COVID-19:
It’s on us to bring out the best in humanity
PPSG during the Covid-19 Pandemic: Dental Services Delivery
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Grants & Publications

Industrial Grants 2020

Fundamental Research Grant Scheme (FRGS) 2020
Assalamualaikum wbxh and Good day

The emphasize and initiatives of scholastic activities has been paid off with increment in the number of publications in indexed journals, as well as the number of national and industrial research grants. The support from research KPI incentives has also significantly boost the outcomes despite threats from COVID-19 impact on the influx and R&D activities of postgraduate students. Kudos to all staff for being solid bricks during the hard times, constantly creating opportunities during the disruptions caused by COVID-19 pandemic. Stay safe, stay healthy while working as a team facing new challenges in 2021.

Assoc. Prof. Dr. Mohd Fadhli Khamis
Dean

Malaysia was introduced to Vision 2020 in 1991. Hence, 2020 was eagerly awaited by most, especially Gen X. Yours truly is one of the X Gen. We, Batch 7 of MRSM Beseri, were supposed to go back to our campus sometime last year and open a time capsule. Of course, there would be an event for that. The organisers, comprising some of the batchmates, were preparing the activities and even started to sell a uniquely designed t-shirt. But then, COVID-19 hit us.

The date 18 March 2020 marked the day we went for the first MCO. Lifestyles changed overnight. The world suddenly came to a standstill. However, to us, school and classes are still operating, albeit in new ways. The internet became a necessity for everybody. Academically, I was hoping that 2020 would be the year where I would expand my horizon. There was a plan to organise a PCR workshop outside of Malaysia, sponsored by an organisation.

After a year, we are still impacted by Covid-19. Let’s hope for better days ahead, where we can carelessly forget our facemasks and be able to hug our family and friends without thinking twice.

Assoc. Prof. Dr. Azlina Ahmad
Editor-in-Chief
Dental Services Delivery
By Dr. Nor Fatiyah Che M. Nasir

Dental treatment is categorized as one of the essential services listed by the Malaysian government. In line with the current understanding on how the new trait of coronavirus spreads, oral health care personnel are at high risk of exposure to the virus. The School of Dental Sciences, USM is committed in ensuring our dental service facilities as the safe zones for patients, students, and staff.

While addressing the challenges in dental practice during Covid-19 pandemic, several proactive measures have been taken to minimize the risk of exposure which includes mass production of personal protective equipment (PPE) and applying strict standard operating procedures (SOP) for dental treatment.

In the meantime, we are in the midst of improving our open-concept polyclinics into individual cubicles with good isolation and air-conditioning unit. The construction of ten isolated individual treatment rooms in each undergraduate and postgraduate polyclinic will be completed in 2021.

The source of funding for this project came from Tabung Covid-19 USM. Our sincerest and utmost gratitude to the Vice Chancellor, Prof. Dr. Faisal Refiq bin Mahamad Adikan for endorsing this plan.
Preparing PPEs for Frontliners
By Matron Zuraina Zakaria

The Covid-19 crisis that hit the world caused a shortage of personal protective equipment (PPE) supplies and the needs increased dramatically. PPE purchasing quotation doubles from the current price, forcing the management to decide making our own PPE i.e isolation gown and shoe cover) to save cost.

A total of 77 rolls of non-woven fabric were purchased; 18 sewing machines were either bought or donated by PPSG’s lecturers, MACMA (in collaboration with Dr. Johari Yap Abdullah), and also staff’s personal contributions. Provisions of sewing tools were provided as required. The operation by the volunteer workforce began on 6/5/2020 at the Seminar Room, Trauma Building; our staff certainly know how to keep themselves occupied during the movement control order (MCO). The activity started by cutting the non-woven fabric according to the polar, sewing, folding, up to the final stage of packing the PPE to ensure it meets the specifications. This operation ended on 7/10/2020 and was continued through the NGO Jiran Wanita KRT (Kawasan Rukun Tetangga) of Jabatan Perpaduan Negara (Bukit Abal and Tunjung). The completed PPEs will be brought to PPSG every Thursday using USM transportation.

In total, 13,860 pieces of isolation gowns and 600 shoe covers have been sewn. Indeed, all parties involved are very proud of their contributions.

Congratulations PPSG!

#kitajakita
#kitasayangusm
#sumbanguntukppsg

Disclaimer: Some of the photos were taken before enforcement of wearing face masks was implemented.
Do it Yourself (DIY): Homemade Hand Sanitizer at Craniofacial Science Laboratory

By Ms. Noor Khairiena Mohamad

The School of Dental Sciences has taken the initiative to provide hand sanitizer to all staff and students, to be placed in offices, laboratories, and clinics. The need to prepare this essential item is seen as very important and can save money in the long run; thus, the Dean has allocated some money for the purchase of basic ingredients to produce the hand sanitizer. The Craniofacial Science Laboratory is given the responsibility to start its production; a working team made up of laboratory staff was formed to realize this project. The staff involved in this project are Ms. Nor Shamsuria Omar (Leader), Ms. Fadilah Abdullah, Mr. Mohd Yusuf Soon Abdullah, Ms. Eda Sharip, and Ms. Khadijah Mohd Ali.

The preparation of this hand sanitizer is made in accordance with the content specifications as recommended by the World Health Organization (WHO). The hand sanitizer that we produced contains isopropyl alcohol, glycerin, and hydrogen peroxide. Alcohol-based hand sanitizer has been chosen for its effectiveness in dealing with the COVID-19 virus. Microbiology tests have also been conducted in the Microbiology Laboratory unit, which is part of the Craniofacial Science Laboratory to test the level of effectiveness of the hand sanitizer.
Covid-19: Adapting to the New Norm
Educational & Research Collaboration during Covid-19

By Dr. Rabiah Alawi

Collaboration between schools in Universiti Sains Malaysia (USM) is one of the ways to enhance knowledge and skills. Successful collaboration can be formed when persons from different expertise work together to complement each other. However, collaboration that involves border crossing during Covid-19 pandemic will be a great challenge. In this bulletin, I would like to take the opportunity to share the experience on research collaboration during Covid-19 pandemic.

In May 2020, we have plans to continue our research work in Penang; unfortunately, it has to be postponed as our government has implemented the movement control order and interstate travel was not allowed. Later, in September 2020, myself, Dr. Yanti Johari, and Dr. Hina Abbas (MSc student) managed to spend our precious five days at the School of Chemical Sciences, USM, Penang, for our research project on preparing kenaf dental composite. As part of the team, Dr. Hazwan Hussin from School of Chemical Sciences, USM, was also involved in the research project. Throughout this period, we followed all the standard operating procedures for Covid-19 in order to stay safe and healthy including the travelling, accommodation, and laboratory works.

When it comes to research collaboration, “two heads are better than one” always hold true. The outcome will be multiplied when researchers from different backgrounds work together as the skills, abilities, and efforts are boosted and we complement each other. In this research project, we took part on the dental material aspects and Dr. Hazwan assisted us in the chemical basis of the material.

During the five days, the detailed procedures were explained and demonstrated by Dr. Hazwan who has expertise in fiber synthesis. Later, the hands-on of each of the steps was carried out, which was facilitated by his research assistant. They explained and demonstrated the detailed methods on how to extract alpha cellulose from the raw kenaf fiber and treat the cellulose as required. Besides, we also had a chance to learn about the different types of analyses involved in the preparation and treatment of fibers.

The benefits of research collaboration can come in different ways; for example, having new experience, enhance knowledge and skills, as well as future planning and research direction. In our case, Covid-19 pandemic has delayed our research works but at the same time has improved our skills in the information technology as online meetings were used as a platform for discussion among all team members.

Disclaimer: Some of the photos were taken before enforcement of wearing face masks was implemented.
Thanks for your insightful contributions and delightful nature.

ASSOC. PROF. DR. NOOR HAYATI
ABDUL RAZAK
01/09/1999-08/04/2020

ASSOC. PROF. DR. ERRY
MOCHAMAD ARIEF
25/05/2000-05/12/2020

DR. JAWAAD
AHMED ASIF
07/10/2015-12/11/2020

DR. NAJIF BEN
JAMAYET
01/12/2013-30/11/2020

DR. SUMAIYA ZABIN
EUSUFZAI
26/11/2015-25/11/2020

Kereta selisih di Kuala Kedah
Jalan selasa hujung jeti
Terima kasih ucapan terindah
Atas segala jasa dan bakti
It has been almost a year after the announcement of COVID-19 pandemic in March 2020 by the World Health Organization (WHO). Besides being a medical lecturer in a dental school, I am also involved in medical services at the outpatient clinic, putting me as one of the frontliners for COVID-19 management. Before the country was put under Restriction Movement Control Order on 18 March 2020, Hospital Universiti Sains Malaysia (Hospital USM) has coordinated and activated the COVID-19 team, which unified multiple disciplinary units to work together under one roof. I joined the COVID-19 team as part of a primary care sub-unit, which was led by Dr. Nur Suhaila Idris, the outpatient clinic manager. She is assisted by my colleague, Dr. Imran Ahmad and the outpatient clinic staff. We have been working together since the beginning of pandemic COVID-19, closely guided by Dr. Alwi Muhd Besari, the hospital infectious disease specialist.

Before COVID-19 began to spread into this country and travel restriction has not been implemented, our team’s initial step was to isolate the staff returning from countries with COVID-19 outbreak. This action was crucial as our country had zero COVID-19 cases and only a single-digit import cases during that time. The aim was to prevent the COVID-19 outbreak within the health campus; however, we cannot avoid COVID-19 from entering the country as people were travelling around.

The primary care team had established a hotline phone consultation for risk assessment among staff at risk of COVID-19, and home isolation was issued if indicated. The number of clients to the outpatient clinic were reduced to ensure social distancing can be practised. Simultaneously, steps were also taken to decrease the number of people at risk coming into the health campus. Before entering the clinics, screening and triage areas were set up where patients at risk will be managed accordingly in a designated area. All the primary care team, as frontliners, were always ready with their protective gears: masks, face shields, gowns, or aprons as these were considered the best preventive measures to avoid the virus from spreading.

Our country almost won the battle against COVID-19; unfortunately, we were struck again by the third wave of this pandemic. Beyond that period, the cases started to increase, and almost every day new clusters are announced by the Health Ministry. Despite the struggle, fatigue, distress, and the mixed feelings and emotions we had during these challenging times, we still need to fight for this, stand united and strive together to live and surpassed the COVID-19 hurdles.

I would like to thank each member of the primary care team unit: the specialists, the medical officers, the staff nurses, the hospital attendants and every team member who work tirelessly to provide an excellent job in fighting the COVID-19. Your time, attention, and expertise does not go unappreciated. May Allah bless and reward you for the effort and diligent contribution. Thank you so much for your remarkable services!
The emergence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or COVID-19 infection had caused a catastrophic event globally and infected more than 86 million people worldwide in 190 countries and caused nearly two million deaths. Currently, real-time reverse transcription PCR (real-time RT-PCR) is used as a gold standard for detection and confirmation of COVID-19 due to its high sensitivity and specificity. However, this technique has many limitations such as being laborious, time-consuming, and requires sophisticated instrument, expensive reagents, and trained personnel, ultimately affecting the cost of the assay. Furthermore, it might not be suitable in resource-limited or for point-of-care settings. Due to these limitations, there is an urgent need for a rapid, simple, cost-effective assay with high specificity and sensitivity and is applicable in low-resource settings for detection of COVID-19 infection.

Our research team which is led by AP. Dr. Aziah Ismail from Institute for Research in Molecular Medicine (INFORMM), in collaboration with School of Dental Sciences (Dr. Suharni Mohamad), School of Medical Sciences (AP. Dr. Kimpal Kaur Banga Singh, Prof. Dr. Zaukan Zainy Deris, and AP. Dr. Azian Harun), School of Biological Sciences (Dr. Yazmin Bustami), School of Chemical Sciences (Dr. Hairul Hisham Hamzah), and Collaborative Microelectronic Design Excellence Centre (CEDEO) (AP. Dr. Asrulnizam Abd Manaf), is currently developing an alternative method for the detection of COVID-19. We utilised the reverse-transcription loop-mediated isothermal amplification technology coupled with lateral flow dipstick (COVID RT-LAMP-LFD) and integration of LAMP probes on electrochemical-based sensing system (COVID ‘Lab-on-a-chip’ RT-LAMP) targeting RNA-dependent RNA polymerase (RdRp) (including ORF1ab: IP2, IP4), envelope (E), and nucleocapsid phosphoprotein (N) of SARS-CoV-2 genes. The designed primer sets have potential to accurately and rapidly detect SARS-CoV-2 and can discriminate between SARS-CoV-2 and other related coronaviruses that infect humans. The diagnostic performance of the assays will be further evaluated using clinical samples from COVID-19 patients, as well as other infections, in comparison with RT-PCR as a gold standard.

The rapid diagnostic test with high sensitivity, specificity, simple, and cost-effective, combined with the capability to be carried out in a low-resource setting will makes it a robust diagnostic tool for detection of COVID-19 infection. This project is funded by Bio Genetics Sdn. Bhd. and Research University Grants (1001/CIFPM/8012363).
2020 has been an unprecedented year for many people globally, including me, as an oral and maxillofacial surgeon cum lecturer cum researcher at School of Dental Sciences, Universiti Sains Malaysia. Despite the Movement Control Order (MCO) which was already in effect since 18th March 2020, we as a surgical-based service unit has never stopped our surgery service since before the MCO until now. We have been receiving cases, including motor vehicle accident with victims sustaining facial fractures that required emergency surgery to stop the bleeding and to fix the facial fractures throughout this pandemic.

The surgery of fixing facial fractures is considered as one of the high-risk procedures to spread the virus (if the patient is a COVID-19 patient), as we have to use surgical drills that would generate aerosols or tiny droplets that could be the carrier of the virus into the respiratory system of the people exposed to this kind of aerosol-generating procedure. Thus, the risks we are taking during these surgeries could be similar, if not higher than, the ‘actual’ frontliners who manage COVID patients daily. Personally, it was hard for me mentally as well as emotionally, as I could not travel back to Melaka to see my wife and son for about 4 months during that period of time.

As a lecturer, I also faced the challenges of several ad-hoc changes of the teaching and learning process to students. We in USM employ the “safety comes first” policy where we stop all face-to-face teaching and learning activities and changed it to online activities. It was challenging as we need to reschedule all the timetables, amending the curriculum structure to adapt to the dynamic nature of this pandemic.

Even though our country is facing economic downturn in this difficult year 2020 due to the COVID-19 pandemic, I am grateful to God that I had managed to contribute to PPSG income generation agenda via USAINS executive clinical OMFS services.

Last but not least, I also had the honour to contribute as a “warga USM” and Malaysian, in this fight against COVID-19, by volunteering to be one of the frontliners that took swabs for mass screening during the Hillir Cluster outbreak in Kelantan. And it was during these moments that I was taking swabs on those close contacts, I experienced it first-hand that no one, regardless of the social status, financial background, gender, age, race, or religion, is exempted from the harms of this pandemic. Thus, we should start practicing the new norm as our daily routine, to protect the people we love, and people around us, as we ought to “kita jaga kita” in these trying times. Thank you.
You Reap What You Sow

By Dr. Rosmaliza Ramli, DDS, MMedSc., PhD.

The start of my journey in Dentistry was not beautiful. During the orientation week before academic activities began, I doubted whether I could survive the USM dental program so I planned to change to a different course. But God had a better plan for me, I stayed albeit reluctantly. I was lost for the whole first year though, that I failed my professional exam. That was the turning point in my life. I realised then, that I was the one who is fully responsible with my life. If I didn’t fight for my life, no one else would.

I graduated as a dentist from USM in 2005, after going through so much of struggles and pain, as I was not born with silver spoon in my mouth, nor was I born with a brain of an Einstein. But, with every hardship comes ease. Upon graduation, I had a great moment serving the Ministry of Health for 4 years as a dental officer. The need to develop myself further led me to postgraduate study in Pharmacology. Upon completion, I embarked myself on another profession, being an academic teaching USM dental undergraduates. I loved being surrounded by young students; they reminded me of who I was before, but once again I had the urge of going out of my comfort zone. In 2015, fate brought me to the UK to do a PhD in neuroscience pharmacology. The journey was almost all blood and tears, as many would say, but I managed to complete my PhD in early 2020.

So here I am today, embarking on yet another new journey, making baby steps towards becoming a researcher while still committing myself to dentistry and teaching. My current research interest is dental pain and the use of local herbs with therapeutic potentials for pain management in dentistry. The road ahead will be more treacherous and challenging, but with faith, may I be able to reap tomorrow, what I have started to sow today.

Disclaimer: All photos were from the author’s personal collection.
Retirement Note

By Ms. Noor Salwah S. Omar
Senior Chief Science Officer / Head of Unit (2015-2020)

Thank you for giving me the opportunity to have a small section in this 2021 issue. This allows me to express my appreciation for the support and friendship you have all offered for almost six years of my service in this school.

When accepting my transfer to this school, I knew it was going to be a challenge to head a central research unit and working directly under the Deputy Dean (Research, Innovation and Postgraduate, so named then, but later changed to RICE, which stands for Research Innovation & Community Engagement) from being a laboratory manager in one of the many diagnostic laboratories in the School of Medical Sciences.

I joined PPSG on 15 February 2015. The Office of Research & Innovation, unlike today, was not conducive and crowded with boxes filled with request forms et cetera. My first move was to reorganize the workplace condition while learning the processes of all the services this office has to offer. SOPs were generated and continuously improved with the many unintentional mistakes made along the way under the close supervision and patience of AP. Dr. Azlina. Through all these learning hardships, I strengthen my relationship with my staff, Ms. Wan Emiy Sazalin who I would say is my right-hand man, and Ms. Rohazlinda who joined a year later but no less efficient. Together we transform this Unit of Research & Innovation into what it is and capable of today.

To Deputy Dean (RICE), AP. Dr. Azlina, former Dean, Prof. Adam, and our present Dean, AP. Dr. Mohd Fadhl, thank you for your patience, guidance, support, and trust which has enabled me to lead the Research & Innovation Unit successfully to the best of my ability.

To all my colleagues, Science Officers, and Research Officers, thank you for the continuous cooperation and friendship offered.

I believe that PPSG will continue to grow and excel academically and in research and I trust that each one of you will be happy and fulfilled here. Keep up the good work; you've been a wonderful team to work with.

Disclaimer: All photos were from the author's personal collection.
Asiah’s 34 years @USM
By Ms. Asiah Abu Bakar

Born on 18 August 1965 in the beautiful city of Muar, Johor, Asiah begins her journey in Pulau Pinang as a Trainee Medical Laboratory Technologist (MLT) at the School of Medical Sciences (PPSP) for 3 years to pass the certificate level. Then, she continues for another 2 years to complete her Diploma with a major in Physiology and Pharmacology. After graduating, she was offered to work at the Physiology Department, PPSP, which is the beginning of a 16-year journey as an MLT there. Her phenomenal work ethics and laboratory skills over the years had opened up the opportunity for her to work as a senior MLT at the School of Dental Sciences (PPSG), and then as Services Technical Manager at Oral Pathology Laboratory, PPSG. In total, she works for another 18 fantastic years at PPSG.

With more than 30 years of experience, Ms. Asiah Abu Bakar can be viewed as one of the hidden gems of Universiti Sains Malaysia (USM) human capital. She has extensive knowledge in laboratory techniques and laboratory management skills. Her laboratory equipment expertise includes fluorescent microscope, confocal microscope, stereo imaging microscope, Elisa, hard tissue cutter, tissue processor, cryostat, audiometer, spirometer, and ECG machine. Asiah is also an expert in laboratory techniques such as cell culture, microbiology, soft and hard tissues, AMES test, lung function test, hearing test, and basic lab mathematics and statistics (SPSS). Asiah has been awarded the ‘Perkhidmatan Cemerlang USM’ in 2002 and 2020, and ‘Perkhidmatan Cemerlang PPSG’ in 2007, 2012, and 2019. Additionally, she also won the ‘Tokoh JTMP AMeLS 2006’ and ‘Anugerah Sanjungan Budi 2011’, along with some other group achievements in quality, innovation, and creativity competitions. Unfortunately, her service with USM ended on 1 February 2021, upon her retirement.

Ms. Asiah is married with a fine gentleman, Mr. Mohd Zaki Bin Selamat, who works as a Science Officer at the Research and Development Unit, PPSP. They are blessed with three sons and two beautiful daughters, as well as three healthy grandchildren. Her family has been a strong support for her throughout the years, as we are all aware how challenging it is to be a career woman, a dedicated wife, as well as a caring mother; all at once. Having a strong character with a heart of a mother, she is genuinely a great role model to inspire other women.

Disclaimer: All photos were from the author’s personal collection.
Matheel’s Passage @USM

By Dr. Matheel Zohair Yousif Alrawas

Matheel Zohair Yousif Alrawas was born in Iraq. He graduated with BDS from Baghdad University in 2010 and he was ranked second among his colleagues. He worked as a teaching assistant in Baghdad and Ishik (Tishk) universities for about 6 years. After the withdrawal of his governmental scholarship due to the economic crisis as a result of the war against ISIS, Matheel was left in a difficult position. His new journey, after a challenging period, began with a postgraduate study (Master of Restorative Dentistry [Prosthodontics]) in USM.

The decision to do the postgraduate study was not easy to make. With family support (financially and emotionally), and their assistance to care for Matheel’s son who has a rare genetic musculoskeletal disease, together with the knowledge he gained from USM lecturers, Matheel succeeded in achieving Royal Australasian College Fellowship in 2020 and he received a prestigious Christensen prize from the Royal College in 2018 for his outstanding performance in the primary exam.

Matheel’s four-years master journey is about to end in 2021; he was blessed with the presence of many experienced and kind lecturers who helped him to evolve in different ways. He would like to especially thank Prof. Dr. Adam Husein for his great support during his study. He would also like to thank Dr. Yanti, AP. Dr. Zuryati, Dr. Azirrawani, and Dr. Nafij for their wonderful clinical teaching and guidance throughout his journey, similarly to Dr. Dasmawati, all USM doctors, staff, and friends who for their presence in his master’s journey.

USM dental school is a great school and Matheel would like to further his study at USM.
GRANTS & PUBLICATIONS

GRANTS

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Total Grants 90  Active Grants 76  In Application 14
Active Lecturers 76  Study Leave 2  No. of Lecturers 78

PUBLICATIONS REPORT

Number of publications

JCR Impact Factor (Q1-Q2) 28
Web of Science (WoS) 27
Scopus 113
MyCite 33
Non-Citation Indexed Journals 13
Research Books 3
## Congratulations

**Industrial Grants 2020**

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<thead>
<tr>
<th>Dr. Nur Karyatee Kassim</th>
<th>PROJECT TITLE</th>
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<th>AMOUNT (RM)</th>
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<tr>
<td><strong>CO-RESEARCHERS</strong></td>
<td>Fabrication of fully digital obturator prosthesis for patient with palatal defect</td>
<td>Yayasan Haq</td>
<td>15,000.00</td>
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<td>Dr. Nafij Jamayet</td>
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<td>Prof. Dr. Adam Husein</td>
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<td>Dr. Taseef Hasan Farook</td>
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<tr>
<th>Dr. Johari Abdullah</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
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<tr>
<td><strong>CO-RESEARCHERS</strong></td>
<td>The effects of goose bone on fracture healing in rabbit model</td>
<td>Roxhana Ventires Sdn. Bhd.</td>
<td>31,000.00</td>
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<td>AP. Dr. Mohd Fadhli Khamis</td>
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<td>AP. Dr. TP Kannan</td>
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<td>Prof. Dr. Abdul Razak Sulaiman (PPSP)</td>
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<td>Dr. Ismail Munajat (PPSP)</td>
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<td>AP. Dr. Azlina Ahmad</td>
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<td>Dr. Norsila Abdul Wahab</td>
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<td>Dr. Norzaliana Zawawi</td>
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<td>Dr. Hanim Afzan Ibrahim</td>
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<tr>
<td>Dr. Wan Suriana Wan Ab Rahman</td>
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</tbody>
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Congratulations

Fundamental Research Grant Scheme (FRGS) 2020: Winners from PPSG

Dr. Norhayati Yusop
CO-RESEARCHERS
AP: Dr. Ramziu Shaari
Dr. Norsyahida Ariffin (INFORMM)
Dr. Khairul Banah Ahmad Amin Noordin

PROJECT TITLE
Deciphering the predominant signalling pathway in 3D osteogenic differentiation of dental stem cells by collagen type I induction for craniofacial bone regeneration

AMOUNT (RM) 193,010.00

Dr. Khairul Bariah Ahmad Amin Noordin
CO-RESEARCHERS
AP: Dr. Azlina Ahmad
Dr. Fazilina Nordin (UKM)

PROJECT TITLE
Elucidating the role of integrin pathway in 3D odontogenic differentiation of stem cells from human exfoliated deciduous teeth (SHED)

AMOUNT (RM) 208,360.00

Dr. Wan Suriana Wan Ab Rahman
CO-RESEARCHERS
Dr. Wan Nazatul Shina Shahidan
Dr. Salfarina Iberahim (PPSP)
Dr. Mohd Nazri Hassan (PPSP)
Dr. Zefarina Zulkaffi (PPSP)

PROJECT TITLE
Elucidating the regulatory of platelet microRNA expression and its role as an emerging biomarker in predicting bleeding tendency in dengue haemorrhagic infection

AMOUNT (RM) 90,470.00

Dr. Mohd Firdaus Yhaya
CO-RESEARCHERS
Prof. Dr. Baharin Azhari (Industrial Technology)
Prof. Dr. Mariati Jafar (Material Engineering)
AP: Dr. Rajee Azman Rajah Awan
Dr. Nor Aidaniza Abdul Mutlib
Ms. Noor Balzura Ab Ghani

PROJECT TITLE
Investigating the mechanism of reduction in polymerisation shrinkage of acrylic dental materials

AMOUNT (RM) 115,620.00

Dr. Yanti Johari
CO-RESEARCHERS
AP: Dr. Dasamawati Mohamad
Dr. Mohd Firdaus Yhaya

PROJECT TITLE
Elucidation of hydrogen bonding and physical interactions between monomers during polymerisation of flowable composite

AMOUNT (RM) 78,000.00

Dr. Nor Aidaniza Abdul Mutlib
CO-RESEARCHERS
AP: Dr. Norhayati Luddin
Dr. Firdaus Yhaya
Dr. Mohd Hazwan Hussin (Chemistry)
Prof. Wan Rosli Wan Daud (Industrial Technology)

PROJECT TITLE
Evaluation of chemico-physical properties of novel oil palm fibres reinforced polymer composite dental post

AMOUNT (RM) 141,744.00

AP. Dr. Azlina Ahmad
CO-RESEARCHERS
Dr. Khairul Banah Ahmad Amin Noordin
Dr. Sri Aishah Zainal

PROJECT TITLE
Elucidation of calcineurin-dependent NFAT pathway role in dental stem cell-endothelial differentiation treated with VEGF and cultured on human amniotic membrane

AMOUNT (RM) 155,480.00
COVID-19
Know the Facts

COVID-19 spreads primarily from person to person

- Droplets released when someone sick sneezes or coughs can land on the mouths or noses of people nearby
- Close contact with someone sick - like hugging or shaking hands

COVID-19 mainly spreads from person to person
But it can be left on objects and surfaces...

So if you touch something contaminated and then touch your face or another’s face, you might all fall ill.

Reduce your risk of COVID-19

- Clean your hands often
- Cough or sneeze in your bent elbow - not in your hands!
- Avoid touching your eyes, nose, and mouth
- Avoid social gatherings and time spent in crowded places
- Avoid close contact with someone who is sick
- Clean and disinfect frequently touched objects and surfaces

Source from: https://www.who.int/westernpacific/emergencies/covid-19/information/severity