Jan-Mar ISSUE | 1 VOLUME | 2020 YEAR

Pharmacy Nucleus

THE NEWSLETTER OF THE FACULTY OF PHARMACY

ABOUT US: Pharmacy Nucleus is a quarterly newsletter of the Faculty of Pharmacy, MAHSA University, started in March 2019. It highlights the recent faculty and student news, faculty achievements, and upcoming events.

Dean's Note

Dear MAHSA Pharmacy community and friends!

It is a matter of great honor and satisfaction that Faculty of Pharmacy (FOP) is moving in the right direction with the aim to provide top-notch education, scholarly research and service to the profession and society. The FOP offers excellent learning opportunities through competent faculty who can provide excellent supervision to help students in their quest for new knowledge.

FOP is among very few institutes that offer wide array of programmes including **Diploma in Pharmacy, Bachelor of Pharmacy (Hons), Master in Pharmacy, PhD in Pharmacy and Bachelor of Science (Honours) in Pharmaceuticals Technology.** The faculty soon plans to offer more postgraduate programmes by coursework and mixed mode in near future.

There is an increasing demand for pharmacy services globally, due to increased demand for patient services, number of prescriptions each year and the increasing number of medicine available in the market. FOP will keep on contributing its part through our highly qualified staff, students and alumni.

Lastly, I would like to congratulate all faculty members especially Dr. Audrey Yong (Co-chairperson) for conducting a highly productive 1st MACR National Cancer Conference (MSC) in collaboration with Malaysian Association for Cancer Research (MACR).

Please take some time to read this newsletter and enjoy the recap of some of our accomplishments and future projections as a vibrant Faculty.

Professor Dr. Munavvar Zubaid Abdul Sattar

Message from Editor in Chief

In first issue of 2020, you will see the highlights of ongoing commitment of our academic and administrative staff to support our students through professional mentorships.

At the last quarter of the year 2019, we have achieved the mile stone of organizing an international. Our conference team led by Dr. Audrey Yong has worked really hard to organize such a successful conference. In MSC 2019, more than 200 researchers including clinicians, pharmacists, academicians, and postdoctoral fellows, undergraduate and postgraduate students were participated and shared the new horizons in cancer research. FOP would like to thank Professor Dr. Johnson Stanslas for providing the leadership and making MSC a success.

This issue will highlight the faculty news, faculty events, wide array of FOP programmes and pharmacy horizons. I am thankful to the editorial members of Pharmacy Nucleus for the tremendous input and efforts.

Dr. Sohail Ahmad


PhD in Pharmacy


Master in Pharmacy


Bachelor of Pharmacy (Hons)


Diploma in Pharmacy

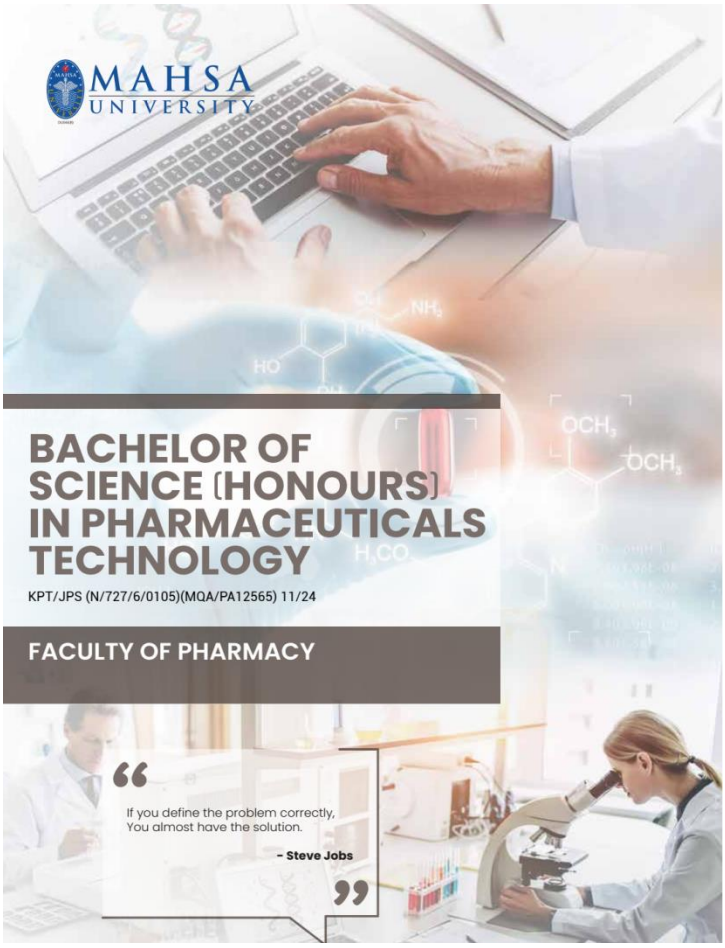
FACULTY NEWS

OPPORTUNITIES FOR PROSPECTIVE STUDENTS

A. Bachelor of Science (Honours) in Pharmaceuticals Technology

Bachelor of Science (Honours) in Pharmaceuticals Technology is a 3 years undergraduate degree programme that stands distinctively unique compared to a Bachelor of Pharmacy in the aspects of drug discovery and development and the use of technology to produce results that are required for the global pharmaceutical demands. The objective of this programme is to produce knowledgeable and competent pharmaceutical technologist who can function effectively in work process design in pharmaceutical, cosmeceutical, pharmaceutical biotechnology, veterinary, pharmaceutical microbiology and radiopharmaceutical industries.

Graduates will be equipped with the capability of adapting to global changes and current developments. This programme will prepare graduates to seek employment in research laboratories, in drug production, in regulatory services, in quality control and assurance management as well as in the marketing of pharmaceutical and other related products.



Mode of delivery of this programme includes lectures and tutorials, problem-based learning (PBL), presentation, computer-aided learning (CAL), laboratory practical, and industrial attachments. There will be a final year Industrial research project which students will need to complete before graduation.

Career Prospects

Upon the completion of this programme, graduates will be able to work as:

- Industrial Pharmaceutical Technologist
- Formulation Design and Development Scientist
- Research and Development Officer
- Quality control & Assurance Officer
- Pharmaceutical Regulatory Officer
- Pharmaceutical Sales & Marketing Executive
- Pharmaceutical Lab Technologists in Academia
- Pharmaceutical Biotechnologist and Microbiologist
- Medical Coding Executive

B. Doctor in Philosophy (Ph.D.)

KPT/JPS (N/727/8/0049) (MQA/PA3093) 01 / 20

Research mode programmes are offered by the Faculty of Pharmacy emphasis on multidisciplinary research and product development. These research intense programmes are conducted either by

laboratory, laboratory-survey based or survey-based in various area of pharmacy which includes:

Medicinal chemistry
Pharmacognosy
Pharmaceutical Microbiology
Dosage form design
Pharmacy Practice
Clinical Pharmacy
Pharmacology

Research Journey

The research programme can be taken on either a full time or part time basis. For PhD programme, the duration is 3-4 for full time, 4-7 for part time. Minimum period of candidates will be 30 months with a maximum of four years for students enrolled on full time basis. Candidates will carry out supervised research on a topic approved by the faculty on the recommendation of the head of discipline/ department, and a write thesis embodying the results of this research.

Research @ MAHSA University

Research at MAHSA University is always evolving; inspiring the active mind and providing new tools and ways of thinking that lead to innovation. a postgraduate degree is a training exercise in which the candidate acquires knowledge of research methods and experience in planning, performing and publishing result under the guidance of supervisor.

The success of that training is assessed through thesis, which in the case of PhD is expected to provide some evidence of originality and thereby make some significant contribution to knowledge, at least some which is publishable.

Guides and Supervisors

Our supervisors are member of academic or appropriately senior research staff, appointed to take primary responsibility for the conduct of students' research candidate. The supervisors are available at all stages of the candidature for advice, assistance and direction and are responsible for the progress of the candidature to the head of department and faculty.

The role of our supervisory team will generally always consist: ensuring sufficient resources are available to support the candidate; providing advice about the initial research plan; ensuring that candidate is aware of the particular research skills to be acquires and the appropriate techniques are established for gathering and analyzing data; monitoring progress made in context of the research plan; agreeing on a timetable for frequent and regular contact and acknowledging the need for periodic review of these arrangements; establishing agreed indicators of progress; providing regular and constructive feedback on written analysis and drafts; and providing sound advice about relevant administrative matters.

Career prospects

The successful candidates will get endless opportunities to work in any organizations providing healthcare services and pharmaceutical industries. It is also a foundation for the candidates to specialize in many fields of pharmacy especially those wanting to pursue a job in clinical pharmacy, research and development organizations, and of course, the teaching institutions as academics.

C. Master in Pharmacy

Faculty of Pharmacy, MAHSA University proudly announces that our Master in Pharmacy (Research) programme has been awarded full accreditation from the Malaysian Pharmacy Board and Malaysian Qualification Agency (MQA). Master in Pharmacy programme at MAHSA University is an elite, multi-disciplinary postgraduate degree programme tailored for candidates who are looking to go into research, education, consultation, or any other specialisation in Pharmacy.

MAHSA University offers a research based Master in Pharmacy postgraduate degree with rigorous grounding in a broad range of disciplines that are critical to success as a pharmaceutical scientist in academia and industry. Our programme includes a cutting-edge research focused on topics like discovery and evaluation of biologically active compounds and their pharmacological or biopharmaceutical investigation, advanced delivery methods to improve drug treatment, and how medication is used and applied to enhance patient outcomes. Students can explore different fields of pharmaceutical research according to their interests.

Faculty of pharmacy offering Master in Pharmacy (Research) programme in following disciplines:

- Pharmaceutical Chemistry
- Pharmacology
- Clinical Pharmacy
- Pharmacognosy
- Phytochemistry
- Pharmaceutical Technology (Dosage Form Design)
- Pharmaceutical Analysis
- Pharmacy Practice

Programme structure

First Year:

- Research Methodology Course
- Defence research proposal (DRP)
- 6-month progress report and presentation
- Ethics approval (Animal/Human/Not applicable)
- Research work (methodology)
- Data analysis
- Thesis writing (chapters)

Second Year

- Scientific paper publication (minimum 1)
- Conference presentation (minimum 2)
- Thesis submission
- *Viva voce (Final)*
- Post viva-voce: correction of thesis;
- Submission of corrected thesis

Intake: April 2020
Duration: Two (2) Years

Course Type: Full time/Part Time

Entry Requirement: Bachelor's Degree in Pharmacy, Science or any relevant field with minimum CGPA 2.75 from universities recognized by the Senate of MAHSA University

Faculty Events

17th MAHSA University Convocation

17th Convocation is conducted for B. Pharm, Batch 5 students on 16th - 17th November 2019 at the Ballroom, MAHSA University.

1st Malaysian Association for Cancer Research Scientific Conference

1st Malaysian Association for Cancer Research Scientific Conference conducted on 3rd - 4th December 2019 at MAHSA University. This effort provided a major convening platform for cancer research communities based locally and abroad. MSC offered multiple opportunities for professional networking and panel discussions that will help to promote cancer care through integrative research.

5th Public Health Campaign 2020

FOP is planning to conduct 5th Public Health Campaign 2020 at IOI City Mall Sdn. Bhd., Putrajaya. Initial meeting with Ms. Christine Kua (Assistant Manager Advertising & Promotion), and Mr. Lim from IOI City Mall with the PHC organizing committee & site visit regarding our 5th Public Health Campaign.

Health Awareness Talks

Dr. Ali Attiq and Dr. Sheryar from MAHSA's Faculty of Pharmacy presented talk on Lifestyle Drugs and Health interventions.

Life style drugs and health interventions

Session 1 (Time 9.30-11.30 am)
Session 2 (2.00-2.00 pm) Sunday, 12-01-2020.
Speaker: Dr. Ali Attiq (Ph.D. Pharmacology)

Historical perspective and analytical procedures for the abuse of drugs in sports

Session 1 (Time 9.30-11.30 am)
Session 2 (2.00-2.00 pm) Saturday, 11--1-2020.
Speaker: Dr. Sheryar Afzal (Ph.D. Pharmacology).

Research Activities

Published Research Articles

Dr. Sohail Ahmad & Professor Dr. Nahlah Elkudssiah Ismail


frontiers in Public Health

ORIGINAL RESEARCH
published: 22 January 2020
doi: 10.3389/fpubh.2019.00420

Assessment of Self-Stigma, Self-Esteem, and Asthma Control: A Preliminary Cross-Sectional Study Among Adult Asthmatic Patients in Selangor, Malaysia

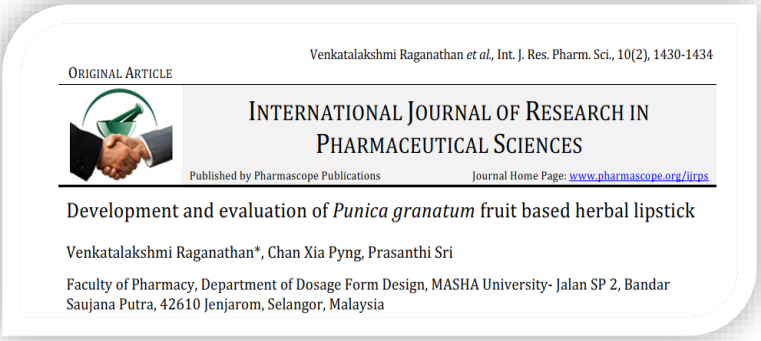
Sohail Ahmad [1], Ahmad Izuanuddin Ismail [2], Mohd Arif Mohd Zim [2] and Nahlah Elkudssiah Ismail [1]*

[1] Faculty of Pharmacy, MAHSA University, Jenjarom, Malaysia, [2] Respiratory Unit, Faculty of Medicine, Universiti Teknologi MARA, Batu Caves, Malaysia

MAHSA research team conducted a study to assess the levels of self-stigma, self-esteem, and asthma control, and to investigate the impact of self-stigma and self-esteem as psychosocial factors on asthma control in Malaysian adults living with asthma. They enrolled 152 152 stable asthmatic patients in this multicenter cross-sectional study.
The preliminary evidences presented in this study found that frequent emergency room visits, high self-stigma and low self-esteem in asthma patients becomes more apparent with poor asthma control. Educational interventions to reduce patients' self-stigma and improve self-esteem are needed to achieve optimal control of asthma.

Ahmad, S., Ismail AI, Zim MAM, & Ismail NE. (2019). Assessment of self-stigma, self-esteem and asthma control: a preliminary cross-sectional study among adult asthmatic patients in Selangor, Malaysia. Frontier in Public Health; doi: 10.3389/fpubh.2019.00420. **IF:2.031**.

Dr. Venkatalakshmi Raganathan and Dr. Prasanthi Sri


Venkatalakshmi Raganathan *et al.*, Int. J. Res. Pharm. Sci., 10(2), 1430-1434

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by Pharmascope Publications Journal Home Page: www.pharmascope.org/ijrps

Development and evaluation of *Punica granatum* fruit based herbal lipstick

Venkatalakshmi Raganathan*, Chan Xia Pyng, Prasanthi Sri

Faculty of Pharmacy, Department of Dosage Form Design, MASHA University- Jalan SP 2, Bandar Saujana Putra, 42610 Jenjarom, Selangor, Malaysia

Dr. Venkatalakshmi Raganathan and Dr. Prasanthi Sri develop and evaluate Punica granatum fruit based herbal lipstick. Lipstick formulations are mostly used to enhance the shape and beauty of lips and add a touch of glamour to the makeup, completing the whole look. Most of the lip product available commercially on the market

globally is based on chemical compounds, with the possibility of various side effects such as skin irritation or rash to certain women with skin sensitivity issues. The chemical in the cosmetic also possesses a risk to the wider environment. In order to cope with this problem, some of the cosmetic company started creating environmentally friendly vegan products based on natural sources, creating products that possess less harm to the consumers as well as to the environment. With this aim and objectives in mind, I attempt to develop an herbal-based lipstick by using Punica granatumextract. The herbal-based lipstick was manufactured through various stages of melting, mixing, moulding, flaming and packaging. The formulated lipsticks were then evaluated for its physiochemical evaluation such as melting point, hardness, spreadability, surface anomalies, aging stability, solubility, pH, and perfume stability. The formulated lipstick will also be evaluated for its manufacturing defects such as sweating, bleeding, laddering, de-formation, cratering and stability study.

Raganathan, V., Pyng, C. X., & Sri, P. (2019). Development and evaluation of Punica granatum fruit based herbal lipstick. International Journal of Research in Pharmaceutical Sciences, 10(2), 1430-1434.

IJPSR (2019), Volume 10, Issue 11 (Research Article)

INTERNATIONAL JOURNAL OF PHARMACEUTICAL SCIENCES AND RESEARCH

Received on 25 February 2019; received in revised form, 24 June 2019; accepted, 28 June 2019; published 01 November 2019

***TRIGONELLA FOENUM-GRAECUM* L. SEED MUCILAGE-BASE MUCOADHESIVE MICROSPHERES OF DICLOFENAC SODIUM**

Senthil Adimoolam * and Soudaphone Phonhaxa

Dr. Senthil and co-workers aimed to discover the properties of Trigonella foenum-graecum L. seed mucilage (TFGSM) in the formulation of mucoadhesive microspheres of diclofenac sodium to prolong the residence time at the site of absorption. Diclofenac sodium microspheres were formulated by ion gelation technique. Different polymer ratios of TFGSM and sodium alginate were used to formulate eight formulations (F1 to F8) of TFGSM-based mucoadhesive microspheres of diclofenac sodium and characterized by determining their percentage yield, drug entrapment efficiency, swelling index, mucoadhesive and drug release. The drug entrapment efficiency of all eight formulations was within the range of 78 to 98% with the sustained in-vitro release of over 8 h. The in-vitro drug release of these microspheres followed controlled release (zero-order). The microspheres possessed good swelling properties and mucoadhesive properties. Diclofenac sodium microspheres were observed to adhere strongly with gastric mucosa with approximately 14 h of prolonged stay expecting improved bioavailability and reduced dosing frequency and subsequently improving patient's compliance. Diclofenac sodium microspheres can be effectively used for sustained drug release and prolonged residence at the site of absorption.

Adimoolam, S & Phonhaxa, S. Trigonella Foenum-Graecum l. Seed Mucilage-Base Mucoadhesive Microspheres of Diclofenac Sodium. International Journal of Pharmaceutical Sciences and Research, 2019: 10 (11):1000-1008.

Pharmacy Horizons

Juvenile Depression

What is Juvenile Depression?

Juvenile or childhood depression is a mental and emotional disorder which differs from the everyday "blues" that most kids get as they develop. Approximately 1 to 2% of children and 5% of adolescents experience symptoms of depression, and 3 to 5% of young people have major depression disorder.

How to Spot Depression in Your Child?

When it occurs the child feels alone, hopeless, helpless and worthless. Other symptoms include crying for no reason, change in appetite, weight loss or disrupted sleep of energy, difficulty to concentrate, alcohol or drug use and suicidal thoughts or actions.

Seven Signs your Teen may be Suffering from Depression

1. Internet addiction
2. Jokes about committing suicide
3. Violent outburst
4. Skipping school
5. Reckless behavior
6. Loss of interest in activities
7. Self-deprecating comments

What Causes Juvenile Depression?

It can be triggered by traumatic life experience, such as the death of a loved one, parent's divorce, difficulty in school, illness, environment, genetic vulnerability and biochemical disturbances.

Treating Juvenile Depression

- Talk therapy is the most common type of therapy and includes regular sessions with psychologist.
- Cognitive behavior therapy (CBT) - guidance to replace negative thoughts and emotions with good ones.
- Interpersonal therapy (IPT) – focuses on improving the patient's relationship with friends and family.
- Problem solving therapy – helps a person find an optimistic route through specific life experiences.
- Exercise – regular exercise stimulates the production of "feel good" chemicals in the brain.
    - Sleep – get enough sleep each night and follow a regular bedtime routine.
    - Balanced diet – health and balanced diet with full of variety of nutrition foods.
    - Avoid excessive caffeine - regular use can lead to "crash", feeling tired or down.

In moderate to severe cases of depression, doctors may prescribe antidepressant medications.

- Selective seronotnin reuptake inhibitors (SSRIs) – Fluoxetine, Escitalopram and Fluvoxamine
- Serotonin and norepinephrine reuptake inhibitors (SNRIs) – Duloxetine and Venlafaxine
- Tricyclic antidepressants (TCAs) – Amitriptyline, Imipramine and Nortriptyline
- Monoamine oxidase inhibitors – Selegiline

Can it be Prevented?

Family dynamics is the most important measure. A Stable, loving, and communicative family can decrease a child's vulnerability to the condition. Parents can help to prevents potential problems by identifying depression earlier, when the treatment success odds are greatest.

References

1. D. B. (2016, July 21). Childhood Depression. Retrieved 29 Feb, 2020 from https://www.webmd.com/depression/childhood-depression#1
2. Juvenile Depression. The Gale Encyclopedia of Mental Health. Retrieved 29 Feb, 2020 from https://www.encyclopedia.com/medicine/encyclopedias-almanacs-transcripts-and-maps/juvenile-depression
3. Kroning, Maureen and Kroning, Kayla (2016). Teen Depression and Suicide. Journal of Christian Nursing. 33(2):78–86, DOI: 10.1097/CNJ.0000000000000254 ,PMID: 27119802
4. American Academy of Child and Adolescent Psychiatry https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Depressed-Child-004.aspx

Mr. Muhammad Qamar

Pharmacy Nucleus Committee (Jan-Mar 2020)

MAHSA
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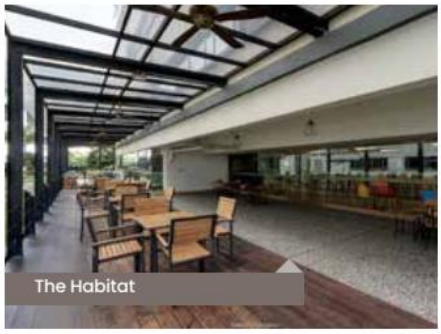
BE MORE


Pharmacy Lab


Residences


Simulation Ward


The Habitat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Clinical Skills Centre

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