

PHARMACYCONNECT

NEWSLETTER



January 2021

Volume 2, Issue 1

DEAN'S MESSAGE



Associate Professor Dr. Mogana Sundari Rajagopal, Dean

March 2021 will be the first anniversary of the COVID-19 pandemic. Healthcare professionals around the world have continuously been at the forefront of the pandemic, providing essential health care services to the public. Among them have been practitioners in pharmaceutical sciences such as pharmacists, pharmacy technicians and scientists. Most pharmacists across the country have continued to maintain and contribute to their usual roles while taking on additional or new roles for COVID-19 by utilising their extensive knowledge and training in medication. Contributions by pharmacists during the pandemic have ranged from developing new medications, guidelines/protocols, disaster management planning, providing education resources to the public, and publication of COVID-19 research.

At the same time, the COVID-19 pandemic kicked off the biggest race in drug development history almost akin to the Space Race in the 1950's which saw the first human in space and the first hu-

mans on the moon. However, this time the race was aimed at tackling what has been the biggest devastation to human lives in modern history. According to WHO, lives lost to the virus have amounted to more than 2.65 million people. In the race for a safe and effective strategy against COVID-19, many major pharmaceutical companies, institutions, and organisations began a remarkable and unprecedented collective effort to develop vaccines against the virus. As of March 2021, WHO reports that there are 81 vaccines in clinical development and 182 vaccines in pre-clinical development in various countries around the world. Pharmacists and formulation scientists have played a critical role throughout the development, manufacturing, distribution, and deployment of the vaccine. The choice of type of vaccine, carrier, adjuvant, excipients, dosage form and route of administration can directly impact not only the efficacy against COVID-19, but also the logistics of manufacturing, storing, and distributing the vaccine. The pharmaceutical industry, pharmacists and formulation scientists have truly been essential contributors to the fight against COVID-19 and from us at the Faculty of Pharmaceutical Sciences (FPS) we salute you for your dedicated service.

FPS is dedicated to nurturing future-ready pharmacists and recorded 100% employability rate in the MOHE Graduate Employability Survey 2020. Success has been seen via the Praxis approach of the Faculty through industrial, community and hospital attachments. Moving ahead with the Industrial Revolution, the first Formulation Science programme in Asia is now open for enrolment to inspire and transform ideas and creativity into innovative products.

Inside this issue:

- CCP@FPS
- Student Achievement: Best Poster Award
- Staff Achievement: Venus International Women Awards
- Staff Spotlight: Chew Yik Ling
- Medispec and UCSI Sign MOU
- UCSIUPSA 2021 Activities Line-up
- PhD Direct Progression @ FPS
- Alumni Spotlight: Sarania Sukumaran
- Alumni Speak: Majori Mambali
- Media Coverage @ FPS
- Publications @ FPS
- A Sneak Peek Into FPS
- Upcoming Events

Editorial Team:

- Assistant Professor Dr Anand Gaurav
- Osama Helweh



PHARMACYCONNECT newsletter is a bimonthly publication of the Faculty of Pharmaceutical Sciences (FPS), UCSI University, Kuala Lumpur.



CCP @ FPS

Continuing from where we left in 2020, FPS started 2021 with a couple of very interesting Complementary Competency Programmes (CCP).

These CCPs provide opportunities to the academicians and researchers to connect with one another and share and learn in a safe and protected online environment.

The first CCP was conducted by Associate Professor Dr Gabriel Akyirem Akowuah, on the topic "Identification of Herbal Medicine by Physical and Chemical Methods" on 30 January 2021 via Microsoft Teams.

The CCP was well-attended by students, the faculty, and external participants. The CCP was highly appreciated by the participants as it provided them with practical knowledge about identification of herbal medicines.

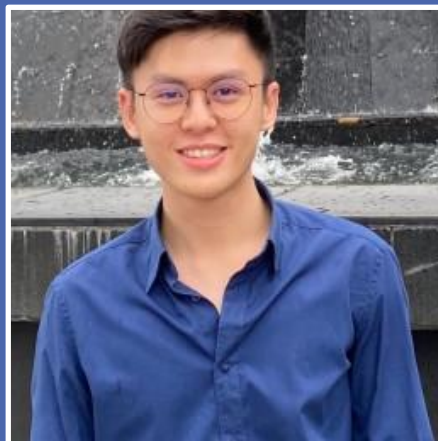
The second CCP was conducted by Muhammad Ahsan Iftikhar Baig on the topic "Let's Fight Cancer – The Earlier the Better" on 28 February 2021 via Microsoft Teams.

The CCP was conducted with the goal of creating general awareness about cancer in the society, including the measures that must be taken to prevent it, fight it and to be able to protect oneself and others in the society. Educational intervention such as that included in this CCP can help in providing answers to some very important questions of society about cancer and its prevention.

This CCP was also very well-attended and received by the participants as seen by the positive feedback from them.

Many more exciting CCPs are coming up and we shall keep you posted here!

STUDENT ACHIEVEMENT: BEST POSTER AWARD



Congratulations to Brian Alvin Fam Kai Sheng, BPharm (Hons) student of FPS, for bagging the "Best Poster Presentation Award" at the "International e-Conference on Expanding Frontier of Pharmaceutical Research Towards Global Exigency" on 15-16 October 2020 at Karpagam College of Pharmacy Coimbatore, India in association with the Indian Pharmaceutical Association, Coimbatore, India.

The topic of his presentation was "Investigating the natural excipients for development of sunscreen cream base". Dr Ashok Kumar Janakiraman supervised his research project.



COMPLEMENTARY COMPETENCY PROGRAMME (CCP)

IDENTIFICATION OF HERBAL MEDICINE BY PHYSICAL AND CHEMICAL METHODS

SPEAKER:



**ASSOCIATE PROFESSOR
DR GABRIEL AKYIREM AKOWUAH**
BSc (Hons), Dip. Ed., MSc, PhD (Pharmaceutical Chemistry)
Lecturer, Faculty of Pharmaceutical Sciences,
UCSI University

AIM OF THE TALK:
Herbal drugs make up a substantial portion of the global pharmaceutical market. The identification of plant materials used for the preparation is vital to ensure the quality and efficacy of herbal drugs.

HIGHLIGHTS OF THE TALK INCLUDE:

- Discussion on the physical identification of botanicals used in herbal drugs
- Discussion on chemical identification reactions of herbal drugs
- Review on the basic features of Herbal pharmacopoeia

TARGET AUDIENCE:

- School or University students
- Research Scholars
- Public

30 JANUARY 2021
2 PM - 3 PM
MICROSOFT TEAMS




COMPLEMENTARY COMPETENCY PROGRAMME (CCP)



COMPLEMENTARY COMPETENCY PROGRAMME (CCP)

LET'S FIGHT CANCER - THE EARLIER THE BETTER

28 FEBRUARY 2021
2.00 PM - 3.00 PM
MICROSOFT TEAMS

Fee: RM30

SPEAKER:



AHSAN BAIG
Lecturer,
Faculty of Pharmaceutical Sciences
(BPharm, MScPharm)

TARGET PARTICIPANTS:

- School or University students
- Public

PAYMENT DETAILS:
Internet Banking/ Giro Transfer/
Cash Deposit via ATM/ Cash Payment
at Finance Counter,
UCSI University (KL Campus)

Account No:
CIMB Bank 86-0213894-3
(UCSI Education Sdn Bhd)

*Please state "CCP-FPS" during payment.

AIM:
This talk aims to create a minimal awareness that everyone in the society should have of cancer, its common forms, what measures can be taken to prevent it, fight it and to be able to protect one's self and help others in the society.

HIGHLIGHTS:

- To share answers to the important questions that the public may have about cancer
- To provide information on cancer screening from the public's perspective
- To educate the public on the things to do regarding highly prevalent cancers in society

Register here: <http://bit.ly/360g8zV>






KARPAGAM COLLEGE OF PHARMACY
Coimbatore, Tamil Nadu, India



Certificate of Appreciation

This is to certify that

Mr. Brian Alvin Fam Kai Sheng

has awarded Best Paper for Poster Presentation entitled

"Investigating the natural excipients for development of sunscreen cream base"

in the Two days International e-Conference on

EXPANDING FRONTIER OF PHARMACEUTICAL RESEARCH TOWARDS GLOBAL EXIGENCY held on 15 & 16 Oct 2020

organized by

Department of Pharmaceutics, Karpagam College of Pharmacy,
Coimbatore

In association with

Indian Pharmaceutical Association, Coimbatore Local Branch



Dr. T. Sivaraman
Joint Organizing Secretary



Dr. S. Ramkanth
Organizing Secretary


Dr. S. Mohan
Convener

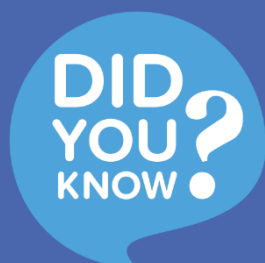
STAFF ACHIEVEMENT: VENUS INTERNATIONAL WOMEN AWARDS



Kudos to Associate Professor Dr Mogana Sundari Rajagopal for being awarded with the Venus International Women Awards (VIWA) 2021.

The Venus International Women Awards scheme was instituted in 2016 by the Centre for Advanced Research and Design (CARD) of the Venus International Foundation (VIF) in Chennai, India.

The VIWA aims to celebrate and promote successful and promising women researchers' who contribute to the discipline and social community.



The most expensive synthetic drug costs more than \$70,000 for a month's supply in US. Myalept, is used to treat a very rare orphan disease called generalized lipodystrophy in which abnormal fat is distributed throughout the body.

STAFF SPOTLIGHT: CHEW YIK LING



Dr Chew Yik Ling, Assistant Professor and Head of Postgraduate Studies at FPS, completed her Doctor of Philosophy and Bachelor of Science (Hons) from Monash University, Malaysia. She obtained her Postgraduate Diploma in Tertiary Teaching in 2019 from UCSI University, Malaysia.

Dr Chew began her teaching career at UCSI University in 2012 and served as the Chair for Faculty Teaching and Learning (2014-2017), Faculty Quality Assurance and Enhancement (2017-2019), and Chair for Faculty Research and Scholarly Activities (2019-2021).

Dr Chew's research focuses on the use of herbs and tropical plants in managing diseases. One of her research interests also includes the therapeutic potential and biological activity of herbs and tropical plants. The study highlights how herbs and tropical plants could be applied as complementary and alternative therapy for various diseases. Lately, she has been working on the use of medicinal plants in cosmeceutical and therapeutic products. She has published more than ten research and review articles in high impact indexed journals such as Food Chemistry, BMC Complementary and Alternative Medicine, Dermatitis etc. Elsevier Scientific Database has awarded one of her publications as the Top ten cited articles. The Journal of Traditional and Complementary Medicine has recognised her as an Outstanding Reviewer.

Dr Chew is also active in community services. She is a certified breastfeeding counsellor. She has been appointed as one of the counsellors in the Projek Susu Ibu. This project is under Universiti Sains Malaysia and ARBA Foundation. Its purpose is to provide breastfeeding support services to breastfeeding mothers from the B40 group who live in Petaling and Hulu Langat districts.

MEDISPEC AND UCSI SIGN MOU

A Memorandum of Understanding (MOU) was signed recently between Medispec (M) Sdn. Bhd. and UCSI Education Sdn. Bhd.

The MOU was signed to increase the cooperation between the two organisations in the following areas:

- Potential research collaborations between Medispec and Faculty of Pharmaceutical Sciences.
- To facilitate and encourage industrial staff / Student industrial attachments (2-6 months duration).

- Appointment of staff from Medispec as the industry panel advisor for the improvement of curriculum in pharmaceutical sciences relevant programs of UCSI University.
- To facilitate and encourage industrial visit/tour or site visitation.
- Other collaborative activities

The MOU was signed by Academician Senior Professor Dato' Dr Khalid Yusoff, Vice-Chancellor and President, UCSI University and Mr. Heng Thin Fook, Chief Operating Officer, Medispec (M) Sdn. Bhd.



UCSIUPSA 2021 ACTIVITIES LINEUP

UCSI University Pharmacy Students Association (UCSIUPSA) has been organising various events to engage student participation at different levels. It cultivates students to not only be bookworms but also master vast ranges of skills. Despite the pandemic, UCSIUPSA has been actively organising virtual events which weigh no less than physical ones. So, for the year 2021, UCSIUPSA has a great line up of exciting, mind-boggling, and out-of-the-box activities planned out for the whole faculty with great help from all the ambitious event committees. Here is a brief preview of some of these activities to be held in the first half of 2021.

First in line is UCSIUPSA Team Building Challenge (TBC) 2021. It is an online alternative to Team Building Camp. UCSIUPSA organised TBC 2021 to strengthen the bonds between seniors and juniors in FPS. This event will be carried out through Microsoft Teams on 1 February 2021.

Next up, Inter-faculty Mobile Legends Tournament (IMLT) 2021 is an e-sports event organised by UCSIUPSA in collaboration with UCSI University Mobile Gaming Club (UCSIUMGC). The event will be held via Microsoft Teams and Mobile Legends: Bang Bang platforms. It is a two-day event which will be held on 5 February 2021 and 6 February 2021.

Not forgetting, Merchandises Design Competition 2021 (MDC 2021) is an online event that will be held from 12 May 2021 to 12 July 2021. This competition is a two month-event comprising several agendas. These agendas include registration, designing period, submission of design, voting session, merchandise selling, merchandise order, and merchandise distribution.

Additionally, the Oath Taking Ceremony is an annual event organized by UCSIUPSA and Year 3 students from the Faculty of Pharmaceutical Sciences.

During the ceremony, the graduates will pledge to devote themselves to serve public healthcare through the profession of pharmacy as a pharmacist. The UCSIUPSA Oath Taking Ceremony and Alumni Homecoming 2021 is proposed to be organized physically in May 2021.

The Public Health Campaign is an annual event conducted by UCSIUPSA since 2002. The event aims to create health awareness among the public and disseminate health information on disease prevention. The campaign is estimated to be carried out in June 2021 virtually.

Next is the UCSIUPSA Home Fitness Challenge 2021 to promote physical activity and its health benefits. The event will be held tentatively from 21st Jun 2021 to 31st July 2021.

UCSIUPSA hopes to boost engagement with the community this year through many more activities, and we will keep you posted!

PhD DIRECT PROGRESSION @ FPS

The Faculty of Pharmaceutical Sciences recently launched direct progression to PhD (Pharmaceutical Sciences) route for undergraduates with a First-Class Honours Bachelor's Degree or a minimum CGPA of 3.67 or its equivalent.

Three students have already opted for PhD direct progression route so far, and many more have shown interest. The students who have already joined

PhD through this route include Tan Puay Luan, Sang Sze Huey, and Kaveeta Pergas.

The PhD direct progression route is highly competitive. All candidates had undergone a thorough internal evaluation by the PhD Direct Progression Committee, which consisted of two nominated senior faculty members and at least one Professor from another faculty.

The candidates presented their proposed PhD research work and supporting documents like the recommendation letter from their research supervisor and previous research achievements to the committee.

PhD direct progression has opened new avenues for students interested to pursue a research career!



ALUMNI SPOTLIGHT: SARANIA SUKUMARAN



Sarania is a proud graduate of BPharm (Hons) in 2012. In her early career, Sarania served in the public sector before switching to the private sector and worked at Gleneagles Kuala Lumpur for five and a half years as a senior pharmacist.

She is currently embarking on a new

role as an Assistant Manager of Pharmacy Services at Malaysia Corporate Office of Parkway Pantai.

Her passion in quality improvement services and projects pushed her to keep striving and ensuring that the quality of health services provided are of substance.

What kept Sarania motivated are the small wins like improving a patient's quality of life or enhancing the services of her department. Furthermore, knowing that there are always gaps in pharmaceutical healthcare that can be addressed, as well as addressing some of the taboo issues in healthcare has always kept Sarania on her toes.

Sarania has also been an active alumna of FPS. She has been contributing to the faculty in different ways and FPS would like to convey best wishes to her for all her future endeavours.

DID YOU KNOW?

The human body has incredible regenerative powers. For example, your entire brain replaces itself every 2 months; your liver, every 6 weeks; and your epidermis, every 35 days. Even your stomach lining replaces itself every 3 to 4 days.

ALUMNI SPEAK: MAJORI MAMBALI



As a foreign student, my research journey at FPS was both exciting and challenging. It was exciting as I was in a new environment pursuing my Master of Clinical Pharmacy Practice which I really appreciate.

The challenge was to complete my studies as well to conduct research in a relatively short time, which was affected by the Covid-19 pandemic.

However, the dedicated guidance by my supervisor, Assistant Professor Dr Aziz Ur Rehman and co-supervisor, Assistant Professor Fazlollah Keshavarzi was critical in the entire research project.

The availability of library resources, research methodology and biostatistics lecturers, as well as the encouragement by my family gave me the courage to stand up to the challenge and face the task that was ahead of me.

My sincere gratitude to Dr Aziz for his guidance throughout my research journey, and the entire FPS for making my time at UCSI University worthwhile and memorable!

MEDIA COVERAGE @ FPS



PUBLICATIONS @ FPS

Supercritical Fluid Technology and its Pharmaceutical Applications: A Revisit with Two Decades of Progress

Liew Kai Bin^{1,*}, Ashok Kumar Janakiraman², Fashli Syarif Abd Razak³, A. B. M. Helal Uddin⁴, Md Zaidul Islam Sarker⁵, Long Chiau Ming⁶, Bey Hing Goh⁷

¹Faculty of Pharmacy, University of Cyberjaya, Cyberjaya, Selangor, MALAYSIA
²Faculty of Pharmacy, International Islamic University Malaysia, Kuala Lumpur, MALAYSIA
³MyHIS Institute of Health Sciences, Universiti Brunei Darussalam, BRUNEI, MALAYSIA
⁴Pharmacy, School of Medicine, University of Tasmania, Hobart, TAS, AUSTRALIA
⁵School of Pharmacy, Monash University Malaysia, Selangor, MALAYSIA
⁶School of Pharmacy, Zhejiang University, Hangzhou, PEOPLE REPUBLIC OF CHINA

ABSTRACT

Over the past two decades, supercritical fluid technology has emerged as one of the most important technologies applied in many fields such as cosmetic, food and pharmaceutical. Supercritical fluid extraction process offers numerous advantages such as easy, effective, inexpensive, high quality of solute extraction and environmentally friendly. This mini-review describes the fundamentals of supercritical fluid technology, the function of supercritical fluid as solvent and anti-solvent, mechanism of supercritical fluid advantages and disadvantages and revisit the application of supercritical fluid technology in pharmaceutical sciences. In-depth discussion with recent examples of extraction of natural products, particle design in drug delivery, preparation on pharmaceutical powder, drug solubilization, inclusion complex, polymer encapsulation, liposome formulations, purification and polymorphism as well as drug extraction analysis are also presented. Key aspects and processing considerations of supercritical fluid technologies are reviewed to assist scientists to generate other related scientific works.

Key words: Bioavailability enhancement, Biomedical applications, Drug delivery, Polymeric carriers, Supercritical fluids.

INTRODUCTION

The pharmaceutical research expands rapidly in pace with the fast growth of research and technology worldwide. Most of the pharmaceutical development involve time

gaining momentum in the pharmaceutical research.¹ Supercritical fluid technology is a concept to utilize the distinct properties of solvent in their supercritical state. The compound

Submission Date: 11-01-2020;

Revision Date: 30-03-2020;

Accepted Date: 30-04-2020

DOI: 10.30598/2484-2638

Correspondence:

Dr. Kai Bin Liew

Faculty of Pharmacy,

Send Orders for Reprints to reprints@eunformative.com

Current Drug Info, 2020, 21, 000-000

RESEARCH ARTICLE

Risk Minimization Measures in Off-Label Drug Use: A Survey of Community Pharmacists in Malaysia

Omairyo Fatokun^{1,*}

¹Department of Clinical Pharmacy, Faculty of Pharmaceutical Sciences, UCSI University, Cheras, Kuala Lumpur 56000, Malaysia

Abstract: Background: While off-label drug use is common and sometimes necessary, it also poses potential risks. Therefore, measures aimed to prevent or reduce the potential exposure to off-label risks have been recommended. However, little is known about community pharmacists' beliefs regarding these measures in Malaysia.

Objective: This study examined community pharmacists' beliefs towards risk minimization measures in off-label drug use in Malaysia and assessed the relationship between perceived risk of off-label drug use and beliefs towards risk minimization measures.

Method: A cross-sectional survey was conducted among 154 pharmacists practicing in randomly selected community pharmacies in Kuala Lumpur and the State of Selangor, Malaysia.

Results: The majority agreed or strongly agreed that adverse drug events from the off-label drug should be reported to the regulatory authority (90.9%) and the off-label drug should only be used when the benefit outweighs potential risks (83.1%). Less than half (48.1%) agreed or strongly agreed that written informed consent should be obtained before dispensing off-label drugs and a majority (51.7%) agreed or strongly agreed that the informed consent process will be burdensome to frontline professionals. Beliefs towards risk minimization measures were significantly associated with perceived risk of off-label drug use regarding efficacy ($p = 0.033$), safety ($p = 0.003$), adverse drug reaction ($p = 0.001$) and medication errors ($p = 0.002$).

Conclusion: The community pharmacists have positive beliefs towards most of the risk minimization measures. However, beliefs towards written informed consent requirements are not encouraging. Enhancing risk perception may help influence positive beliefs towards risk minimization measures.

Keywords: Off-label, risk minimization, community pharmacists, risk perception, beliefs, Malaysia

1. INTRODUCTION

Off-label drug use is a common situation in a daily basis, where they may question why medicine is prescribed

A SNEAK PEEK INTO FPS



BACHELOR OF FORMULATION SCIENCE (HONOURS)

(N/5456/0103) (10/2025) (MQA/PA13963)

Impact the World as a Formulation Scientist.



TOP 1.3% IN THE WORLD
TOP 10 IN MALAYSIA



LAUNCHED

FPS offers both undergraduate and postgraduate programmes with the emphasis on serving the community.

Doctoral Programme

- Doctor of Philosophy (Pharmaceutical Sciences)

Masters Programmes

- MSc Pharmaceutical Chemistry
- MSc Pharmaceutical Technology
- Master of Clinical Pharmacy Practice
- MSc (Pharmaceutical Sciences)

Degree Programmes

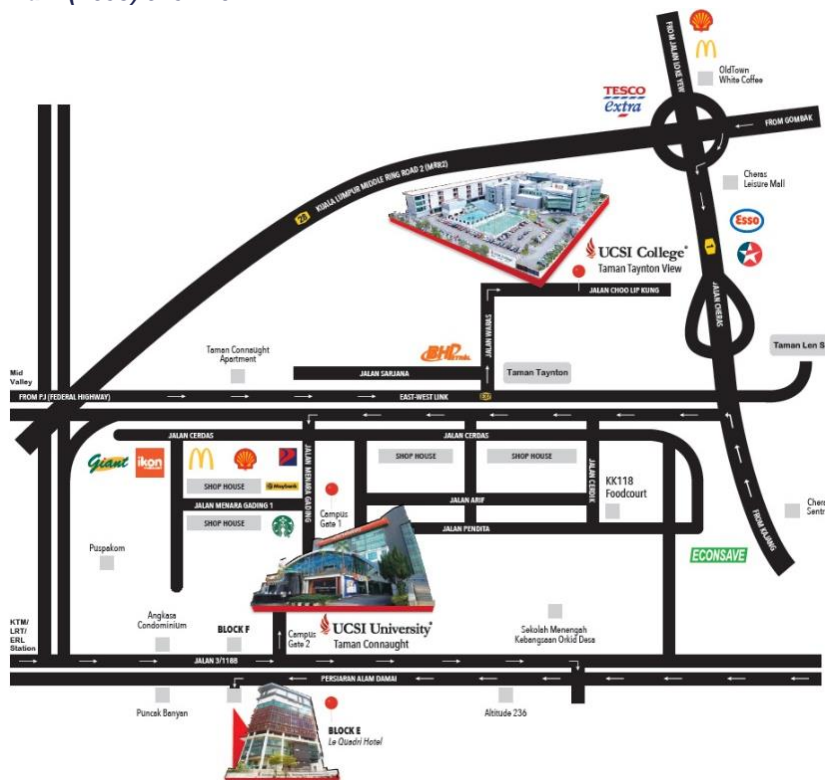
- Bachelor of Pharmacy (Hons)
- Bachelor of Formulation Science (Hons)

Foundation Programme

- Foundation in Science (Pharmacy)

We are located at:

Level 10, Block G, UCSI University Kuala Lumpur Campus
No. 1, Jalan Menara Gading,
UCSI Heights (Taman Connaught), Cheras
56000 Kuala Lumpur, Malaysia
Phone: (+603) 9101 8880
Fax: (+603) 9102 2614



Contributors:

- | | |
|--|--|
| • Anabelle Rose Joykin | • Assistant Professor Dr Chew Yik Ling |
| • Muhammad Ahsan Iftikhar Baig | • Assistant Professor Dr Muhammad Junaid Farrukh |
| • Associate Professor Dr Gabriel Akyirem Akowuah | • Por Choo Shiuan |
| • Assistant Professor Dr Ashok Kumar Janakiraman | • Yap Chuan Sheng |
| • Assistant Professor Dr Lee Ming Tatt | • Assistant Professor Dr Aziz Ur Rehman |

UPCOMING EVENTS @ FPS

- Journal Club Presentation by Assistant Professor Fazlollah Keshavarzi on the topic "Vancomycin TDM: Trough Level Versus Area Under Curve" on 19 February 2021.
- UCSI-MPS collaboration COVID-19 VACCINE FREE WEBINAR by Dr Suja, Professor Jerry, and Dr Tet Kin on 20 March 2021.
- Journal Club Presentation by Muhammad Ahsan Iftikhar Baig on the topic "Lifestyle Management of Type II Diabetes Patient" on 19 March 2021.
- Complementary Competency Programme on the topic "Herbal Cosmetics: Emerging trends in Skin Care" by Assistant Professor Dr Ashok Kumar Janakiraman on 20 March 2021.

