## State-of-the-Art Labs

#### Inside UiTM's Versatile Pharmaceutical Pharmacology and Chemistry Laboratories

Department of Pharmaceutical Pharmacology and Chemistry conducts studies on drug structure and synthesis of biologically active molecules. The labs are utilised for both teaching and research purposes. Pharmaceutical Chemistry Laboratories under this department are located at Level 8, FF3 Building. The labs provide well-maintained equipment and facilities for teaching and research purposes for undergraduates, postgraduates, and researchers from UiTM as well as other government and private organisations. The courses provided by the department include Fundamentals of Pharmaceutical Chemistry (PHC 414), Pharmacognosy (PHC 614), Pharmaceutical Organic Chemistry (PHC 464), and Pharmaceutical Analysis (PHC 563). There are various types of laboratory equipment but the main ones for servicing are the Rotary Evaporator and UV-Vis Spectroscopy. A rotary evaporator is mainly used for evaporation, concentration, crystallisation, drying, separation, and solvent recovery, as well as the continuous distillation of large amounts of volatile solvents under reduced pressure. It can be utilized in pilot experiments and productions in the biological, pharmaceutical, chemical and food processing industries.



Rotary Evaporator



Uv Vis Spectrophotometer (GENESYS 10S UV-VIS)

UV/Vis spectroscopy is routinely used in analytical chemistry for the quantitative determination of different analytes, such as transition metal ions, highly conjugated organic compounds, and certain biological macromolecules. Measurement is usually carried out in solution. Other UV-Vis Spectroscopy applications include traditional chemistry, life science, food & agriculture, material science, pharmaceutical research, cosmetic industry, and quality control. Other than these labs, the department also owns a research laboratory, named Medicinal Herbal Chemistry Lab located at Level 7, FF3 Building. The lab is operated by trained and highly committed staff to run various types of analysis including sample processing system, collection and fraction analysis of pharmaceutical goods, drug substance and drug products, plants, natural products, food and cosmetics analysis. The lab conducts research by extracting and analysing pure compounds from various material sources.

One of the servicing equipment commonly used by researchers in the medicinal herbal chemistry field is sample processing system and the lab is equipped with Waters 2767 Sample Manager. The Waters 2767 Sample Manager is a high-capacity sample processing system that easily and automatically manages the sample aspiration and injection (from microplates, test tubes, scintillation vials, or conventional autosampler vials), collection and fraction analysis on a single HPLC or LC/MS platform. It is intended for applications involving analytical and preparative scale purifications and it is controlled by software. It includes one analytical and one preparative injector. A variety of sample formats (test tubes, microtiter plates and vials) can be used for injection and collection.



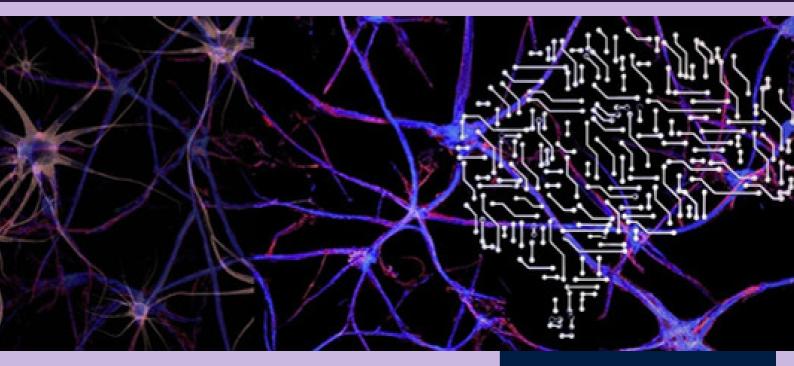
**Waters Sample Manager** 

Therefore, if you have potential ideas and information on such fields, we can assist you in achieving your goals with the appropriate technology. Come and meet our renowned researcher who has made significant contributions to the fields of herbal chemistry and the discovery of natural products.

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# PRESCRIPTION

Latest news and updates from the Faculty of Pharmacy, UiTM



### **NEWSLETTER EDITORIAL TEAM**

#### **Editorial Advisor:**

Prof. Dato' Dr. Abu Bakar Abdul Majeed

#### **Authors:**

Assoc. Prof. Dr. Hanish Singh Jayasingh Chellammal, Prof. Dato'
Dr. Abu Bakar Abdul Majeed, Mdm. Nur Sabiha Md Hussin, Dr.
Gurmeet Kaur Surindar Singh, Dr. Zokapli Eshak, Assoc. Prof. Dr.
Mizaton Hazizul Hasan, Assoc. Prof. Dato' Dr. Vellayan
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Mohd Noordin, Dr. Siti Syairah Mohd Mutalip, Dr. Ruzianisra
Mohamed, Mr. Mohd Alimukhti Mansor, Mdm. Tiniati Ahmad, Dr.
Norkasihan Ibrahim, Dr. Nurhuda Manshoor, Mr Muhammad
'Izzuddin Zamery, Madam Saliha Azlan.

#### **Illustrator:**

Mdm. Nurul Izzati Ismail

#### **PRESCRIPTION**

Faculty of Pharmacy,
Universiti Teknologi MARA,
Kampus Puncak Alam,
42300 Bandar Puncak Alam, Selangor.

(f) @pharmacyuitm



(a) @pharmacy\_uitm



( ) Faculty of Pharmacy UiTM



(##) https://pharmacy.uitm.edu.my/



( +603-3258 4645

(🖂) korporatff@uitm.edu.my