



INTERNATIONAL MEDICAL UNIVERSITY  
MALAYSIA

# MOLECULAR MEDICINE

(MSc)

SCHOOL OF  
POSTGRADUATE  
STUDIES

2019



# What Is IMU's Molecular Medicine Programme About?

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## Overview

Molecular medicine is a major focused area of contemporary medical research, and had facilitated recent breakthrough in disease diagnosis, management and treatments. For instance, it is now possible to elucidate multiple metabolites and toxins derived from drug based on interomics approaches, design highly specific and individualised treatments through genomics screening, bioinformatics and chemoinformatics assessment and enhance bioavailability of new drugs by making use of nano-delivery.

The MSc in Molecular Medicine is designed for science and medical graduates seeking advanced training in molecular and disease-oriented research. This programme aims to deliver an exceptional curriculum to equip students with skills that meet the highest demands and expectations of scientific rigour. The curriculum is innovative and draws on the expertise of our world-renowned faculty who are also passionate researchers. Core modules present the latest scientific developments in molecular medicine that are delivered through innovative andragogy. Students will appreciate the role of simple and complex molecules in human diseases and the ways in which systems biology, computational biology and chemical genetics have transformed research strategies and methodology in stem cell technology and therapeutics, drug design and development as well as medical and clinical research.

Upon completion, career paths available include research scientists in academia, research institutes or industries worldwide. Graduates may also continue their education as PhD students at IMU or elsewhere.

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### DEGREE / DURATION

**MSc in Molecular Medicine —**  
**1½ – 4 years**

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### COMMENCEMENT

**March and September**

## A Word from the Programme Director

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“The IMU MSc Molecular Medicine is recommended for science and medical graduates who are interested in molecular and disease-oriented research. It prepares students for career opportunities in medically focused biopharmaceutical and biotechnology industries; and equip students with enhanced skills to carry out research at a higher degree in specific fields. The combination of coursework and research project offers a well-grounded, theoretically-informed as well as research-intensive learning programme for a comprehensive understanding in the field.”

**DR CHONG CHUN WIE — Lecturer & Programme Director**  
PhD (UM), BSc (Hons) Biochemistry (UM)

# How Does the Programme Work?

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## Molecular Medicine Programme Structure

The IMU MSc Molecular Medicine programme consists of 2 semesters of coursework followed by a research project in the third semester. New semesters commence in March and September each year.

While all coursework classes are conducted on weekends to accommodate students that have personal or work commitment on weekdays; students that undertake the research project in the final semester would be required to be committed full time either at IMU or approved research institutes, and hospitals. The minimum completion duration for the programme is 18 months while maximum duration is 4 years. A student must complete 40 credits (15 credits from core coursework modules, 5 from selective coursework modules and 20 from research project) to graduate.

Teaching and learning activities comprise both conventional and blended learning approaches that integrated into lectures, case studies, workshops, seminars, presentations, assignments, discussions and tutorials. There are no laboratory practical in each coursework module, except in the research project.

Core modules are as follows:

Molecular Medicine (3 credit)  
Immunology and Infection (2 credit)  
Molecular Basis of Diseases 1 (3 credit)  
Molecular Basis of Diseases 2 (4 credit)  
Research Methodology and Scientific Writing (3 credit)  
Research Project (20 credit)

Selective modules are as follows:

Bench to Market (2 credit)  
Bioinformatics (3 credit)  
Laboratory Management (2 credit)  
Stem Cell Technology and Therapeutics (3 credit)  
Quality Management Systems (2 credit)  
Computational Drug Discovery Techniques (4 credits)  
Principles of Drug Discovery (4 credits)

The curriculum is reviewed periodically and is subject to change.

## Assessment

In course assessment throughout the programme via written reports (case study report, critical reviews, assignments, CAL reports, scientific writing and etc.) and oral presentations in all coursework modules. Research dissertation, presentations and *viva voce* are used for research project evaluation. There are no end-of-semester examinations for all modules.

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## Entry Requirements

A Bachelor Degree in related discipline with a minimum cGPA of 2.75 or equivalent, as accepted by the University's Senate; or

A Bachelor Degree in related discipline with a minimum cGPA of 2.50 but not meeting cGPA of 2.75, can be accepted subject to rigorous internal assessment; or

A Bachelor Degree in related discipline not meeting cGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in relevant field.

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## English Language Requirements

### For International Students

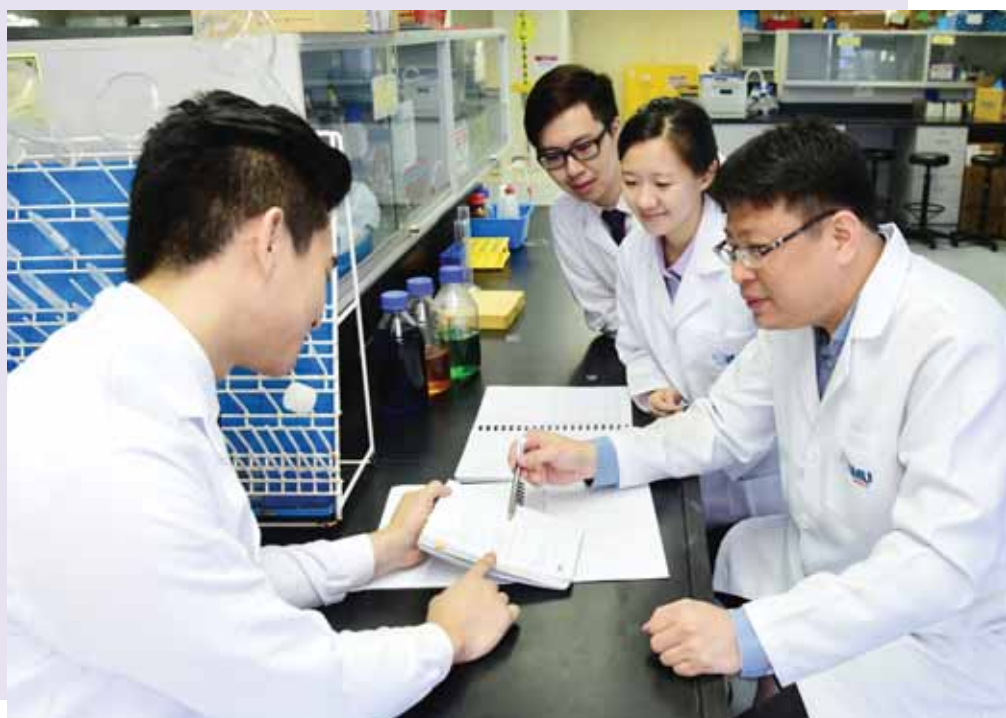
- 1) IELTS : Band score 5.0; or
- 2) TOEFL (PBT) : Overall score of 410-413; or
- 3) TOEFL (iBT) : Overall score of 34; or
- 4) Cambridge English : Advanced (CAE) : Overall score of 160; or
- 5) Cambridge English : Proficiency (CPE) : Overall score of 180; or
- 6) Pearson Test of English (PTE) : Overall score of 36



**Top:** Students will be benefited from the extensive network of credible and experience researchers from IMU partner university. A/Prof Stuart Clarke from University of Southampton who is the Adjunct Associate Professor at IMU.

**Left:** IMU provides a conducive research environment to cater for various research projects addressing current challenges in the field of Molecular Medicine.

**Bottom:** Problem based and challenge based learning will formed an integral part of the curriculum.



# Why Study Molecular Medicine at IMU?

1

## An Established Private Healthcare University

IMU is Malaysia's first and most established private medical and healthcare university with over 26 years of dedicated focus in healthcare education. IMU achieved the SETARA-2017 Tier 6 status (Outstanding) under the Mature University category.

2

## Renowned and Highly Experience Faculty

Students will be taught and supervised by staff who are experts in their field with well-established reputations nationally and internationally. The academic community of IMU pursues and achieves excellence in a wide range of research activities. Many of them present their findings in international conferences to keep up to date with the latest development in specialised areas. They also publish their findings in international peer-reviewed journals.

3

## Flexible Learning Options

The programme adopts a credit-based modular curriculum structure that allow students to choose the number of modules to register each semester. The teaching and learning activities include conventional classes on weekends, and off-campus blended learning on weekdays. Students could take up to four years to complete the entire programme, enabling full-time working adults the options to plan and fit their studies around their work, family and other commitments.

4

## Innovative Curriculum

The curriculum of this programme is innovative, carefully planned and aligned to meet the demands and expectations of Molecular Medicine. This would offer great career advancement as a research scientist in academia, research institutes, clinical setting or industries worldwide. It would also pave the way for PhD study at IMU or elsewhere.

5

## Research Partnerships

Students will benefit from the University's research collaborations with various partner universities, as well as foreign and locals research institutions in areas such as cancer, bioactive molecules, nutrition, environmental health, stem cells etc.



# How Much Does It Cost?

## Molecular Medicine Programme Fees

All fees quoted are in Ringgit Malaysia unless stated otherwise.

All IMU alumni who are self-funding their postgraduate studies and meet the eligibility criteria will be eligible for a reduction in tuition fees.

### FEES OVERVIEW

Fee	Amount (RM)	
	Malaysian Student	International Student
Application Fee	150	500
Registration Fee	1,100	3,400
Refundable Caution Deposit	2,000	2,000
Student Association Fee per Semester	40	40
Tuition Fee	40,000	53,650

- Application fee is payable upon submission of application.
- Registration fee and refundable caution deposit are payable upon acceptance of the offer letter issued by the IMU Admissions Office.

### ESTIMATED FEES BY SEMESTERS\*

Semester	Total (RM)	
	Malaysian Student	International Student
Semester 1	10,000	13,600
Semester 2	10,000	13,300
Semester 3	20,000	26,750
<b>Grand Total</b>	<b>40,000</b>	<b>53,650</b>

\*Subject to number of credits registered per semester

## Contact Us

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IMUMalaysia

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## Programmes at IMU

### Pre-University

Foundation in Science  
KPT/JPT(R/010/3/0186)09/2023

### Undergraduate

Medicine  
KPT/JPT(R2/721/6/0033)09/2026

Psychology  
KPT/JPT(R2/311/6/0013)09/2022

Dentistry  
KPT/JPT(R2/724/6/0010)01/2023

Pharmacy  
KPT/JPT(R2/727/6/0050)09/2026

Pharmaceutical Chemistry  
KPT/JPT(R2/442/6/0003)01/2023

Dietetics with Nutrition  
KPT/JPT(R2/726/6/0021)09/2022

Nutrition  
KPT/JPT(R/726/6/0011)06/2022

Biomedical Science  
KPT/JPT(R2/421/6/0011)09/2022

Medical Biotechnology  
KPT/JPT(R2/545/6/0014)09/2022

Chiropractic  
KPT/JPT(R/726/6/0054)08/2026

Chinese Medicine  
KPT/JPT(R/721/6/0059)01/2020

Nursing  
KPT/JPT(R/723/6/0125)04/2020

Nursing Science  
(for registered nurses)  
KPT/JPT(R2/723/6/0101)01/2024

### Postgraduate

Acupuncture (MSc)  
KPT/JPT(N/721/7/0071)03/2022

Analytical & Pharmaceutical  
Chemistry (MSc)  
KPT/JPT(R-CDL/442/7/0001)01/2022

Business Administration in  
Healthcare Management  
(Postgraduate Certificate/Master)  
KPT/JPT(N/345/7/1082)9/2023  
KPT/JPT(N/345/7/1085)10/2023

Diabetes Management & Education  
(Postgraduate Diploma)  
KPT/JPT(N/726/7/0030)02/2023

Health Professions Education (HPE)  
(Postgraduate Certificate/  
Postgraduate Diploma/Master)  
KPM/JPT(N/145/7/0066)09/2020  
KPM/JPT(N/145/7/0064)09/2020  
KPM/JPT(N/145/7/0070)09/2020

Implant Dentistry (Postgraduate Diploma)  
KPT/JPT(N/724/7/0019)06/2021

Molecular Medicine (MSc)  
KPT/JPT(R/545/7/0078)07/2022

Pharmacy Practice (Master)  
KPT/JPT(N/727/7/0051)03/2019

Public Health (MSc)  
KPT/JPT(R/720/7/0077)09/2020

Medical & Health Sciences  
(MSc & PhD by Research)  
KPT/JPT(R/721/8/0043)01/2020  
KPT/JPT(R2/720/7/0049)06/2026



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The IMU has been certified with ISO 9001: 2015 for the provision of Pre-University, Undergraduate and Postgraduate Programmes for the Medical and Healthcare Professions.

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Please visit [www.imu.edu.my](http://www.imu.edu.my) for the most up-to-date information.

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