

THE SCOPE PRESENTS



INTERNATIONAL MEDICAL UNIVERSITY SOCIETY OF BIOMEDICAL SCIENCE

VOLUME V



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Editors Note

This year's theme, "Pandemic Pandemonium" is especially relevant currently as we are facing an ongoing pandemic. We see the pandemic unleashing unbridled chaos across the globe, posing a threat to everyone. This magazine dives into the realm of the Biomedical Science Students' virtual life during this pandemic. We covered content ranging from interviews with both students and lecturers to experiences depicted by our project leaders that went through the hardships of organizing an online event during this challenging time. We also explored what a pandemic was like from different time periods: past, present, and future.

We would like to extend our gratitude to Dr Anil, our ISBS supervisor for supporting our ideas, the previous E-magazine editorial team for entrusting us with this role and the Vice President of ISBS, Wong Jing Yi for guiding us through our journey of making this E-magazine come to life.

Special thanks to those who have contributed to the content of the article, from participating in our interviews to writing their experiences. This E-magazine could not have happened without you.

We hope you enjoy and give some love to this year's E-magazine "Pandemic Pandemonium".

– Sincerely,

The ISBS Creative Team

(Melissa Anne Gilbert, Muhammad Nooraiman Zufayri Bin Mohd Noor, Mervyn Lim Chen Xi, Tan Bo Hang)



➤ Ep. 1:
Converging
Times ◀

Tales of the Macabre - Pestilence's Visit in the 14th Century



Starting strong with the news of a potential third world war spreading across all platforms of social media like wildfire to an international lockdown due to a pandemic, 2020 was certainly a unique and peculiar year for everyone. However, the main character of 2020 was the disease itself, COVID-19, which was caused by SARS-CoV-2, a novel coronavirus first identified in China's Wuhan City.

But before that, let's take a few steps back and take a look at some of the historical facts and past pandemic cases before we delve deeper into the world's current hot topic, shall we?

According to WHO, the pandemic is defined as an epidemic occurring worldwide, or a large area that crosses international boundaries, usually affecting a large number of people. The word "pandemic" comes from the Greek word "pandemos", in which "pan-" means "all" while "demos" means "people".

As devastating as the current pandemic is to everyone right now, Earth is not new to it as there are quite a several pandemics that have occurred in the past, such as the 1918 Spanish Flu pandemic, the Black Death and the Sixth Cholera Pandemic, to name a few.





The most notable out of the three is, of course, the infamous Black Death which occurred around 1347 to 1353. The plague has devastated Europe significantly, resulting in the death of approximately 25-30 million people. This strain of *Y.pestis* is said to have originated from central China, however, its first definitive appearance was confirmed to be in Crimea in 1347.

The timeline could be summarized below:

- 1347** ○
 - MONGOL RULER JANIBEG ATTACKS KAFFA'S TRADING PORT IN CRIMEA**
 - CATAPULTS THEIR INFECTED SOLDIER CADAVERS INTO THE TOWN TO INFECT IT**
 - SHIPS FROM KAFFA CARRY DISEASE TO MEDITERRANEAN PORTS - SPREAD DISEASE INLAND, AFFECTING SICILY**
- 1348** ○
 - REACHED NORTH AFRICA, MAINLAND ITALY, SPAIN, ENGLAND & FRANCE**
 - SHIPS FROM FRANCE SPREAD THE PLAGUE TO DORSET, ENGLAND, WHICH SPREADS TO BRISTOL AND ENGLAND'S SOUTHWEST**
- 1349** ○
 - REACHED AUSTRIA, HUNGARY, SWITZERLAND, GERMANY, LOW COUNTRIES**
 - DISASTROUS EFFECTS HIT LONDON BETWEEN FEB & MAY**
 - DISEASE MOVES TO NORTH ENGLAND, WALES & IRELAND**
- 1350** ○
 - REACHES EXTREME NORTH, SCOTLAND, SCANDINAVIA & BALTIC COUNTRIES**
- 1351** ○
 - CLAIMED THE LIVES OF APPROX 25 MILL**
- 1352** ○
 - THE PLAGUE DIED OUT**

CONTEXT PLEASE!



- **Name:** *Yersinia pestis*
- **Characteristics:** Gram negative coccobacillus
- **Infection manifestation:** Bubonic, septicemic, pneumonic, meningial, pharyngeal

- **Mode of Transmission**

- **To humans** - Direct and indirect contact with infected animals .
- **Interanimal** - Ectoparasite (fleas) exposure.

Sadly the story doesn't end in 1353 however, as the plague continued to haunt Europe and the Mediterranean from the 14th century to the 17th century.

Many theories were put out and debated when the plague arrived in Europe. For instance, a medical faculty

in Paris based it on the miasma theory, which describes how the "bad air" was causing the disease to spread like a poison. On the other hand, some believed that the plague was God's punishment for man's failure to meet biblical expectations.

An example would be The Flagellants, a religious group, which were seen whipping themselves until their bodies were swollen and bloody while praying for forgiveness in 1348. However, the mode of transmission for *Y.pestis* to humans was through direct and indirect contact with infected animals, which in this case are the rodents housing the fleas, *Xenopsylla cheopis*.



How does an infected flea transmit the bacteria to other animals then?

The replication of the bacteria obstructs the midgut of the flea, causing starvation and resulting in them becoming more erratic due to hunger. This abnormal behaviour would result in a higher chance of *Y.pestis* transmission via regurgitation of said bacteria!





eing so well known, the Black Death certainly has its share of misconceptions, especially its name. Ironically, the name “Black Death” doesn’t concern the color of the cadavers infected by the plague, but rather figuratively refers to the word’s meaning. Additionally, the name itself did not originate from the 14th century, hence termed anachronistic.

Another misconception involves the distinct attire worn by the physicians when treating infected patients. Shockingly enough, the Plague Doctor costume that we all know today wasn’t actually from the time of the Black Death, but within the second pandemic itself, just three centuries after the Black Death.

The attire was invented by a physician, Charles de Lorme, to King Louis XVII during a 1619 plague outbreak in Paris. This personal protective equipment (PPE) was made out of leather, including the long coat, boots, hat, breeches, and gloves.

Of course, the PPE wasn’t complete without the iconic main feature itself, the mask that extends into a long beak, filled with aromatic herbs or perfume to prevent the inhalation of miasma.

Not only that, but the second pandemic also gave rise to the horrifying nursery rhyme “Ring Around the Rosie”, which originated from the 1665 Great Plague of London.



Some references could be identified within the rhyme, the Rosie indicating the rash developed on the skin of plague victims, its stench that needed to be concealed with a “pocket full of posies” and the line “atishoo, atishoo, we all fall” referring to the dead victims who had their lives claimed by the plague.





Despite the misconceptions, the Black Death did affect the art and literature produced during and after its reign. Paintings and sculptures tend to be more realistic and focused more on death. For example, La Danse Macabre, or Dance of Death, an allegory depicting a row of dancing figures from all walks of life led by a personified Death to the grave was heavily influenced by the Black Death.

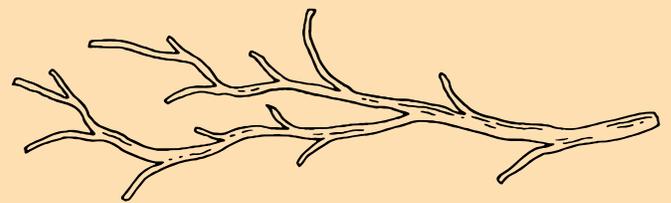
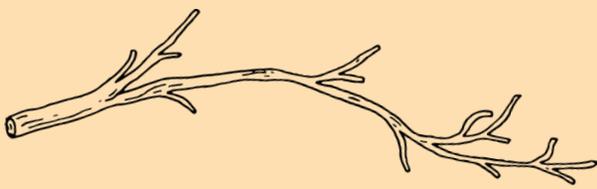
Without a doubt, the Black Death did influence Europe's economy drastically. Prices for goods, no matter local or imported, rose tremendously as the trades were affected by the plague. Demand for workers skyrocketed as well due to deaths, resulting in the change in dynamics between serfs and lords. Once a serf leaves a land, they would be hired instantly by another lord, indicating that serfs were no longer tied to one master. This, in return

, caused lords to increase wages for the serfs so they would stay on their land and work for them. Ultimately, the standard of living for peasants was raised afterwards.



Furthermore, most accounts of the Black Death used by historians came from chroniclers of that time, as only those who lived through it can describe how horrifying it can be. Chroniclers such as Boccaccio, Petrarch and William Langland, to name a few, all had works discussing the Black Death and were recognized as the best works of their time.





After the 16th century, the plague became considerably rare, though outbreaks did occur here and there, for instance, between 1720 and 1722, an outbreak was recorded in Marseille and Provence, and Moscow in 1771. The last manifestation of the second pandemic is said to be the epidemic that struck Constantinople (again, funnily enough) during 1839. Unlike the obvious chronological gap between the first pandemic and the second pandemic, the gap between the second and the third was much less distinct as when the third pandemic emerged in 1772 in Yunnan Province of Southwestern China, the second pandemic was still happening as the plague was still enjoying its reign in Europe.

In 1894, *Y.pestis* was discovered by Alexandre Yersin and Shibasaburo Kitasato in the 1894 Hong Kong Plague, amidst the third plague pandemic. However, since Kitasato's cultures were contaminated by pneumococci, his description was deemed imprecise as he was unable to confirm whether the bacteria was gram positive or negative. Hence, Yersin received the credit as the first to establish the relationship between the plague and the bacteria. The bacteria was actually named *Pasteurella pestis* to honor Yersin's mentor, Louis Pasteur, however it was reassigned to a new genus, *Yersinia* in 1944.

In short, the plague, especially the Black Death, remains as one of history's most prominent pestilence due to its impacts and influences that still remains through this century. Furthermore, the causative agents of pandemics can be more easily identified as time progresses and technology advances. The research for a cure for such situations has steadily improved over the years, thus giving us the advantage to overcome future catastrophe.

Authored by Mervyn Lim Chen Xi

A Glimmer of Hope – How Scientists play a role in mitigating the pandemic

One event dominated the year 2020 - The current COVID-19 pandemic has wreaked havoc on the world's population and economy, facing a myriad of challenges and sparking the biggest pivot in the history of modern science. It has brought the importance of a thriving scientific ecosystem for tackling a global pandemic of this magnitude to the forefront. However, it also served as a wake-up call for government bodies and institutions to strengthen their scientific members and capacity across the world, to be well prepared for current and future diseases.

Although grim, the SARS-CoV-2 has presented itself as an opportunity for biomedical scientists, thus providing a glimmer of hope for the human race. Researchers across the globe raced against time to find the best approach to combat the foreign foe with utmost urgency, including different aspects of prevention strategies and therapies. We have an enemy that we cannot see nor know much about. How do we overcome it? This is where the role of biomedical scientists come into play. Scientists had to learn and study more about this entity – from its mode of transmission to its virulence factors.

"How Science Beat the Virus,
And What It Lost in the
Process" – By Ed Yong

Scientists first had to identify how the virus spread, knowing that this would be vital to limit the spread of disease and to map out a strategy. Epidemiological studies have proven that COVID-19 can be spread through direct contact or through droplets from infected patient's coughs or nasal discharge which led to the 'Physical/Social Distancing' strategy to limit the spread. The use of soap and alcohol-based sanitisers was also among the preventive measures that scientists discovered as the viral envelope, comprised of a lipid layer, was able to be disrupted by alcohol and detergent.

It is amazing how when confronted with a worldwide crisis; humanity can achieve incredible things at incredible speeds. Vaccines were made faster than experts had predicted and worked significantly more than they had dared to hope. An injection of hope is what will save us all. Diagnostic tests were frequently upgraded as the once singular target had split itself into many bull's-eyes, creating new and concerning variants, thus making it challenging to track the target. The Polymerase Chain Reaction (PCR) is the primary based technique used for the detection of the COVID-19 virus as RT-PCR is fast, specific and sensitive.

Scientific activities and research have long suffered a continuous lack of funding and support. Following the management of the pandemic, countries will have to decide if science should be a powerful role in society as part of preparing and preventing future catastrophes or if they should just wait for the next one and respond with weaker initiatives. The link between each country and the advancement of technology may determine the chance of surviving the pandemic in the future. Covid-19 has proven to the government that a failure or rather an insufficient investment in the advancement of science can easily collapse the safety of the country and worsen the economy, putting those of the lower class in severe poverty and call for a desperate plea for help in which most governments fail to respond.

Authored by Melissa Anne and
Aiman Zufayri

"A Virus has brought the world's
most powerful countries to its
knees" – By Ed Yong

Plague returns to the Frozen Horizon

“What if they come out sooner than the scientists predicted?”

Global warming

Global warming has always been one of the greatest threats of the 21st century. Researchers believe that the etiology arises from the industrial revolution during the late 19th century. The ozone layer, also called the stratosphere, is unable to brush off solar radiation from the earth's surface due to air pollutants, carbon dioxide (CO₂) and greenhouse gases. Thus, the warmth radiated from the sunlight is trapped leading to an increase of earth's temperature.

The permafrost pandemic

The permafrost pandemic due to the melting of the Arctic as a result of global warming poses a risk of deadly infectious diseases returning from the past. Permafrost melting contributes to global warming as further aggravation by decomposition of corpses permits the production of CO₂ and methane(CH₄), increasing the Earth's average temperature and eventually releases pathogens.

During 2016 in Salekhard, Russia, 72 nomadic herders consisting of 41 children were hospitalized after the region had experienced unusually high temperatures with more than 2300 reindeers dying. The mysterious outbreak was investigated by experts, and they believed that the culprit to this outbreak was anthrax since abnormally warm weather prompts it to be released from its slumber. Upon further investigation, the liberated anthrax was found out to be originated from reindeer corpses that have been buried under the permafrost. After 75 years, the anthrax bacteria was able to take away the life of a 12-year-old child, proving that it is still lethal after so many years.

Anthrax spores are known to survive in frozen mammal corpses for hundreds of years and can be released through thawing. According to experts, the warming climate in Russia has started thawing permafrost soil, which predominantly covers a large region of Russia including cemeteries and animal burial grounds.

With the Earth's temperature gradual increasing, there are many alluring hints that the Arctic is harboring various dangerous pathogens far worse than anthrax and viruses that have never been recorded before. There are diseases buried in the ice, lurking beneath the frozen soil, waiting for the right time to be unearthed. Dormant viruses and bacteria trapped in ice and permafrost for centuries are slowly reviving as the Earth's climate changes.

What would happen if the world was suddenly exposed to a deadly virus and bacteria that has been dormant for centuries? Will our immune system be able to fight it since it has not been in contact with humans for a long time?

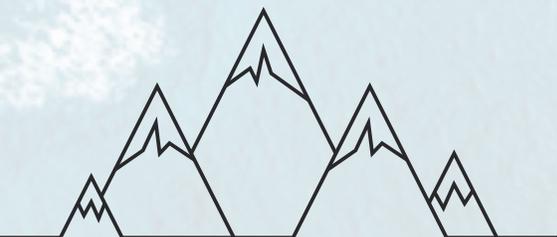
“What if they come out sooner than the scientists predicted?”

What can we do now to prevent such catastrophe?

We can do our part by reducing waste just by choosing reusable products instead of disposables. Recycling paper, plastic and aluminum cans could have a huge impact as by recycling even half of household waste, 2400 pounds of carbon dioxide can be saved annually. However, despite taking on these efforts, a new innovative method of reducing global warming could provide a clearer long-term solution.

Start digging and plant a tree. As simple as it sounds, planting a single tree could mitigate climate change as it can absorb one ton of carbon dioxide during its lifetime. These minor actions, albeit idle in appearance, could result in a potentially, big changes for the future.

Author, Wong Jing Yi





Ep. 2:

Events



The 11th Malaysian e-Symposium of Biomedical Science (MYSYMBIOS), a national-level undergraduate symposium, took place on 6 and 7 March 2021 via the ZOOM platform. This year, the International Medical University (IMU) was conferred the honour to host this annual symposium, with the aim of gathering final-year students, researchers, and intellectual figures in Biomedical Science across Malaysia and providing them with the platform to present their research.

Universities which had hosted this event include Universiti Malaya (UM) and Universiti Sains Malaysia (USM), the latter which was the preceding host in 2019. Despite a hiatus in 2020 due to the pandemic, this year's event, held on the virtual platform in accordance to the safety guidelines from the Ministry of Health, was a novel and exciting experience for many.



11th MYSYMBIOS

11th MYSYMBIOS

Honoring the **PAST**

Treasuring the **PRESENT**

Shaping the **FUTURE**

As an introduction to the 11thMYSYMBIOS, it is a national level programme which is held annually. This programme gathers Biomedical Science students across Malaysia and provide a platform for them to exchange their knowledge in healthcare and medical diagnostics research, and to enhance the progression of Biomedical Science in Malaysia.

We truly believe that science is a field that constantly evolves due to rapid developments and new discoveries. As such, we have chosen our theme to be 'Honouring the Past, Treasuring the Present, Shaping the Future'. This symposium provided an opportunity for us to reflect upon past achievements and discuss future advances that will further enhance the industry that we are in. The highly successful event congregated more than 400 biomedical science undergraduate students and faculty from 17 private and public universities across Malaysia, inclusive of both oral and poster presenters. Furthermore, as an effort to diversify the area of research, the scope of participation ranged from hands-on laboratory-based studies to that of bioinformatics, meta-analyses and systematic reviews.

As a Chairperson, I speak on behalf of my team when I acknowledge all the difficulties and challenges, we faced as a team. The event had its ups and downs, which made it all the more satisfying to see it ending smoothly and as planned. I would love to believe that this event has shaped me in many ways. The challenges I went through with this event has made me a much stronger person. One of the biggest challenges I would say was to explore the virtual space. Having to conduct a very established annual event for the first time on Zoom, was not only pressuring, but intimidating.

Nevertheless, having a great support system is the reason I could handle this event well. My best friend, Rania, who was also the Event Manager of the 11th MYSYMBIOS made sure I was doing my best. I knew that being a leader, I would occasionally make all sorts of decisions, and having my best friend to constantly put me on the right track was something that kept me going. I also continuously had my family, friends and committee members checking up on me, and that was my biggest support system. Planning an event this big wasn't an easy task at all! When it was 99% planned in 2020, we had to cancel it due to the pandemic. Imagine the heartbreak felt by everyone involved. In other words, COVID-19 made it all scarier and more difficult for us. But nobody gave up. And that's how the event ended up smoothly.

In a nutshell, this event wouldn't have been a success without the constant effort from the committee members, lecturers involved and the sponsors. Therefore, let me share my greatest gratitude to all parties for the support given throughout this journey. Special shoutout to my batchmates, Angel, Rania, Rachel, Lauren, Ariel, Cindy, Raajeswary, Vinoshini and Ju Ann for leading this event gracefully and for having my back from Day 1. Not to forget, a huge thank you to BM119, for trusting me and for putting in so much of effort into making sure this event went smoothly. This conference would not be successful without the dedication and commitment of Dr Shamala and the School of Health Sciences. Last but not least, I would like to express our appreciation to our generous sponsors; Mettler Toledo, Analisa Resources, Waters Analytical and KLK Oleo. I hope this event had been beneficial for everyone as much as it had been for me, and we all take home a thing or two from this experience.

THIVIYA

CHAIRPERSON OF THE 11TH MALAYSIAN SYMPOSIUM OF BIOMEDICAL SCIENCE 2021

11th MYSYMBIOS



BIOMEDICAL SCIENCE WEEK 2021

The 5th annual Biomedical Science Week 2021, originally Biomedical Science Day, took place on the 22nd to the 26th of March. This event was traditionally held physically but due to the current pandemic, it was held online.

Every year, the Biomedical Science Day would be organised by the members of the IMU Society of Biomedical Science (ISBS), in commemoration with the International Biomedical Laboratory Science Day (IBLS).

It is a day designated to us, future biomedical scientists to raise public awareness and celebrate our fundamental and integral role within the healthcare community.

The IMU Society of Biomedical Sciences (ISBS) is a student affiliated society consisting of determined undergraduate biomedical science students to expand their network and contribution in the Biomedical Science Industry.

BIOMEDICAL SCIENCE WEEK 2021

Our tagline for BM week 2021 was “More than meets the eye”. Now that I think about it, the tagline lived up to its name. Although BM week 2021 was an online event, there was so much going on behind the scenes in setting up and planning the event. A mere week of activities took months and months to prepare.

“The pandemic will be over by then”. I remember saying this at the very start of planning BM week. I held on to the hope of having a physical event even in times like this cause that what I was comfortable with. Alas, dreams only happen when you sleep. By the time it was confirmed to be an online event, much valuable time was lost and regrettably, the pressure had to be shared amongst the committee members and not only on myself. I’ve said it once and I’ll say it again, BM week 2021 was successful only because of the committee members. I just had the part of talking, talking and more talking.

As this was the first time BM week was held online, I had no idea how to approach it. After countless, and I mean countless session of online meetings and insightful ideas by the committee members, we finally had a base to work from and it all just happened from there. Don’t get me wrong, everything did not go smoothly. I kept scraping and changing plans and ideas which burdened my committee but they just went with it and gave me all they could. I seriously can’t stop praising them for all they did, they the real OGs.



After the planning was done, it was time for our preparation. I will never forget the number of hours I spent filming and editing promotional and educational videos. I skipped 3 weeks worth of lectures just for this.... I know some of the committee members did the same and all I can say is I hope you're still in the same cohort when you read this. Still, it was an unforgettable experience. Working against the clock (cause MCO was constantly prolonged), working with other students from the cohort (seeing them do stuff I wouldn't even dream of during Semester 1) but most importantly I felt that it brought us closer as a cohort as well.

To end this article. I would like to say thank you to everyone who helped and participated in the event. I'm grateful for the position given and I'm even more grateful for the team and cohort I was given.

BRENDAN CHAN JUN LAM

EVENT MANAGER OF BIOMEDICAL SCIENCE WEEK 2021

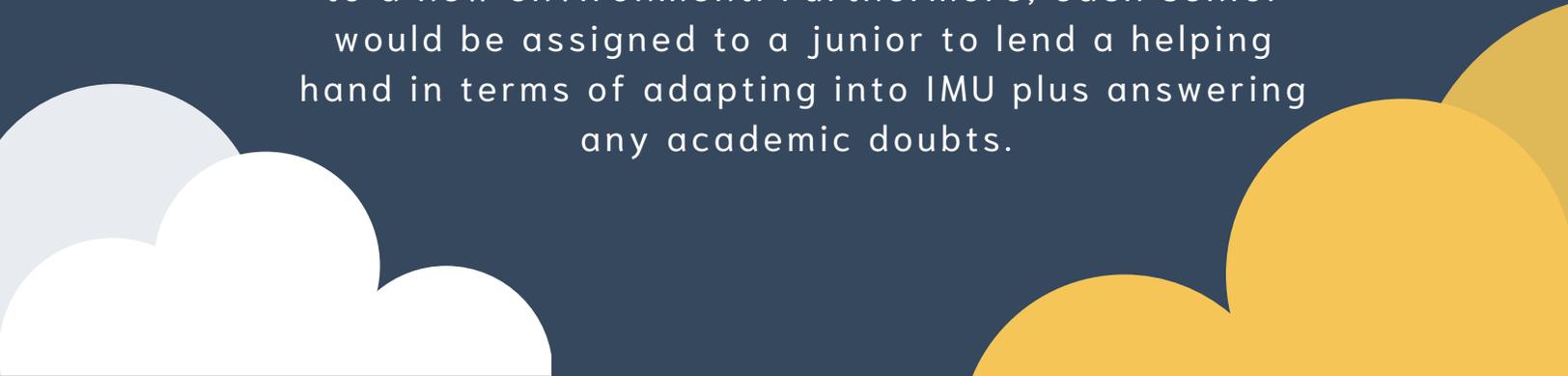




LIFE IS BETTER IN PAJAMAS

Senior Junior Night 2020

As per tradition, the seniors of Biomedical Science programme welcome the arrival of the new Biomedical Science intake by organising an annual Senior-Junior Night. The event's primary aim is to assist first-year students in accustoming themselves into a new environment by receiving their seniors' aid, due to the fact that some students might experience difficulties in adjusting to a new environment. Furthermore, each senior would be assigned to a junior to lend a helping hand in terms of adapting into IMU plus answering any academic doubts.



SENIOR JUNIOR NIGHT

When I received an email, which stated that I was one of the few people chosen to host Senior-Junior night (SJN), I felt honoured but at the same time, hesitant.

I was honoured because my seniors trusted me enough to organize an event, but also hesitant because it would be my first time picking up such a major role. I have had several experiences in hosting events, however, I was never at the leading end of such things. After much consideration, I told myself that there is a first time for everything and took this as an opportunity to step out of my comfort zone.

Besides, it would look good on my CV.

No matter how many interviews I have attended in the past, every new one is just as nerve-racking as the first. It is safe to say the nervousness, this time, had paid off because I ended up being an event organizer, along with Sarah as my partner! I was a tad bit shocked at first because all the interviewees seemed just as, if not, more eligible to take on this role but nonetheless, I was thankful. My first task was to form the SJN committee, and I thought who better suited than the other interviewees themselves. Looking back, I definitely made the right call.

The people who know me know that I am nothing less of a perfectionist. I take every little detail into account when doing something, even if it is not a graded project. Having said that, it was not a walk in the park being both an event organizer and a perfectionist as I really wanted SJN to be memorable for everyone.

At the start, we were conflicted on whether the event was going to be held physically or online due to the ongoing pandemic, as a result we had to plan for both possible scenarios. With that taken into consideration, we had to have multiple meetings.



Being a leader meant I had to do most of the talking during those meetings in order to orchestrate it smoothly in a structured manner. I was nervous at the start but eventually I got the hang of it. In the end, it was decided that SJN was going to be an E-event and deep down I was pretty relieved as that meant the work would be less tedious to accomplish. However, less work does not mean there is not any stress involved. There were a few hiccups as well as miscommunication between the team, nonetheless with the cooperation of everyone, there was no obstacle we could not overcome.

The days leading up to SJN made me feel overwhelmed with anxiousness but when the event actually kicked off, I was surprisingly calm. I felt like there was no reason to stress at all and I was really happy to see that everybody was having a good time through the screen of my computer. Overall, I would say the event was a success with minimal but inevitable internet connection problems. Having SJN online has its advantages, such as budget saving and students being able to attend it in the comfort of their own homes, but would I prefer an E-event over a physical one? Not at all. I think the seniors and juniors could have bonded better if SJN was held face to face rather than online.



Nonetheless, I have no regrets. This whole experience has definitely shaped me into a better person. Besides, I grew closer to my classmates with all the meetings and rehearsals we had, which is an absolute blessing considering we could hardly meet in class due to the pandemic. I am grateful for my friends as well as teammates because I could not have done this without their help and support. If there is one thing, I have learned from hosting SJN that I would like to pass on to others, it would be to step out of your comfort zone and try out new things that scare you. Speaking from experience, the end result will definitely be worth it.

SYLVIA CHONG HOONGLI
PROJECT MANAGER OF SENIOR JUNIOR NIGHT
2020

EP. 3

MAGNIFIER

Specials!

**"Frontliner Insider" with
Dr Wong Shew Fung &
Dr Elaine Chan**

*Written & Moderated by:
Jing Yi*

**Chat with our BM lecturers with
Professor Anthony Rhodes &
Dr Lim Chooi Ling**

*Written & moderated by:
Melissa & Aiman*

**A Look Into Student Life
during the Pandemic**

*Written & moderated by:
Mervyn & Bo Hang*



Frontliner Insider

“I will stay focused and not let other things distract me because I must ensure that my colleagues and I are working under safe conditions, so no one will be infected.” – A/Prof Dr Wong Shew Fung from the School of Medicine.

“I was excited about how I can perform my skills to help in this pandemic.” – Dr Elaine Chan from IRDI (Institute for Research, Development, and Innovation).

Even though these statements came from different people with a distinct age range; nonetheless, I felt their enthusiasm as a scientist. Their clear and logical thoughts are just like an unquenchable fire, only passion can enliven it throughout the remaining journey.

Dr Wong and Dr Elaine worked as volunteers for the COVID-19 diagnostic test during the first MCO (Movement Control Order), which was implemented from March to July 2020. The volunteer group was initiated by Datuk Lokman and led by Dr Kenny after receiving the appeal of MOH (Ministry of Health) to help speed up the diagnostic part. As we all know, IMU is a medical and healthcare university that focuses on healthcare education; thus, the lecturers had the right to reject this high-risk yet non-profit affair. However, they accepted to serve the community despite having tons of workloads with them.

The framework for the COVID-19 diagnostic test was wisely structured into two teams to work for two consecutive days in a week to deal with the workload from both academic and diagnostic parts. According to Dr Wong, who was also the program director for the bachelor's in medical science, the most stressful and weary job was to assist students who took the half-year program to finish their final year project.



Frontliner Insider

“Stress management had always been a meaningful subject for us to learn and improve ourselves. Honestly, I did not think that I could work under pressure and stay focus at the same time, the same goes for most people. Nevertheless, what always pushed us to do so is the responsibility within ourselves and the philanthropism towards society.”

Let us continue to delve deeper into the network: the scientists were separated into three groups with different job scopes to increase the efficiency in working out the diagnostic result. There were designated groups for RNA extraction, RT-PCR (reverse transcriptase-polymerase chain reaction) and keying in data to inform the MOH. All departments were interrelated, and cooperation was a critical requirement for each other. If one is delayed, the whole system might slow down. Consequently, a chain reaction would happen, which eventually decreases the number of outcomes achieved. Hence, they had been working under a high-tension state to let nothing distract them when dealing with the samples from all over Malaysia, to produce a satisfactory number of results but to also protect themselves from being infected. All the precautions taken were not for their own, but the whole team as well.



Although systematic errors could be reduced to the lowest, random errors still occurred. As Dr Wong stated, “the most tedious part for RNA extraction would be the improper transportation method leading to cross-contamination and leakage.” Due to these unforeseen incidents, the quantity obtained would be insufficient for the RNA to be extracted and tested. Furthermore, some places might have limited facilities without the availability of a barcode system; hence, they needed to confront the confusion of disordered handwritings, since labelling is extremely important for identification. Till this part, I wish people would acknowledge a simple but crucial fact – the doctors and nurses are working hard; likewise, the scientists are busy helping behind the scenes and facing hardships that were kept untold by others.

Frontliner Insider

Apart from the gusto that kept Dr Wong and Dr Elaine working under those conditions, having a supportive family was also a significant factor for them to withstand the pressure. I had to clarify that their interviews were conducted on separate days; however, their answer for: “did they have any struggles to get the approvals from their family?” was surprisingly identical, which was: “they did not”. Based on their accounts, their family had faith in them as they knew what exactly scientists do. From their perspective, they believed that by adhering to the SOP with well-equipped PPE (personal protective equipment), they were safe due to minimal exposure to infectious agents.

Besides that, they also mentioned how they had zero risks of infection as compared to others who had no awareness of the transmission route, as well as knowing how to deal with miscellanies if unexpected issues happen.

“We need to protect ourselves before serving others.” – A/Prof Dr Wong Shew Fung

Albeit the whole article seemed ordinary and typical; it nonetheless showed the dedication and selflessness of scientists, a dissimilar impression imprinted in the minds of many people. Not crazy or mad, they are humans as well!

While I am sitting here, enjoying music, writing this article and staying at home; all of these seem to be something that can be easily accessed, yet they are considered a luxury for healthcare providers who are working non-stop without realizing day or night. We need to appreciate what we have; instead of constantly grumbling about the coronavirus. We cannot undo what has happened, but our unity can help us shape a better future.

– Written and moderated by:

Jing Yi



Chat with our BM Professor - Professor Charles Anthony Rhodes

Prof. Anthony Rhodes worked for 20 years in the pathology services of the UK NHS before moving to academia in 2003. Firstly as Senior Lecturer and later as Professor of Biomedical Research at the University of the West of England (UWE). Before joining IMU, Prof Anthony Rhodes was a Professor in the Department of Pathology at the University of Malaya where he still holds an honorary position.

Prof. Anthony received his PhD for the study of hormone receptors in breast cancer from the University of Wales College of Medicine and has authored 60 peer-reviewed papers, mainly in breast and prostate cancer, and with over 14,000 citations. He has served on a range of committees to include those of the American Society of Clinical Oncology, College of American Pathologists, US National Institute of Standards and Technology, European Organisation for Research and Treatment of Cancer, UK NHS National Breast Cancer Screening Program and the UK Institute of Biomedical Science (IBMS).

He is a fellow of both the UK Royal College of Pathologists and the IBMS and is currently the Editor of the British Journal of Biomedical Sciences.



Professor Anthony participating in the 2019 Sabah trail running event

Chat with our BM Professor - Professor Charles Anthony Rhodes

Did you know that you were always gonna be in the science pathway from a young age?

“Nope, not really. I left school not knowing what exactly I wanted to do and actually came back to making that decision a little later. My father was a school teacher and he had done some degrees at an unusual time, around 1947, so at that time, not many people had degrees just after the Second World War. He was also a biologist and we used to do fossil hunting by the beach so I guess you are influenced by your upbringing and your past more than you realise. Even when you left school with no idea of what you want to do, you start to feel more interested in a particular subject, then you realise that you are influenced by your environment and the way you were brought up.

I was never a physicist, I'm hopeless with engineering projects and anything like that. I attempted to enter engineering school but it didn't work out. So no, no I never – I think it's like, you look at people's career pathway and it all looks very logical but in real life, it isn't. It's just opportunities that arrive, some opportunities you don't always grasp and some just go by, but it's always made to look like some steady career pathway. That is what you have to do for your resume, to paint a pretty picture but in reality, life is not like that.”

Career path - Tell us about how did you end up here in IMU?

“I started working in Malaysia in the year 2013 and did a sabbatical for 1 year at UM. At UM, I was doing a collaborative research with breast cancer surgeons. After the 1 year sabbatical, I stayed on at UM for another 3 years. Later on, I went on to Taylor's University for a couple of years. I had a research strategy for a few years, but it seemed to have died off quickly. Then in March 2019, I came to IMU.”

Chat with our BM Professor – Professor Charles Anthony Rhodes

What were you researching at Taylor's University?

At Taylor's, I started looking at colorectal cancer and the relevance of the microbiome. We initially started doing some research about the microbiome, trying to look at it from a rural and urban environment perspective. However, my main area of research has always been in breast cancer and to a lesser extent, prostate cancer.

So I guess you were quite culture shocked then right? Like how students are here in Malaysia compared to the UK

Yeah, I mean when I was teaching in University Malaya, everybody would be so polite, which is good haha and respectful. Yeah, that's the good side, nobody's rude. The downside is that they don't always express themselves like they feel like they HAVE to agree with you. That's not necessarily what science is all about. Having a scientific debate with people should be filled with entertaining arguments but nobody takes it to heart so much.

Sometimes it gets difficult to get students to express their opinion as much as in the UK. Like the other day, I attended this workshop and they asked to set some higher-order thinking questions, which require students to not just think about memorising facts but more of exploring around the topic and not just memory and recall.



Professor Anthony pushing on in the 2019 Sabah trail running event

Chat with our BM Professor – Professor Charles Anthony Rhodes

What are your hobbies? What are your other passions aside from Biomedical Science?

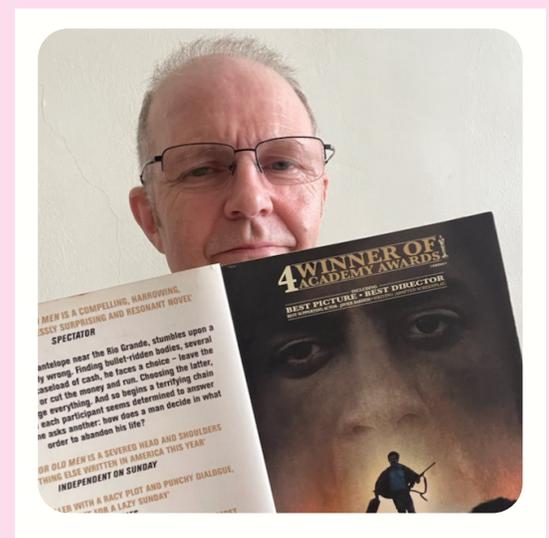
I go running every morning. I used to play football and I love watching football but I can do the running nowadays haha. I know I can only foul everybody haha. On a Friday or Saturday, I like going out and just watch football like the Premier League Games and such on the sports channels.

I like hiking and trail running and just going into the countryside. In 2019, I did a trail run in Sabah and that was great. I went all around the little villages and the base of Mt Kinabalu. It was fantastic, we went into and over jungle trails and valleys and paddy fields. There's a whole village down there that nobody knew existed because there weren't any main roads leading there. So, I enjoy exploring those types of environments. I was planning to go to Langkawi during Christmas and was hoping that there was a lockdown haha. I would have gotten an extended holiday in Langkawi if there was.

How about now? Did you pick up any new hobbies during this time of pandemic?

Yeah I tend to read a lot. If there's not much on TV, I would read quite a lot. I've started reading Charles Dickens for the first time, I think I'm at that age where time is ticking away and I'm trying to catch up to all these fantastic literature books.

Yeah, I started appreciating the classics. There are reasons why they are classics. I've read a whole lot of Sherlock Holmes at least about 4 times haha I keep forgetting what the first one was about. It's a good book because if you are interested in forensic sciences, the original does the work.



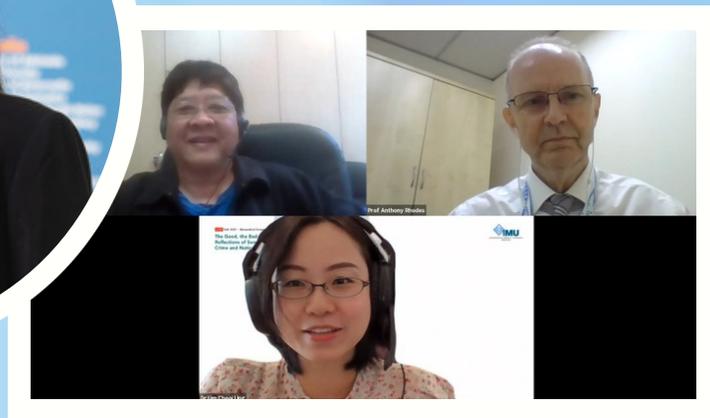
Professor Anthony with one of his favourite novels, "No Country for Old Men" by Cormac McCarthy

Chat with our BM lecturer - Dr Lim Chooi Ling

Dr Lim Chooi Ling obtained her BSc Biomedical Science (Hons) and PhD (Immunobiology) degrees at the University Putra Malaysia. During her postgraduate study, she was attached with the Mount Sinai School of Medicine, New York (USA). She has published in several local and international journals and presented in more than 10 international conferences whilst receiving best oral presenter awards in a select few.

She also supervised more than 26 undergraduate and postgraduate research students to date. She is also the secretary of the Malaysia Biomedical Science Association (MyBiomed), organising committee member of several international Biomedical and Medical Education conferences. She was also active in mentoring, facilitation, teaching and academic administrative duties at her university.

Currently, she is a Senior Lecturer and Head of the Applied Biomedical Science and Biotechnology Division at the International Medical University.



Dr Lim moderating the "Live Talk on the Good, the Bad and the Ugly: Reflections of Some Encounters with Crime and National Tragedies" along with Professor Ulung Datuk Dr Looi Lai Meng and Professor Anthony Rhodes.

27/08/21

Chat with our BM lecturer

- Dr Lim Chooi Ling

As we are all aware of the current pandemic that is still ongoing, how has the pandemic affected you in aspects such as working life and family life? What challenges did you have to face?

It is a very relevant question that I've been thinking about. I think there are pros and cons to everything. I would like to talk about the pros first. Of course, the opportunity to work from home allows more time spent with the family - closer and don't have to travel and with the comfort of working from home - being comfortable in your own environment, not having to dress up all the time. However, in terms of work-life balance, many faculties would tell you that it is a struggle now - especially with young children where they are aware that their parents are at home but are working being unapproachable, it was a struggle in the beginning, but it is now much better.

Besides that, the time used for travelling is now used for other things. In terms of the cons, finding a conducive space to record lectures and organize synchronous lectures is a challenge - with neighbours doing construction and background noise. Aside from that would be to work collaboratively. Having teams meetings with fellow colleagues is not the same as meeting in person - seeing their facial expressions. Especially in team meetings when most of them would not turn off their cameras - unsure if they are listening or are there. This changes a lot in terms of how we communicate.

How are you adapting to being at home?

Many of us would have had a lot of experiences by now. I have settled down into a routine more or less. I am coming to campus occasionally for certain things being research or clinical skills sessions - Basic Life Support Sessions with some of the students. I am able to cope because I know how to mitigate some of the challenges that I faced. It is a lot better.

Chat with our BM lecturer

- Dr Lim Chooi Ling

Career path - Tell us about how did you end up here in IMU?

My career path is a very simple story. This is my first job actually and I have been here for 10 years. I joined in Nov 2009 as a lecturer and moved on to become a senior lecturer. I started off with a Biomedical Science Degree in UPM (Universiti Putra Malaysia) and basically, my first love was biomedical science. At the time, I did my form six (STPM) and we had the UPU form where we selected the top 6 universities you would like to go to, and from that list, they would select/ determine which one you would be going to - you had no choice. I managed to get my second choice which was UPM - I put all biomedical science basically. After 3 years, I graduated with first-class honours, but at the time quite a several people got it. We were very fortunate to have the option to do PHD straight away - a fast track to PhD, skipping Masters. I came to IMU right when I was completing my PhD of 4 years.

While doing my PhD, I was fortunate to have been able to do an attachment at Manhattan, New York. The experience was fantastic, I wished I could have been there longer. I was at Mount Sinai Hospital New York which is located right beside the famous Central Park. I was attached to one of the top laboratories in liver research. I learned about the research culture; the exposure was very fortunate. The experience was unlike any other. It was a multinational people/community. Such a melting pot of culture. I spent 6 months there and then completed my PhD.

Was your passion biomedical science from the very start?

Yes. I didn't have to do much soul searching. I knew I liked Biology and I wanted to do something along those lines, but I didn't want to become a doctor. To me, studying the science of it was more intriguing - studying the biology of it and how it related to medicine compared to treating the patients. Biomedical science was the perfect area.

Chat with our BM lecturer - Dr Lim Chooi Ling

What does Biomedical science mean to you and how do you think it is relevant in the coming years?

I don't think it can be more relevant than now. I recently co-wrote an article with Prof Anthony for the IMU Newsletter that biomedical science is now at the peak of awareness among the public. Everyone knows about covid-19 and they want to know what it's all about. How it affects the body and the various organs. Medical epidemiology, infection rate. It is extremely relevant not only to save lives but also with the development of vaccines. The silver lining behind the pandemic I would say is the awareness among the public regarding biomedical science. Biomedical science played a role in diagnosis - quicker diagnosis, quicker screening and treatment. We are now at the forefront and no longer behind the scenes - these are the experts in this area.

What field in Biomedical science is thriving right now?

Fields that are gaining attention right now are definitely Virology, Genomics, Data analytics, Cancer research is also very much in focus as well as Neurobiology.

Dr Lim chairing one of the sessions in the
ASIAN CONFERENCE ON BIOMEDICAL
SCIENCE RESEARCH AND LABORATORY
MEDICINE 2021

24 - 26/08/21



A LOOK INTO STUDENT LIFE DURING THE PANDEMIC

Special thanks to Serene, Maaisha, and Rhu Jhenn from BM120, and Chia, Adrinna, and Lin from BM119 for taking part in the interview.

BM120

How has the pandemic affected your daily life?



Serene

For me, it's been a very big change. I like going to the gym, now that they're closed, I don't really know where to go for exercise now. Nowadays I either run or do some yoga. Also, a big part of my daily life is shopping, but since there is a pandemic I've resorted to online shopping. It'll do, but it's not as good as shopping

Yeah, I can relate serene, I started doing online shopping too. I always liked going to malls, but due to the pandemic, we're all forced at home



Maaisha

Do you find that now, you could spend your time at home for most of the time?



Serene

Definitely, just spending time at home makes me more comfortable entertaining myself without friends. In a way, it is good because I learn to stay alone more and become more comfortable with myself. But then again, I do miss gathering up with friends, but for now I am okay with staying at home.

How has the pandemic affected your studies?



Rhu Jhenn

Back then I would usually have to depend on a lot of people for me to understand a topic. But due to the lockdown I couldn't depend on anyone and had to rely on myself, and occasionally ask others questions that I really didn't understand. So, I did my own research and I studied by myself, but the thing is that it was really demotivating since you're only studying in your own room.

What do you think of the constant extensions of MCO by the government?



Maaisha

It was frustrating and annoying at first, but I know it needed to be done because of the number of cases. But after September, I was completely like 'eh', I do not really mind anymore. Honestly, I am not even surprised that they're extending because I feel that this could be going on and on for a really long time.

What are things you would do after the MCO?



Maaisha

Travelling, together with my friends within Malaysia or maybe other countries. I miss traveling, I used to travel within Malaysia like to Langkawi and Penang. This time I just want to see Port Dickson since I have not visited it yet.

For me, instead of travelling, I would really love to see my FIS friends again. When the first MCO was implemented, my friends were supposed to go out right after our third semester ended. So yeah, what I really wanted to do is meet with my FIS friends again; and to sharpen my ice skates.



Rhu Jhenn

What was your experience when someone you know was quarantined?



Serene

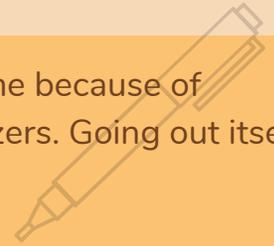
In Penang most of the clusters were from office workers, and my uncle works in an office where one of their factories had COVID-19 cases and that's where it started spreading from. So, if you think about it, many families who have people working in the office are at risk as well. I remember it very clearly; it was New Year's Eve, and I was waiting to count down with my high school friends and we were on call and everything. Then my uncle came in around 11PM and was like, "Hey Serene, we need to talk". I was like 'okay' but then he told me his COVID-19 test came back positive and I went completely blank at the time. So yeah, that's how I knew about the news and how my friends knew about it so yeah, Happy New Year's.

How has the pandemic affected your daily life?



Chia

For me, it definitely affected how I go out. It's been hard for me because of transportation, needing to wear masks and bring hand sanitizers. Going out itself has become a more difficult thing now compared to before.



Like what Chia said, it's really hard going out and you're wary of it. You're not sure how safe going outside is. Also, like what Chia said, you have to bring a lot of things just to go out, even for me I sometimes forget that I would need to bring a mask. We always take for granted the time we could go out freely before and we didn't appreciate how free it was where we didn't have to worry about anything.



Adrinna

How has the pandemic affected your studies?



Chia

My studies have been affected the most since I really like going to school to study, like the lectures, practical classes, PBL, and everything else. Even in my free time, I think it's better for me to go to school to study. I can say that it's really sad, because in our Sem 2 they started the MCO so there's a bit of delay there like what'll happen, there's no EOS in school and only online exam, so you need to have different kinds of techniques to study now. So yeah, when you gradually shift to a different way of studying at home; it's a bit weird but I can still adjust to it

How has your experience in IMU been so far?



Chia

It's been great since my first time here, I like the environment so much, it's really professional; really cold too. Everything's really nice, the people are nice, the lecturers, even the facilities are nice. IMU is small but it's packed with everything, you won't feel like there's anything missing. The classes are nice, some lecturers are good at giving lectures and some of the practical sessions are fun too – you're learning while you're playing.

I think everything's fine; I do think that you require a lot of effort to adjust yourself for university life. But IMU has a very good balance between academic and co-curricular activities, we don't just focus on studies which could become really stressful. I am part of the student council also, I got to know a lot of people and It's a very nice experience. They taught me a lot, especially when it comes to leadership skills.



Fadhlin

What do you think of the constant extensions of MCO by the government?



Adrinna

It's just been really tiring for me since you would have extended periods at home. To be honest, I didn't take the MCO seriously at first. When they first announced it, they said you didn't need to come to university for 2 weeks and I was like "It probably won't last that long", but it stretched out to 2 sems and I was really surprised. But yeah, the constant changes in the timetable makes everything uncertain and it's really hard to plan ahead.

I think because of the extensions, we can't really plan ahead, like even if you want to make plans you still need a backup plan just in case the MCO gets extended again. I also think that it's so annoying and that we don't want it, but really, it's actually good for us in the long run.



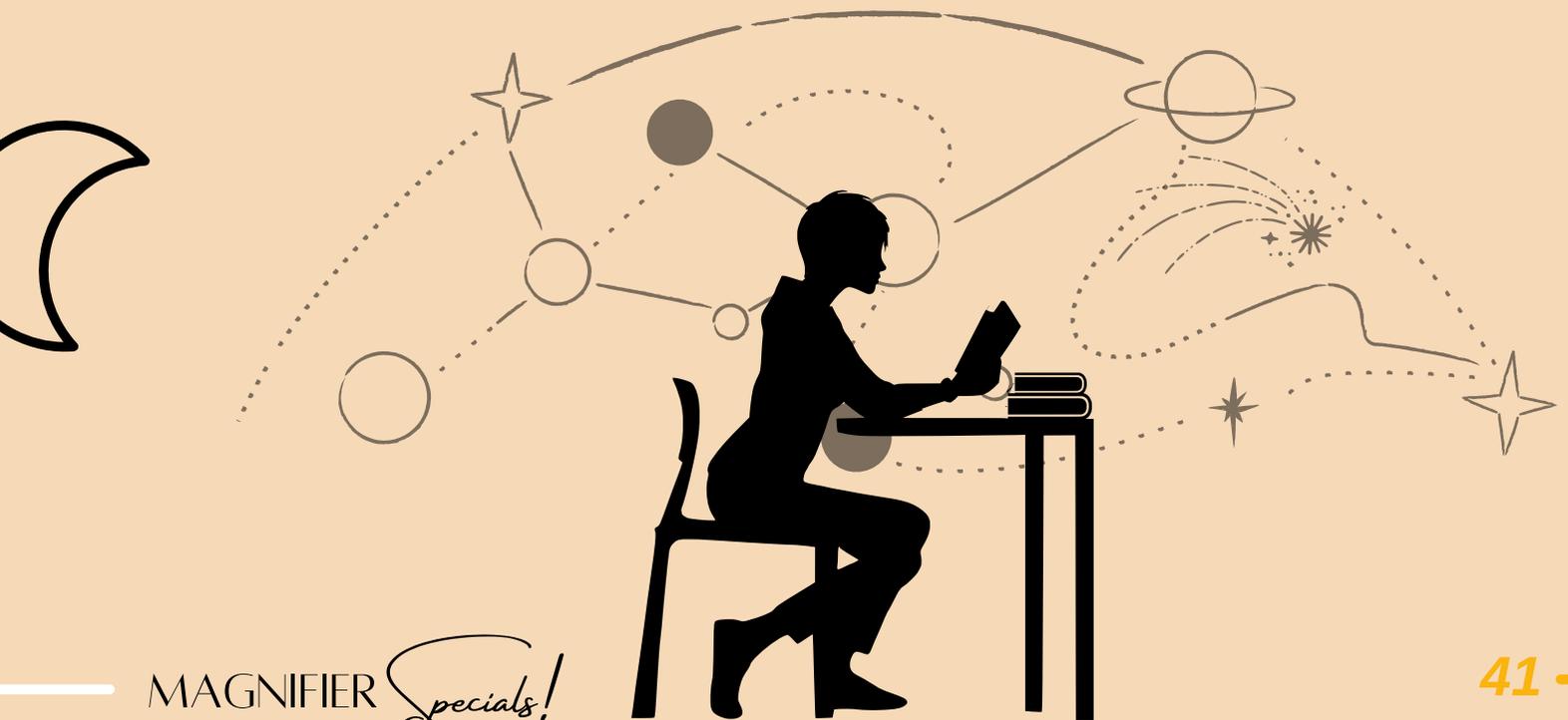
Fadhlin

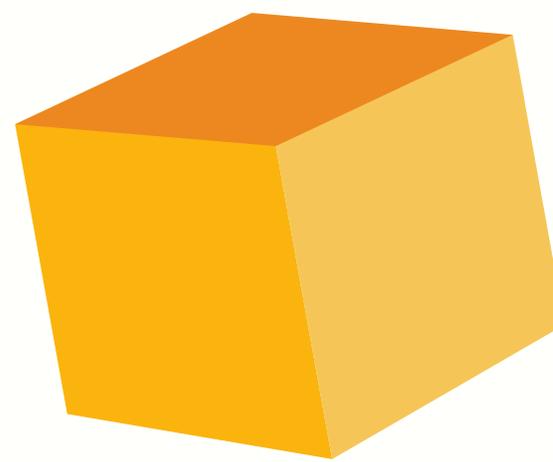
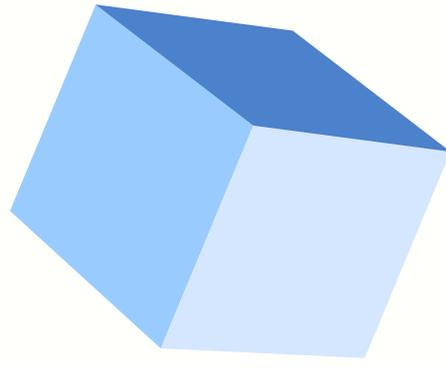
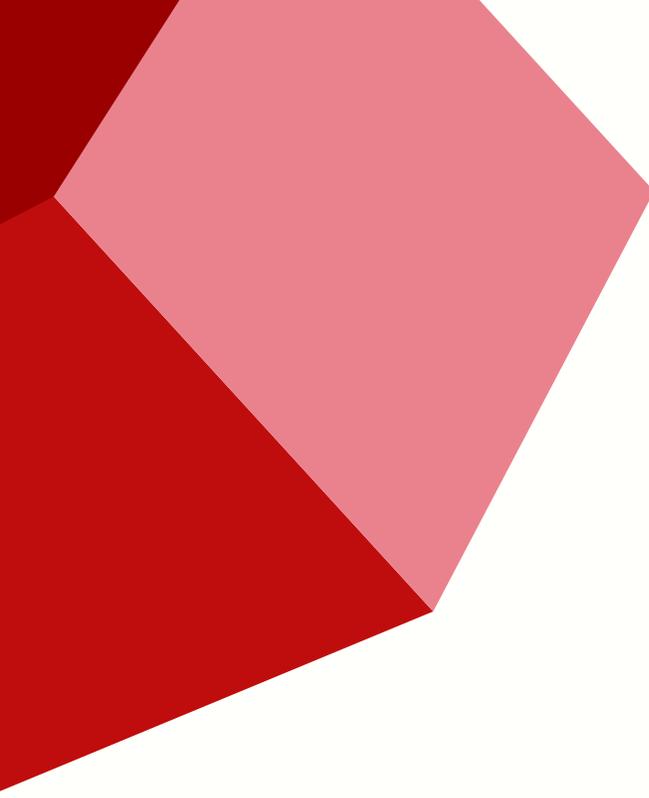
Has the pandemic affected how you spend your free time?



Chia

Personally, I think it's not about spending your free time; it's how you spend your busy time. Because the MCO started and you have all the free time, that's why it's really hard to know how you spend your busy time studying. Since you're not going to class, it's kind of like a holiday for 2 semesters, and the important thing here is how you find the time to study, doing revision, do assignments and all. And it's honestly quite difficult since you need to spend your time right to find information.

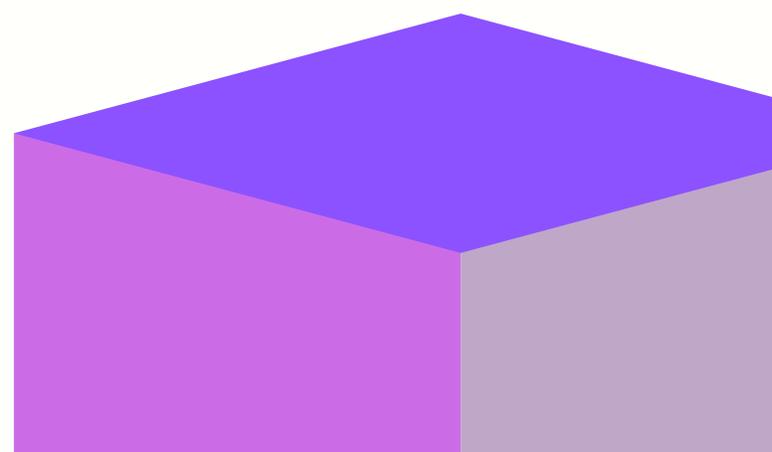
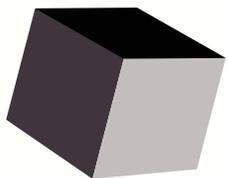




➤ Ep. 4:

Supplementary

Acts ◀



IN-SILICO RESEARCH EXPERIENCE WITH COVID-19XT

BY THIVIYA



During Phase 1 Apprentice under the BSc (Hons) Biomedical Science, I was attached to the Head of Research of Taylor's University, Prof Chong Pei Pei for what I would call an in-silico research experience.

Taylor's University launched in 1969 have been one of the top private universities in Malaysia. It was recently ranked Top 90 in the QS Asian University 2021 category. Taylor's University have also invested more than RM130, 000,000 in the past 5 years on their research and enterprise. They have also won more than RM8,500,000 worth of research funding externally.

On the other hand, my supervisor Prof Chong Pei Pei is currently the Head of Research in Taylor's University, and she is also heading the Infectious Disease Research Group. She was previously affiliated with University Putra Malaysia (UPM) and National University of Singapore (NUS) in the Department of Microbiology.

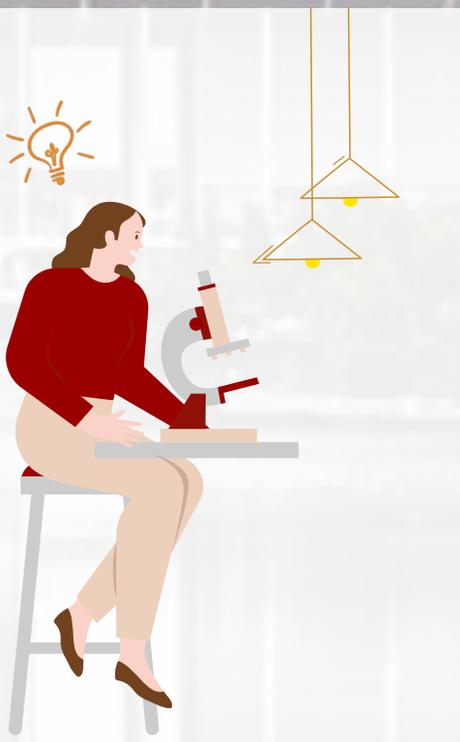
Prof Chong's area of interest includes cancer genetics, infectious diseases, rapid diagnostics, and molecular genetics. She has been involved in the digital platform by employing technologies to improve the healthcare and she is also actively collaborating with various digital schools on several projects in this field. Nevertheless, her research are frequently associated with host-pathogen interactions, the use of nanoparticles as drug delivery of natural compounds as cancer and bacterial therapeutics, antibiotic and antifungal drug resistant isolates genotyping and gene polymorphism studies in association with cancer risks.

As part of my internship, I was assigned to a mini project which involves the detection of antibodies specific to the SARS-CoV-2 virus in the saliva, which is being studied as a non-invasive approach of COVID-19 screening. I gathered information regarding this topic by conducting literature reviews, and in the later stage of my attachment, I ventured into molecular docking, which is basically using online databases and software to study the virus in more depth.

With the information I have gathered, I am putting it into a review article, which is aimed from publication. With all the information I have gathered, some studies have detected antibodies specific to SARS-CoV-2 spike protein (S), nucleocapsid protein (N), and also the receptor binding domain (RBD) in the serum samples of COVID-19 positive patients still elevated around 10 days post-infection. Furthermore, some studies have also been indicating the presence of these antibodies, especially IgA in the saliva.

I felt that my experience was very much different from what I expected. I have learned many skills throughout this internship period, however, I felt that I've learned a lot of soft skills as well. Working from home has taught me on the importance of being disciplined and managing time. Besides that, this internship has also taught me that the future of research very much involves in silico studies, which are not ventured enough.

I was also grateful to have had a very good guidance from Prof Chong and I am very lucky to have learned a thing or two from her. In the midst of the pandemic, I am extremely proud to be able to contribute in a small scale towards the fight. I was able to use the knowledge I have earned from the past couple of years in IMU.



Thiviya
IMU Biomedical Science
Class of 2018

Thiviya interned at
Taylor's University for 2
months.

Currently, she is securing a
place for her post-graduate
studies.

Myths of Covid-19

Covid-19,

– a name that spread around the world like wildfire and has been a dominant entity that has everyone's lives in its palm. When it first came around, everyone underestimated the virus, saying that the outbreak was merely a local epidemic in a region in Asia.

However, the virus finally found its way to major cities such as Kuala Lumpur, Singapore, Seoul, New York, London, Rome and many more. Covid 19 caused many of these big cities to shut down, keeping everyone in their homes and since it is a completely new virus, paranoia and anxiety struck the populations and eventually gave birth to much misleading information amongst the global community, especially those who are not well-versed with the science behind virus mechanism. With so many myths and rumours circulating online, whether it be Facebook or WhatsApp, it is important that we should not trust every piece of information wholeheartedly as it may cause tragedy and put innocent lives at risk. So to avoid any reckless accidents from happening, here are some common myths about Covid-19 that we will be debunking.

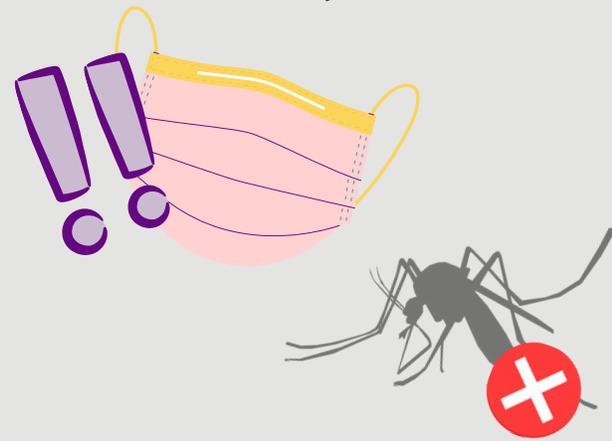
1. Covid-19 can be transmitted through surfaces of boxes that originate from countries with ongoing transmission.

a. In the age of online shopping, many people have been discouraged to do so as there have been some speculations regarding this issue. Although it is true that the virus can stick around on surfaces for long hours, the environment and varying temperatures that the boxes have been through make it challenging for viruses to remain active. However, it is highly advisable to spray your anticipated package with a disinfectant to be safe and assured.



2. Covid-19 can spread through mosquitoes.

a. Well, there has been no concrete evidence that shows Covid-19 being transmitted through mosquitoes BUT it can spread through droplets from coughing, sneezing or even a patient's saliva – so remember to wear your masks, folks!



3. Covid-19 can spread through clothes and taking hot baths will help kill the virus is us

a. Firstly, viruses don't really survive well on porous surfaces such as sweaters or shirts. This is because of two reasons: the fibres are likely to trap viruses, making it difficult to spread to your hands or face. Second, the viruses are rendered inactive since they can be dried out when clothes go through drying in a high-temperature dryer or under the sun. To be cautious, it is advisable to wash your clothes in 60-90°C water.

b. HOWEVER, bathing in hot water does NOT help prevent Covid-19. It actually does you more harm than good as it could potentially burn you. Instead, the best way to prevent Covid-19 is to frequently clean your hands and use a hand sanitiser.



4. Drinking, injecting or spraying alcohol/chlorine/bleach on your body can help kill the virus inside.

a. NEVER EVER, under ANY circumstance should you spray any of these chemicals onto your body. It is likely to be poisonous if ingested and may cause irritation and damage to the eyes!

b. These chemicals can only kill viruses ON SURFACES and not IN your body. If ingested, these chemicals can have severe consequences on your internal organs.





5. If you can hold your breath longer than 10 seconds, you do not have Covid-19

- a. I'm sure everyone has heard of this, especially in the form of a message on WhatsApp that has been "forwarded too many times" by your parents or relatives. It's important to remember that the common symptoms of Covid-19 are dry cough, tiredness and fever, and to a severe extent: pneumonia.
- b. The one and the only way to confirm whether you have Covid-19 or not is by going to your local Covid-19 testing centre and doing a swab. A confirmation from a medical laboratory is better than a confirmation from an unreliable Whatsapp message.



6. Getting the pneumonia vaccine can give us initial protection from the virus.

- a. Vaccines (eg: pneumococcal vaccines and Haemophilus influenzae B (HiB) vaccines) that are designed to act against microbes that cause pneumonia do NOT offer sufficient protection against the new strain of coronavirus.
- b. With the rapid work of our fellow researchers, new coronavirus vaccines such as AstraZeneca, Pfizer, Sinovac, etc, have developed and are currently available nationwide in Malaysia, so hurry up and get vaccinated now through the MySejahtera App!



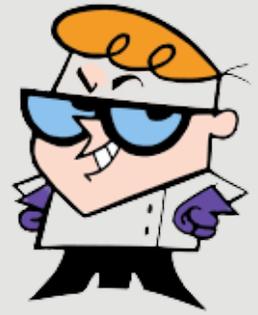
7. Eating garlic can protect us from Covid-19

- a. Although garlic has natural anti-microbial properties, there has been no evidence that it could protect people from Covid-19



8. Covid-19 was man-made by a group of evil scientists and is deliberately released by people

a. Viruses are always evolving all the time. An outbreak can go rampant if a virus that typically affects animals, evolves and passes on to humans. So please don't use this to justify your racism :(



9. Rinsing your nose with saline is one of the ways to prevent yourself from getting COVID-19

a. No, rinsing your nose with saline does NOT help prevent COVID-19 infections. There has been very limited evidence that saline can help people recover from the common cold but it has not been shown to prevent respiratory infections.

10. The new 5G mobile network can help spread the virus.

- Viruses, in general, DO NOT TRAVEL via radio waves or mobile networks. Even countries with no 5G network have high infection rates.
- It is important to note that Covid-19 can only be spread through respiratory droplets from an infected person's sneeze, cough or speech. Contaminated surfaces can also infect people which will then reach the eyes, nose and mouth.



Covid-19 is indeed a formidable opponent that mankind has faced so far but with evolving vaccine research, Covid-19 vaccinations are now available to help protect us from suffering the virus's deadly torture. With time and patience, every country around the globe will emerge victorious against the virus and Covid-19 will only be old news for generations to come.

Written by:

Aiman Zufayri and Melissa Anne



MYSYMBIOS 2021

An experience from within

While pursuing my degree in International Medical University (IMU), I joined the IMU Society of Biomedical Science as an event manager. The committee members had begun working on the 11th Malaysian Symposium of Biomedical Science, a student-organized event, in November 2019. The process of this event planning started even before I got appointed as the Vice-Chairperson. The event was managed by our seniors, BM 117 batch who guided and gave us a solid base to work from. Subsequently, I was appointed as the Vice-Chairperson for the symposium. It was held to provide a platform for young future biomedical scientists to set forth their research. The participants did a great job of presenting their research to all the attendees. The symposium became a stepping stone for the young researchers as they got to share their inspiring ideas and gain some unique experience as this symposium is the first-ever virtual biomedical science symposium held by undergraduates.

This symposium was supposed to be held in April 2020 as a physical event. However, due to the outbreak of Covid-19, we had to carry out the symposium virtually. The committee members were very efficient and started working for the e-symposium to be executed well. Nonetheless, we faced challenges as several guests lost confidence in us after much postponement, so we had to reassure them. We strived to recreate the virtual symposium as impactful as its physical counterpart.

When the symposium was organized, we had many meetings on campus. We planned for the food, accommodation and goodies for the guests to receive when they attend and even found generous sponsors to fund the event too. However, when the lockdown was implemented, we had decided to execute the symposium virtually while abiding by the SOPs. From then on, we had a lot of online meetings to organize the event. As it was the first virtual symposium held by the students of IMU, we listed down the ideas, the possible setbacks and troubleshoot them to ensure the e-symposium could be carried out smoothly. We had meetings with every department and briefed them about their roles and the possible challenges that could arise. The sponsors were allowed to promote their brand through virtual rooms and the guests received a virtual goody at the end of the virtual symposium. Several days before the actual event, we carried out trial runs to get used to the flow of the event. The first trial was not as successful as expected and we realized we were not covering every possibility. However, we looked for solutions to the factors that caused it to be unsuccessful.

On the first day of the event, we were very nervous to see the plans come alive but maintained a positive mindset for the event to have an uninterrupted flow with the advisors to assist us. We went through the checklist and were prepared so we knew what we were doing. We were ready to come across any complications and solve them rapidly.

The internet connection was unstable which caused us to lose a judge resulting in delays in the event. We reviewed the flow of the event on the first day to prep for the next day. With the cooperation of our proactive committee, we made sure to know how to tackle the problems and delays faced on the first day that came in handy for the following day. The second day went by smoothly and we were very relieved and happy. I was nervous when it was time for my ending speech. I was grateful to be allowed to thank my fellow committee members who worked very hard to make it a success and my friends for staying by my side throughout the journey.



As the Vice-Chairperson of the e-Symposium, I am very appreciative of the experience I have gained as it was something new to undergo. Being a final year student while the symposium was organized, I had a heavy workload even without the duties as the Vice-Chairperson, but I learned to manage my time, be systematic and proactive while carrying out my duties. I led a very cooperative team that were very open-minded which allowed the exchange of ideas to be uncomplicated. They were very adaptive to changes, allowing the duties to be strenuous for the leaders. It was a fun and thrilling experience overall.

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BM118

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