



MEDWAVES

NEWSLETTER

ISSUE NO.001
JANUARY 2022

Message from the President



Firstly, I'd like to address the launch of the BIU newsletter and extend my congratulations to all the students. Additionally, I'd like to thank those who have dedicated their time and effort to make this happen. I'm beyond elated to see these positive changes taking place and for the recognition of this

amazing community of staff and students who all bring in their unique contributions.

At BIU, with our smaller classes, we are able to establish a more personal connection with our students. This connection allows us to personalise and adapt our teaching methodology and curriculum in order to provide a more enriching environment for academic excellence. As seen in the last 18 months, with our flexibility in teaching methods. Our approach had proved beneficial as we were able to adapt our curriculum to online platforms in an efficient manner.

As for the future, we are making significant changes to encourage sustainability. With our new ownership of the college building, we have been able to add more classrooms. We have built new labs for anatomy, pathology and microbiology and are currently working on establishing a simulation lab. In addition, we are continually looking to add more material and books to the library as well as obtaining digital sources to access the textbooks.

As always, BIU is always looking for student input on how we can improve as a university in order to stand by our goals of creating health care providers of the highest calibre.

Once again I'd like to congratulate the launch of our very own BIU newsletter and wish you all the best.

Best Regards,
DR. PRIYA KANCHERLA

Message from the Dean

The privilege of studying to save lives is a noble and rare one.

Make the best of it and never give up.

The difficult topic you are studying today can save someone's life tomorrow.

-DR. MOHSEN JAVAHERI



OMICRON: The NEW Variant on the Block

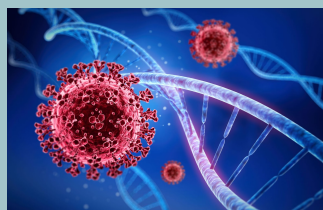
A new Covid-19 variant, named the Omicron variant (B.1.1.529) was detected in South Africa on the 24th November 2021, prompting renewed concern about the pandemic, and the imposition of new international travel restrictions.

Symptoms of the Omicron variant are:

- ★ Fatigue, not limited to any age group
- ★ No major drop in oxygen saturation levels
- ★ No loss of taste or smell.
- ★ Sore throat

What do we know about this new variant?

Early evidence suggests that the omicron variant is highly contagious, possibly more so than the delta variant. With thirty- six mutations on



the spike protein; the part of the virus that binds to a human cell, infecting it. The World Health Organization has already labelled Omicron a "variant of concern", which means it could be more able to evade the protection granted by vaccines than the original strain of Covid- 19.

-VINAY GOTTAM

“Do your Part! Prevent COVID Spread



Since a new corona virus was discovered in a group of patients in December 2019 in Wuhan, China it affected all segments of the population. It is particularly detrimental to members of those social groups in the most vulnerable situations, and continues to affect populations

including people living in poverty, older persons, persons with disabilities, youth and indigenous peoples.

STAY FIT AND STAY HEALTHY! This plays a vital role in our life. These days people neglect their health because of the hectic daily schedules but there are little things that you can do each day.

STAY HAPPY AND STRESS FREE. Have a minimum eight hours of sleep per day. Maintaining low stress levels with yoga, meditation and exercise also keeps you mentally healthy COVID specific measures.

In addition to maintaining good physical and mental health the following measures that aids to prevent COVID spread.

IMPORTANCE OF GETTING VACCINATED. Vaccinations are known to boost your immune system by teaching your body how to fight threats. Once you are vaccinated, your body is much better prepared to shield off more viruses by making your immune system stronger. With vaccination you are not only getting yourself protected but also the people around you.

-BHARATHI DOREPALLI

Go Beyond the Body: Facts About Obesity

Obesity, is generally defined as an excess of body fat, can be assessed by having a BMI of 30 or higher. But it is not that simple for an obese person. As I was an obese teenager, I knew how difficult it is to be obese and struggle with being socially accepted. Like any other human being I did not want to take the blame. My mom and few other relatives from her side are obese too, so I thought maybe it has something to do with genetics. This led me to research the genetic causes of obesity. Twin studies conducted by Stunkard and colleagues showed that even though children were raised separately the weight of the adults are similar biologically to their parents; concluding that genetics influences the behavior that predisposes to obesity like eating patterns and exercise. According to other scientific studies, genetic causes of obesity are Monogenic causes-single gene mutations primarily in Leptin Melanocortin pathway which regulates energy balance.

These involve the genes that encode the hormone leptin receptor, mutations in pro-opiomelanocortin (POMC)- deficiency of POMC protein can result in decreased production of alpha- MSH, beta endorphins (cleavage products of ACTH). Alpha MSH plays a vital role in appetite regulations as well as our pigmentation. So, the patients are present with red hair and severe obesity. Mutations in Melanocortin-4- receptor (MC4R) a G- protein coupled receptor that is present in MC4R lead to inherited early onset obesity.

Syndromic obesity, the other genetic group presents with associated phenotypes along with obesity. The phenotypes include intellectual disability dysmorphic facies or organ system specific abnormalities. There are about 100 syndromes of which obesity is the presenting feature. But most frequent forms are Bardot Biedl syndrome (BBS) and Prader Willi Syndrome (PWS). BBS is a rare ciliopathy that is prevalent in Northern

Europe (1:160000); Kuwait (1:13500) and Newfoundland (1:175000). PWS, the most common cause of syndromic obesity around the world (1 in 5000-25000 births). Polygenic obesity is also one of the groups of genetic obesity.



In 2007 studies (gene wide association studies of type 2 diabetes in Europeans) researchers identified the first obesity related gene (FTO) gene on chromosome 16 and it is said that people who carry the gene have 20-30 % increased risk of obesity compared to those who don't have it. Another gene is on chromosome 18 close to the MC4R gene till date.

Not only these two , 30 genes associated with BMI are identified on 12 chromosomes but by these studies and identification of genes, one cannot conclude that obesity is only due to genetics. These genetic changes cannot explain the wide spread of obesity across the world; rather this can be explained by environmental changes that can influence people to overeat or make it harder for people to get enough physical activity. In the studies conducted in 2008 (by Andreasen and colleagues) they concluded that people who are inactive and with superimposed obesity promoting genes have higher BMI than those who are inactive and without the gene.

Therefore, we can conclude that while genetics does play a role in the probability that some people will have a higher BMI, it is not the only culprit. Rather, we can alter the effects of these genes by changing our lifestyle and food habits that are predominantly influenced by our environment. So, remember you are not destined to be obese, it is you who decides how to be.

-HARSHINI RAVANURU

Life in the Time of Probiotics



Microbiological studies have shown that bacteria can be both bad and good. The bad ones are pathogenic while the good ones are beneficial. Probiotics are a rich source of good bacteria and show a way to eradicate many guts related diseases, supplying and absorbing nutrients from

our food.

Where do beneficial probiotics live in our body?

Though the most common place linked to beneficial microbes is your gut (mostly the large intestines), you have several locations in and on your body that host good microbes. These locations are in contact with the “outside world” and include your: gut, mouth, vagina, urinary tract, skin, and lungs. The health benefits of probiotics are extensive. They fall into 3 main categories: improve digestion, enhance immunity and reduce allergies. Beyond the proven benefits, probiotics also improve nutrient absorption, women’s health, cholesterol, mood and sleep and fight

various cancers such as stomach, bladder, cervical, colon, liver and lung. Probiotics are abundantly present in food items like yogurt, buttermilk, cheese, cinnamon, ginger, green tea, sour pickles, sour milk, milk cakes, ginseng , watermelon, strawberries, grapes and blueberries.

What do research articles say about probiotics?

The 2012 National health interview survey (NHIS) showed that among adults, probiotics or prebiotics were the third most commonly used dietary supplement other than vitamins and minerals. The use of probiotics by adults quadrupled between 2007 and 2012. The 2012 NHIS also showed that before the survey 300,000 children aged 4 to 17 (0.5 percent) having used probiotics or prebiotics for 30 days, had shown promise in a variety of health purposes including prevention of antibiotic associated diarrhea (including diarrhea caused by Clostridium difficile), prevention of necrotizing enterocolitis and sepsis in premature infants, treatment of infant colic, treatment of periodontal disease, and induction or maintenance of remission in ulcerative colitis.

- HEMANTHI RAMISETTY

Food in Paradise

What are humans most fond of ? Yes, it’s food! We are in a world where our taste buds were given the highest priority. We love when our taste buds enjoy delicious food.

Barbados is known for its beautiful scenery with mind blowing beaches, caves and delicious food. The national dish of Fried Fish and Cou Cou, is mouthwatering. Bajan food is seafood and seafood is Barbadian cuisine. Fish, lobster and crab are widely used in local dishes, as well as Asian, Mediterranean menus available at popular restaurants across the island.

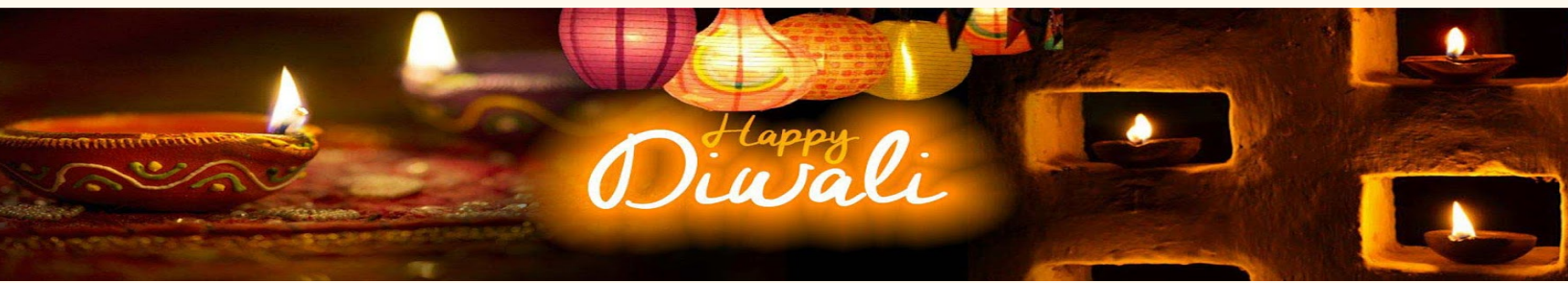
Local delicacies are also a personal favorite including the Hot Legendary Fish Cakes, a famous street food served with Bajan hot sauce, “ufff its so hot!!” It is made of fish batter and spices. A must try! Bajan Macaroni Pie, a rich creamy casserole dish made with cheese, milk, pasta and seasonings baked and served hot most commonly with salad which makes it more palatable. So grab a big spoonful to enjoy the lavish taste. Coucou is made out of cornmeal and okras served as porridge with stew or meat or fish comforting our palate. It is a traditional dish in Barbados. Cakes- who doesn't love cakes? Rum cake is the most special dish with Rum, raisins

and other nuts. Conkie- A famous dish made with cornmeal, coconut, raisins and much more stuffed in the banana leaves and cooked with steam. This delicious food is famous throughout the entire Caribbean.



Soup- soup is love!! Bajans love soups especially with chicken, corn cobbettes and dumplings including herbs and spices to make it more flavorsome. Chefette restaurants are a food heaven where our taste buds can dance and sing with joy and happiness; chicken, roti, pizza, and most importantly children’s favorite part, ice cream! It is a good place to enjoy with your friends and family. Along with the traditional food, many world famous food like Burger King, KFC and Subway are available in the heart of Barbados. Also, other restaurants representing their countries provide rich taste to make the locals much more happy.

-PRAVALLIKA KARE



Lights Shine Bright: Diwali at BIU

It's the largest and most widely celebrated festival in India. What's the first thing that comes into your mind when you think about Diwali?

That's right! The lights, fireworks, colorful paintings and sweets!

Students and faculty came together to host a wonderful evening filled with performances, fun and food in celebration of diwali.

Below are some highlights of the evening captured by students and staff.

-RUCHIRA AKULA



Hope

Trust me said the vibes
Making pseudo aura
Left me with awry tenor
Trust me, said the beautiful
Meadows of daffodils,
Looking embarrassed, it shriveled
As autumn came.

Trust me said the stars,
They set off at dawn.
Trust me said my psyche
"No" screamed my guts,
It led back from leaving the world.

Trust me, said hope
Been hoping ever since
"Hope kills" is what some say,
"Just hope" is what others say,

Trust me said people

This time not being
gullible,
I said trust me

I am tired and hopeless,
A shriveled flower,
A faded star and
Losing myself.

Here I am, chaotic
For once
Trust me
Leave me alone.

-GAYATHRI KOTAPATI

Reflections on Being Human

Have you ever wondered?
I wonder how two tiny cells, 46 chromosomes
Make up a 120 pound human

I wonder how a thousands of
genes, trillions of cells
And millions of nerves in every person are of
same
But with different faces and different
fingerprints

I wonder how heart paces the beat by itself
And makes the blood to flow even if it is not a
river
I wonder how 576 pixels human eye is much
Significant than a 12 pixels camera
I wonder how a nanogram of hormone fills
ocean of love in human

I wonder I wonder and I wonder
How human is much unique than other
creatures
Is it science or God's masterpiece?

-PRANUSHA RAJALA



Barbados: A Personal Encounter

Blue skies and Beaches everywhere!!!

As a young adult from India, exploring Barbados for the first time, I found that there are many wonderful and fascinating things about the island. The first place I visited was the capital city Bridgetown- the center of Barbados for shopping. It has a main seaport.

There are beautiful pebble beaches like Brownes beach, Bottom Bay Beach, Crane Beach, Bathesheba with gorgeous blue water as far as the eye could see. There are hills and gardens like St. Nicholas Abbey, Hunte's Garden, Animal Flower Cave, Harrison's Cave with alluring flora and fauna from all over the world. When it comes to adventure, everyone loves it here. We have explored underground caves, hiked through gullies, gone kitesurfing and paddle boarding, and participated in water sports like scuba diving, parasailing, cruising, water jet ski and so on.

To relieve stress we have partied, island-style! Live bands and DJs are grooving with lovely melodies, Bajan songs and international hits. We found clubs in St. Lawrence Gap on the South Coast, Hometown on the West Coast, and Bay Street just outside the capital city Bridgetown.

If our stomach is full, we feel happy!! Here we have a great blend of delicious food from the Caribbean as well as India, America, Europe, China and Africa. The famous food of Barbados is flying fish but I personally like the Indian food from Tagore's - Indian restaurant in Hastings which is very affordable.



- SUSHMA SARASWATHI MUTYALA

What A Thrilling Cricket Match!



If anyone thought Test cricket was dead and buried, they were wrong! The test match between India and New Zealand was thrilling from the start and sensationally ended in a draw. Needing 284 to win, New Zealand defied India in the first session on the final day before the hosts came back strongly in the second to pick up three wickets.

The match had its ebbs and flow and just when India seemed favorites to take a 1-0 lead grabbing four wickets in the final session, New Zealand's last wicket pair of Rachin Ravindra and Ajaz Patel saw 52 balls to end the match on a riveting note. The Kanpur game was an ideal advert for Test cricket with one team getting on top of the other momentarily through the course of the Test. At the end of Day 1, India looked set towards a 500- plus total, but a five- wicket haul from Tim Southee laid waste to those plans. New Zealand openers responded well with Tom Latham and Will Young putting on century partnerships as both players went on to hit half centuries.

But once again, just when New Zealand seemed to be racing away with the advantage, five- wicket haul from Axar Patel, aided well by R Ashwin and Ravindra Jadeja helped India wrest back the advantage. The third and fourth days saw plenty of see-saw action between India and New Zealand as Shreyas Iyer scored a fifty to go with a century in the first innings and along with Wriddhiman Saha, staged India's comeback.

-NIKHIL KARRE

Let's Get Physical: Sports Week in Focus



BIU students enthusiastically showcased their excellent athletic abilities at the Sports Week 2021. Everyone, including professors, participated in the sporting activities which were held from 17th to 30th October.

All the sports events were guided by the Sports Committee, aided by the general student body. It was really quite a treat to see the seniors, juniors and sub-juniors having a great time together and interacting.



The students actively participated in various games including chess, kabaddi, cricket, volleyball, football, sprint and dodgeball. The University believes that having Sports Week every 6 months inculcates the values of sportsmanship in the students.

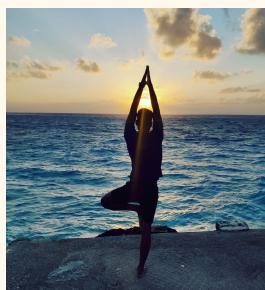


Team and individual prizes were awarded by Dr. Javaheri, Dean of BIU during the Diwali celebration. BIU strongly stands on the point that apart from academics, students should have exposure to extra-curricular activities throughout their medical education. Physical activity helps in promoting wellness and positivity.



-SAHITHI SRIYA GADICHERLA

GOOD POSTURE, GREAT THINKING!



For those who think it is only about staying in good shape and flexibility, think again; fitness is definitely more than that!

By accomplishing daily fitness tasks, you are not only building physical wellness but also your self-worth and feeling of completeness. Day by day you are enhancing your confidence and great mindset by doing tasks which you didn't know before. And most importantly you will develop discipline by showing yourself up with the mat every single day.

So how is this happening? Most people make bad decisions in their life when they are angry, overly anxious and sad. Usually when we exercise or do yoga we feel happier due to the release of enkephalins and growth hormones. When we are happy, we create no space for negativity so obviously whatever is in our minds would give positive outcomes in most circumstances.

When we get to know the benefits of fitness we can do our daily activities much easier and our posture improves. Moreover regular exercises lower the risk of heart disorders and improve circulation. Let's move and develop a mindset of not giving up by practicing good fitness!

- KATTARAM KAPIL SUNDER GOUD

MED BUZZ

Medical Terminology Word Search Puzzle

Cystostomy
Intercostal
Nephropexy
Bronchiole
Angioplasty
Postmortem
Acromegaly
Myocardium
Phlebotomy
Pericardium

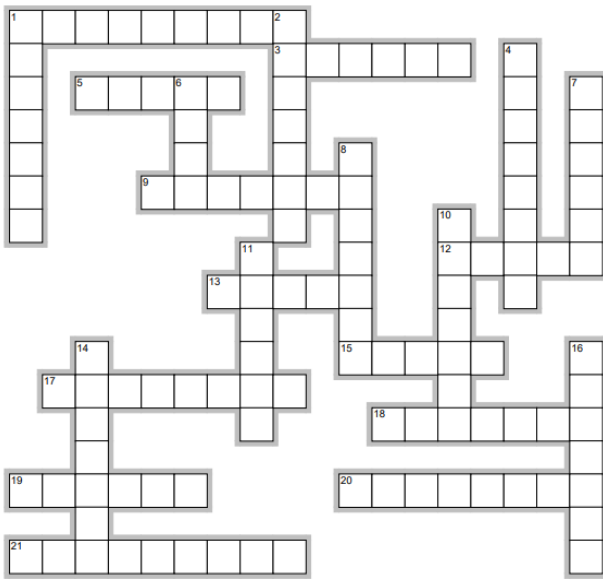
K T I T M M Y A K W Q M W I K E P R O L A P S E I
R U N T U L E U R A K C H H S U B L I N G U A L S
A Q T R R A X Y Z U J N Y O A I R U T C O N M T U
D C E Z H V C F T Z L R M S N K S N R Q W F F R K
I D R R E E Y D Q S L E K L T E A O C U H A R P W
O X C O D U Z J J O A S I K H O J R H K B X A C Q
L Z O U M M R X Y N R L I W I K S A Y C W H Y D Q
O S S Y S E E L A K R H P T W U Q T Z O Y E C Z V
G U T V M W G T F A W M Z O I M Q X O R T S E L R
Y R A M Y O C A R D I U M E I H N Z B M E Y P F I
M N L B Y X T A L O A S Z U C G C U K V Y X P R D
R E Z P E M U O A Y M V P W I N N N E Z I T L E C
C P T P A H O B B D S T Q I U D G A O U E H K F U
X H D A O D G T V E N J S M D J R K D R N I S L E
I R J B S K V L O Y L S N O G Y Z A B O B R N B Z
F O O T Q T W T V E O H R P P D L Q C I G E Q P G
Q P A M Q W A N D T T Z P I F C T O U I S Q T Z U
B E S N Q T X S C N C S X Y J F T M P Q R C J G R
R X C E F E L O I H C N O R B Q G R S V E E S I K
R Y V B Y E B L B S N K F M B L N K G N I M P U V

Sublingual
Osteotomy
Metastasis
Psychosis
Bronchitis
Karyotype
Polydipsia
Radiology
Nocturia
Prolapse



Medical Crossword Puzzle Names of Bones

Even if you're not a doctor, you probably know the names of many of the bones in the human skeleton. Solve as many as you can—by yourself or with a friend. If you don't know all the answers, then check a reference book or our solution. Most importantly, stay safe and don't break any of these!



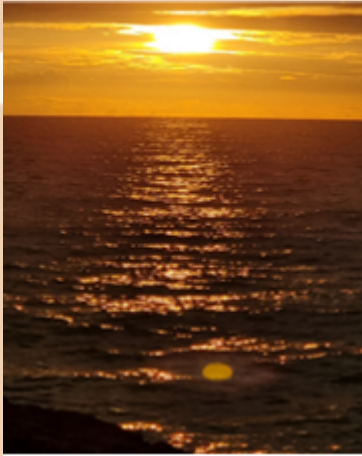
Clues

Across

1. Heel bone
3. Tail bone
5. Thigh bone
9. Knee cap
12. Ankle bone
13. The larger of two lower leg bones
15. Entire back bone
17. Lower jaw bone
18. Upper arm bone
19. Hip bones
20. Any of the small bones that make up the back bone
21. Smallest bones in fingers and toes

Down

1. Head, or skull
2. Shoulder blade
4. Collar bone
6. One of two lower arm bones, spelled with four letters
7. One of two lower arm bones
8. Hand bones
10. Chest bone
11. The smaller of two lower leg bones
14. Upper jaw bone
16. Ribs



*"The Lush of breeze transpiring from
the depth of the sea for an ample view
to warm the eyes and soul" -
experiencing this on the island of
Barbados is just what the soul craves.*

- Yahya Bin Nazeer



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