far more ominous) bed of concerns too.

Getting into medical school is like beating a challenging video game that you think about guitting over and over. At first, you feel amazing, unstoppable, and proud because you did this awesome thing that so few ever accomplish. But before you know it, you realize that tons of people out there beat the game in a fraction of the time you did, that you actually sort of suck and need to put WAY more effort in to compare with them, and that somewhere in the midst of all your celebration you accidentally ended up at an entirely new and elite level for which you are utterly unprepared (cue panic)...

And this is where I believe medical school starts to go downhill for many. Feelings of satisfaction know no love for medical students; instead, feelings of inadequacy find us at every turn. And they will always creep in at the most detrimental of times if allowed to do so. For most students, these unwelcome thoughts stem from basing our very worth off concrete, numerical scales. Like grades. Or standardized test scores. Sound familiar?

When we begin getting some of the lowest grades of our lives after putting in some of the highest efforts, it's awfully hard to tell ourselves we can become exceptional physicians. And it's

awfully easy to compare ourselves with our peers internally, further fanning the flames of inadequacy. With all these things being said, I challenge anyone reading this (medical student or not!) to banish these thoughts; to vanguish the habit of determining our self-worth and value as people and future physicians on something as simple as a number.

Medicine is not a square, nor a hexagon, nor even a decagon; if anything, it is more akin to a diamond. It contains many edges, angles, and facets, all of which contribute to its beauty. With a single imperfect cut, a diamond loses significant luster and value, and such is the truth with medicine as well. Taken singly, each physician and future physician is a mere facet of a greater gemstone. This includes students who effortlessly ace every exam and test, and students who pass by the skin of their teeth.

None of us is perfectly well-rounded, but we are all exceptional at something within medicine, be it quantifiable or not. So as the new year comes underway, I challenge everyone (myself included) to remember that you cannot quantify your worth based solely on numbers. Instead, I hope we all continue the search to find our unique "somethings" within medicine; to recognize, embrace, and run with the "somethings" at which we are exceptional; and to cut ourselves a little slack everywhere else.

> [Vessel] Mahela Ashraf, MD

Silence, as I listen the hush of my emotions numbs my soul, yet again. "contain, compose, regulate" as I shatter inside time after time.

I just want to cry with you. Yet, I am just a vessel, a churning mind that processes, overtaken by nausea. I regurgitate crafted words and a half-empty smile. I escape your gaze and breathe in "contain, compose, regulate,"

as I shatter inside time after time.

I just want to cry with you yet, I am just a vessel, close to your mind yet there is a distance that separates your recovery from my downfall. Each day I shatter little by little and my cracks start to show. The water seeps out uncontrolled without reason or warning.

#### I cover myself

with depth confined within the stitches of this white coat fabric. My pain disguised with a stoic stare. My once indestructible empathy shatters and rebuilds sometimes daily sometimes never

Silence, as I listen the hush of my emotions numbs my soul, yet again, "contain, compose, regulate"

#### **Behind Enemy Lines** Tom Stuut

Dr. Harold Bell Assistant Dean

Tom: Let's say that you can go back in time knowing everything that you know now. You are 18, or however old you are in Canada when you graduate, and you don't have any restrictions. Do you still become Dr. Bell of CMed or do you take a different life path?

Dr. Bell: I would say I'm happy with where I am for sure. I mean, it's not, CMED gives a lot, not just faculty but students and staff a lot of opportunity other places don't give them. Just because of the smaller size and the mission, you know, it's not focused on things that typically drive business and status in medicine. If you know what I mean, academic success and money aren't typically the focus here. So yeah, I like where I am. Now, would I have taken the same path to get where I am? That's a bit of a different question. I didn't seek

out mentors that I should have I don't think. Which I think everybody should because, if you don't, you need somebody who has kind of been there or made mistakes to tell you what to avoid. So I didn't really, when I was in my early training phase, even think that it was possible to go through medicine and be an academic researcher and have a meaningful research career as a physician. Because nobody that I ever worked around had that balance, right? I don't know if I would have gone through the path that I went through to get a PhD and get into research. I might have gone through a MD track and that would have given me more flexibility with what I would have done. But again, I would never do an MD and then a PhD and that's what I thought you would have to do. So, yeah, I think I probably would have done a more traditional med school track and have gotten into a combination of academics and service in combination with clinical work. I knew I didn't want to do clinical work all the time because it wasn't the environments that I worked in. It could just be where I was I suppose, but you know they were plaqued by a lot of the old school issues in medicine. So I didn't like a lot of the working environments that I was exposed to. But knowing what I know now I would not have written that off as a feasible option. I like where I am, but I would have done it a little bit differently.

T: Next question, is, I guess not that deep at all. Someday we're all going to die. It's just a fact of life. So let's say that after you die you discover that reincarnation is in fact real. What animal would you come back as and why?

DB: Oh. Uhhhh let's see. What animal would I come back as? Oh man this is a deep one, what do you mean this isn't deep?

T: (audible laughter)

DB: Can it be a plant? Uhhh, let's see, l don't know. Give me some time, can we come back to that one?

T: It does say a lot about your personality. Whether or not you're going to eat other animals and what not. DB: I'll have to ponder that. I was going to say some kind of a, well, I guess you could be a vegetarian bird couldn't you? I wanted to say eagle but I don't want to pick off other animals, although, I eat other animals now so what's the difference? So maybe some kind of bird. So I can take a very high-level view of things, the Earth. Not be restrained by the need to walk on the ground. I don't know what kind of bird. A nice bird, one that lives a long time.

T: One that doesn't get wiped out by DDT?

DB: Yes, one whose shells are not negatively impacted by pesticides. But a bird I guess.

T: Okay, a bird, that's respectable. Next question is relatable for you. Would you rather have to lead a TBL every day for the rest of your life or respond to every concern card submitted by students for the rest of your life?

DB: I'd rather do the TBL because concern cards, more often than not, there's no way to follow up with the student that had the concern specifically, right? So, yeah, I like if I can see a student's got an issue or struggling, even if they might not want interaction in the room, at least you can follow up and walk them through it or help them. Whereas with a concern card, someone could be suffering, and you can't' really address the issue.

T: Yeah, they could be at home sobbing into a pint of Ben and Jerry's while they're writing you a message.

DB: Yeah, so I think TBL would be preferable.

T: Alright, so you struggled with the animal one, so this one is going to be deeper.

DB: Deeper? Oh geez man.

T: Some people fear stupid things like forgetting to wear pants to class while others fear things like dying alone. What would you say is your biggest fear in life?

DB: Well you nailed it man, dying alone.

I think the uh, yeah, the thought of not having, you know, anybody to communicate your last thoughts, you know to be there with you. People are social animals and yeah, that's my, well my worst fear is dying alone at sea.

T: Like a prolonged, you're floating on a little raft for 14 days by yourself?

DB: Yeah, just not having anybody to share the struggle with. Or to close out the story, you know? Or not being able to. Somebody with an advanced neurodegenerative disorder where all of the thoughts are there but you can't, well at least we don't know if the thoughts are there, but we think that certain components of function are intact but you can't communicate somehow.

T: Isn't it tetrodotoxin that does something like that? So being out at sea eating pufferfish alone?

DB: (audible laughter) Yeah, out at sea just desperately spearing pufferfish.

T: So just to elaborate, this might be too much of a follow up but, for you is dying alone like dying in a car crash or dying alone being divorced, losing your kids, or just being in the hospital and they're not able to get there yet? Does that all constitute the same I idea of dying alone, or is one of those ways worse than the other?

DB: I mean, I think if you have loved ones and they're just not with you when it happens then that's a lot different thing, right?

When you're alone because you don't have anybody who cares or would care to be there, which I think is the worst scenario, right? It's not necessarily that you're isolated, but uh, yeah that is pretty deep man. I don't usually think about these things. I would say emotionally alone would be worst, but the second runner-up would be isolated with family. (audible laughter) I'm going to have bad dreams tonight I'm telling you.

T: Alright, this next one is a little less deep. Let's say you're 20 minutes out from a TBL and you're absolutely starving. You have to eat before you show up or it's not going to go well. Where are you stopping and what item are you

#### ordering?

DB: Well I would get coffee, yeah, I get four cream in my coffee so it's like a meal. There's a lot of fat in there. If I had to get food, probably a sub.

T: From Subway?

DB: Yeah

T: Or Firehouse?

DB: Oh no, no, no I don't like Firehouse. I don't know why, I never got into Firehouse. There's not a lot of fast food I like actually, so probably a sub.

T: What about Taco Bell, do you like Taco Bell?

DB: Yeah, every once in a while, but that's a dangerous one if you've got to be in front of a class for an hour and you take down Taco Bell. That could trigger a whole series of consequences.

T: So next one, on your way home from work or on your way into the school, what are you thinking about when you're alone in your car?

DB: Oh no, ahhhhh. It depends on the day. Probably just thinking about what I have to do for that day going into work. If I'm going home, I don't know, thinking about whether or not Fortnite was updated. If it's Wednesday or Thursday, then that's what I'm thinking. Yeah, it all just depends on what is going on that day.

Tom: Do you ever think about grocery lists?

DB: No, no, no not even. If it were up to me to do groceries I would starve probably. Or I'd just be eating Subway all week. Nah, my wife manages that for me, thankfully. I don't know what I would do if I had to worry about groceries.

T: Well then, let's not think about that because that will get us back on the dying alone thing and we don't want to go down that road. (audible laughter) If you were at a bar with your friends, would it be easier to get you out on the dance floor to bust a move or would it be easier to get you up on a stage to sing karaoke?

DB: Holy smokes. Mmmm, is alcohol involved in this evening at all?

T: Let's say yes. You're at a bar with your friends so let's assume there may be alcohol involved. So maybe, what's the threshold? Is dancing going to happen first or karaoke?

DB: Yeah, probably dancing first, although, I have done both in either order. So uh, can you pick the song or?

T: Well, that's the next question. What's your go-to karaoke song?

DB: Neil Diamond, I am I said.

T: Hmm, if it's not Sweet Caroline then I don't know it (audible laughter).

DB: That one is far too cliché. You'll have to look it up. I am I said. It's a powerful piece that speaks to your inner desire to belong. Again, the whole dying alone thing. (audible laughter)

T: We are going to keep going back to this reoccurring theme. I'm a bit scared to drive home.

DB: (audible laughter) I have got to go see somebody before I get home tonight.

T: The next question is healthcare related. What do you find is the most exciting topic in healthcare that you are following closely?

DB: Oh of course it's the zombie plague that is going to arise from the Corona Virus. So what they haven't realized yet is that those people reanimate fourteen days after... no. I just think, in part, due to the ethical issues surrounding the quarantine, like all of that are cruise ships? I can't even imagine.

T: Well there are two things, right? There is the one in Japan where there are all of those infected people and nobody is allowed to leave but then there is the one that has been out at sea for sixteen days and nobody is letting them dock.

DB: It was just allowed to dock, I believe,

in Taiwan. I can't remember but I know they found a port. But just the lack of, you can only be so prepared, right? Because you don't know what the outbreak is going to entail and something like Ebola that has a latency that is very short is going to be different to manage than something like this where the latency is so long that quarantine is a huge issue. Just the way the world functions, public health is not...it's always viewed as an ounce of prevention, you know the phrase? But we view public health as an afterthought or something whereas... I don't know, we are much better at dealing with acute things rather than prevention. So these cruise ships, like they're a nightmare waiting to happen, you know? But I don't know what prevention goes into them. And we know these diseases are prevalent and a lot of them are animal to human transmission that makes that jump and it's just that we don't do a very good job of anticipating or listening to people, like the people who came forward with the concerns over this virus. The economic concerns and how you weigh those versus a real threat and personal autonomy versus the good of society. There are just a lot of issues there that we need to focus on. But I think they are viewed as kind of fluffy and philosophical issues but at the core they're a threat to life and the way we live it. There are a lot of issues in there besides the biology and the virus itself, so I think that's fascinating.

T: So, time for the final question. What do you want the people of CMED to know about you? This is a chance for any shameless plugs about research, your personal life, anything that you want to get out there about yourself.

DB: I just think that people, not just me, but I think this school particularly... students I hope understand that people come to a school like this because they like to interact with students. That in a lot of respects you guys become like kids for us, right? And uh, we like to see you succeed, we like to know what's working, what's not working for you. There's nothing worse for us than seeing someone struggle and not be successful. But I think some students view it as a hurdle to be overcome, this medical school, as opposed to being a collabo-

rative thing where, you know, we want you guys to get there and succeed and be everything that you want to be. But there is, even in some of the feedback we see, there is this perception that there is like a "power play" or a lack of trust and transparency and that is completely unintentional if it's there. Of course, there are some things we can't let students know about. Performance of other students and that kind of thing, exactly where you might stand in the class versus other students and that's not uh... it's all to be in the best interest. of you guys even though at some points it may seem like you would benefit from more information on this or that.

T: And I think that seems to play a role in fostering a less competitive environment here.

DB: Yeah, and that's why I completely understand the interest in knowing if you are in the top ten percentile of the class or not. The reality is that is not necessarily going to make you successful in the sense that you're achieving what you..... you wind up in a position that is best for you or that you achieve what you want to achieve. Right? Or that you make yourself as rounded as you could be. So I get the impression in feedback sometimes that there is a perception that administration or sometimes faculty are making it difficult for students to want to achieve their goals so I just hope that they all know that me, and I know a lot of other faculty, came to CMU mainly for the opportunity to interact with students and be in a more student-centered environment. I wouldn't have recognized a medical student if I fell over them when I was at Penn State and I didn't that atmosphere. I didn't like how disengaged a lot of the faculty were from the medical students. You know, this is a medical school with some research and some clinical enterprise. It's not like schools where they are a research enterprise, and yeah, they have a couple of students that they have to teach. Or it's a major clinical enterprise and there is a medical school. I mean this is a medical school and everything is centered around that whereas at a lot of institutions the school is centered around whatever enterprise keeps the school... either their reputation afloat or their revenue stream or whatever it is.

Here it really is centered on the school, i.e the students, as opposed to the other things that are going on.

T: Alright, well thank you for your time.

DB: Not a problem.

#### **D**r. Jesse Bakke Asst Professor

Tom: Let's say you can go back in time and know everything that you do now. You are 18 and graduating high school and there are no restrictions whatsoever. Do you still become Dr. Bakke of CMED, or do you take a different life path?

Dr. Bakke: If I was to do everything over again? I don't know, I feel like I have been pretty fortunate in life with my choices. Considering where I came from. At 18 I was poor, very poor. I was living off of \$2000 per year in Hawaii which is obviously very hard. But that is what made my choice to go to University of Hawaii, I actually got into some really good universities that I did not go to because I could not afford them. So if I was going to do it over again I would probably go to those universities and knowing everything I do now I would probably become something with a little better life balance like a dentist or something.

T: So is there a specific university that you got accepted into that you regret not going to?

DB: Not necessarily, I got accepted into a lot of them, but the one that both me and my wife got into was UW and I was actually pre-med and thinking I was going to be a doctor and they have a good medical school so I initially was deciding to go there. Then I found out that their tuition, one year there was equivalent to the full tuition at university of Hawaii for all four years. I was like, oh that's not a question. I'm going to go to the University of Hawaii.

T: So would you still get a PhD in biochemistry?

DB: I like the way I did it and I kind of stumbled into it. I was a premed major and had actually taken the MCAT and

everything and then I went and did a lab stint in a lab at the University of Hawaii cancer center and I loved my Pl's lifestyle. I mean he was in Germany traveling and skiing and doing all kinds of stuff and then after I actually got my own PhD did I realize that was an anomaly. And he had the dream of all PhDs and I got tricked into it. But I enjoy it now, like I said, it is very hard. Becoming a faculty with a PhD is an odds game and not very many of them make it. There is an over abundance of PhDs in the world, not US trained, but in the world that are competing for US jobs. So the chances of becoming a faculty member are less than 10%.

T: Some day we are all going to die. Let's say that after your death you discover reincarnation is real. What animal would you come back as and why?

DB: An elephant. They are gentle, giant, they live for a long time, they're smart and they kind of just do their own thing. No one pushes them around, they don't care what they do.

T: Except for mice, right?

DB: Yeah, except for mice and bees. They use bees to scare elephants away from their crops.

T: So the next question is would you rather have to lead a TBL every day for the rest of your life or respond to every concern card submitted by students for the rest of your life?

DB: (audible laughter) That's not a question. I would lead a TBL any day of the week. I enjoy TBLs if I get to interact with students. I really prefer TBLs and interacting with students during the GRAT moreso than the actual application questions. I think it's nice to get the feeling of the group and where they're at and share some little bit more intimate knowledge with the group rather than just teaching factoids.

T: Some people fear stupid things like forgetting to wear pants to class and others fear dying alone. What is your biggest fear in life?

DB: Probably not seeing my kids grow up. So that's probably about it. I think I work too hard to actually spend, I mean I spend time with my kids but I'm always doing projects on the house, farm, fixing my house, building something, fixing something. I always try to keep busy and I think that kind of pushes my kids off to the side, so hopefully I get to see them when they grow up.

T: The next question is a little less serious. Let's say that you're 20 minutes out... I feel like we already know the answer to this question but I'm going to ask it anyways. Let's say you're 20 minutes out from a TBL and you're absolutely starving. You have to eat before you show up or it's not going to go well. Where are you stopping and what item are you ordering? If I had to guess it's going to be a Taco Bell bean and cheese burrito.

DB: Yeah, that's pretty much it. I don't usually eat during the day unless there is free food in front of me. And Taco Bell has cheap food that is not McDonald's. McDonald's is McGurgles to me so I go to Taco Bell and I get their bean burrito because I get two of them and it's about 600 calories. I think that's pretty good. T: When you're on your way home or when you're on your way into work, I mean you have a little bit of a commute, what are you thinking about when you're alone in your car?

DB: Depends on the day. If it's a low stress week I might listen to an audiobook, just any audiobook. If it's a high stress week with a lot of teaching like a Foundations A week or something, then I'll be thinking about the week's lectures that I need to prepare for. If it's a research heavy week then it's my to-do list. Then if it's before a weekend, like a Friday, I usually think of what needs to be done around the house and farm. So baseboards, floor, etcetera, all my to-do lists for there.

T: When you say audio books, are we talking like Harry Potter or like some deep reaching books?

DB: No, they're going to be more like the Harry Potter style. Like fantasy books, I like those, I like sci-fi, crime thrillers, I like a lot, just not non-fiction.

T: So no Stephen Hawking or Neil de-Grasse Tyson?

DB: Yeah, no thanks. I listen to books be-

cause I don't have time to read anymore. I used to read a lot, but I listen to books just to distract myself.

T: Next question is kind of a fun one. So, if you were at a bar with your friends, would it be easier for you to get out on the dance floor and bust a move or to get up on the stage and sing karaoke?

DB: Oh, neither. You would be hardpressed to get me to do either of those.

T: Which one would you be more likely to do? With lots of liquid courage.

DB: I would do a front flip, uh front handspring over karaoke.

T: And if you did do karaoke, say we forced you to do it, what would your go to song be?

DB: That's the problem. I don't even listen to music very often. I don't even know. What's a song out there that's popular?

T: I mean I'm not a big music guy either, but maybe something that everyone knows. Like Journey's Don't Stop Believing?

DB: Yeah, you can put words in front of me and I'll try to sing it, but I sing out of tune and flat. I mean I grew up Mormon and we had to sing all the time and even then, I never sang. I'm terrible. And at Sex Ed trivia, I can't sing at all. I gave it all to Dr. Bell. He has a music voice.

T: Next question is about Healthcare. What do you find is the most exciting topic in healthcare that you are currently following?

DB: Well it's probably going to be more related to my research, like gene-editing. I think personalized medicine, which includes gene editing and immunotherapy are going to be the way of the future. I really think that they're going to be driving the research on diseases that have been left behind. A lot of diseases we haven't made any progress on them outside of Band-Aids that don't fix them so if you can go in and fix the underlying problem, you're done. Immunotherapy for cancer and gene editing for diseases like in case today, beta-thalassemia. Two patients were cured just this past summer with gene editing.

T: The last question is for you to self-promote, which a lot of people don't like to do. But what do you want the people of CMED to know about you? This is a chance for any shameless plugs about your research, your personal life, really anything you want to get out there about yourself.

DB: I am pretty much an open book. I don't know, I always try to tell people I'm not out there trying to be "Professor Bakke" to most people, I mean I'm not recognizable outside of the school. I don't think most people would recognize me because I try to be someone that is more relatable. I'm not far out of your guys' shoes anyways. You know you guys are 6, 8 years behind where I was if you consider a PhD is the same time as med school so I try to be relatable and instill that it's not so much what you know, but how excited you are to learn it. Anyone can learn anything, but not everyone has the motivation to learn it so that's what I really try to push on people. The smartest people in the room are the ones that want to be the smartest.

T: Well thank you for your time.

DB: You're welcome.

## Charmica Abinojar

Executive Director, Student Affairs

Tom: Let's say that you can go back in time knowing everything that you know now. You're 18, graduating from high school and you have absolutely no restrictions whatsoever. Do you still become...sorry, are you OSA director? What is your actual title?

Charmica: Executive director of student affairs.

T: Okay, so do you still become executive director of student affairs Charmica of CMED, or do you take a different life path?

C: No. I 100% know that this is what I'm supposed to be doing in my life.

So I don't see that changing. I don't see my eighteen-year-old self making a different decision. I didn't start out saying that I wanted to work in higher education, so let's start there. So I was a first-generation college student and obviously my parents didn't go to college but they always instilled in me that I was going to college. So I didn't know how to go to college because you have to know how to go. Like college is a whole situation and you have to know how to do it. So my grades were pretty decent and I knew I was going to be able to get into college, but I had no idea what a FAFSA was, how to fill one out, how to choose a major. I just know I always wanted to help people so I kind of was like floating around for a while, you know like most other undergraduate students. You just take the classes and then at a point you have to choose a major and figure out what you want to do. So I was a fashion merchandising major for a while and then decided I didn't want to do that. Then I was a nursing major and then I decided that I didn't like sick people or fluids so that didn't work. And I remember talking to a teacher that I really liked and she was asking me what I wanted to do and I was like well I want to help people. And she's like Charmica, the greeter at Walmart helps people, right? The person who gets the carts from Meijer helps people. You have got to be more specific. So I was telling her about my journey into higher education and I was like I would like to help more people like me. And she was like, you know you can get a masters degree in college-student personnel? And I had never even heard of it. So I was like you can get a degree to work on a college campus? And she said yeah. So back then when I was in school they were just coming out with those degrees so I ended up applying for graduate school. Didn't expect to get in, got in and so that's what I went for. Masters in College Student Personnel and ended up getting a graduate assistantship in an office. It was called the Vision office, like CMU's version of the volunteer center. And so that's how, that was my first student life experience because I was the student who came to campus, went to class and went home. I didn't do anything, I wasn't part of any organizations, I didn't rush anything. So, I really experienced being a college

student as a graduate student. I was there with other graduate students so I got to know about like the opportunities to be involved with in the community, on-campus, off-campus, and that's when I really decided this is what I am supposed to be doing. It came so easy that I knew that this was my gift. So I just went from like, I started as a graduate assistant and then from there a program coordinator, who was running pretty much our SIGs there, she was leaving and was like you would be really good at this. And I had no idea how any of that worked. So here I am, 24, and she was like apply for this job. So I applied for this job and I ended up getting it so I was over student government, student life, all of the fraternities, all of the special, like that on steroids because there were like 400 of those groups. Then I went from there to program manager of like our leadership institute here. So I was the program manager for that at Eastern Michigan. I did that for a while and really liked working with student leaders. I went from there to the center of multicultural affairs which had the LGBT, diversity center and the women's center. And then I left there and went to U of M. So once I started and I realized I really liked working with students and I really liked being on a college campus, I wouldn't change that or the experiences I have or the relationships that I have made with people for anything in the world.

T: Okay. Fashion Merchandising huh? Could we see a boutique in the future?

C: Well you know I'm fly right, so I thought this will be a good major but it's much more behind the scenes purchasing kind of stuff and that's not what I wanted to do and I was like yeah, this is not going to make me happy.

T: So the next question is about reincarnation. Someday we're all going to die. It's just a fact of life. So let's say that you die and you discover that reincarnation is real and you can come back as any animal you want. What animal would you come back as and why?

C: A bird

T: A bird. A specific type of bird?

C: No. But I really can appreciate the beauty of flight. To be able to just fly and interact with nature and be in trees and be able to crap on people, like who wouldn't want to be a bird!? I just think birds are super pretty.

T: Would you be a songbird? Be able to make some pretty noises or would you rather be a turkey vulture and just eat dead things all day?

C: No, probably like a blue bird. I see them occasionally and I have just decided in my mind that they're good luck. But probably a blue bird. The beauty of flight to be able to just fly and interact with nature and being trees and stable to shit on people. That's okay. At least you make some pretty sound. Would you rather be like a turkey buzzard and just eat dead things?

T: And this one, I mean, I guess you only have experience with one of these things, but would you rather have to lead a TBL every day for the rest of your life or respond to every concern card submitted by CMED students?

C: I would have to go with the concern cards. Because some of them are just funny. It amazes me that when you give people the freedom and protection of not knowing who they are, how real people are. Because, I mean it's draining don't get me wrong, but I can appreciate some of these things people said because they were just real. They were raw, they weren't sugar coating it, they didn't have white gloves on, they weren't saying what you wanted to here, they were saying stuff that really ticked them off. And I appreciate honesty so I would say concern cards. And I don't take things personally either, so they never bothered me personally.

T: Okay. So time for the next question. Some people fear stupid things like forgetting to wear pants to class while other people fear things like dying alone. What is your biggest fear?

C: Not living up to my full potential.

T: And how do you measure what your full potential is? Is that just something you'll decide when it's time to go and whether or not you've met that or what?

C: No, I think we're always evolving, right? And so whatever space or stage I'm at in life I'm asking myself how I can do that the best that I can do it. You know, so I really try sometimes I meet the mark and sometimes I come in a little bit below where I wanted to be but I would say knowing that I had more to give in life and leaving some stuff on the table. Like when I die, I want everything off the table. I want to have felt everything that I felt whether it's anger or fear or happiness I just want to make sure that I have felt all of those things. And I want people to remember not what I said or not what I gave them but how I made them feel about themselves. Really making sure that I have the relationships that I want to have with people and say the things that I really want to say. Sometimes in life we feel stuff, right? Like you don't say it so I'm really big into...if I like you, you know that I like you, you know? I make it a point for people to know that and if I love you, I just want to feel that in my heart, and I want you to feel that as well. So, I would just say not missing opportunities to not live up to my full potential would probably be my biggest fear.

T: Okay. Time for the next question. Let's say you're 20 minutes out for a meeting that you have to give a presentation at. You're absolutely starving, and you have to eat before you show up or you know it's not going to go well. On the way in where are you stopping and what item are you going to order?

C: I'm stopping at a smoothie place and I am going to get a smoothie. That's always my go to meal when I want to get full but I don't want to feel full. You know what I mean? Because you can throw a bunch of stuff in there and feel full and it's satisfying at the same time and I don't have to worry about my stomach being upset or those types of things. So I'm stopping at Tropical Smoothie 100%.

T: What kind of a smoothie? Like a fruity smoothie or one with the spinach and all the nasty greens?

C: No, I tend to go with the fruit-based smoothies. Right now I'm on the Smoothie King tip since I have coupons primarily for it and so I had a lemon strawberry smoothie yesterday and that's my jam. That's my go to thing now.

T: Alright, strawberry lemon. Next question. When you're alone in your car, what are you thinking about? Or are you just jamming to the radio?

C: Depends on the time of day. So I'm usually alone on my way to work and on my way home from work. On the way to work I'm wondering if I'm going to be able to get to my to-do list for the day. On the way home from work I'm replaying my day. Figuring out did I do what I could in that given day? Did I make good choices, did I make good use of my time? And then really evaluating what I need to get done for the next day. So I always start my day with a to-do list, right? But I come in here and if a student needs something that to-do list is going out the window. I'm just not going to get to it. So every day at the end of the day I am rolling over, okay, this is what you have to get to tomorrow because you didn't get to it today or you know, this event is coming up so don't forget that you have to stop at GFS in the morning. So normally I'm either thinking about what I have to do or what I didn't get to. It's really a sickness.

T: Next question is if you were at a bar with your friends, would it be easier to get you to go out on the dance floor and bust a move or to get you up on the stage and sing karaoke?

C: Dance floor.

T: Okay. And what would be your go-to dance move or song? Do you have a specific song where you're out there on that dance floor no matter what?

C: Beyonce, Love on Top. I will clear the floor, okay? I will perform solo. That song just makes me really, really happy. One of my favorite songs.

T: Alright. Well, the next question is about healthcare. How has your perspective changed on medicine since you started working at a medical school? Primarily when it comes to interactions with doctors. Do you think about your students when you're interacting with doctors? And think back to some of the stupid stuff you've seen us do? Like, man, I hope this person wasn't like this kid or anything like that?

C: It's made me look at doctors as humans. You know everyone puts physicians up on a pedestal and I'm not saying they don't deserve to be there because I know, and I have a greater appreciation of what it takes to become a doctor. But now I look at doctors as humans and not gods and that has made me more comfortable to have conversations and to be open about things. But I have to be honest, I'm always evaluating doctors now when I am interacting with them. Like, did you just talk to me like I am five? Of course I understand. So you know what I mean? I'm always judging people based on that. Being here has also made me look at medicine a lot different because being in Ann Arbor where you're, you know I worked at U of M, so it was right down the street from everything. My kids didn't have a dentist, they had a pediatric dentist. They had so many specialties and subspecialties it wasn't hard to find anything that you needed. If you needed a doctor who specifically worked on big toe fungus, you could find one in Ann Arbor. Coming up here it's like you can go to this pediatrician or that one. That's it. It has really made me appreciate having access to quality physicians and quality of care and having options. And not having to say I just have to go to this one dentist because it's the only one in town that will accept my insurance. It really made me think about that and health disparities and how that effects people. Because I am insured, right? And I just think about people who are underinsured or have no insurance and how they have to navigate it when you have one or two people in a town. If they aren't accepting new patients, then where does that leave you? So it has made me appreciate having options.

T: So lastly this is just kind of for self-promotion. What do you want the people of CMED to know about you? This is a chance for any shameless plugs about your personal life or anything you want to get out there about yourself or any organizations you are looking to start and want people to join. Anything you want. C: I'm pretty much an open book. I guess the only thing that I would say is I wish people understood how user-friendly I am. Because I get the opportunity to work really closely with pockets of students. You know, MSC or the SIG leaders or students who are on the diversity committee or the environmental committee. But that's not everybody, right? That's one reason why I enjoy orientation so much because it gives me the one opportunity I get for the entire year to work with everybody. But once the school year starts, I don't get that. I get just my cluster of people that I can work with. So I had an M1 come in here for something and we were talking through her problem and she was like "oh my god, you're much nicer than I thought you were." And I was like what? What did you think I was? And she was like "you always seem so serious when I see you!" And I know it's my face, I know it is. Because I'm always thinking, right? But just to know that I'm thinking I'm really user-friendly and it's really easy to approach me, but for her it wasn't. You know what I mean? She had to be pushed to come here and then once she had a one-on-one, she was like "oh, so you are a nice person." And here I am thinking I'm the building ambassador, right?

T: Perhaps someone has started some vicious rumors about you or something?

C:Right? So you know, everything I do here is tied to you guys so I don't have anything that I personally want to promote one way or another. I just really wish people came in here and got to know us. Just for who we are and what we do and the fact that you don't really need anything to come in here. You can just come in here because it's a cool place to come and hangout.

T: Alright, well thank you for your time.

C: You're welcome

## **D**r. Tina Tompson

Senior Associate Dean of Academic Affairs

Tom: Let's say that you can go back in time and know everything that you do now. You are 18 and graduating high school and there are no restrictions whatsoever. Do you still become Dr. Thompson of CMED, or do you take a different life path?

Dr. Thompson: Great question. I still become Dr. Thompson, but I take a different route. Because I went straight through high school, college, PhD, and post doc. No stopping. I think I would have stopped along the way and taken a year or so off. I would have liked to have been more involved in art and so I would have loved to go to Europe and study that kind of thing. Eventually come back to neuroscience.

T: Some day we are all going to die. Let's say that after your death you discover reincarnation is real. What animal would you come back as and why?

DT: Easily, I come back as a dog.

T: Okay, a dog. Any certain breed?

DT: Nah, I'm not that picky, it could even be a mutt. I think dogs just have the best attitude. They give unconditional love, and everything just makes them happy.

T: Would you rather have to lead a TBL every day for the rest of your life or respond to every concern card submitted by students for the rest of your life? DT: (audible laughter) I would rather do a TBL every day for the rest of my life.

T: Some people fear stupid things like forgetting to wear pants to class and others fear dying alone. What is your biggest fear in life?

DT: I guess... just having regrets that I could have done something differently and just didn't and so at the time of my death just to think back and say you're a stupid idiot you wasted, you know, 10, 20, 30 years or something when you could have done that at any time. I'm also scared to death of drowning, but that's a little different.

T: Let's say you're 20 minutes out from a TBL and you're absolutely starving. You have to eat before you show up or it's not going to go well. Where are you stopping and what item are you ordering? DT: I don't eat fast food regularly, but if it's

My absolute guilty pleasure, and I just am starving, I will go to McDonald's and get a medium french fry.

T: With a McDouble or just a french fry?

DT: Just a french fry.

T: It seems like they have the right amount of salt and crispiness.

DT: McDonald's french fries are the best.

T: Yeah, Wendy's fries can sometimes be a bit soggy?

DT: Yes, and a little too thick. And the other kind, Burger King, has some sort of crust on them.

T: Sounds like you have had a few fries in your lifetime.

DT: (audible laughter) Yeah, I have had a few fries. They would be my weakness if I ate them.

T: What do you think about when you are alone in your car? Driving too and from work. Does your mind wander or are you a person who just cranks up the jams and doesn't think that much?

DT: The radio is always on but I'm always thinking. About different things, could be just something that happened the night before or it's preparing for my day. Frequently it will be reliving a conversation I had.

T: And thinking about things that you wish you would have said differently or thinking about stuff that you wish you would have known at that moment that you found out later?

DT: A little bit of both. How am I going to address anything that was unresolved in that conversation? What should I have said? How could I have said it in a better way? That sort of thing generally.

T: Next question is kind of a fun one. So, if you were at a bar with your friends, would it be easier for you to get out on the dance floor and bust a move or to get up on the stage and sing karaoke? DT: Oh lord. Neither of those things are in my sweet spot. Um, it would have to be the dancing because there is no way I am getting up on the bar and singing karaoke.

T: (audible laughter) I am with you there. Nope, not my thing. So is there a specific song that you would dance to? Like a go to that you like to dance to at weddings or anything?

DT: No, you just don't understand. Nothing is going to get me up and moving unless I'm dragged out there. So no, no, no. And everyone appreciates that fact.

T: They don't want to see it either?

DT: No, they don't.

T: Next question is healthcare related. What do you find is the most exciting topic in healthcare that you're currently following?

DT: I think the explosion of artificial intelligence. In particular, the more recent findings showing that in terms of reading radiographic images, how accurate artificial intelligence can be. Identifying findings consistent with those of a radiologist. I think that is cool. Only a couple of years ago it wasn't that well aligned and then the last year or so that made great advances. So I think that's cool.

T: So do you have any words for our aspiring radiologists?

DT: No, I mean you are always going to need radiologists, you know? I do not think they're going to put them out of work, but there's a need and having that first pass done by artificial intelligence when it's possible?

T: That would be pretty cool.

DT: Yes, it would be.

T: And then the last question of the interview is what do you want the people of CMED to know about you? This is a chance for any shameless plugs about research, your personal life, anything that you want to get out there about yourself. DT: (Long pause) I am not somebody who likes to self-promote and so that question is very hard for me.

T: Okay. How about the story behind this Gale Sayers autographed football?

DT: Oh, the Gale Sayers football! So, you're way too young for this, but...

T: I know Gale Sayers. Bears running back before Walter Payton?

DT: Okay. Brian's song, Brian Piccolo and Gale Sayers. Okay, so they were both running backs for the Bears in the 60s. And Brian Piccolo, they were black and white teammates who...

T: He died of leukemia, right?

DT: He died of lung cancer. And he was a young guy and he died of lung cancer. I read the book when I was little and then I saw the movie with James Caan and Billy Dee Williams when I was young. I love the movie, love the story and one of my favorite lines was always, you know, "I love Brian Piccolo", that's what Gale Sayers says to him, "and when you go home tonight get down on your knees and ask God to love him too". I mean I was very touched by that and so when there was a silent auction many years later a very dear friend of mine got that for me. And so that is just a good memory of my childhood as well as my friendship.

T: Well that is very cool and certainly a very nice piece of sports memorabilia as well.

DT: Absolutely.

T: Well alright, thank you very much for your time.

DT: No problem. You're welcome.

#### **Medicine Man**

Jacob Lynn, Mark Slattery, Conner Matteson, and Sal Munaco

#### (Lyrics for an orignial song)

Open up your eyes Try to do what's right

Look at the history It's undeniable Evil and unfair Look at the history It's barely livable We need someone to care

The victims suffer, silent Now they have no trust But can you blame them Left deserted by us

You see, the root of the problem Is at the mountain top But we only want to give A downstream, whispered shout

Look at the history It's undeniable Evil and unfair Look at the history It's barely livable We need someone to care

Fight, swim upstream Find and cure the cause If we don't fight for each other What are we fighting for? (x2)

Black men untreated How's that for cheated? Doctor patient relationship defeated

Yeah there's a lack of trust But can you blame them? The ones who took an oath to help instead betrayed them

Now we claim there's equal opportunity When they don't even have food in their cities Do you really think that's fair? Do you really think that's fair?

Look at the history It's undeniable Look at the history It's barely livable Dr. Ariel Cascio for her guidance in launching this magazine and keeping us on track with magazine milestones.

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OSA for all of their help with planning events and helping us connect with staff that could bring our vision for the magazine to life.

We would like to thank the editorial staff that contributed to this edition.

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