

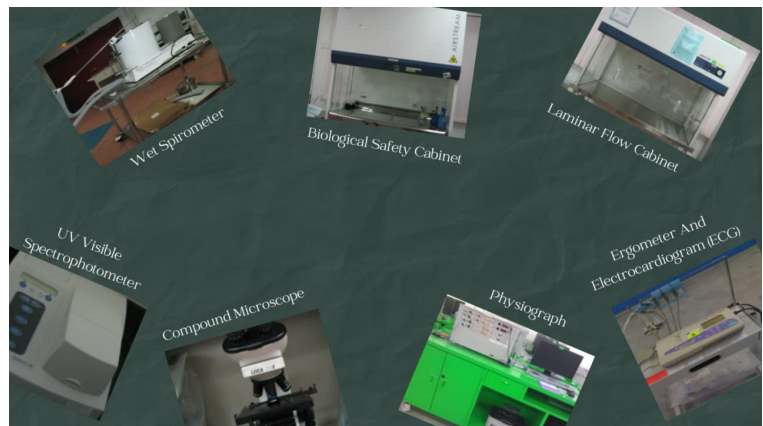
FROM BASICS TO BREAKTHROUGHS:

Inside UiTM's Versatile Pharmaceutical Life Sciences Laboratories

Department of Pharmaceutical Life Sciences at Faculty of Pharmacy, UiTM, offers a vast array of laboratory equipment and facilities, such as Multi- Purpose General, Brain, Behavioural Pharmacology & Experimental Therapeutics (B.P.E.T), Collaborative Drug Discovery Research (CDDR), Wound Healing Research Laboratory (WHRL), Microalgae Research Laboratory (MRL), Marine Pharmaceutical Research Group (MaREG), BRAIN 3 (Laboratory of Cellular and Developmental Biology) Labs and Histology Unit. Each laboratory serves the following functions and roles:

MULTI-PURPOSE GENERAL LABORATORY:

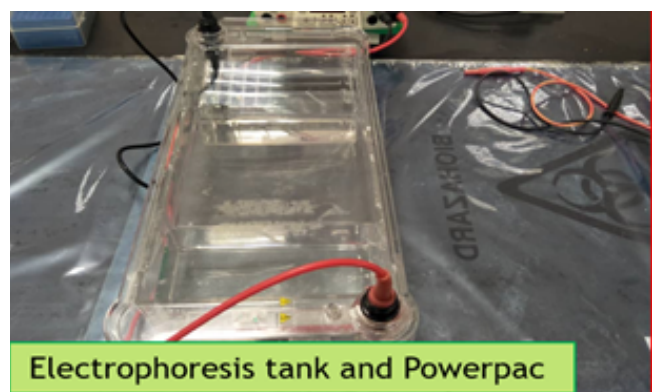
The lab caters teaching and learning practical for undergraduate Bachelor of Pharmacy students in the field of Pharmaceutical Life Sciences; Human Anatomy and Physiology (PHC 411), Pharmaceutical Microbiology & Parasitology (PHC 412), Pharmaceutical Biochemistry (PHC 462) and also Pharmaceutical Pharmacology field; Principles of



Pharmacology (PHC 461), Cardiovascular System & Pharmacotherapeutics (PHC 615), Central Nervous System and Pharmacotherapeutics (PHC 562). This lab is well-equipped with basic instrument which includes Human Anatomy Models & Charts, Wet Spirometer, Biological Safety Cabinet (Class II), Horizontal Laminar Flow Cabinet, Compound Microscope, UV Visible Spectrophotometer, Incubator, Autoclave, Water Purification System, Analytical Balance, Physiograph, Animal Activity Monitor and Ergometer and Electrocardiogram (ECG).

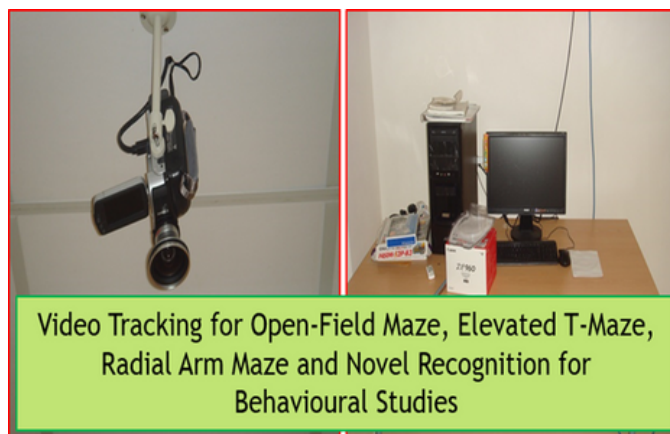
BRAIN LABORATORY:

This lab focuses studies related to “Neuroscience”, Biomolecular and Histology. For example, research on potential drugs and treatments for Alzheimer’s disease which involve DNA, RNA and histological levels. This lab is well-equipped with high end instruments, including (Polymerase Chain Reaction) PCR or Real Time PCR and Electrophoresis tank.



BEHAVIOURAL PHARMACOLOGY & EXPERIMENTAL THERAPEUTICS LABORATORY (B.P.E.T):

The laboratory is utilised for research in related fields of Animal Physiology involving various types of "maze" such as "Elevated T-maze", "radial arm maze", "Open-field maze" and "water maze". This lab is well-equipped with cutting-edge instruments, including Video Tracking for Open-Field Maze, Elevated T-Maze, Radial Arm Maze and Novel Recognition for Behavioural Studies and Multiple Unit Open Field Enclosure.



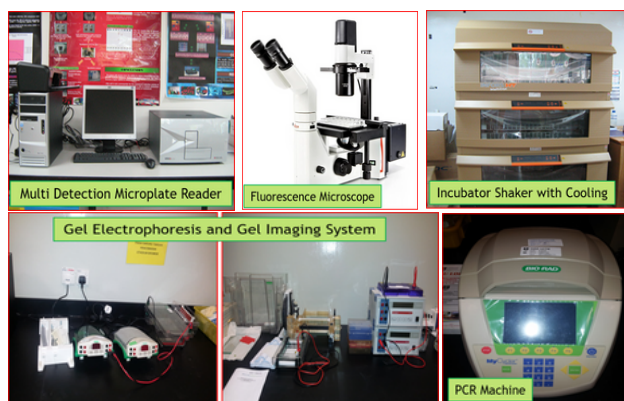
MARINE PHARMACEUTICAL RESEARCH GROUP LABORATORY (MAREG):



MaReG's primary objective is to conduct research in related fields of marine sources particularly Malaysian seaweeds and its derivatives; endophytic fungi for novel bioactive compounds (antimicrobial, anti-cancer, antioxidant, wound healing properties, UVB photoprotectives). The isolation and identification of novel marine endophytic fungi from local seaweeds could pave the way for the discovery of new bioactive compounds. This discovery will contribute to the advancement of knowledge and reveal the great potential of local seaweed as the source of bioactive metabolites. This lab is well-equipped with top-notch instruments, including Bioreactor and Biological Safety Cabinet.

COLLABORATIVE DRUG DISCOVERY RESEARCH GROUP LABORATORY (CDDR):

This lab serves as a research laboratory for postgraduate students, final year students of Bachelor of Pharmacy (Hons) and lecturers CDDR's niche is the development of functional foods (i.e. probiotics) to prevent metabolic disorders and promote neuroprotective properties. This lab is well-equipped with high end instruments, including Multi Detection Microplate Reader, Fluorescence Microscope, Incubator Shaker with Cooling, PCR Machine, Gel Electrophoresis and Gel Imaging System.



WOUND HEALING RESEARCH LABORATORY (WHRL):

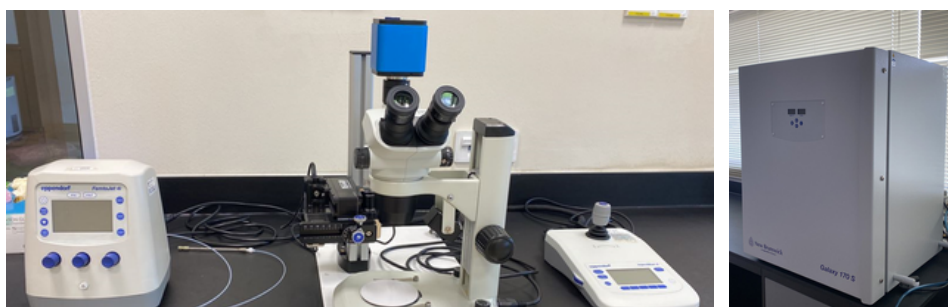
This lab conducts research related to wound treatment and development of natural wound care products.

MICROALGAE RESEARCH LABORATORY (MRL):

This lab serves as a research laboratory for postgraduate students, final year students of Bachelor of Pharmacy (Honors) and research lecturers. The main focus of the current research project in this lab is to investigate the antioxidants and antimicrobial activity of microalgae cultivated from several lakes in UiTM Puncak Alam.

BRAIN 3 LABORATORY (LABORATORY OF CELLULAR AND DEVELOPMENTAL BIOLOGY):

This unit is primarily utilised for research by postgraduate students, undergraduate students working on their final year projects, and researchers (staff). This unit focuses on research in developmental biology (currently works on murine and zebrafish samples), including gene regulations during embryonic development, embryonic mitochondrial activities, hormonal profiling, and natural products' effects on embryonic growth, including studies on the antioxidant, anti-apoptosis, and anti-proliferative activities. This unit provides facilities for sample collections, incubation, molecular works, and microscopic observations. This lab is well-equipped with high end instruments, including Cell Manipulation & Microinjector System for fish embryos and CO2 Incubator.



Cell Manipulation & Microinjector System for fish embryos CO2 Incubator

HISTOLOGY UNIT:

Histology unit have all the facilities to run a histology sample. Histology is the study of tissues and organs through the examination of the microscopical architecture of tissues and the relationship between the different types of cells and tissue found within tissues and organs. This lab is well- equipped with high end instruments, including

Automated Tissue Processing, Tissue Embedding, Microtome, Water Bath, Hot plate, Automated Slide Stainer and Compound Microscope with Complete Digital Image.

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Latest news and updates from the Faculty of Pharmacy



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