

Insight MD

**PLACES TO
GO, AREAS
TO DISCOVER**

**Brain-
scratching
puzzles and
quizzes to
test
yourself
and your
friends!**

**MEDICINE
THROUGH THE
LENS OF ART**

Winners of "The
Anatomy of Art"

**INSIDE THE WHITE
COAT**

Glimpses into the life of a
physician



Volume 1



Insight MD

VOLUME 1 | FALL, 2024

The Name Unveiled

Ever felt the boredom of life hit you once you've finished your finals? The frustrating cycle of indecisiveness on what to do, where to go or even where to eat, which somehow wasn't an issue whilst studying for the finals, has once more doomed upon you.

Once the much-needed break hits, the mind blanks out. The brain staggers in conundrum thinking how to savour the rewarded moment of peace. Before figuring it out, a new semester unfolds, and the loop continues.

"Been there, done that."

A med student like you face this thought process on the regular.

A med student like you face this thought process on the regular. Staying healthy, organised, and working on things that bring you joy while keeping your spirit alive are all tasks that every student aspires to accomplish, but end up buried, feeling lost in a dark forest - where the bare sunlight of noon penetrates once a day for a short while through the massive foliage.

To disperse this dense foliage and bring to you the light of day, we've created this space, designed to share perspectives from the lives of different people, who were once just like us. Navigate through solutions to your problems, relate to stories you've never heard before, and showcase your inspiring talents to aid you in creating a brighter future of bountiful opportunities!

We hope Insight MD keeps you in high spirits for the insights to come.



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Insight MD

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Letter from **THE EDITOR**

Dear Readers,

It's the time of the month when coloured leaves fall off the trees, revealing their naked bark. It reminds me of the time I first entered medical school, as a child with no shield to face the world once my father left.

In this unknown land, we strived to learn and fight for ourselves, came out of our shells and bloomed into beings with a personality we only discovered as time passed. With challenges to face in the storm called life, we learnt to stand on our feet and be independent. We managed our study life, our household chores and our finances. It is right to say we grew a lot, but we still have higher steps to climb.

Given that opportunities only come once, and that they must be created in order to seize, we decided to create a space of not only articles, poetry and drawings, but a space of comfort, reliability and enjoyment, where life's most important questions are raised, our growth as future medical professionals is continued without haste, and our innermost thoughts and excitements brought to life. We bring to you a comforting, fun-filled, and engaging magazine where we connect to students and their lives, and bring to the table the best bits of advice, quiet entertainment and tickets on managing life in small ways for a bigger difference.

So sit back and enjoy the journey on this train that takes you through Georgia in the eyes of aspiring doctors determined to unlock the mysteries on this path to success.

Yours truly,

Aniqah
Aniqah Inas

Letter from **THE EDITOR**

Greetings, readers!

A year ago, around the same time, I dreamed about taking a step towards standing under a spotlight. The warm tone of the yellow hue softening the edges, but highlighting the beauty of anything under it was mesmerizing. The glimmering rays illuminated anyone and everyone under it but left me intimidated to approach the same.

It was then that I joined GIMSOC and worked with a team I could call my own. The team shared one spotlight - boosting each other to thrive and bask in its glory. Somewhere along the line, this opportunity lent me a hand and brought me brief, yet vital moments, that helped me evolve into an individual who would not be afraid to take the chance if given.

I see this letter as one among those chances, making this magazine my prismatic spotlight.

While I savour this moment with every member who worked on bringing their best efforts to build this digest from scratch, I cannot describe the glee I feel from having our beloved members take part in the joy, by not just reading it, but also glimmering with us with their features. Words cannot describe how grateful I am to witness your enthusiasm in contributing to our inaugural edition.

I hope you have a great time scrolling through these pages, reading interesting advancements, solving puzzles, or just admiring the pretty pages. May this edition leave you as inspired as we were while bringing it to life!



Vaishali Raja



Meet the EDITORIAL BOARD



ANIQAH INAS

Editor-in-Chief

Once in a while, you might notice someone sitting on a comfy couch, engrossed in her book with a sweet treat. That would be Aniqah! When tackling any task at hand, Aniqah stays dedicated till it is accomplished. Given her altruistic personality, it wouldn't be a surprise to know how helpful she is to her peers around her. The tranquil sea calms her down, playing right into her fondness for the colour blue.



VAISHALI RAJA

Editor-in-Chief

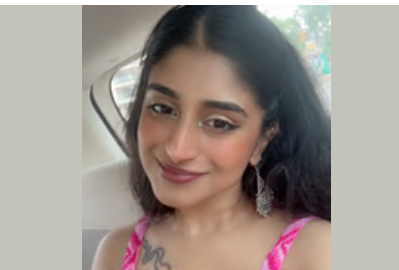
With an inquisitive nature that ponders the question "How do the minute intricacies of the world work?", Vaishali is a determined student who diligently works to learn something new as she goes. While writing sparks her joy, she also enjoys listening to music and singing along to a few verses. Teal hues of green give her dopamine, which perfectly aligns with her love of nature.



AAYUSHI DINESH VORA

Editor

Introducing Aayushi, a powerhouse of fierce ambition and drive, balanced by a deep compassion for others. Her vibrant soul merging with her love for dance, brings out her creativity with beauty and elegance. She also expresses herself through art, particularly drawing freely. Her love for the colour green mirrors her connection to vitality and growth.



ANGELA THOMAS

Editor

Being a dog-lover at heart, Angela is a thoughtful and positive individual who finds solace in bonding with them. She often enjoys her own company by bingeing a good anime or getting entranced by the characters of a great novel. Her calm nature also resonates with the serene nature of the colour white, which turns out to be her favourite!



JUI GAIKWAD

Editor

Meet Jui: A beacon of positivity who seeks solace in her comforting colour, navy blue. A homebody at heart, her energy shines bright as she chats with her close friends and family. Whether she's cooking up a storm, actively exercising and running, practising yoga, or meditating to condition her mind and soul, Jui's chief happiness lies in lifting others' spirits by spreading love and light.



Oluwatoyin Adalia Dairo

CO-CHAIRPERSON

Back in March 2023, I never imagined that GIMSOC would be at the stage it is today. From our very first membership drive based at NVU and TSU to our fun-filled events including Cakes and Consultations, our OSCE workshops and our first-ever conference 'MedCon'23', GIMSOC's growth in and out of Tbilisi has been exponential.

Around this time, we were partnered with 6/7 local chapters. Now, nearing the end of 2024, GIMSOC now spans across 14 different universities and encompasses more than 150 executives and subcommittee members. Each individual has been a pillar of support to this organisation, from our Head of Directors, Local Chapters, and MedCon'24 Team, everyone is a cog in the wheel and has contributed towards the progression of GIMSOC this year. For this, I am forever grateful for their service.

To all of our members, it has been a blessing to meet many of you at our events and workshops across the years. With your support, GIMSOC has reached new heights and we are proud to serve you all. I would like to close via sharing my vision for GIMSOC for the future. I envision more international collaborations with organisations alike and for us to provide students within Tbilisi with a different scope of medicine. Medicine is a broad profession with various possibilities. So think outside the box, free your mind and remember, you are the medics of today who will be our doctors of tomorrow.

Thank you,
Oluwatoyin Dairo
Co-Chairperson
GIMSOC Executive Member



Farhad Islam

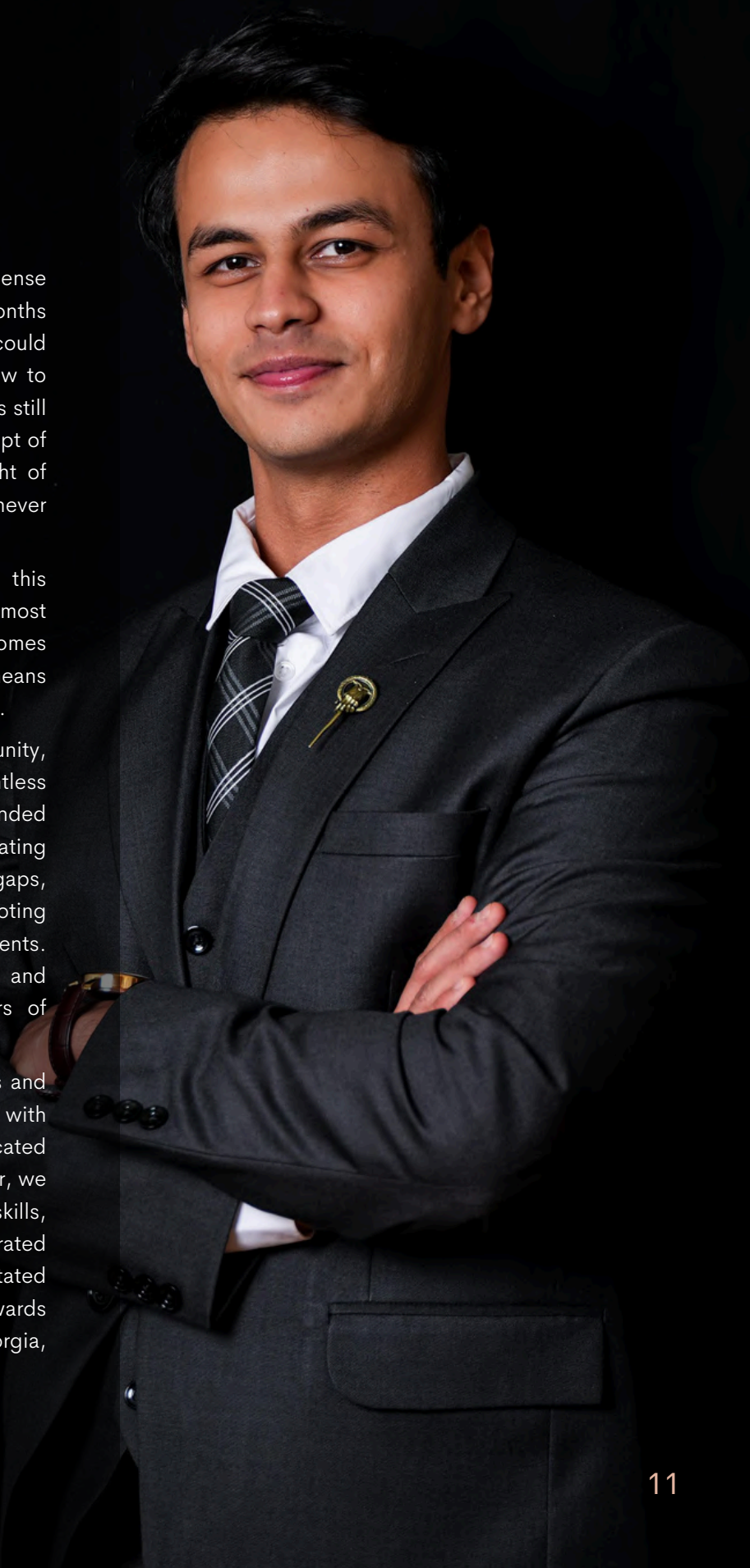
CO-CHAIRPERSON

As I pen this letter, my heart is filled with immense gratitude and a sense of nostalgia. Twelve months ago, when Kachi approached me for this role, I could not have imagined the journey ahead. Being new to Tbilisi as a transfer student in the Fall of '23, I was still finding my footing in this foreign land. The concept of GIMSOC was unfamiliar to me, and the thought of leading it felt like a distant dream; one that never crossed my mind.

Serving as one of the Co-Chairpersons of this esteemed society in 2024 has been one of the most enriching experiences of my life. As my tenure comes to an end, I want to reflect on what this society means to me and the remarkable journey we have shared.

GIMSOC is not just an organization; it is a community, a family, and a source of inspiration for countless medical students. It is a fraternity where like-minded individuals dedicate themselves to creating opportunities for their peers, bridging gaps, developing clinical armamentarium, and promoting equity of exposure for international medical students. Through creativity, collaboration, leadership, and teamwork, GIMSOC fosters the future leaders of healthcare.

This past year has been a tapestry of milestones and memories. Our society grew in leaps and bounds, with over 2000 members and over 230 dedicated Executives and Subcommittee members. Together, we hosted countless workshops to enhance clinical skills, organized events to nurture potential, curated mentorship programs for residency, and facilitated research opportunities - all geared towards empowering and connecting students across Georgia, as well as serving the Georgian Community.





MEDCON 2024, with more than 700 participants, was proof of the unwavering commitment to GIMSOC's ambition and vision – both nationally and globally. We've had the privilege and honour of being associated with some of the biggest global healthcare organisations and societies. Our statistics this year speaks for itself, and stands testament to what we can achieve when united by passion and purpose.

Throughout this journey, I have learned invaluable lessons—from navigating challenges to celebrating victories. GIMSOC has taught me about leadership, humility, collaboration, self-reflection, overcoming shortcomings, and resilience. Most importantly, it has shown me the power of a shared mission towards a larger vision for the global community.

None of this would have been possible without the incredible people I had the privilege of working with. To my fellow Executives, Subcommittee Members, Head Chapters, Local Chapters, Advisory Board, Team MEDCON, and every GIMSOC member: thank you for your trust, support, and tireless efforts. The unwavering pursuit of excellence of those who make this society what it is, shall be forever inspiring. Your commitment has been the driving force behind all our successes.

A few individuals have been beyond instrumental in shaping my growth, and my journey at GIMSOC. Rajvi Soni, thank you for facilitating that initial meeting between GIMSOC and Doctors For A Cause back in September '23. That encounter began a ripple effect and set the stage for everything that followed.



Rajeeeka and Kachi, your belief in me and your leap of faith to entrust an outsider with the responsibility of leading this society will always mean the world to me. Giving the reins of an organisation you spent three years building and executing must not have been an easy one. Thank you for standing by me, and mentoring me throughout this journey.

To my partner in crime and friend for life, Toyin Dairo, you have been my backbone through it all. Words cannot capture the pivotal role you have played in this experience. I am endlessly inspired by your strength, kindness, work ethic and dedication. Sharing this platform with you has been an honour and privilege I could have only dreamed of. If I had to do it all over again, I wouldn't want anyone else by my side.

My time in Georgia perfectly illustrates the butterfly effect—how one meeting with complete strangers overseas, arranged by someone I had barely known for six months, set off a chain of events that led to countless opportunities and ultimately became one of the most rewarding experiences of my life. This journey truly exemplifies one of my favourite quotes by Steve Jobs. He said, "You cannot connect the dots looking forward. You can only connect them looking backwards."

As I step down, I do so with immense gratitude and fulfilment. GIMSOC will always hold a special place in my heart, and I am excited to see it continue to grow and thrive in the years to come.

Thank you for allowing me to be part of this incredible journey.

With heartfelt gratitude and best wishes,
Farhad Islam
Co-Chairperson, GIMSOC 2024

For I Shall Not Be Afraid

By Sidrah Siddiqui

In the dungeon of darkness,
My soul confined,
With lacerations of claws left behind.
The darkness, endless, gripped me just fine,
For it was a malady that assailed this time.
Festering the scars, festering my mind,
A creature in darkness that thrived on my torment
Snickered around, awaiting my doom.
For I was content to turn into an evident corpse,
To spur from the corpse that caged me now.

A light so bright
That demons hissed,
A whisper so soft
That felt ecstatic.
For it was words not of blame and humiliation,
For it was warmth, hugging me tight,
For it was tenderness, touching my might.
The air so pure, changing my resolve,
To free myself from the cage that dissolved.

A strength so immense emerged in me,
Kissed my might and brisked my feet.
The demons shrank in fear of my might,
For it was the silhouette in white, feeding me right,
Ending the darkness, thriving for life.

"In a world where good and evil both thrive,
I shall be the neutral one, fighting the demons.
For I can't be the good one and cause you no pain throughout,
For I can't be the evil one to let you fester.
For I shall not be afraid to fight,
For you shall not be afraid to let me in,
For you shall never give up on the beautiful soul that resides within."

For the silhouette was yet the cruel one to not let me thank enough for its aid.



AI ASSISTED EARLY DETECTION OF PEDIATRIC EYE DISEASES

BY ZAINAB SALEH SAYEED AL JABRI HAZRAMI

Eye health in children is of growing concern, worldwide, over the past years. Clinical manifestations of deteriorating eye health vary from irritation, pain to refractive errors, visual changes or even permanent blindness. Some may even be detected late. Hence, early detection via screening is essential. The evolution of AI in medicine has transformed in aiding the diagnosis of eye diseases.

A cross-sectional study was conducted at Shanghai Ninth People's Hospital in China from October 1, 2022, to September 30, 2023 (1,2). It involved 476 children diagnosed with myopia, strabismus, and/or ptosis. The researchers used 1419 images taken using a smartphone to train a model based on deep learning. They evaluated the model's sensitivity, specificity, and accuracy.

The following were the findings –

CONDITIONS	SENSITIVITY	SPECIFICITY	MODEL	ACCURACY	PERFORMANCE
MYOPIA	84	76	SCORE RANGE	80-92%	83-94%
STRABISMUS	73	85			
PTOSIS	85	95	RESULTS	Good	High

There were no differences in identifying disorders in male and female children.

In conclusion, the model with the use of images, demonstrated excellent and reliable accuracy in identifying myopia, strabismus and ptosis. This study was the first to use images to predict the above diseases. However, there were certain limitations in the study. To begin with, the single center design and small study sample size may limit in generalizing the finding to a wider population. Furthermore, only one photograph per participant was utilized, which could limit the algorithm's effectiveness. Additionally, the varying sample sizes across the three conditions might impact the model's ability to accurately detect strabismus.

This study suggests that an AI model can assist in screening children for myopia, strabismus and ptosis, promoting early detection and minimizing the risk of visual function loss and serious issues that can arise from delayed screening. The promising results from this study highlight the potential of AI-driven tools to revolutionize eye health care for children. As this technology evolves and becomes more widely adopted, it could significantly enhance routine screening practices, ensure timely intervention, and ultimately improve visual health outcomes for children worldwide. Integrating such AI models into standard healthcare protocols could lead to a transformative shift in preventive care, reducing the incidence of severe visual impairments.

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CONSTELLATIONS OF HEALING

BY SHUBHRA RASTOGI

When I gently ask, "Are you hurt?"
Would you whisper, "Yes, my heart silently weeps,
and each day, a piece of it falls away"?
Then this poem is meant for you.

In the quietude of moon-kissed nights,
When shadows weave their tender dance,
I ask the stars, "Are you hurt?"
And they reply in twinkling sighs.

"Yes," they whisper, "our light weeps silently.
Each beam, a fragment of eternity,
A cosmic ache that spans the void,
Yet still, we shimmer, undeterred."



In the quiet chambers of your heart,
Where unseen battles rage,
When the world feels unbearably heavy,
And the nights stretch on too long.

When the echoes of pain silence every song,
And your heart bears scars no one else can see.
Remember, healing is a journey—slow and profound.
So, here's a gentle reminder: offer yourself love and time.

For in the vast expanse of the celestial tapestry,
Each constellation bears its own story.
A scar etched across the velvet canvas,
A testament to resilience and grace.

continuation

Be patient with yourself,
Like a storm-battered tree, mending its branches
over time.
With care, love, and the passage of time, it blooms
anew.
Flowers more exquisite than before.

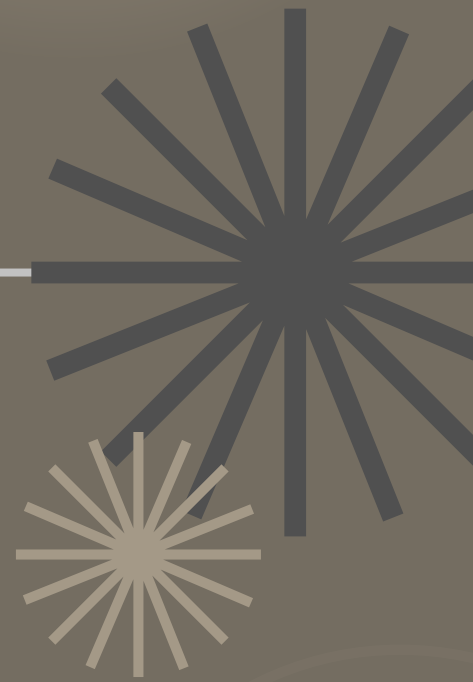
The moon, too, waxes and wanes, revealing its
phases.
Yet it always shines with grace.
So, why not extend that grace to your own heart?
Embrace your imperfections—they are the very
essence of your unique beauty.

So, dear heart, when darkness clings,
And your soul wears its unseen wounds,
Remember the stars—they too falter,
Yet their brilliance persists, unwavering.

Healing is a quiet alchemy.
A slow fusion of stardust and time,
And you, my friend, are a constellation,
A masterpiece of imperfections, divine.

Take gentle, deliberate steps, and begin this
journey by loving yourself deeply.
Wrap your fragile soul in compassion,
For it craves nothing but tenderness.
No one can love you quite like you can.
And to fall in love with yourself is to discover
a beauty like no other.

Embrace the night, for it cradles dreams.
And within its folds, find solace.
You are stronger than you know,
A universe of possibilities is waiting to unfold.



MIRAI

AI successfully diagnoses breast cancer 5 years before it develops.

By Jessni Varghese

Studies have previously revealed that we inherit a significant portion of genetic mutations from our ancestors. However, during our development, we accumulate approximately 64 additional mutations, which are then passed on to our offspring. As we strive for the most advanced scientific knowledge, it's essential to understand both inherited and newly acquired genetic variations.



Scientists from the Massachusetts Institute of Technology's Computer Science and Artificial Intelligence Laboratory (CSAIL) and the Jameel Clinic for Machine Learning created a deep learning (DL) system in early 2021 to predict cancer risk in women who have no signs or symptoms of breast cancer—just from X-ray images of the breast or mammograms. Professor Regina Barzilay, the faculty lead for AI at the MIT Jameel Clinic, the epicentre of AI and healthcare at the Massachusetts Institute of Technology (MIT), developed MIRAI, a breast cancer risk assessment tool.

The model has shown significant promise, even improving inclusivity: it is equally accurate for both white and black women, which is especially important given that black women are 43% more likely to die from breast cancer. MIRAI also produces predictions that are consistent across minor variances in clinical environments, such as the type of mammography machine used.



The 4 modules in MIRAI

1

An image aggregator module: This first gathers and processes all conventional mammography images to construct a detailed illustration of the mammogram.

2

Image data aggregation: It then aggregates the image data from all of the different views.

3

Risk-factor prediction module: If needed, this module uses the mammography to anticipate the patient's risk factors.

4

Additive-hazard layer: The final stage involves using the patient's risk variables and the mammography analysis to forecast the patient's risk annually for the following five years.

THE healing hands



By Krowvidi Syama Surya
Srivyshnavi

A listening ear and a knowing heart,
Where the healing seed begins to start.

In scrubs of blue, or white and bright,
Angels of mercy, glow in sight.

With knowledge deep and spirits to fight,
Stand as beacons of hope and light.

With compassionate gentle delight,
We navigate the darkest fight.

In this trail, where feelings height,
Healing's art has no fading light.

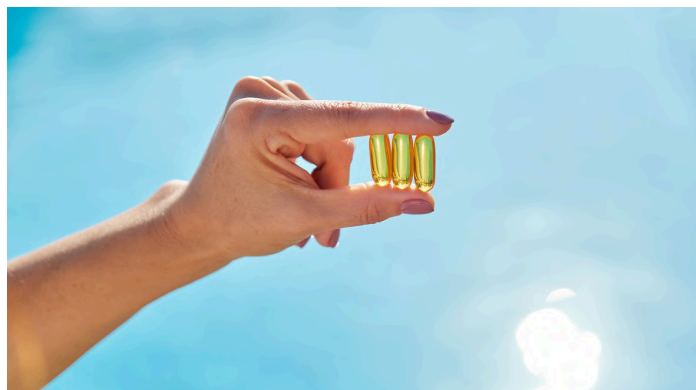
IS THE SUNSHINE VITAMIN SECRET TO A HAPPY MIND?

BY ADIBA KHAN

Have you ever wondered how your diet can impact your mental health? It rightly said, "You are what you eat." An overlooked topic exists that links food with mood, particularly the connection between vitamin D and depression. Nutrition has a substantial impact on your overall well-being. Vitamin D deficiency has become a global health issue. Affecting nearly 50% of the world's population.

Vitamin D is a fat-soluble vitamin, and its effects on mental health have only recently emerged. Our sunshine vitamin is no longer known for its only role in bone health and calcium regulation, but also for its potential impact on mental health. Its deficiency has been linked with a risk of major depressive disorder (MDD). Depression is a complex mental health disorder that affects millions of people worldwide.

It is necessary to create awareness about rising vitamin D deficiency and encourage the population for regular checkups. Vitamin D can be obtained through sunlight, dietary intake, and supplementary pills.



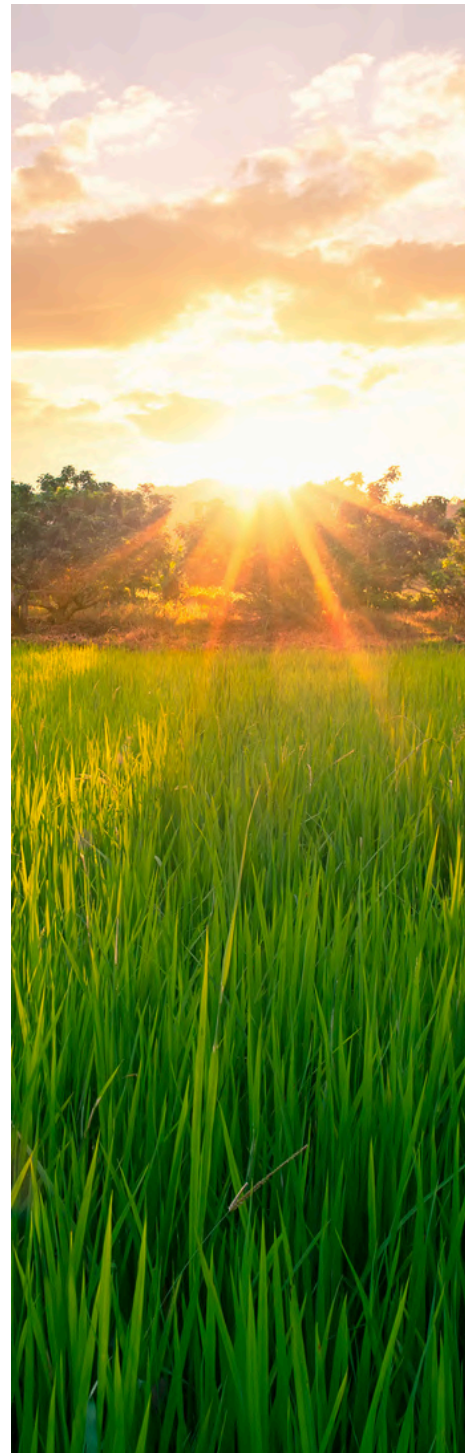
Our sunshine vitamin is mainly known to play a role in calcium homeostasis and bone metabolism, but recent studies show its association with autoimmune diseases, cardiovascular health, diabetes, and depression.

Vitamin D acts like a neuroactive steroid and plays a crucial role in the regulation of neurotransmitters, antioxidant production, and various neurotrophic factors. Vitamin D Receptors are found in almost every cell of the body. In recent research, Vitamin D Receptors (VDRs) are also found in the central nervous system, indicating their role in brain functions. VDRs are found all over the brain, including the hippocampus, which is primarily responsible for regulating emotions and controlling memories. A cross-sectional analysis conducted in the Netherlands has shown that individuals with vitamin D deficiency have decreased hippocampal volume and brain tissue when checked in an MRI scan. Several studies have found that individuals with low levels of vitamin D are seen to have more depressive symptoms.

Vitamin D interferes with the development of brain tissue due to its effect on the synthesis of 5-HT (a monoamine), which also functions in the hippocampus. Vitamin D influences the levels of monoamines in the body, which is a pathogenesis of depression. Lower levels of Vitamin D have been seen to increase depression symptoms in pregnant women as well. Most clinical studies have indicated that vitamin D supplementation has reduced the symptoms of depression.

While the connection between vitamin D and depression is still being studied, recent evidence says that maintaining an adequate vitamin D level is beneficial for mental well-being.

So, what steps can individuals take? Given the importance of Vitamin D for our bodies, we should prioritise regular checkups and make changes in our diet and lifestyle. However, it is important to understand that Vitamin D is not a cure for depression. Any individuals Suffering from depression should opt for treatment from healthcare professionals, which may include therapy and medications. Patients would require a tailored treatment plan, but Vitamin D levels should also be assessed as a part of their regular checkups. So, it's time to say hi to your sunshine vitamin every morning and kick-start your day!

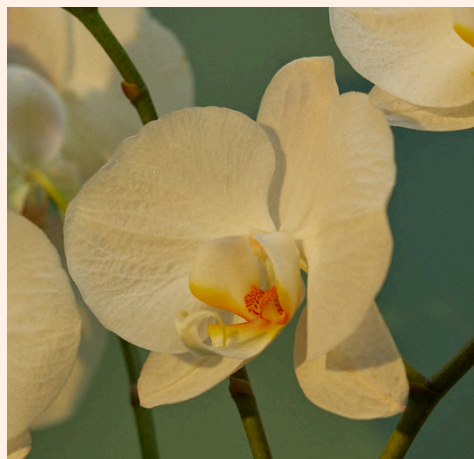


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ECHOES OF LIGHT

BY DR. SAUMYA BARTARIA



In the silence where the broken dwell,
A ripple forms, a distant swell.
Not of sound, but of light,
Whispers soft, in the dark of night.

A fracture speaks, a wound replies,
But here, beneath the veiled skies,
Compassion moves, unseen, unheard,
An echo formed without a word.

It weaves through bones, through veins, through
dreams,
A golden thread in moonlit streams.
No scars too deep, no soul too lost,
It bridges all, at any cost.

In the labyrinths of hurt, we tread,
A voice emerges from what's dead.
"Come forth," it calls, "from shadows long,
For in my arms, you still belong."

Healing's not a sudden flame,
But embers fed by love's name.
A slow rebirth, a gentle breath,
That conquers even the fear of death.

So dance, oh soul, in quiet grace,
For here you've found a tender place.
In the echoes of this light, you see,
The true face of humanity.

INSIDE THE WHITE COAT

READ ABOUT THE REAL-LIFE TALES THE DOCTORS HAVE IN STORE FOR YOU



“Being a doctor is a blessing, but working in critical care is a rollercoaster where life and death dance on the edge. It’s a realm of challenges, triumphs, and heartbreaks, but also of profound connections. I vividly remember one night—an emergency CABG surgery on a man whose life hung by a thread. His wife’s tearful eyes were filled with hope as we worked tirelessly”

“Fast forward two years: on International Women’s Day, my phone buzzed with an unexpected call. “It’s because of you,” she said, her voice brimming with gratitude. “If I’m celebrating today as a happy woman, it’s because you saved the love of my life.” Moments like that? They’re why we do what we do. They remind us that amidst the chaos, there’s a kind of magic in this calling—one that makes every sleepless night and every tough decision deeply worth it.”

*-- Dr Mariam Grigorashvili
Anesthesiologist and Intensive Care Doctor,
American Hospital Tbilisi*

One afternoon, I met an elegant older woman who was being evaluated for Alzheimer's. She was accompanied by her daughter, who had shared that her mother's memory wasn't what it used to be. Despite her occasional forgetfulness, Ms. Elene's wit was sharp as ever. She clearly disliked talking about her memory lapses and found clever ways to sidestep my questions, often leaving me stifling a smile. I started with a simple one: "Ms. Elene, could you tell me how old you are?"

With a mischievous smile, she looked me up and down and replied, "Well, how old would you say I am?" I chuckled and moved on to the next question, "How many children do you have?" She waved her hand dismissively. "As many as God decided I needed," she said with a serene nod. I tried again. "Ms. Elene, do you know what day it is today?" She leaned in close, lowering her voice as if sharing a secret. "You tell me first, Doctor, and I'll let you know if I agree." The more I asked, the more inventive her answers became. "Do you remember where you are right now?" I asked, smiling.



"Of course, I'm where I choose to be," she said, crossing her arms with a satisfied grin. "And right now, that's right here with you." Her daughter looked at me apologetically, but I shook my head, enjoying the back-and-forth. Each answer revealed not only her humour but also a sense of pride and strength. Ms. Elene was unwilling to let her forgetfulness define her, finding ways to answer while steering the conversation on her own terms.

Towards the end of our session, I asked her, "Ms. Elene, what's the secret to staying so sharp?" She tilted her head, giving me a knowing smile. "A bit of mystery keeps people interested, Doctor. Don't you agree?" I left that day realizing that, despite the challenges of her condition, Ms. Elene hadn't lost her personality or her spirit. Her clever responses were her way of holding onto her dignity and independence, reminding me that, sometimes, true resilience is found in humour and quick wit—even when memories begin to slip away.

— Dr. Magda Gerantia
Psychiatrist
Pirveli Clinic, Tbilisi

The Alchemy of Touch

By Dr. Saumya Bartaria

In the quietest corners of despair,
Where shadows linger, thick with care,
A hand extends—a bridge of light,
Turning anguish into flight.

In the crucible of another's pain,
We find the alchemist's refrain,
Transforming sorrow, drop by drop,
Into a love that knows no stop.

Compassion, a silent, sacred art,
Weaves threads of gold through every heart.
In every tear, in every sigh,
It lifts the spirit, lets it fly.

The healer's gift is not in stone,
But in the warmth that's always shown.
A glance, a word, a simple touch,
That says, "You matter, oh so much."

In the embrace of a caring soul,
The broken parts become a whole.
For in this alchemy, we see,
The miracle of being free.

So let us craft with gentle care,
A world where every heart can share,
In the magic that we hold inside—
The healing touch, our truest guide.

INSIGHTS FROM A RISING MEDICAL PROFESSIONAL

BY JUI GAIKWAD

“ HALL OF FAME - ALUMNI EXCLUSIVE



AN INTERVIEW WITH DR. SHARIK

In an exclusive interview, Dr Sharik, an enthusiastic and dedicated intern, shared his experiences and reflections on the challenges and rewards of medical practice. From navigating the intense demands of the medical field to imparting wisdom to new interns, Dr Sharik offered a comprehensive view of what it means to be a doctor today.

The Excitement of Medicine

Jui started off with a question, “What is the most exciting part about being a doctor? What gives you the

motivation to improve every day?”

Dr Sharik revealed that the initial thrill of becoming a doctor stemmed from a genuine desire to help people. “When you start medical school, you’re driven by the ideal of making a difference,” he said. However, the reality of practising medicine, especially in a country with a challenging doctor-to-patient ratio like India, can be overwhelming. Despite this, Dr Sharik finds motivation in the continuous learning that comes with patient care. “Each patient interaction is a chance to apply what you’ve learned and deepen your understanding of medical practice,” he noted.

Lessons Learned During Internship

Jui, curious, asked, “You mentioned the importance of continuous learning. In terms of medical knowledge and personal ethics, what have been the most significant lessons you’ve learned during your internship?”

Dr Sharik reflected on his journey, “Of course. Early in my internship, I encountered a particularly challenging case involving a patient with Paroxysmal Supraventricular Tachycardia (PSVT). We had three treatment protocols to consider. We successfully implemented the first two, but the third procedure was potentially life-threatening. It became a crucial lesson in the ethical dimensions of medicine. In this situation, I learned the importance of not only explaining the risks and benefits of the procedure but also doing so in a compassionate and empathetic manner. It wasn’t enough to present the pros and cons in a clinical, detached way. Instead, I needed to ensure the patient fully understood and agreed to the procedure, acknowledging their concerns and emotional state. This experience highlighted the importance of emotional ethics in medical practice, emphasising that effective communication and empathy are vital components of patient care.”

Overcoming Practical Challenges

Aniqah mentioned that there is a common fear of having acquired knowledge but struggling with its practical application. Addressing this common struggle, Dr Sharik said, as a first-generation doctor, he faced the challenge of navigating a demanding environment without prior guidance. “My first day was a 16-hour shift in the labour room,” he recounted. “I was initially overwhelmed, but by staying engaged and seeking help from colleagues, I managed to perform a delivery on my own by the end of the shift.” His advice for new interns is to remain proactive, ask questions, and be open to learning from every experience.

Advice for New Interns

Aniqah and Jui congratulated Dr Sharik on his successful first day of internship. Following this, Jui asked, “You were telling us about your first experience. What advice would you give to someone starting their internship?” Dr Sharik offered practical and supportive advice for those beginning their medical internships. “Brush up on basic skills like blood drawing and suturing—they’re essential across many departments,” he recommended. Additionally, he emphasised the importance of not fearing death, an inevitable part of medicine. “Always do your best, and remember that you can’t control every outcome,” he said. His supportive advice includes staying curious, seeking guidance, and being kind to oneself.

Handling Difficult News



Jui then questioned, “You mentioned the importance of not fearing death. Given that, how do you approach delivering difficult news to patients or their family members?”

When it comes to delivering difficult news, Dr Sharik emphasised empathy and sensitivity. “Recognise that everyone, including yourself, is working through demanding shifts, sometimes lasting 16 to 24 hours. Even in such challenging conditions, it’s essential to remember that the family members you are delivering bad news to are experiencing profound loss. They are facing the death of someone who has been a significant part of their lives for decades—often 50 or 60 years.

Approach these situations with the utmost empathy and respect. Avoid being brusque or indifferent. Instead, carefully consider their feelings and ensure you communicate all the options and procedures that were considered. Understand that families may react with aggression or distress as they struggle to accept the reality of their loss. Maintain sensitivity to their emotional state, be aware of your surroundings, and adjust your approach accordingly to offer compassionate support,” he advised.



Empathy, Sympathy, or Compassion?

Aniqah polled, “Which quality is most important in medical practice: empathy, sympathy, or compassion?”

In a thoughtful discussion on emotional responses, Dr Sharik clarified his stance on these qualities. He believes that “sympathy is not as crucial in medical practice because it can sometimes interfere with effective care. If you allow yourself to become overly sympathetic, you might become too emotionally involved, which can hinder your professional judgment. For example, paediatric patients can be very endearing, and it’s easy to feel a deep emotional connection with them. However, when diagnosing and treating a sick child, it’s important to remain focused and not let sympathy cloud your judgment. Compassion and empathy, on the other hand, are essential and interconnected.”

Maintaining Positivity

Jui enquired, “Given the inevitability of patient loss and the emotional toll it can take, how do you maintain a positive attitude and continue with your work each day?”

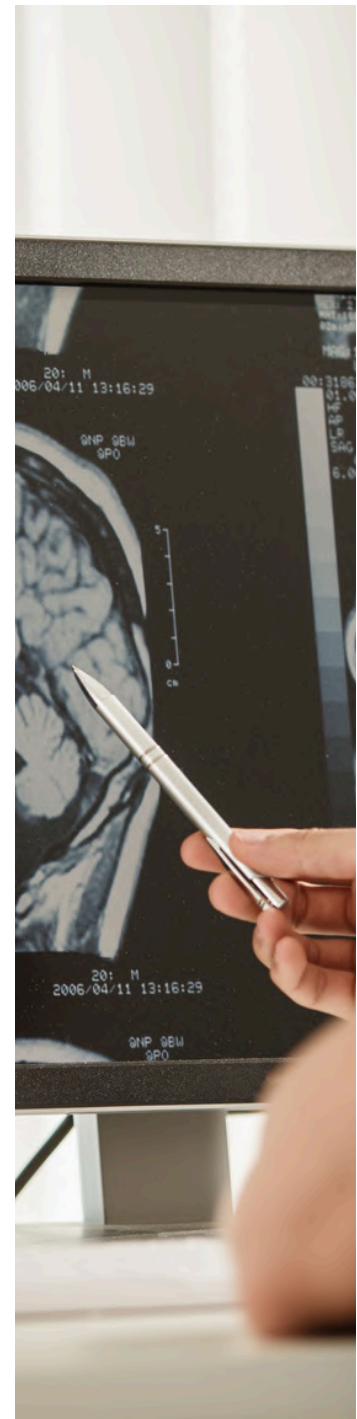
Dr Sharik shared his approach to staying positive after challenging cases. “I am very fortunate to be interning in my hometown, with my family’s support during breaks,” he said. “Communicating with them helps me stay grounded.” He also focuses on the patients he can still help and maintains a positive outlook despite unfavourable outcomes.

Inspiration Behind Specialisation

Aniqah queried what prompted Dr Sharik to pursue his specific speciality.

Dr Sharik’s journey into neurosurgery was fuelled by both challenge and inspiration. “It’s quite amusing to reflect on my journey with neurology and neurosurgery. During my second year, I struggled significantly with neurology. There was a particular tutor, Dr Ivane, who was instrumental during that time. Initially, I found the subject challenging, but as I dedicated more effort to understanding it, I began to find it truly fascinating.

Neurology offered a window into the intricate workings of the brain and its control over various functions. Observing patients with intracranial haemorrhages (ICH) or subdural hematomas (SDH) provided me with exposure.





To conditions that are seldom encountered in the standard MBBS curriculum. These experiences sparked a growing interest in surgery, and eventually, I found myself drawn to the field of neurosurgery,” he said.

The Importance of Patience and Family-Centred Care in Paediatric Medicine

Aniqah mentioned, “I often find myself troubled by the challenge of treating sick children. Every time I see a child unwell, it feels especially difficult to manage their care effectively. What strategies or approaches can help in addressing this challenge?”

Addressing the challenges of treating children, Dr Sharik emphasised patience. “When a child is sick, the whole family is affected,” he said. “It’s important to focus on the child while managing the family’s concerns.” He stressed the need for composure and patience in providing the best care.

Prioritising Self-Care Within a Demanding Schedule

Jui asked, “How do you prioritise self-care within a demanding schedule, especially when many doctors may not support or recognise its importance?”

Dr Sharik noted that medical school prepared them for juggling a hectic schedule, as they were accustomed to all-nighters for both studying and socialising. Adjusting to night shifts was manageable, but there were times when finding a moment to sit down was difficult. Fortunately, their supportive colleagues made a significant difference. For Dr Sharik, self-care wasn’t a major issue as long as he maintained a routine. On particularly long days, he would carve out an hour to hit the gym to clear his mind. Although it sometimes left him more exhausted, it ultimately led to better sleep. He also made it a point to focus on hobbies and stay connected with family.

Managing Disagreements with Peers and Senior Colleagues

Jui enquired, “How do you manage disagreements with peers or senior colleagues, whether they pertain to differing opinions or specific medical cases?”

Dr Sharik acknowledged that disagreements are inevitable and emphasised the importance of resilience when encountering challenging or toxic peers and seniors. He recognises that hurtful comments can arise but sees these situations as valuable learning opportunities. For example, he recounts a time when he had a disagreement with a colleague regarding their schedule. A senior colleague happened to pass by and intervened, helping to resolve the issue and provide guidance. This experience illustrated how constructive conflict resolution can lead to significant learning.

Staying Updated with the Latest Medical Research and Advancements

Jui questioned, “How do you stay updated with the latest medical research and advancements amidst the constant influx of new studies and experiments?”

Dr Sharik admitted that he was not always up-to-date with the latest articles and studies due to the overwhelming volume of new research. Instead, he relies on the expertise and insights of his seniors and peers to stay informed about current developments. To manage the demands of staying current, he adheres to the principle: “One day at a time, focus on small victories.” This mindset helps him navigate the overwhelming nature of the field by concentrating on incremental progress and daily achievements rather than becoming bogged down by the sheer volume of information.

Navigating Uncertainties in Medical Practice

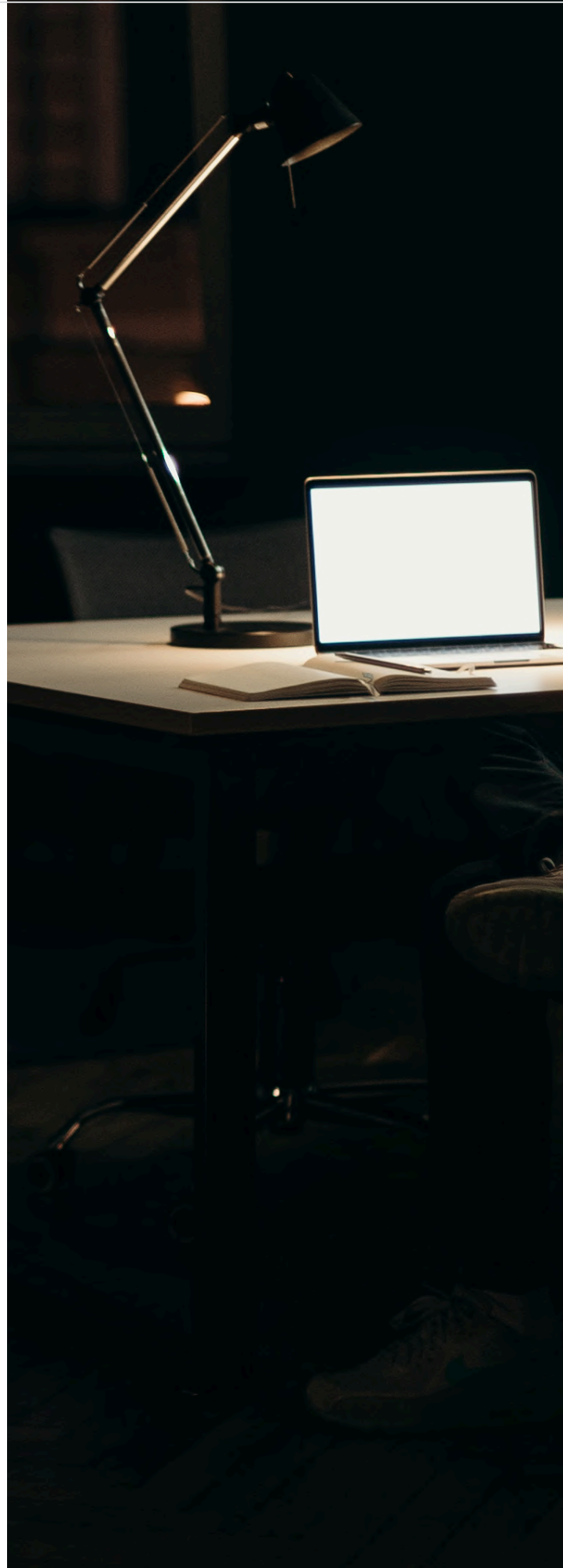
Jui mentioned, “The medical field is indeed full of uncertainties, from diagnosing complex conditions to determining the most effective treatments. How do you manage and navigate these uncertainties in your practice?”

Dr Sharik explained that in India, treating patients often requires making decisions based on initial assessments and clinical experience rather than waiting for definitive test results or procedures like endoscopy. Given the high patient load and the need for timely intervention, immediate action is sometimes necessary, even if it means operating on a provisional basis.

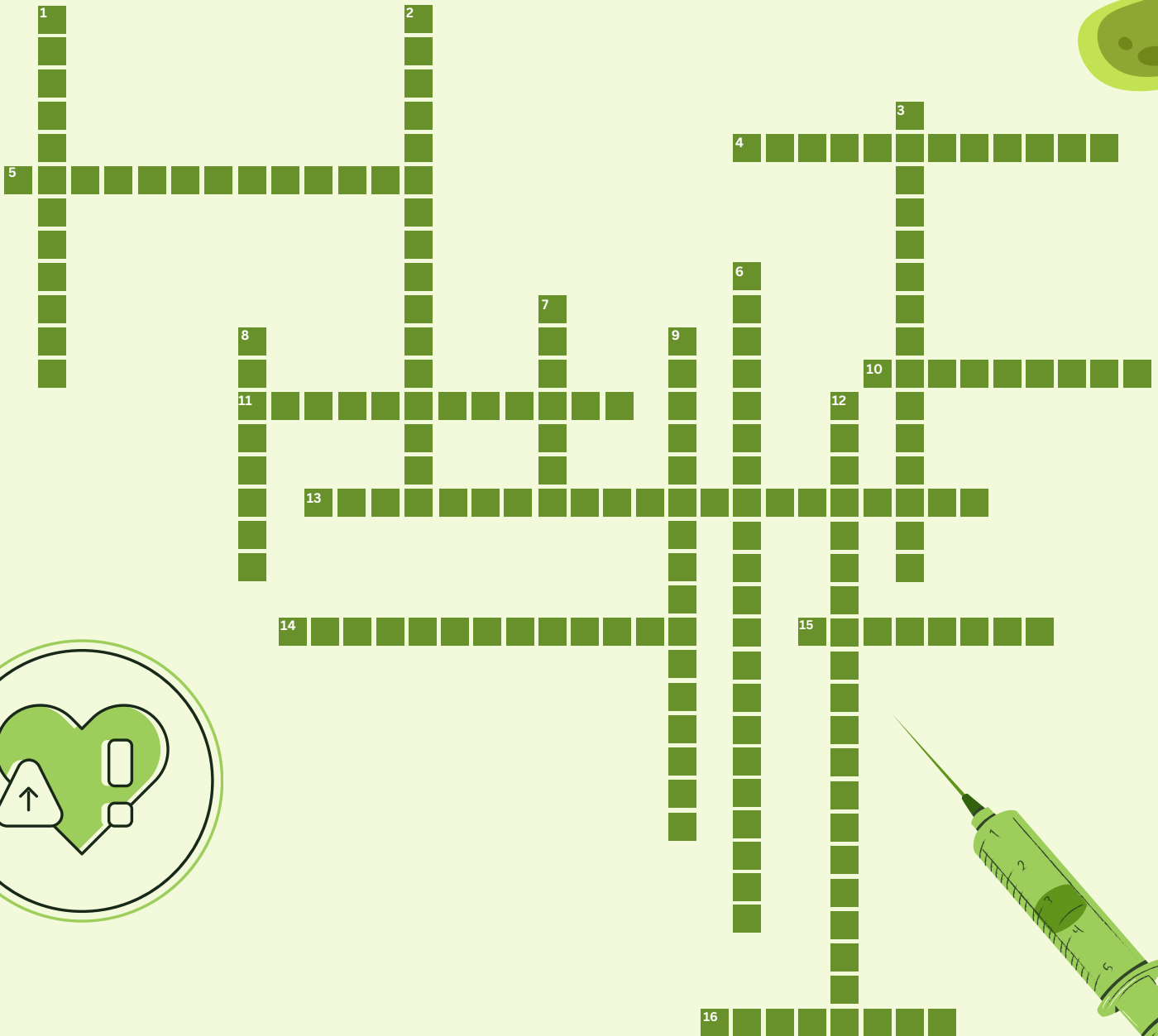
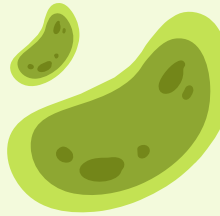
While this approach may not always be ideal, it helps manage the heavy patient volume and ensures that critical cases receive prompt attention.

Perspective on "Hard Work Beats Talent When Talent Doesn't Work Hard"

Jui asked for Dr Sharik's perspective on the quote, "Hard work beats talent when talent doesn't work hard." He expressed that regardless of the outcome—such as not passing the FMG exam on the first attempt—it's essential to recognise that failures can be valuable lessons in disguise. He emphasised that these experiences provide opportunities to learn and improve. Dr Sharik asserted that talent alone isn't enough; hard work and perseverance are crucial. In this field, there are no shortcuts to success; continuous effort and dedication are vital for overcoming challenges and achieving goals.



CLINICAL CROSSWORD



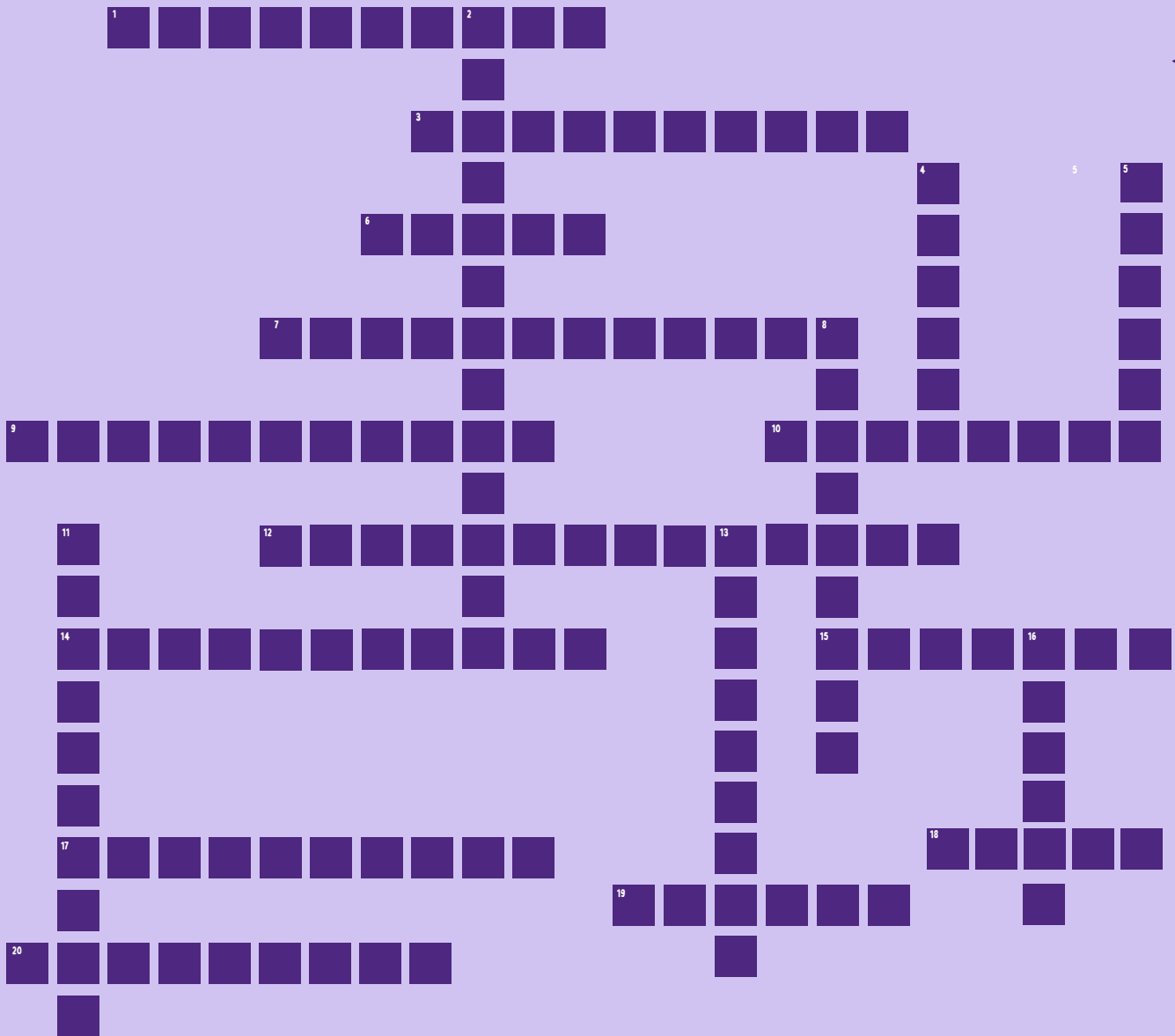
ACROSS

4. ADJUNCTIVE THERAPY WHICH UTILIZES SUNLIGHT TO TREAT DISEASES
5. ONE OF THE SIGNS OF PORTAL HYPERTENSION
10. FLUID-FILLED CYST LOCATED AT THE BASE OF THE SPINE/TAILBONE
11. A CONDITION CAUSED BY MUTATION OF THE HGD GENE
13. THIS CONDITION IS MOST COMMONLY CAUSED BY E.COLI
14. DRUG USED FOR DIAGNOSING CUSHING'S SYNDROME
15. MEDICAL TERM THAT MEANS RINGING IN THE EARS
16. CANCER CAUSED BY UV-RAYS

DOWN

1. HAEMORRHAGE ASSOCIATED WITH THUNDERCLAP HEADACHES
2. THE STAGE IN PNEUMONIA CHARACTERIZED BY DESTRUCTION OF RBCS IN ALVEOLI
3. MOST COMMON TUMOUR SEEN IN THE UTERUS
6. MULTIPLE AIR-FLUID LEVELS ON RADIOGRAPHS ARE USUALLY SEEN IN
7. TRIAD COMPRISING OF RIGHT UPPER QUADRANT ABDOMINAL PAIN, FEVER AND JAUNDICE
8. PAINLESS GENITAL ULCERS CAUSED DURING SYPHILIS
9. AUTOIMMUNE DISEASE CAUSED DUE TO GAD AUTOANTIBODIES
12. CONDITION CAUSING ST-ELEVATION WITH POSSIBLE T-INVERSION

PRE-CLINICAL CROSSWORD



ACROSS

1. CELL THAT FORMS BONE TISSUE.
3. PROTEIN IN RED BLOOD CELLS THAT CARRIES OXYGEN.
6. SEMI-FLUID MASS OF PARTLY DIGESTED FOOD IN THE STOMACH.
7. ORGANELLES KNOWN AS THE POWERHOUSE OF THE CELL.
9. THE PROCESS THAT FORMS THE NEURAL TUBE.
10. PROTEIN THAT PROVIDES STRUCTURAL SUPPORT TO CONNECTIVE TISSUES.
12. ORGANELLE INVOLVED IN MODIFYING, SORTING, AND PACKAGING PROTEINS.
14. COMPLEXES THAT TRANSPORT LIPIDS IN THE BLOOD.
15. THE JUNCTION BETWEEN TWO NERVE CELLS.
17. A NETWORK OF CAPILLARIES IN THE KIDNEY THAT FILTERS BLOOD.
18. FLUID THAT CIRCULATES IN THE LYMPHATIC SYSTEM.
19. FATTY SUBSTANCE THAT INSULATES NERVE FIBERS
20. THE BASIC CONTRACTILE UNIT OF MUSCLE FIBER

DOWN

2. A NEUROTRANSMITTER INVOLVED IN MUSCLE ACTIVATION.
4. TYPE OF LYMPHOCYTE THAT PLAYS A CENTRAL ROLE IN CELL- MEDIATED IMMUNITY.
5. ENZYME IN THE STOMACH THAT BREAKS DOWN PROTEINS.
8. PROGRAMMED CELL DEATH.
11. LAYER IN THE EPIDERMIS WHERE KERATINOCYTES ARE FOUND.
13. ORGANELLE RESPONSIBLE FOR PROTEIN
16. THE LIQUID COMPONENT OF BLOOD



Virtual Models, Real Outcomes:

The Rise of Digital Twins in Medicine

By Soumiya Nadar

Imagine a virtual model of a patient's body, down to the molecular level, allowing doctors to simulate surgeries, test experimental therapies, and predict patient responses—all without any physical risk. These models, known as digital twins, are highly detailed virtual replicas of physical objects or systems, allowing for real-time updates and continuous monitoring. Initially popular in engineering and manufacturing, digital twins are rapidly reshaping patient care, treatment planning, and medical research. By allowing medical professionals to foresee problems before they occur, this capability is a game-changer.





One striking application of digital twins is the development of virtual organs that replicate real human organs and can be customized for individual patients. Companies like Philips and Siemens Healthineers are leading the way in this innovation, creating digital heart models that assist cardiologists in diagnosing and treating cardiovascular diseases. The concept of body scanning, often depicted in science fiction, has also become a reality with the development of platforms like Q Bio Gemini. This technology scans the entire body to create a digital twin, offering a non-invasive and highly accurate method of monitoring health.



In the surgical realm, a digital twin allows surgeons to plan and practice complex procedures in a virtual environment. This preparation reduces the risk of errors during actual operations and improves surgical outcomes. Predictive analysis enabled by digital twins is crucial for early disease detection and monitoring. By simulating various health scenarios, doctors can identify potential risks and intervene before a condition worsens.

Digital twin technology is at the forefront of a new era in healthcare, offering revolutionary opportunities for personalized medicine, predictive analysis, and surgical precision. As this technology continues to evolve, it promises to transform the healthcare landscape, making treatments safer, more effective, and more personalized than ever. The future of healthcare is digital, and it is already here.

Reference: <https://knowhow.distrelec.com/medical-healthcare/digital-twin-in-health-sector/>

PRE-CLINICAL QUIZ #1

1. Which structure is located between the anterior and posterior semicircular canals in the inner ear and is crucial for detecting rotational movements?

- ☐ Cochlea
- ☐ Vestibule
- ☐ Utricle
- ☐ Sacculle

2. The adrenal medulla primarily secretes which type of hormones?

- ☐ Mineralocorticoids
- ☐ Glucocorticoids
- ☐ Catecholamines
- ☐ Androgens

3. Which of the following metabolic processes occurs exclusively in the mitochondria?

- ☐ Glycolysis
- ☐ Gluconeogenesis
- ☐ Citric acid cycle
- ☐ Pentose phosphate pathway

4. Which amino acid is involved in the synthesis of nitric oxide?

- ☐ Arginine
- ☐ Lysine
- ☐ Tyrosine
- ☐ Phenylalanine

5. Which of the following is a characteristic feature of diabetic nephropathy?

- ☐ Kimmelstiel-Wilson nodules
- ☐ Mallory bodies
- ☐ Lewy bodies
- ☐ Whorled fibrous tissue

6. In which type of hypersensitivity reaction does the formation of immune complexes lead to tissue damage?

- ☐ Type 1
- ☐ Type 2
- ☐ Type 3
- ☐ Type 4

7. Which organism is known for causing a "bull's-eye" rash and is transmitted by Ixodes ticks?

- ☐ Borrelia burgdorferi
- ☐ Rickettsia rickettsii
- ☐ Ehrlichia chaffeensis
- ☐ Francisella tularensis

8. What is the primary mechanism by which methicillin-resistant Staphylococcus aureus (MRSA) exhibits resistance to beta-lactam antibiotics?

- ☐ Enzymatic degradation of the antibiotic
- ☐ Altered target site
- ☐ Increased efflux pump activity
- ☐ Decreased permeability

9. During which stage of embryonic development does the process of neurulation occur?

- ☐ Blastocyst stage
- ☐ Gastrulation
- ☐ Organogenesis
- ☐ Implantation

10. Which vitamin is essential for the synthesis of clotting factors II, VII, IX, and X?

- ☐ Vitamin A
- ☐ Vitamin B12
- ☐ Vitamin K
- ☐ Vitamin C

11. What is the primary clinical use of the drug metformin?

- ☐ Insulin replacement in Type 1 diabetes
- ☐ Management of hyperlipidemia
- ☐ Glycemic control in Type 2 diabetes
- ☐ Treatment of hypothyroidism

12. Which of the following is a common complication of chronic alcoholism affecting the liver?

- ☐ Hepatic encephalopathy
- ☐ Pancreatitis
- ☐ Chronic kidney disease
- ☐ Pneumonia

13. Which enzyme deficiency leads to the accumulation of sphingomyelin and is associated with Niemann-Pick disease?

- ☐ Hexosaminidase A
- ☐ Glucocerebrosidase
- ☐ Sphingomyelinase
- ☐ Galactocerebrosidase

14. In which type of hypersensitivity reaction do T lymphocytes mediate the immune response?

- ☐ Type 1
- ☐ Type 2
- ☐ Type 3
- ☐ Type 4

15. Which of the following conditions is characterized by the presence of a characteristic "sandpaper" rash and can be a complication of untreated streptococcal pharyngitis?

- ☐ Erythema nigrans
- ☐ Kawasaki disease
- ☐ Scarlet fever
- ☐ Toxic shock syndrome

PRE-CLINICAL QUIZ #2

1. Which of the following motor neuron types is responsible for the contraction of the extrafusal fibers of skeletal muscles?

- ☐ Epsilon
- ☐ Beta
- ☐ Delta
- ☐ Alpha

2. What is the function of the incretin hormones?

- ☐ Stimulates increase in blood glucose levels
- ☐ Stimulates decrease in blood glucose levels
- ☐ Amplifies the effect of thyroid hormone
- ☐ Inhibit the action of insulin

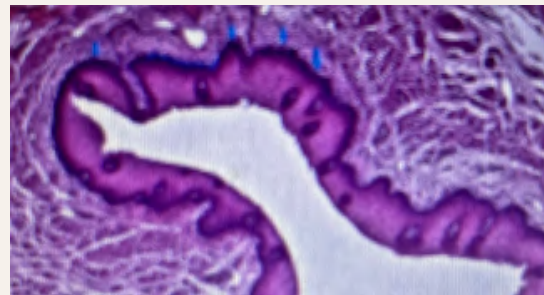
3. What is the binding site of the CPS enzyme during eukaryotic mRNA polyadenylation?

- ☐ The AATAAA region of the coding DNA
- ☐ The GU region on the pre-mRNA

- ☐ The AAUAAA region on pre-mRNA
- ☐ The TTATTT region on the template DNA

4. The attached micrograph shows stratified squamous epithelium. The arrows and outline are referring to one, continuous structure. What is the structure?

- ☐ Hemidesmosomes
- ☐ Lamina propria
- ☐ Basal lamina
- ☐ Basement membrane



5. Which of the following is INCORRECT?

- ☐ Metoprolol is a cardioselective Beta blocker and it's main route of elimination is through the hepatic system.
- ☐ Atenolol is mainly excreted via the kidneys and as such is the preferred beta blocker to be used in a patient with liver failure.

- ☐ Propranolol is a non-selective Beta blocker that can penetrate the blood brain barrier.
- ☐ Carvedilol is selective Beta-1 blocker and is used only in the treatment of hypertension.

6. Which of the following is the outermost layer of the stomach wall?

- ☐ Muscularis mucosa
- ☐ Submucosa
- ☐ Mucosa
- ☐ Serosa

7. Levodopa is the recognized 'gold standard medication for symptomatic relief of Parkinson's disease. What is administered together with this agent to prevent the peripheral conversion of the pro-drug to the drug?

- ☐ Glutamate decarboxylase inhibitor
- ☐ DOPA carboxylase
- ☐ DOPA decarboxylase
- ☐ DOPA decarboxylase inhibitor

8. Which of the following is a characteristic of eubacteria?

- ☐ Carry out methanogenesis
- ☐ Some are important for bodily functions

- ☐ Phospholipids joined by ether bonds
- ☐ No peptidoglycan in cell wall

9. In the lac operon, the binding of the repressor protein to the operator and cAMP-CAP to the CAP site depends on the availability of glucose and lactose in the cell. Which of the following occurs in the absence of glucose and the presence of lactose?

- ☐ CAMP-CAP is unbound: the repressor is bound
- ☐ Both cAMP-CAP and the repressor are bound
- ☐ CAMP-CAP is bound: the repressor is unbound
- ☐ Both cAMP-CAP and the repressor are unbound

10. In which phase of the cell cycle does DNA replication take place?

- ☐ M
- ☐ G1
- ☐ G0
- ☐ S

11. Which of the following is true regarding the production of red blood cells?

- ☐ Stimulated by hyperoxia

- ☐ Stimulated by decreased oxygen in circulation
- ☐ Occurs in the kidneys of neonates
- ☐ Decreased at high altitudes

12. During which of the following stages of life is the mean level of circulating growth hormone highest?

- ☐ Adolescence
- ☐ Middle age
- ☐ The neonatal period
- ☐ Infancy

13. How many transmembrane segments does a G protein-coupled receptor (GPCR) have?

- ☐ 7
- ☐ 4
- ☐ 9
- ☐ 1

14. The exit of which of the following ions from a neuron causes repolarization?

- ☐ Phosphate
- ☐ Magnesium
- ☐ Sodium
- ☐ Potassium

15. Which of the following proteins is the precursor to the hormone adrenocorticotrophic hormone (ACTH) produced by corticotrophs in the anterior pituitary gland?

- ☐ Cortisol
- ☐ Pro-opiomelanocortin (POMC)
- ☐ Melanocyte-stimulating hormone (MSH)
- ☐ Beta-lipotropin

16. Which of the following statements is true regarding thyroid hormones?

- ☐ Thyroxine (T4) is more biologically active than triiodothyronine (T3)
- ☐ Reverse triiodothyronine (rT3) is the most potent thyroid hormone
- ☐ Triiodothyronine (T3) is more biologically active than thyroxine (T4)
- ☐ Thyroxine (T4) and triiodothyronine (T3) have similar biological potency

17. Which statement correctly explains the process of replication?

- ☐ Produces a DNA and an RNA molecule
- ☐ Produces a molecule that is partly DNA and partly RNA
- ☐ Produces two similar DNA molecules
- ☐ Produces two identical DNA molecules

18. Which of the following apical specializations of epithelial tissue are immotile and aid in mechano-sensory perception in the inner ear?

- ☐ Primary cilia
- ☐ Nodal cilia
- ☐ Microvilli
- ☐ Stereocilia

19. What is the function of the 3'---->5' exonuclease activity in the DNA polymerase?

- ☐ Joining two pieces of DNA
- ☐ Cleaving within a DNA molecule
- ☐ Removal of incorrect base pairs
- ☐ Removal of the RNA primer

20. Which of the following is the amino acid precursor of dopamine and noradrenaline?

- ☐ Glutamate and glutamine
- ☐ Melatonin
- ☐ Tyrosine
- ☐ Glutamine and tryptophan

21. What type of nerve fibers are mainly activated as the lens relaxes during the

accommodation reflex?

- ☐ Sympathetic nerves from the pterygoid plexus
- ☐ Parasympathetic nerves from the Edinger-Westphal nucleus
- ☐ Motor neurons from the spinal cord
- ☐ Sympathetic nerves from the stellate ganglion

22. Which of the following anticancer drugs causes 'Hand and Foot Syndrome' as a side effect?

- ☐ Vincristine
- ☐ Vinblastine
- ☐ Capecitabine
- ☐ Methotrexate

23. All of the following drugs belong to antipsychotics except:

- ☐ Haloperidol
- ☐ Clozapine
- ☐ Chlorpromazine
- ☐ Fluoxetine

24. A patient on isotretinoin for severe acne should be instructed to avoid which of the following?

- ☐ Using topical retinoids
- ☐ Consuming alcohol
- ☐ Exposure to sunlight
- ☐ Applying benzoyl peroxide

25. Which phase of drug development involves the detection, assessment, understanding, and prevention of adverse effects or any other drug-related problems after the drug has been marketed?

- ☐ Preclinical phase
- ☐ Phase 2
- ☐ Phase 3
- ☐ Pharmacovigilance

26. Side effect of chloramphenicol is ?

- ☐ Dizziness
- ☐ Headache
- ☐ Bone marrow suppression
- ☐ Immunity suppression

27. Lodex, a pain relief balm, has the smell of _____.

- ☐ Methyl salicylate
- ☐ Ethyl salicylate

- ☐ Propyl salicylate
- ☐ Butyl salicylate

28. "Eno, Gelusil, Digene", etc are the types of drugs.

- ☐ Anti-fertility Drugs
- ☐ Tranquilizers
- ☐ Antacid
- ☐ Antihistamines

29. Which of the following hormone is also known as 'emergency hormone'?

- ☐ Cortisol
- ☐ Growth Hormone
- ☐ Prolactin
- ☐ Adrenaline

30. When Is It Beneficial to Take OTC Medications?

- ☐ In a heart attack
- ☐ In arthritis
- ☐ In muscle pain
- ☐ In diarrhea

CLINICAL QUIZ

1. A 5-year-old boy is brought to A&E by his father complaining of stomach and leg pain. He had been treated in A&E 2 days ago for mild gastroenteritis. When you examine the patient, you notice a purpuric rash that spreads up the back of his legs to his buttocks. A urine dipstick is quickly ordered which shows haematuria and proteinuria. What is the most common progressive complication?

- ☐ IgA nephritis
- ☐ Nephrotic syndrome
- ☐ Chronic kidney disease
- ☐ Post infectious glomerulonephritis
- ☐ Minimal change disease

2. A 20-year old asymptomatic male presents for a routine physical examination covered by his insurance company. On general inspection, he is of tall stature, arachnodactyly, and wide arm span is also noted. On cardiovascular examination, he has a collapsing pulse and high-arched palate. He has a grade 3 early diastolic murmur, loudest at the left sternal edge on held expiration. His VP is not elevated, he has no peripheral edema and his lungs are clear to auscultation. What is the most likely valvular abnormality?

- ☐ Aortic Regurgitation
- ☐ Mitral Stenosis

- ☐ Aortic Stenosis
- ☐ Tricuspid Regurgitation
- ☐ Mitral Regurgitation

3. A mother presents to the GP with her 4-year-old son. Over the past three months, the child has developed a noticeable limp and complained of pain in his left hip and groin. The pain gets worse on activity and usually improves with rest. There has been no trauma and the child is otherwise well. On examination, the child walks with an antalgic gait and all movements of the left hip are limited, particularly internal rotation. Blood tests including FBC, ESR, LFTs, U&Es, thyroid function and bone profile are normal. An x-ray of the pelvis shows loss of joint space and reduced size of the femoral head. What is the most likely diagnosis?

- ☐ Osteomyelitis
- ☐ Chondroblastoma
- ☐ Gaucher disease
- ☐ Perthes disease
- ☐ Juvenile idiopathic arthritis

4. A 65-year-old male presents to the GP complaining of worsening hearing over the last 3 months. He has had some occasional left-sided ear pain, but otherwise feels well and has no significant past medical history. Gross

assessment reveals reduced hearing on the left. Weber's test lateralizes to the left. Rinne's test shows bone conduction is better than air conduction in the left ear. Which of the following is the most likely diagnosis based on these findings?

- ☐ Left sided conductive hearing loss
- ☐ Right sided sensorineural hearing loss
- ☐ Left sided sensorineural hearing loss
- ☐ Right sided conductive hearing loss
- ☐ All of the above

5. A 52-year-old man comes to your office at the urging of his wife, who cannot get a good night's sleep because the patient gets out of bed several times each night and paces the room. He also occasionally kicks his wife inadvertently in the middle of the night. He states that he feels like ants are crawling over his legs, particularly when he is trying to sit still and at night. What is the most likely diagnosis?

- ☐ Restless legs syndrome with periodic limb movements of sleep
- ☐ Parasomnias
- ☐ Peripheral neuropathy with paresthesias
- ☐ Parkinson's disease with paresthesias
- ☐ Insomnia

6. A 13-year-old male presents to the emergency department in the middle of the night complaining of sudden right testicular pain associated with nausea and vomiting. On clinical examination, an erythematous swollen right testis with a horizontal lie is observed. The right testis is at a higher position compared to the contralateral side. Pain is not relieved on elevating the right

testis, and the cremasteric reflex is absent. What is the most likely diagnosis?

- ☐ Testicular tumour
- ☐ Idiopathic scrotal oedema
- ☐ Acute epididymitis
- ☐ Testicular torsion
- ☐ Torsion of appendix testis

7. An 8-year-old female presents with a 3-day history of a tender neck lump. She is otherwise in good health. Her mother is very concerned and thinks it is getting bigger. There is no significant family history. On examination, all vital signs are stable. The patient has dressed appropriately for the weather. There is a 2 cm red, tender and round midline anterior neck swelling. It is fluctuant and moves on swallowing and tongue protrusion. There are no fine tremors and reflexes are normal. What is the most likely diagnosis?

- ☐ Branchial cyst
- ☐ Pharyngeal pouch
- ☐ Lymphadenopathy
- ☐ Thyroglossal duct cyst
- ☐ Goitre

8. A 19-year-old woman presents to her GP practice complaining of increased watery vaginal discharge. She has not noticed any skin irritation, intermenstrual bleeding or dysuria but is worried the discharge may smell. When performing swabs you check the vaginal pH. This comes back as 3.7. What is the most likely diagnosis?

- ☐ Thrush
- ☐ Gonorrhoea
- ☐ Bacterial vaginosis
- ☐ Normal physiological discharge
- ☐ Trichomonas vaginalis

9. You are a Junior Doctor working in General Practice (GP). During your clinic, you see a 72-year-old man who is complaining of feeling increasingly tired over the last 3 months. His wife tells you that he has been very disoriented and she has had enough of his brain fog. On taking a thorough history you learn that he has been urinating much more than normal, and has been increasingly thirsty. He tells you that this has all been going on for about 3 months. On clinical examination, you find that he has reduced skin turgor and dry mucous membranes. He is also tachycardic (heart rate 140 beats per minute), hypotensive (blood pressure 84/56). A respiratory examination reveals clear chest auscultation. Urinalysis shows dilute and slightly straw-coloured urine, with very small glucose level and free from ketones, nitrites, proteins, neutrophils and blood cells. You request some blood tests which demonstrate the following:

- Urea: 20 (raised)
- Creatinine 92 (normal)
- Sodium 158 (raised)
- Fasting Blood Glucose 5.2 (normal)

Which of the following is the most likely diagnosis for this patient?

- ☐ Addison's disease
- ☐ Syndrome of inappropriate antidiuretic hormone (SIADH)

- ☐ Liver cirrhosis
- ☐ Diabetes insipidus
- ☐ Type-2 diabetes mellitus

10. A 32-year-old woman, who is 30 weeks pregnant, is seen in the antenatal clinic with a swollen right calf that is hot to touch. She is afebrile and hemodynamically stable. She does not have any past medical history and is only taking vitamin supplements. She has no known allergies. The pregnancy has been uneventful so far. On examination, her right calf is swollen, hot and tender. Her chest is clear, heart sounds 1 and 2 are normal with no added sounds, and her abdomen is soft and nontender. The symphysis-fundal height is 29cm and fetal CTG is normal. Her observations are all within normal ranges.

Given the likely diagnosis, what advice would you give regarding your current management plan?

- ☐ Avoid breastfeeding whilst on this medication
- ☐ Continue low molecular weight heparin whilst in labour
- ☐ Attend for regular blood tests whilst on low molecular weight heparin
- ☐ Attend for regular blood tests whilst on warfarin treatment
- ☐ Continue low molecular weight heparin for 6 weeks postpartum

MIRROR

The World Trapped Behind

I am standing in front of a mirror,
wondering who is true
Is it me or you?
Life goes like a routine here,
Sometimes leaves me wondering
how am I coping.
The ticking clock that sounds same.
Every second, every minute, every hour
it feels like a game.
Is it me or you,
Trapped in a loop.
Every once in a while
I reflect on what I could do.
Seeing you there copying everything I do
Are you trapped or free?
I bet you're free because
yours is the reflection,
I aspire to be.
Tell you every secret
and groom you very well.
Wondering if you are just like me
but in a different prison cell
Every second every minute every hour
it feels like a game.
Is it me or you?

Trapped in a loop.
every once in a while
I reflect on what I could do..
Seeing you there copying everything I do
Are you trapped or free?
I bet you are free because
yours is the reflection I aspire to be.
I tell you every secret
and groom you very well.
Wondering if you are just like me
but in a different prison cell
It may be a door, which I never explored
To the other world where I am not
bound by those.
Lies and promises
which keep me on my toes.
I want to just lay on the grass and absorb
the rays that pierce,
through my skin into my soul.

By Shreya Patil

MEDCON spotlights

The hidden faces behind MEDCON

How has your role changed your view of the conference (Medcon'24) and life overall?

Being in charge of Finance and Budgeting has given me a deeper appreciation for the intricacies of organising a large-scale event like MedCon'24. It has shown me how important careful planning and financial management are, not just in conference management but in life overall. This role has made me more mindful of resource allocation and the importance of balancing ambition with practicality.

Soumiya Nadar

Head of Finance and Budgeting
Sub-Committee

What's a typical day like in your role?

A typical day involves organising and holding various meetings with different groups of people, assigning tasks and coordinating within the team. My WhatsApp screen time has sky-rocketed, and group chats look like some sort of agenda-making fandango!

What's a memorable challenge you've faced with your team, and how did you overcome it?

To bring a team of 50+ people together is definitely a challenge. A tonne of meeting reminder texts, a few friendly fires, some hardcore planning and an unstoppable team, can help overcome anything in the way!

Niyati Nilesh Vaidya

Head Volunteers Management
Subcommittee

How do you prioritise MEDCON'24, and how can others help spread the word?

Prioritising MedCon'24 means setting clear deadlines and making sure the budget reflects our goals. To help spread the word, others can use their networks and communicate on social media about the conference. Sharing personal stories or interesting facts about the conference can also create buzz and attract attention.

Soumiya Nadar

Head of Finance and Budgeting
Sub-Committee

Can you share an interesting behind-the-scenes story?



Which project within the planning and preparation for MEDCON'24 impacted you the most, and why is it unforgettable?

The project that impacted me the most was securing sponsorships. It was unforgettable because it required not just financial aid but also relationship-building and strategic thinking. The success of this project is vital to the overall financial health of the conference, and it is incredibly rewarding to see our efforts slowly but surely pay off.

Soumiya Nadar

Head of Finance and Budgeting
Sub-Committee

What keeps you motivated in your role?

The awareness of the impact my role creates in the conference keeps me motivated.

Diti Sangoi

Assistant head of volunteers
management subcommittee

What work ethic is essential for success in your department?

Honesty and transparency

Thariq Thahir

Logistics Subcommittee Member

What advice would you give to someone wanting to join your team for MEDCON'25 next year?

One advice would be to remain dedicated towards the work you have to do. Being a part of an organising team for a conference brings a heavy sense of responsibility. To genuinely want the good out of the hard work that everyone puts in should be a feeling every volunteer should carry.

Niyati Nilesh Vaidya

Head Volunteers Management
Subcommittee

An interesting behind-the-scenes story was my 2:00 AM panic over a seemingly missing 5,000 Iari. After frantically double-checking everything for over 2 hours, I realised the money was never actually missing, but it was an error of a SUM Function in the Excel Sheet. It was a funny yet powerful reminder that sleep is sometimes the best solution to financial 'crises.'

How do you ensure effective communication within your team and others within the committee?

If you are lucky to work with great people above you who are willing to listen to your views, then you are set for life. If you have any objections to any views shared with you, knowing when to talk, how to talk and whom to talk to can guide you with your project. Having mentors who are not in your team who will motivate you personally can be of great assistance. When others have views, knowing how to acknowledge them will make them want to listen to your views as well. Understanding others and looking at facts from their point of view can enable you to make better judgements and communicate better.

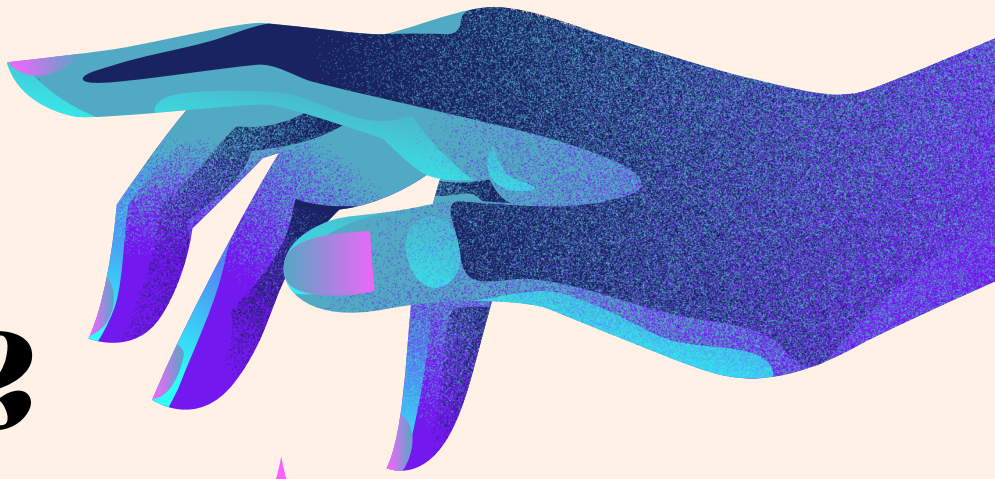
Shabbeer Imtiaz Ahamed

Logistics Subcommittee of
MedCon

Soumiya Nadar

Head of Finance and Budgeting
Sub-Committee

In Gentle Hands



In quiet whispers, healing speaks,
A balm for wounds that time can't reach.
Through tender hands and hearts so
wide,
Compassion flows, a gentle tide.

Where pain once lived, now kindness
grows,
In every touch, a comfort shows.
No words are needed, just a glance,
A silent pact, a second chance.

For in this space, where hearts
align,
The broken pieces intertwine.
And in the stillness, love is found,
A healing light, so pure, unbound.

So let us be the gentle breeze,
That soothes the soul and brings it
ease.
In every act, in every day,
Let compassion lead the way.



By Dr. Saumya Bartaria

INSIGHT MD
PRESENTS

ANATOMY OF ART

FLIP TO NEXT PAGE

Anatomy of Art



The Art of Medicine

By Shaheen Kauser Sathik



This painting was inspired by my fascination with neurology and the expressive style of Van Gogh. The swirling patterns and vibrant colours evoke a reminiscence of Van Gogh's iconic "Starry Night". It is a tribute to the complexity of the human mind.

By Shruthi Vairavan



Its a beautiful heart showing how delicate it is yet holds the power of pumping life in a human body

By Vrinda



Bob the ghost exploring immune warfare

By Syed Iftiqar Ahmed

First Place - Shaheen Kauser Sathik & Shruthi Vairavan

Second Place - Vrinda

Third Place - Syed Iftiqar Ahmed



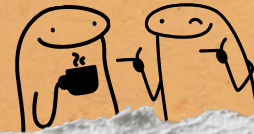
Tickle Your Funny Bone



Why don't cardiologists ever get lost?
Because they always know the way to your heart.



What's the most sarcastic thing a doctor can say?
Well, look who decided to come in today after chatGPT didn't work



What's a dentist's favorite time of day?
Tooth-hurty (2:30)



What kind of a prize do you give someone who hasn't moved a muscle in over a year?
A-trophy



Why did the doctor become a race car driver?
To get to the "emergency" room faster!



What did one tonsil say to the other tonsil?
"Get dressed up — the doctor is taking us out!"



"Doctor, I have a ringing in my ear."
Doctor: "Then whatever you do, don't answer it."



What if, instead of a nervous system, we had a super chill system :P



Why did the doctor carry a red pen?
In case they needed to draw blood!



A photograph of Freedom Square in Tbilisi, Georgia. On the left is the tall, white, fluted Column of Freedom, topped with a golden statue of a winged horse (Pegasus) holding a torch. In the background is a large, ornate, light-colored building with many arched windows. In the foreground, a yellow and purple bus is partially visible. The sky is blue with scattered white clouds.

DAY OUT IN *Tbilisi*

- By Vaishali Raja

As you rush to your classes, and a moment of sluggishness strikes you as you travel to your destination, your mind thinks about how restless the current week has been, and how much you would appreciate a short break to replenish energy for the next. It hasn't been easy to cope with the daunting syllabus being dumped on you, and you begin to wonder - *"A breath of fresh air would be perfect right now, but where do I go?"*

Well, don't look any further because we've got a list curated, specially for you, with places to go, and areas to discover right in Tbilisi!

VAKE PARK AND TURTLE LAKE - THE DOUBLE TREAT

While there are numerous small play areas around your neighbourhood with kids riding the swings and swerving on the slides, Vake Park is a comforting haven with a chill atmosphere. Easily accessible by bus, this park is a great spot for evening strolls with your daily dose of caffeine.

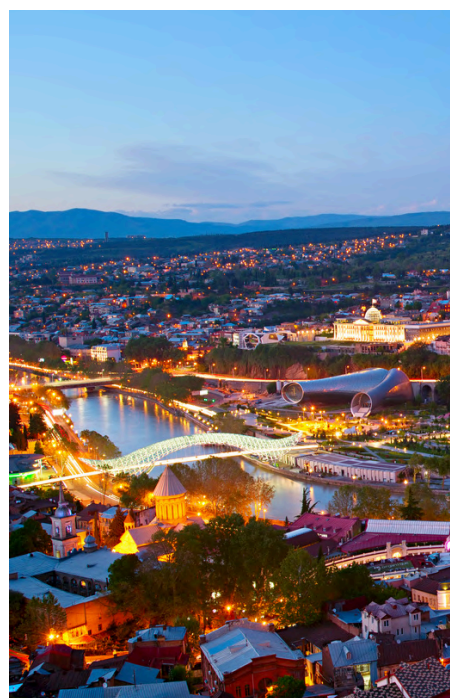
A zipline from this very park drops you off at Turtle Lake, a serene spot with pedal boats to rent and ride, or just to have a great picnic at. While the zipline itself is gifted with a splendid view, the lake has lanes you can walk on or green fields where you can enjoy playing outdoor games with your friends. Don't miss out on basking in the golden hues of the sunset while gazing at the lake in the evenings!

TBILISI BOTANICAL GARDEN - "NATURE" AESTHETICS

With a hidden waterfall on the horizon to explore, this botanical garden is a treat to visit right before summer hits. Priced at 4 GEL per entry ticket, the feasible value does not mean the area skimps on luscious greenery and beautiful flowers. Located in the centre of the city, it is also a location that you can easily travel to.

Make sure to not just take pictures of the gorgeous scenery, but treat yourself to a cheeky short photoshoot! Dress up in your favourite summer dress and strike some poses for the gram, folks!

(Note for the sightseeing team: If you've got an entire day to explore, take the chance to visit Narikala Fortress, or even get to the zipline that would take you to the Mother of Georgia. The viewpoints are ethereal.)





TBILISI SEA AND THE CHRONICLES OF GEORGIA - THE DOUBLE TREAT VERSION. 2

Wanna go for a swim? Tbilisi Sea might just do the trick. Although being an artificial lake, it caters to the thought of wanting to float in the sea with the sky as your ceiling. Less crowded on the weekdays, this place not just has swimming to offer, but also rentable pedal boats and jet skis. Public transport is your best friend to travel this long distance, especially with a student card in hand.

If you are hitting up the sea, The Chronicles of Georgia is just a few feet away. This monument consists of 16 pillars, each carved with the nation's rich history. You could find a hiking trail to get to the spot, if you're up for something adventurous! (Don't worry, you can always walk through the safer paths to get there) With a great viewpoint to observe, the sunrise or the sunset from the top is enchanting to witness.



RUSTAVELI AVENUE - A BUSTLING CHECKPOINT

The entire lane of Rustaveli branches into various nooks and crannies that have something for everyone. Apart from the main landmarks such as Freedom Square, Clock Tower, The Apple of Love, and more, there are also spots for the foodies to grab a bite from! If you're feeling fancy and want to reward yourself with a scrumptious brunch, Rustaveli is the place to be!

Don't forget to visit this place in December. Small stalls with hand-crafted goods, small treats, and a huge Christmas tree in front of The Parliament of Georgia embrace the joy of Christmas! Also, this place would complement your yearly ritual of staying up till midnight to yell the words "Happy New Year!" with fireworks and cheers from the public!



Eternal Healing

In the realm where shadows drift,
Where time and death in silence sift,
A hand extends with gentle grace,
Healing wounds in a warm embrace.
Disease may come with a grievous toll,
Yet in each heart, a steadfast soul,
Through pain and loss, through tearful
nights,

A flicker burns, a guiding light.
I fell in love with hope so bright.
In every heartbeat, every fight,
A tale unfolds in whispers soft,
Of strength that lifts the weary aloft.
Time weaves its thread, both harsh and kind.

In its embrace, we often find,
The scars of life, the marks of strife,
Yet also love—the breath of life.
Death may loom with silent tread,
But healing hands and words unsaid
Revive the spirit, mend the break,
In compassion's touch, hearts awaken.

In every trial, every test,
A chance to heal, to do our best,
To soothe the pain, to calm the fear,
In every act, we draw near.

For in the darkest hours of night,
In the face of an endless fight,
We stand as one, with hearts entwined,
In healing's name, true peace we find.

Together strong, we face the dawn,
With hope reborn, with shadows gone,
In life's embrace, we rise above,
In endless care, in boundless love.

So let us heal, and let us mend.
In every touch, in every friend,
For in this journey, hand in hand,
We find the strength to understand.
That though disease and time may test,
In love and hope, we find our rest.
In healing's light, we forge our way,
Toward brighter nights and kinder days.



THE BITE & GO HUB

How to keep your nutrition goals on point while on the run

By Aniqah Inas

Ever noticed how your diet gets worse every time you come back from vacation from home, sweet home?

Fear not, for we're at your service. Here, you'll find inspiration to make quick snacks and short meals that you can take with you on the go without missing out on your meals, whilst still prioritising your body on getting its daily nutritious intake of calories.

This is for all the gym lovers on sugar cuts, late-comers who forgot to eat, and most importantly, people on a diet without exerting themselves (I see and feel you, people, I do). With our brains (and muscles) hard at work, we've some additional pointers on how to eat healthy despite the daily struggle, all to make your life easier.

So, what are you waiting for? Hop onto your counter and let's get this delicious meal ready.

Happy munching!





ENERGY BOOST GRANOLA BARS

Ingredients

- 2 medium-sized ripened bananas
- 2 tbsp honey
- 1 cup rolled oats
- ½ cup oat flour
- ½ cup hazelnuts (or nuts of choice)
- ⅓ cup dried strawberries
- 2 tbsp dark chocolate, chopped

Instructions

- In a medium mixing bowl, mash the bananas until smooth.
- Add honey, oats and oat flour, and mix until well combined.
- Stir in the nuts and dried strawberries.
- Gently fold in the chopped dark chocolate bits until the ingredients are mixed in thoroughly.
- In a baking tray lined with parchment paper, place the mixture (either shaped or as is) and bake for 20-25 minutes at 175°C.
- Leave it in the oven for another 5-10 minutes before taking it out and letting it cool.
- Cut it into 6 slices (if not already shaped) & serve.



NOTE

- 2 medium-sized bananas can be replaced with 1 1/2 large or 3-4 small bananas. The riper (or over-riper) they are, the better.
- If you don't have oat flour, consider grinding available oats to powder/flour, or use any flour of your choice, but be careful with over-mixing wheat or other types of flour.
- Nuts and fruits can be chopped for a doughy texture, or left whole for a chunky consistency. You can use any nuts and dried fruits to your liking, including dates and figs for a stickier bar.
- While dark chocolate has a less sweet profile and goes well with the other prevalent sweet ingredients, consider adding chocolates of your choice if you've got a sweet tooth or craving.
- Once done baking, leaving the tray in for another 5-10 minutes gives it time to settle (instead of wasting energy behind preheating). Use a toothpick that comes out clean or until the surface is golden brown to learn when to take the tray out.
- Above-listed ingredients are for health-conscious individuals worried about calorie and nutritional intake (quoted on the next page). The above-mentioned switches can be made according to individual preference.

Nutritional Information

Per Serving (1/6 bars)

- **Calories:** 218.2 kcal
- **Carbohydrates:** 32.06g
- **Protein:** 3.94g
- **Fat:** 7.55g
- **Fiber:** 4g
- **Sugar:** 60g



- Always opt for food items with higher fibre to stay full longer.
- Try to get enough of every type of nutrient. Don't just focus on the calories. Look at the content of fibre, vitamins & minerals in every meal.
- Stay hydrated. A few sips of water every few minutes goes a long way for a young, glowing skin.
- Adding nuts to your diet provides you with the much needed essential fats as well as meets your daily energy requirements.
- Eat your meals on time. True that as medical students our cycle is a mishap, but even having a short snack at your designated meal time will prevent cravings, excessive food intake & beat hunger.



ANSWERS!

PRE CLINICAL CROSSWORD

ACROSS:

1. OSTEOBLAST
3. HEMOGLOBIN
6. CHYME
7. MITOCHONDRIA
9. NEURULATION
10. COLLAGEN
12. GOLGI APPARATUS
14. LIPOPROTEINS
15. SYNAPSE
17. GLOMERULUS
18. LYMPH
19. MYELIN
20. SARCOMERE

DOWN:

2. ACETYLCHOLINE
4. T-CELL
5. PEPSIN
8. APOPTOSIS
11. STRATUM BASALE
13. RIBOSOME
16. PLASMA



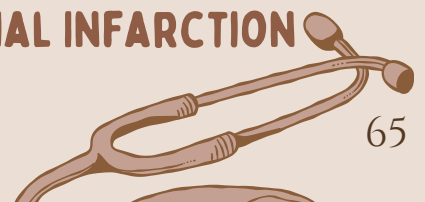
CLINICAL CROSSWORD

ACROSS:

4. HELIOTHERAPY
5. CAPUT MEDUSA
10. PILONIDAL
11. ALKAPTONURIA
13. URINARY TRACT
INFECTION
14. DEXAMETHASONE
15. TINNITUS
16. MELANOMA

DOWN:

1. SUBARACHNOID
2. GRAY HEPATIZATION
3. UTERINE FIBROID
6. INTESTINAL OBSTRUCTION
7. CHARCOT
8. CHANCRES
9. DIABETES MELLITUS
12. MYOCARDIAL INFARCTION



ANSWER KEY

PRE-CLINICAL

QUIZ #1

	A	B	C	D
1	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
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ANSWER KEY

PRE-CLINICAL

QUIZ #2

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ANSWER KEY

PRE-CLINICAL

QUIZ #2

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ANSWER KEY

CLINICAL QUIZ

	A	B	C	D	E
1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
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6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
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10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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