



INTERNATIONAL MEDICAL UNIVERSITY  
MALAYSIA

# 2014

## PRESIDENT'S REPORT

22 Years of Innovation & Excellence



Message from the President	2
Vision	5
Education Mission	
Quality Policy	
Core Values	
Chancellor and Pro-Chancellor	6
Board of Governors	7
Senate	8
Academic Council (AC)	9

Professional Education Advisory Committee (PEAC)	14
Student Population (1993 – 2014)	16
Staff Population	17
University Day 2014	18
Strategic Plan: ASPIRE	20
2014 Highlights	22

# Contents



## Education

	23
Centre for Pre-University Studies	24
School of Medicine	24
School of Dentistry	28
School of Pharmacy	33
School of Health Sciences	38
School of Postgraduate Studies	53
Convocation	56
Enhancing Services and Resources	
– Library	62
– Medical Museum	70
– E-Learning	72
– Centre for Education (ICE)	78
– Centre for Lifelong Learning (ICL)	80
– Centre for Health Professionals Education Research (CHPER)	80
– Quality Improvement	81

– Student Development and Services	83
– Staff and Faculty Training	119
– Staff Trip	120



## Healthcare



## Research

	121
Service to the Community	133
IMU in the World	139



# Message from the President

---

In its 22 years of existence, IMU has progressed as an institution of higher learning each year. It is now imperative for the University to develop sustainable practices in every facet of its operations. In order to do this, it is important to continue living our core values so that these values will become part of the University's culture.

IMU will also have to be relevant to its stakeholders and community. In this aspect, the University will have to ensure that graduates from this University are work-ready, knowledgeable, competent and caring healthcare professionals who are critical thinkers, reflective yet proactive. In order to do this, IMU is developing a competency framework aligned to the student learning outcome to ensure graduates are well prepared to deliver competent and safe healthcare. To achieve this outcome, the University has already placed an emphasis on aspects of patient-centred care, patient safety and collaborative learning in its curriculum.

Despite 2014 being a challenging environment for the higher education sector due to increasing competition, enrolment across all of the University's pre-university, undergraduate and postgraduate programmes has been positive in both quality and quantity. At the time of writing, the University has about 4,000 students with more than 300 of them being international students. In order to further enrich students' educational experience and increase diversity at the University, IMU is aiming to obtain more international students which is also in line with the Government's policy.

## **Serving the Community**

Links with the community were strengthened in 2014 as serving the community remains a major agenda for us. This is not only a way for us to live our values but also as part of experiential learning which is generally, a very effective form of learning. In servicing the community, staff and students are given ample opportunities to engage the community beyond the University via its IMU Cares projects.

Students have the opportunity to put into practice what has been learnt in the classroom in a real world environment. This would create graduates who are committed to lifelong learning and imbued with a sense of good citizenship, leadership and ethical behaviour.

2014 was filled with many exciting IMU Cares projects and thrilling opportunities for staff and students to continue to reach out and engage the community. The 50 IMU Cares projects ranged from engagement programmes with children homes and old folks homes to engagement with rural and urban communities, as well as non-governmental organisations (NGOs).





---

## Quality Education

Today's IMU students are enjoying unparalleled learning opportunities at IMU. The University has upgraded facilities and teaching equipment for the benefit of its students and launched a pre-university programme, its very own Foundation in Science in January 2014. The programme proved to be a success with its first cohort completing their programme in December with 17 students obtaining distinction, having a cGPA of 3.70 and above.

In order to maintain its position as the leader in private medical education, it is important for quality to be one of the hallmarks of the University's programmes. Since its inception in 1993, IMU has always been dedicated to ensuring the ongoing high quality of its programmes and is focussed on continuous quality improvement. This has attracted other organisations and institutions to establish links with IMU. In 2014, the University's medical programme attracted two renowned institutions as its new partners: University of Exeter and University of Wollongong. Collaboration with Acibadem University in Turkey was also formalised in November 2014.

## Research

The University's research progressed at a significant pace in terms of external grants secured and number and quality of publications produced in 2014. The University funded its key research thrust areas through its own internal funding. Besides this, IMU researchers have competed with other researchers and obtained grants from Fundamental Research Grant Scheme (FRGS) and Exploratory Research Grants Scheme (ERGS) under the Ministry of Education, and e-Science funds under the Ministry of Science, Technology and Innovation.

IMU researchers collaborate with local and international external organisations in their research. As a means of strengthening collaboration in research with its Partner Universities, the University signed an official agreement with the University of Southampton and the University of Strathclyde. The ongoing collaboration with Partner Universities is through joint supervision of undergraduate and postgraduate students as well as joint application for research funding.

Outstanding research from Faculty members of all Schools are increasingly published in high impact scholarly journals. The quality of research projects from students is also improving as students are exposed to and immerse in research.

At heart, IMU is all about its people. Behind all of these achievements were the efforts of a committed, hard-working group of staff, students and supporters. Their accomplishments are mentioned throughout this report. These efforts in 2014 had provided a solid foundation for IMU's continued growth and success.



## YBhg Tan Sri Dato' Dr Abu Bakar Suleiman

*President*

MDBS (Monash), MMed (S'pore), DMedSc (UKM), DSc Hon (UPM),  
PhD Hon (UMS), FRACP, FAMM, FAMS, FACP (Hon), FRCP, FRCPE, FRCP  
(Glasgow), FRCPI, FRCSI (Hon), FRCSE (Hon), FAFPM, FASC, AMP (Harvard)



## Vision

---

IMU shall be an innovative global centre of excellence in learning and research, supporting a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential in becoming competent, ethical, caring and inquiring citizens; and visionary leaders. IMU is committed to academic freedom and the principles of equal opportunity in the pursuit and application of knowledge, the highest standards of intellectual, educational and research productivity; and the establishment of a learning organisation that respects the individual.

## Educational Mission

---

As an educational institution, our mission is:

- To further strengthen the IMU as a centre of excellence for undergraduate programmes in medicine, pharmacy and other health sciences programmes
- To establish the IMU as a centre for higher education providing training through multidisciplinary programmes
- To establish the IMU as a centre for postgraduate training and Continuing Professional Education
- To train knowledgeable and skilful professionals with high ethical standards who will be dedicated to serve and improve the quality of life of the community
- To train competent professionals with the use of innovative technologies of knowledge especially ICT in the teaching - learning process

## Quality Policy

---

We aim to be an innovative centre of excellence in learning and research, producing competent, caring and ethical professionals who are lifelong learners. We are committed to achieving the highest standards of intellectual, educational and research productivity.

## Core Values

---

Our organisational culture is to be based on our value system: We will be an organisation driven by its values. These core values, encapsulated in the acronym **TRUST**, are:

**T**rustworthy – we are trustworthy and stand for integrity, reliability and commitment

**R**esponsive – to change, and to the needs of individuals and communities

**U**nity – of vision and in working towards the achievement of common goals

**S**ervice – a commitment to providing outstanding service

**T**enacity – in the pursuit of excellence

We expect staff and students to embrace, live and demonstrate these values, so that they may become role models. These values are integral to our culture: They underpin our work, communication and interaction, and explain why we do business in the way that we do. Our culture and its embedded values will help us realise our vision of becoming a great organisation, and of producing graduates capable of being leaders.

## Chancellor and Pro-Chancellor



### Chancellor

#### **YBhg Dato' Dr Amir Abbas**

(DPMP), Dr Med Sc (Hon) (UKM), FRCP,  
DTM&H (L'pool), FAMM, MBBS (UM-S'pore)

### Pro-Chancellor

#### **YBhg Dato' Dr Gan Ee Kiang**

PhD (U Western Australia), PKT, BCN,  
JMN, DSPN





# Board of Governors



1. **Chairman**

**YBhg Tan Sri Dato' Dr Yahya Awang**

MBBS (Monash), FRCS (Glasgow), SMJ, KMN, DPMJ, DMPN, DSAP, PSM, Hon Doct (UKM)

2. **YBhg Tan Sri Dato' Dr Abu Bakar Suleiman**

MDBS (Monash), MMed (S'pore), DMedSc, Hon (UKM), DSc, Hon (UPM), PhD, Hon (UMS), FRACP, FAMM, FAMS, FACP (Hon), FRCP, FRCPE, FRCP (Glasgow), FRCPI, FRCSE (Hon), FAFPM, FASc, AMP (Harvard)

3. **YBhg Dato' Dr Gan Ee Kiang**

PhD (U Western Australia), PKT, BCN, JMN, DSPN

4. **YBhg Prof Datin Paduka Dr Aini Ideris**

DVM (UPM), MVSc (Liverpool), PhD (UPM), DSIS, PSK, KMN, FASc, FIAS, FM CVS, FMSA

5. **YBhg Datuk Dr Yeoh Poh Hong**

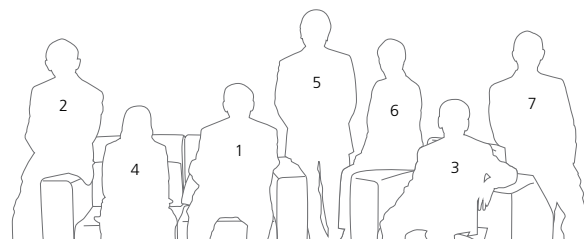
PJN, MBBS (Mal), MChOrth (Liverpool), FRCS (Eng), FRCS (Edin), FRCP (Glasgow), FACP (Hon), Hon.FCS (S.Africa), FAM (Mal), FAM (S'pore)

6. **Dr Mei Ling Young**

BA, MA (Hons) (Auckland) PhD (ANU)

7. **Prof Victor Lim**

MBBS (Malaya), MSc (London), MRCPPath, FRCPPath, FAMM, FASc



# Senate



**YBhg Tan Sri Dato' Dr Abu Bakar Suleiman (Chairman)**  
President

**Dr Mei Ling Young**  
Provost

**Prof Peter Pook**  
Vice President

**Prof Abdul Aziz Baba**  
Vice President

**Prof Victor Lim**  
Vice President, Education

**Prof Mak Joon Wah**  
Vice President, Research

**YBhg Prof Dato' Dr (Mrs) Kew Siang Tong**  
Dean, School of Medicine

**Prof Toh Chooi Gait**  
Dean, School of Dentistry

**Prof Yeoh Peng Nam**  
Dean, School of Pharmacy

**Prof Khor Geok Lin**  
Dean, School of Health Sciences

**Prof Chu Wan Loy**  
Dean, Postgraduate Studies

**Prof Allan Pau Kah Heng**  
Professor, Dentistry

**Prof Ammu Kutty  
A/P K Radhakrishnan**  
Professor, Pathology

**YBhg Prof Dato' Jai Mohan  
A/L C.A Nayar**  
Professor, Paediatrics and Learning Resources

**YBhg Prof Dato' Kandasami  
A/L Palayan**  
Professor, Surgery

**YBhg Prof Dato' Sivalingam  
A/L Nalliah**  
Professor, Obstetrics and Gynaecology

**Prof Davendralingam  
A/L Sinniah**  
Professor, Paediatrics

**Prof Hematram Yadav**  
Professor, Community Medicine

**Prof Hla Yee Yee**  
Professor, Human Biology

**Prof John Tilagachandran  
Arokiasamy**  
Professor, Community Medicine

**Prof Khoo Suan Phaik**  
Professor, Dentistry

**Prof Lim Pek Hong**  
Professor, Nursing

**Prof Ong Kok Hai**  
Professor, Pathology

**Prof Peter Michael Barling**  
Professor, Human Biology

**Prof Peter Roman Paul  
Diakow**  
Professor, Chiropractic

**Prof Stephen A/L  
Periathamby Ambu**  
Professor, Pathology

**Prof Taufik Teng Cheong  
Lieng**  
Professor, Family Medicine

**Prof Vishna Devi  
A/P V Nadarajah**  
Professor, Human Biology

**Prof Winnie Chee Siew Swee**  
Professor, Nutrition and Dietetics

## **By Invitation**

**A/Prof Zainur Rashid  
Zainuddin**  
Dean, Clinical School

## **Ex-Officio Members**

**Christy Chiu**  
Chief Financial Officer

**Norma Awang Had**  
Registrar

**Zuhanariah Mohd Nordin**  
Chief Librarian

## 25<sup>th</sup> Meeting of Academic






## Academic Council (AC)







---

Academic Council comprises the deans or their representatives of the University's Partner Medical Schools (PMS) and Partner Dental Schools (PDS). The Council meets yearly at IMU. This gathering continues to be special and unique, with a great sense of camaraderie and shared purpose in individuals who would not normally meet in this fashion or setting.

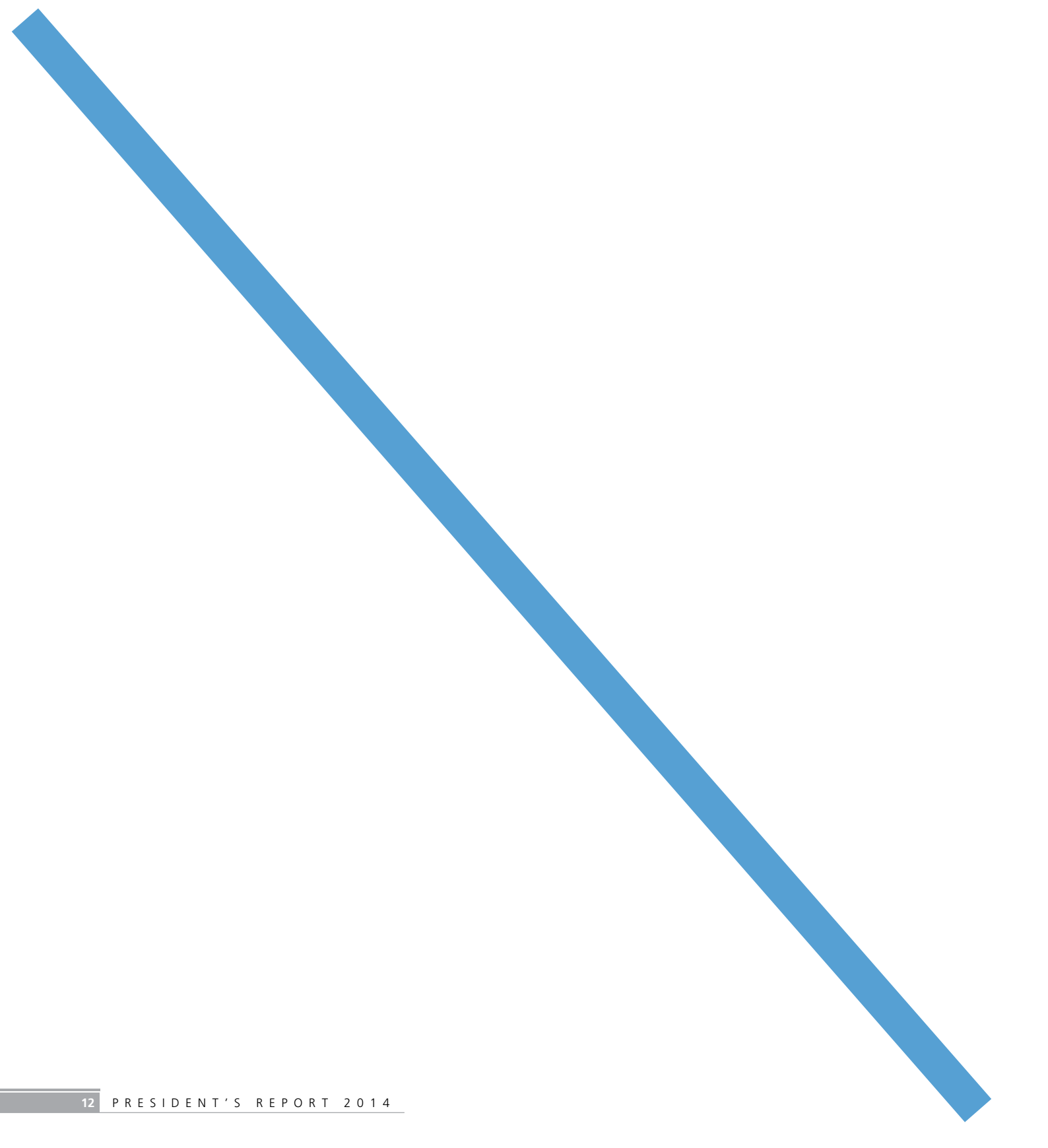
The Council is a consultative body to the medical and dentistry programmes, and makes recommendations on admissions, curriculum, assessment, faculty appointment and professional development. The Council also determines the method of transfer of students to Partner Schools. Council Members serve as key contact and liaison persons between the University and Partner Schools.

The remit of Council includes:

1. Advising and making recommendations on matters pertaining to admissions processes, curriculum and its delivery, assessment and faculty appointments and development; research and postgraduate training in the medical and dentistry programmes;
2. Monitoring and evaluating the implementation of the medical and dentistry curricula, especially the pre-clinical 'Phase 1' curricula;
3. Advising on methods of transfer and monitoring the transfer of students to partner medical and dental schools; and
4. Monitoring student performance and providing feedback on student progress at partner medical and dental schools

At the 2014 meeting at the Bukit Jalil campus, the Partner Medical School and Partner Dental School meetings were held concurrently. At the PDS meeting, Prof Toh Chooi Gait updated participants on developments in the dentistry programme:

- The Programme graduated another cohort, of 16 individuals.
- All students who transferred to Australian partners schools at the Universities of Adelaide, Queensland and Western Australia, have graduated.
- The October 2013 Professional Education Advisory Committee Review of the dentistry programme concluded it to be of international standard.
- IMU will ensure that only band 1 and 2 candidates are admitted to the dentistry programme
- Because of internal problems, the University of Copenhagen has delayed taking transfer students; this has reduced the number of transfer places available for 2015.





The meeting discussed the following matters:

- Interprofessional learning, following a presentation by Prof Khoo Suan Phaik.
- Expected progressive competencies, presented by Prof Seow Liang Lin.
- The School research report presented by Prof Allan Pau Kah Heng.
- Future directions and the feasibility of partnership in postgraduate programmes.

The breakout sessions of the Partner Medical School meeting deliberated topics including competencies for transfer; Semester 5 clinical integration; peer teaching, and the assessment of professional practise. Two fora were conducted. Prof Abdul Aziz Baba chaired the forum on best practices in OSCE assessment of clinical skills, which saw the participation of A/ Prof Sharifah Sulaiha in her capacity as Director of Clinical Training; Dr Richard Churchill (Director of Clinical Skills, University of Nottingham); Prof Nicholas Glasgow (Dean of Medicine at Australian National University); and Dr John C LeBlanc (Associate Professor, Departments of Paediatrics, Psychiatry, Community Health and Epidemiology, Dalhousie University).

The forum on transformative learning and its integration into the curriculum was chaired by Prof Vishna Devi Nadarajah in her role of Associate Dean for Teaching & Learning. The forum participants were Prof Annemarie Hennessy (Dean of Medicine at University of Western Sydney); Dr Louise Dubras (Director of BM5 programme, University of Southampton); Prof Clara Callahan (Dean of Students and Admissions, Jefferson Medical College); and Prof Lakshman Samaranayake (Head of the School of Dentistry at University of Queensland).

## Professional Education Advisory Committee (PEAC)



The Professional Education Advisory Committee (PEAC) advises and guides the University on all matters relating to the education and training of students enrolled in its health professional courses. The Committee serves as part of the University's quality assurance framework. By virtue of its membership, PEAC continues to bring an invaluable international perspective to matters on which it advises.



---

These include:

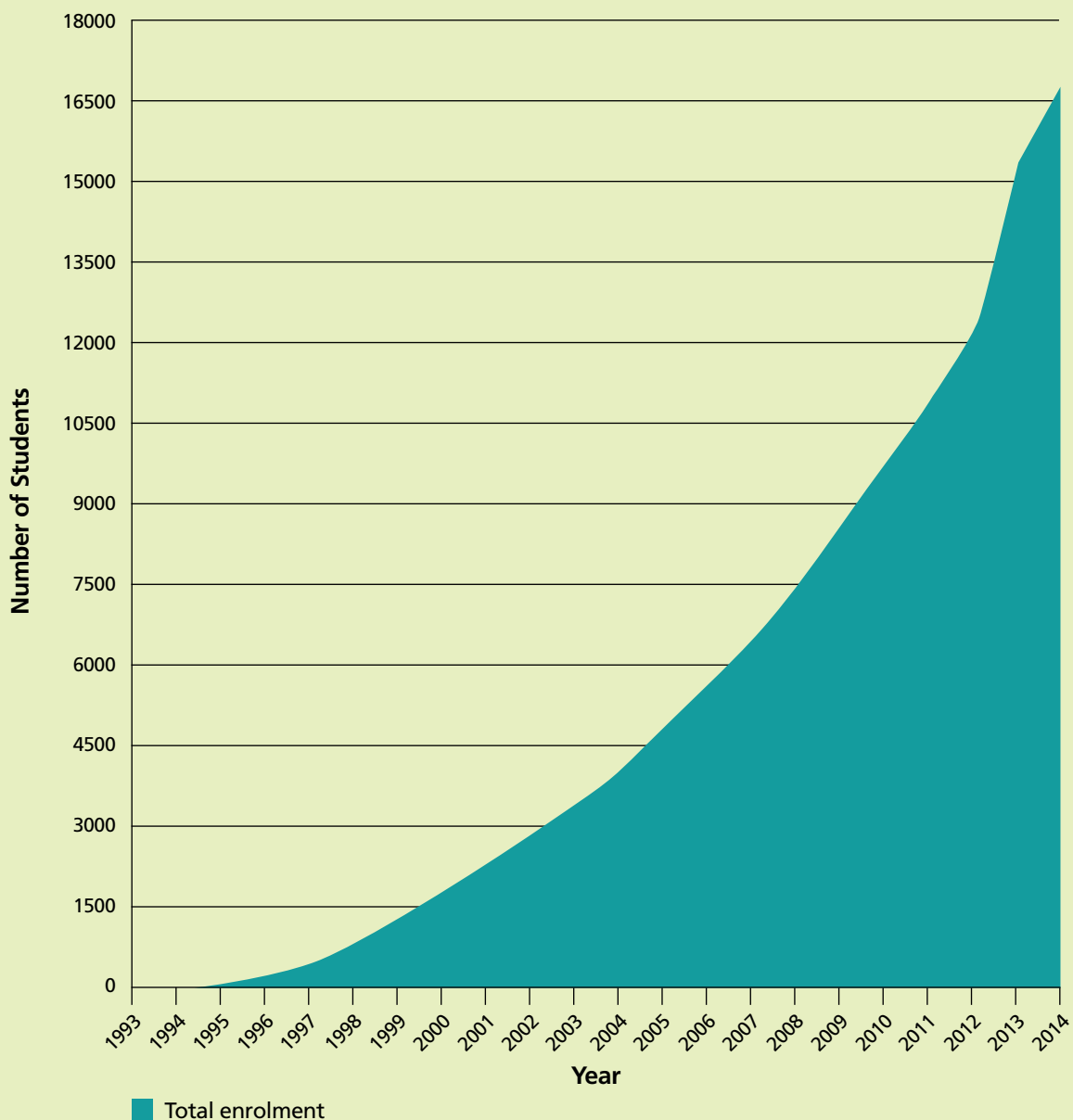
- The intended product of an educational programme in relation to the needs of Malaysian society;
- Admissions and student selection
- Curricular exit outcomes; syllabus content and its organisation
- Educational strategies and methods employed in the operationalisation of curricula
- Assessment principles, strategies and methods, and the alignment of assessment with content and instructional formats
- Communicating curricula to their stakeholders, including student and teachers
- Curriculum management, quality assurance and evaluation
- Student support mechanisms and issues relating to student welfare
- Faculty development in education and in educational research
- The university learning environment and climate, e.g. research and scholarship orientation, co-operative or competitive orientation

The Committee may also help address issues raised by the Academic Council with respect to these or other matters. PEAC normally holds one main meeting a year and undertakes assigned tasks, which in the recent past have been curriculum or other reviews. In 2014, reviews were conducted on the Psychology Programme (May); and the MBBS Programme (July). PEAC also conducted a University wide review of learning through social accountability, in October. The annual main meeting, also in October, discussed a number of matters and received responses to recent reviews:

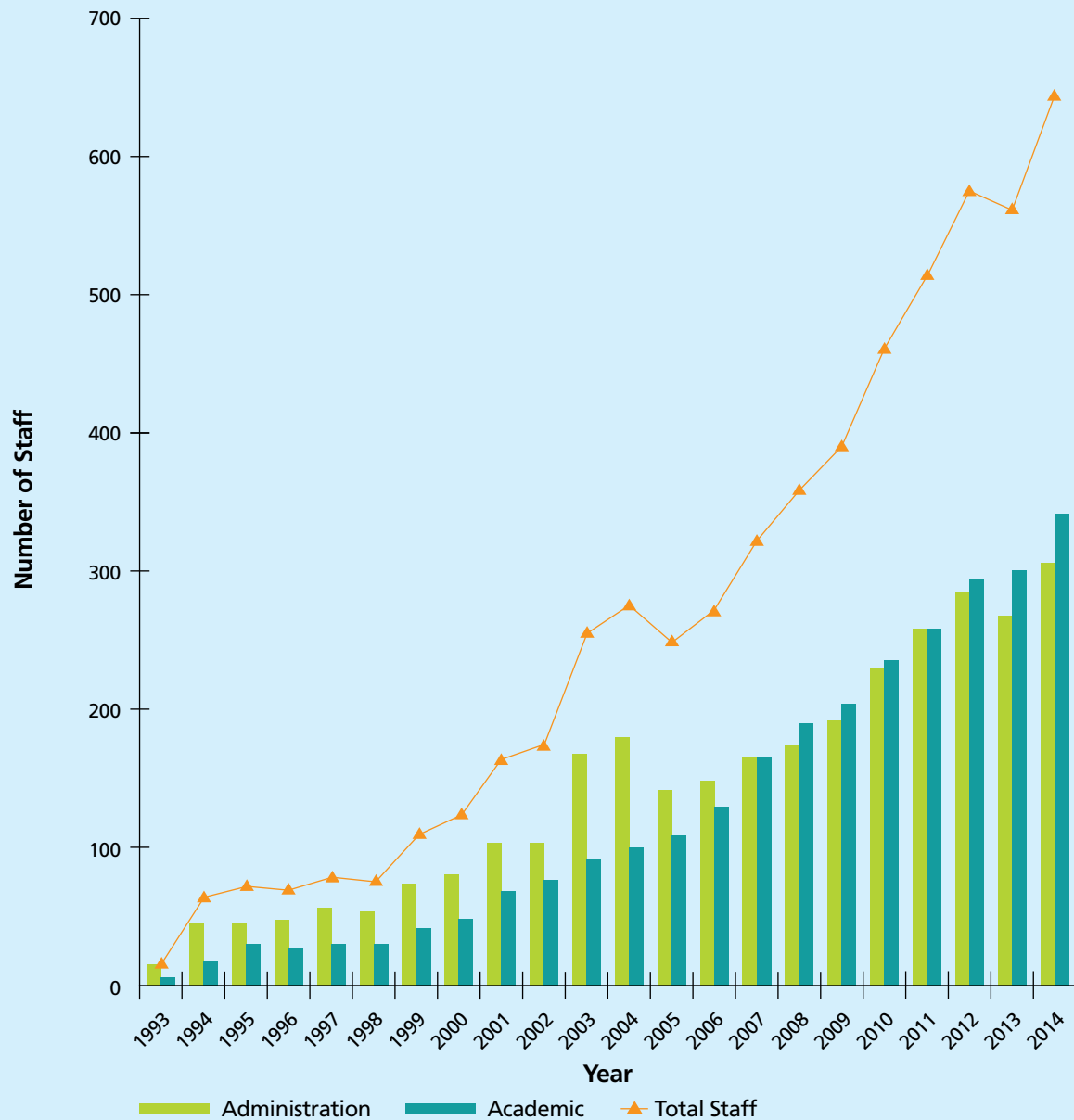
- Quality templates for all programmes
- Updates on admissions and enrolment, attrition; staff-to-student ratios; and faculty development
- Issues related to student professionalism
- Response on the review of assessment
- Report on the review of learning through social responsibility
- Responses on the reviews of Nutrition & Dietetics; and Dentistry
- Report and response on the reviews of Psychology; and the MBBS Programme
- The strategic plan to transform the Clinical Skills and Simulation Centre (CSSC)
- New areas of quality improvement

Output, recommendations or conclusions from this meeting have been circulated for action, and the 2015 PEAC main meeting will consider updates and progress.

# Student Population (1993 – 2014)



## Staff Population (1993 - 2014)



# University Day 2014



University Day is celebrated every year to commemorate the highly significant milestone when the International Medical College (IMC) was granted university status in 1999. Achieving university status bestowed prestige to this very young institution and allowed us to offer our own degrees. This meant that potential students, especially Malaysians, had the option of completing their medical degree entirely in Malaysia at a private medical university, or overseas at a Partner Medical School. Although the invitation to form a university was dated 4 February 1999, it has been customary to celebrate University Day in March or April, because February is usually a critical time for examinations in some of our Schools, in particular the Clinical School. In 2014, University Day was celebrated on Friday, 11 April, followed by Health Awareness Day on Saturday, 12 April.







University Day 2014 (UD2014) was attended by IMU staff, students, alumni and some members from the Board of Governors and the Board of Directors. One of the highlights was a talk by the immediate past Chancellor, YBhg Dato' Seri Dr T Devaraj, entitled *Snippets from a Doctor's Odyssey*. This talk was followed by a video presentation in which Deans highlighted key achievements by students and staff. President, YBhg Tan Sri Dato' Dr Abu Bakar Suleiman, delivered his annual evaluative address on the State of the University. This was followed by the presentation of the President's Report to Dr Mei Ling Young, the Executive Director of IMU Education.

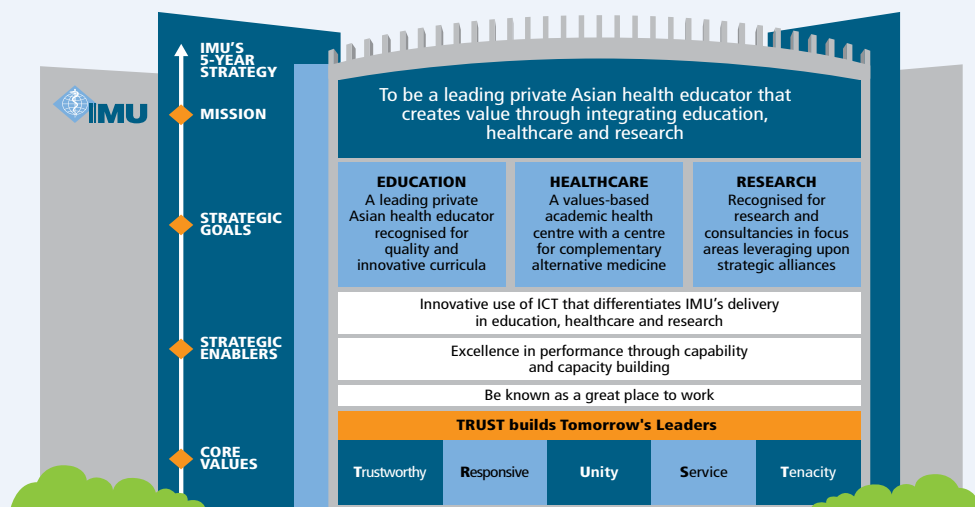
Students who won the 2013 Aflame Student Award gave a speech and there was a cheque presentation ceremony to the non-governmental organisation that had been nominated by the winner to receive a donation. This was followed by the presentation of Long Service Awards to individuals who had served the University for periods of 10 to 20 years. Individuals also received Achievement Awards in various categories such as for teaching excellence and for research.

Faculty members who had completed the Basic Teaching License received their certificates from the President.

The Annual Health Awareness Days are opportunities for members of the public to obtain information and advice about health matters. The overarching purpose is to increase public awareness of common health problems and to provide useful information and strategies on how these may be prevented or detected. We made available complimentary screening in a number of areas. Typically these include oral health checks; blood glucose and cholesterol measurements; estimation of Body Mass Index and body fat percentage; dietetic counselling; blood pressure and resting pulse measurement; spinal examination; counselling on stress management and smoking cessation; and complimentary consultations with our traditional Chinese medicine practitioners. The 2014 Health Awareness Day saw a good number of visitors.

# Strategic Plan: ASPIRE

ASPIRE has completed its fourth year of implementation, with the successful execution of larger initiatives and the transfer of ownership of these initiatives to operational leaders. The focus of activity has evolved into monitoring and review. This phase is vital for ensuring sustainability and for ongoing assessment and evaluation. Notable highlights from ASPIRE in 2014 are summarised below.



## EDUCATION

With the launch of the Foundation in Science programme, the University has diversified into a new segment, pre-university education. In its inaugural year the Programme exceeded expectations by enrolling more than 220 students. The Programme is critical to our strategy of developing a new feeder channel for our first degree programmes, and enhancing the assimilation of pre-university students into the University.

In Nursing, the International Medical College (IMC) which joined the university group in 2012, continued in its development by extending graduate mobility internationally. Nine IMC diploma holders were recruited by the Acibadem Hospital group in Turkey, for the Maslak and Kadikoy Acibadem Hospitals. All nine individuals underwent a stringent interview process, and undertook an intensive five months of Turkish language classes before taking the National Turkish Language Proficiency Exam.

In 2014 the Student Mobility Programme, formalised in 2012, enabled 97 of our students to undertake periods of study outside Malaysia; an increase from 73 students in 2013. The Programme is aimed at providing different learning experiences, and broadening students' horizons by enabling them to get educational experience abroad.

## HEALTHCARE

IMU Healthcare extended its services with the IMU Dialysis Centre in Sri Petaling commencing operations in September. The Centre has been established as a joint venture with Singapore based Advance Renal Care (Asia) Pte Ltd, which operates and manages the Centre and others like it in the Asian region. IMU Healthcare continues to offer medical, oral health, chiropractic and chinese medicine services at the Bukit Jalil facility, and chiropractic services in SetiaWalk, Selangor. The continuing expansion of IMU Healthcare is detailed elsewhere in this President's Report.

## RESEARCH

Since its establishment in 2012, the Institute of Research, Development and Innovation (IRDI), has provided a range of testing and consultancy services under its Commercialisation & Support Arm. These services include the analysis of chemical and

biological contaminants in environmental samples, and in food and cosmetic products. IRDI also conducts biological assays and undertakes contract research in specialised areas. On 23 May, the Research Laboratory attained ISO/IEC 17025:2005 accreditation. This is an international accreditation standard for laboratories offering testing and calibration services. This achievement enhances the competitiveness of the Institute in offering laboratory testing and research consultancy.

## KEY ENABLERS

As part of the initiative to attain operational effectiveness and excellence, the administrative team embarked on an organisation-wide business process improvement exercise in 2013 through the implementation of IT business applications. Following the launch of the Student Lifecycle Information Management (SLIM) system in December 2013, the Finance Information Technology (FIT) System was rolled out in September 2014. This exercise aims to increase productivity and enhance efficiency to better serve our students.

Following the Strategic Plan Mid-term Review at the end of 2013, the team has conducted studies and engaged various stakeholders in preparation for the formulation and validation of the next Strategic Plan. The aspirational goal is IMU's leadership in healthcare education.



# 2014 Highlights

## 1 January 2014

The appointments of YBhg Dato' Dr Amir Abbas as the University's fourth Chancellor, and YBhg Dato' Dr Gan Ee Kiang as its Pro-Chancellor.



## 6 September 2014

The second Convocation of the year, we celebrated the graduation of the first cohort to undertake the Masters programme in Analytical and Pharmaceutical Chemistry.



## 6 January 2014

We welcomed more than 50 students – the pioneer cohort – into the Foundation in Science Programme. This is the first pre-university programme to be offered at IMU.



## 23 May 2014

The Research Laboratory received accreditation, under the International Standard ISO/IEC 17025:2005, for 3 years.



## 26 February 2014

We received the certificate of accreditation for our Pharmaceutical Chemistry Programme from the Royal Society of Chemistry at a ceremony at the Bukit Jalil campus.



## 14 June 2014

The new Chancellor and Pro-Chancellor were officially installed, at the Convocation. The Convocation also saw the graduation of our first cohort from the Chiropractic Programme.



## 20 September 2014

We raised RM171,764 at the annual Charity Carnival & Run. This year all the proceeds were donated to four beneficiaries: Pertubuhan Hospice Negeri Sembilan, Pusat Penjagaan Kanak-Kanak Cacat Taman Megah, Dignity for Children Foundation, and the IMU Cares Disaster Fund.



[illegible]

# Education

---

## Centre for Pre-University Studies

### Foundation in Science Programme

#### Introduction

In 2014 the Foundation in Science Programme enrolled three cohorts of students, totalling 208 individuals. The first cohort of students completed the programme in December, with 17 out of 48 students obtaining distinction. The Malaysian Qualifications Agency accredited the programme in September. The auditors' report was positive with some minor recommendations, which included a curriculum review. This was undertaken and the revised curriculum was endorsed by the Senate in December.

#### Developments in Teaching, Learning and Assessment, including e-Learning

Faculty participated in e-Learning workshops and other training organised by the e-Learning Department and by the Centre for Education. Most members of faculty have undertaken the Fundamentals of Teaching and Learning course. Faculty have introduced summative online quizzes as part of in-course assessments. The e-Learning portal continues to be used as a major channel of communicating programme information to students, and for discussions with students. The programme's e-Learning champion conducted a sharing session during the University's e-Learning Festival.

#### Student Progress and Achievement

The first cohort, enrolled in January 2014, has completed the programme, and has demonstrated outstanding achievement – 17 out of 48 students obtained distinctions, that is a cGPA of 3.7 or greater.

As part of their Cross Boundary Studies, students participated in two IMU Cares events, with donations and contributions made to Pusat Perjagaan Kanak-Kanak Cacat Taman Megah. One of these events was a donation drive, whilst the other was an environmental awareness campaign, involving collection of recyclable material by students. A third IMU Cares event was

organised by faculty and students of the programme: 'The Magic Moment', a movie screening for 106 children from 6 children homes. FiS students also participated in the IMU Cup, taking part in various sports events for the houses they represented.

#### Programme Expansion

The programme anticipates a 10% growth in student numbers in 2015.

---

## School of Medicine

#### Overview

In 2014, the School of Medicine celebrated the 15<sup>th</sup> anniversary of the inception of the MBBS programme. Various celebratory events throughout the year included continuing professional development activity, Anniversary Dinners, and major contributions to community service under the IMU Cares Programme.

At the PEAC Review of the MBBS programme in June, reviewers were impressed with the excellent facilities available for clinical skills teaching, with easy access for students wishing to practice their skills. The panel made constructive comments on assessment, on preparation of students for clinical training, and the curricular mapping of ethics, professionalism and patient safety. The review concluded that the MBBS programme has made good progress, and that it is on par with the best programmes in the world.

#### Developments in Teaching, Learning and Assessment

The Malaysian Qualifications Agency and Malaysian Medical Council re-accreditation visit will take place in March 2015. Accreditation documentation was completed in a series of faculty meetings and workshops, and the final document was submitted in October.

## Education

---

In response to PEAC recommendations, the School has ensured that content relevant to ethics, professionalism, and patient safety is signposted to students throughout the course. This move is also part of the development of the curriculum database.

Other major developments included:

1. Revision and review of the learning objectives of the Foundation block in Semester 1. This review includes the re-sequencing of some topics, and the revision of lesson objectives.
2. Review of the appropriateness of instructional formats for subject content, such as the suitability of existing i-lectures with respect to the topics covered. In general, the utility of i-lectures has been emphasised, and the use of interactive formats for more difficult content, to ensure conceptual understanding and accuracy of understanding. Module coordinators and content experts have reviewed the appropriateness, number and level of expected learning outcomes.
4. Problem based learning worksheets have been revised to encourage wider, more holistic exploration of learning issues, rather than a narrower focus on the search for a diagnosis. This is especially applicable to students in lower semesters.
5. Initiatives aimed at better preparation for the transition to clinical learning. The second and third cohorts of students undertaking the revised curriculum have completed Semester 5 (the end of the pre-clinical phase). Based on feedback from students, teachers and external assessors, the modules of Semester 5 have been re-structured to improve clinical skills, including ability to take a more complete history, to integrate clinical findings, to improve clinical reasoning, to improve ethical reasoning and communication skills. A two-day Enrichment Course was conducted for students transferring to the Partner Medical Schools to better prepare them for transfer.
6. The review of assessment following the PEAC Assessment Review in October 2013, and the PEAC Review of the MBBS in June 2014 has produced proposed revisions, which if accepted will be implemented in 2015.
7. Core competencies for MBBS students have been identified, including competencies needed to ensure patient safety. A tool for continuous self-assessment has been developed to enable earlier identification of under-performing students. Following a pilot study in 2013, the self-assessment of competencies has been introduced for students in Semesters 1 and 5 in 2014.
8. The degree of integration of e-learning into the medical sciences curriculum has been evaluated using an e-learning template. Data from this evaluation will inform the direction and implementation of e-learning. Apart from formative assessments, the summative assessments of the Forensic module in Semester 5 have been conducted online since the module was introduced in 2012. A functional database of all module guides is also being built. This will help track module guide changes.
9. The Medical Museum working group continues to work on 'digitising' its learning resources to enable off-site (i.e. online) use. The QR code project is part of this major effort, and is being undertaken by the Anatomy Department. The on-going development of online fixed learning modules is being led by the Department of Pathology. A Virtual Medical Laboratory is being developed using the Storyline software. This project is expected to complete in 2016.
10. A retreat was held to enhance integration of faculty from the different campuses and to discuss common concerns such as the monitoring of student competencies, professionalism and ethics; medico-legal issues; disciplinary issues and patient safety. A SWOT analysis of the School of Medicine was also carried out.

## Education

---

11. In the e-Learning Festival in November, Medical Sciences presented various posters and held a demonstration of the utility of QR coding, for example when applied to Medical Museum learning resources. The application of e-learning to teaching and learning in the medical sciences was presented to PEAC, and their recommendations are being incorporated into the e-learning strategic plan for 2015-2016, which was discussed at an e-learning retreat in late 2014.
12. At the Clinical School, progress in e-learning included:
  - Availability on the e-learning portal of the Phase 2 curriculum overview; module study guides and curriculum maps; a guide to clinical competency
  - Just in time teaching
  - I-lectures and online self-assessment of clinical competencies for all semesters.
  - Online rubrics for Semesters 6 & 7 written assignments
  - Online interactive OSCEs
  - The availability of sample questions in all assessment formats, using selected or constructed response items, for Semesters 6 through 9.

### Collaborations

Two new medical schools joined the partner school consortium: University of Wollongong in New South Wales, Australia and the University of Exeter in England.

In the revised curriculum, students have periods of early clinical exposure in every semester. These periods include a nursing week, general practitioner visits during system modules, and clinical rotations. The hospitals used for early clinical postings include Hospital Tuanku Ja'afar, Hospital Port Dickson, Hospital Kuala Kubu Baru, and Hospital Gombak. Students also visit community health clinics (Klinik Kesihatan), general practice clinics, the National Kidney Foundation dialysis centres and the National Blood Centre. Semester 5 students undertake a 3-week placement at Hospital Batu Pahat or at Hospital Kluang.

Faculty members continue to contribute significantly to clinical services in all the hospitals and Klinik Kesihatan used for clinical teaching. In addition to those already listed, these include Hospital Tuanku Ampuan Najihah Kuala Pilah and Hospital Sultanah Nora Ismail Batu Pahat. The University continues to collaborate with the Ministry of Health in clinical and educational research.

### Enhancement to Clinical School Facilities

The café at the Clinic School in Seremban has two new caterers. Homemade gelato is now available, as are more traditional chicken rice, noodles and soups. The multi-purpose area has been upgraded with increased sitting capacity and better lighting. The Library of the Batu Pahat Clinical School has been extended to accommodate the now larger cohorts of Semester 10 and Semester 5 students on clinical posting. A toilet and shower have also been added, and are particularly valuable for after office-hour use. At the Clinical School in Kluang the Student Activity Corner has been renovated and is the new recreational space for students.

### Student Progress and Achievements

Pre-clinical students are progressing well in all semesters, using the revised curriculum. Both Parts of the First Professional Examination were run successfully for the second cohort of students to undertake the revised curriculum. Feedback from external examiners on the quality and conduct of the examinations, and student performance, was generally good. The Clinical School is continuing to support increasing student numbers and to undertake clinical training well. Teaching and learning are progressing well in all semesters with average total student numbers of 480 per semester. The Final Professional Examination was held in February (Part 1) and in August (Part 2). The pass rate in Part 1 was 91.4%, and in Part 2, 89.7%. Feedback from external examiners regarding the conduct, quality of the examinations and performance of the students was generally good.

## Education

9 March	7 <sup>th</sup> Annual IMU Family Medicine Clinical Skills Course
15 & 22 February 8 & 22 March	4 <sup>th</sup> IMU – MAFP / FRACGP Part 2 Examination Preparatory Course
28 May	Clinical Education – Balancing Responsibility to Students and Society A seminar by Emeritus Prof Ed Peile
11 June	Update on Sleep Disorders by Dr Avinesh Singh Bhar, IMU Alumnus
21 June	Medico-Legal Forum In collaboration with Hospital Enche' Besar Hajjah Khalsom, Kluang
4 July	Assessment Blueprinting. A workshop by Prof Karen Mann
12 – 14 September	MRCP PACES Preparatory Course 2014
15 October	Postnatal Depression and Puerperal Psychosis by Dr Sivakumar Appan, IMU Alumnus
30 October, at Kluang	Bioethics Forum: Environmental Health Protection and Sustainable Development
19 November, at Batu Pahat	Medico-Legal Forum In Collaboration with Hospital Sultanah Nora Ismail, Batu Pahat
3 December	Urology in the 21 <sup>st</sup> Century and the Future of Surgical Training by Dr Surayne Segaran, IMU Alumnus

Clinical school student achievements in 2014 included:

- Khor Kai Lin and Yip Swee Yan won the gold medal in table tennis at the Nottingham Inter-University Friendly Match, Khor Kai Lin, Yip Swee Yan, Lim Zhi Kai, Chung Luo Bin, Selina Tee Sze Meng were the champion team in table tennis at the Medic Intervarsity Games 2014.
- Medical students won a number of Gold, Silver and Bronze medals in the MAPCU Track & Field Events 2014.
- A video on the IMU Cares adopted Kg Sebir produced by Andrew Moi won Third Prize at the Talloires Network Leaders Conference in Cape Town, in December.
- The top three teams at the Negeri Sembilan Research Day in October at Hospital Tuanku Ja'afar were Michelle Teo Jia Hui, Gan Teik Yiap, Joanne Thing, Then Siaw Ling and Valentine Anderson (Team 1); Siti Aishah bt Mohd Yusof, Ahmed Ikhwan bin Mohamad and Lau Kit Mun (Team 2); and Noor Hazirah binti Ahmat and Farah Syazana bt Ahmad Shahabuddin (Team 3)

- Semester 7 student Chen Lian Ee is to be commended for her long service with the St John's Ambulance Malaysia. Lian Ee participated in Grand Prior of the Order of St John Ambulance (2008); is a recipient of the 5-Year Service Medal (2012) and the Pingat Jasa Terpuji (2013). She now serves as Area Staff Officer for Kawasan Selangor Selatan.

### Continuing Professional Education & Development

A healthy number of events were organised and conducted in 2014:

### Faculty Strength and Achievements

The School's continuing recruitment drive for faculty has added a significant number of members to achieve a staff student ratio of 1:12. The total full-time faculty strength in Medical Sciences is 70, with a student population of 910. The Clinical Schools have 57 full-time faculty members, 25 visiting lecturers and 58 honorary lecturers, with a student population of 480. The Clinical Schools faculty target is 84 by the end of 2015.



## Education

---

In 2014, YBhg Prof Dato' P Kandasami was made a Master of the Academy of Medicine Malaysia. Prof Lum SK was the Chair of the Advanced Trauma Life Support Programme in Malaysia, under the auspices of the American College of Surgeons. A/Prof Dato' Nagappan was made a Fellow of the Royal College of Physicians, London.

School appointments in 2014 were:

- Dr Sow Chew Fei; Head of the Clinical Skills and Simulation Centre at Bukit Jalil.
- Prof Esha Das Gupta; Head of the Division of Medicine.
- A/Prof Shar Mariam; Head of the Division of Human Biology.
- Prof Jade Chow; Dean of Medical Sciences.
- Dr Purushotam Krishnappa; Head of the Division of Pathology, replacing Dr Sushela Devi
- Prof Azizi Ayob; Coordinator of the MBBS Programme.
- A/Prof Nazimah Idris; Associate Dean of the Clinical School.
- Dr Sheila Rani Kovil; Head of the Department of Obstetrics & Gynaecology.

### Research and Publications

The School produced 71 papers with a total impact factor of 108.4. Members of School faculty were awarded external research grants to a total value of RM4.2 million.

As part of the MBBS 15<sup>th</sup> Anniversary Programme, the Clinical School successfully hosted the first ever National Medical Undergraduate Research Conference. This two-day conference in October saw the participation of 196 medical students from 8 institutions, with 52 poster submissions. This was the first conference for medical undergraduates to report their research and to learn more about medical research from each other and from experts. The School was a partner in the Negeri Sembilan Research Day, held on 30 October. Prof Abdul Aziz Baba represented the University at signing of the Research Memorandum of Understanding.

### Community Service

The School has continued its strong involvement in the long term community care and service projects coordinated by the IMU Cares Programme. Students and staff at the Bukit Jalil campus contributed to projects helping our adopted villages, orphanages and care homes, including PPRT Kg Muhibbah in Kuala Lumpur, Kg Orang Asli Bukit Kala Gombak, My Father's Home, Precious Children Home in Petaling Jaya, PPRT Kota Damansara and Kampung Orang Asli Serendah. Students and staff of the Clinical Schools have continued to work on the Kampung Angkat Projects in Kg Sebir, Labu and Kampung Parit Lapis, Batu Pahat. They also developed a cancer awareness website, a project promoting adolescent health, and ran a health screening and Cancer Awareness Day at Kluang.

---

## School of Dentistry

2014 has been an extraordinary year for the School of Dentistry, with the introduction of many innovative initiatives to strengthen the BDS programme. Students and staff have won University awards, at scientific meetings and professional competitions.

### Developments in the BDS Programme

A curriculum review workshop was carried out in May 2014 to modify and map the programme outcomes to the competency outcomes for new dentistry graduates prescribed by the Malaysian Dental Deans Council. At the same time, teaching and learning activities were reviewed in response to feedback from the 2013 PEAC Review. This review helps to align teaching and learning activity that share common subjects (such as cariology and periodontology) across modules. To emphasise early detection of disease and monitoring to keep disease under control, students are taught to incorporate caries risk

## Education

---

assessment and periodontal risk assessment into their patient management.

Initiatives introduced to enhance student learning have received positive student feedback. These initiatives include student-led case-based learning, in which final year students use cases they have handled for shared learning with fourth year students. Students also liked the introduction of self-evaluation of their progress and competencies using rubrics available on the e-learning portal. Students submit self-evaluation and their reflections online prior to meeting their staff mentors to discuss their performance and progress, and to plan the way forward. The Professional Practice Assessment has been piloted. In this assessment the professional behaviour of students is evaluated by patients, peers, and School academic and support staff. Student feedback has been positive and after analysis of the pilot data and refinement of the rubrics, the assessment will be implemented as a part of the summative assessment scheme.

### **Peer Review of the Programme by the South East Asia Association for Dental Education (SEAADE)**

Periodic assessment of the educational programme by independent international professional bodies contributes to quality improvement and assurance. Such evaluation provides a critical review of the strengths and weaknesses of the programme.

In December 2014, the School undertook the Peer Review Programme of the South East Asia Association for Dental Education. The panel of reviewers comprised Prof Krassanai Wangrangsimakul, Vice President of the Royal College of Surgeons of Thailand (Chair), A/Prof Grace Ong Hui Lian, Dean of the Faculty of Dentistry of the National University of Singapore (Rapporteur) and Dr Sri Angky Soekanto, SEAADE Council Member and past dean of the Faculty of Dentistry of the University of Indonesia. The panel recognised many good and commendable practices of the School and shared some concerns noted when talking with staff and students. The panel commended the work of the Academic Council; the IMU Learning Model and its domains; the quality and assessment frameworks of the dentistry programme; many of the student-centred learning innovative initiatives; the remit and work of the student-staff committee; the sense of belonging in students and staff; the conducive learning environment, and the IMU Cares Projects. The panel shared a number of suggested solutions to address the concerns raised. Some immediate remedial actions have been taken to address the operational issues noted by the panel.

## Education

### Student Achievements

#### Research

All students carry out a research project in Years 4 and 5, under the Special Study Module. In 2014, a number of students reported their research and patient treatment or community service projects at conferences and several won awards:

<b>6<sup>th</sup> National Dental Students' Scientific Conference, AIMST University, May 2014</b>	
Wong Choon Yong and Gan Shou Wan	An Experimental Study of the Effect of Psychological Interventions on Patients with Dental Anxiety. Second runner-up, oral presentations
Khoo Shun Wei and Wong Yin Mun	Effects of Different Surface Treatment on the Shear Bond Strengths of Composite Resin Repairs. First runner-up, posters
<b>International Association for Dental Research, Malaysian Section</b>	
Wong Choon Yong and Gan Shou Wan	An Experimental Study of the Effect of Psychological Interventions on Patients with Dental Anxiety. The Joseph Lister Award in Oral Disease Prevention
Khoo Shun Wei and Wong Yin Mun	Effects of Different Surface Treatment on the Shear Bond Strengths of Composite Resin Repairs. Junior Travel Award
<b>28<sup>th</sup> International Association for Dental Research, Southeast Asian Division Annual Scientific Meeting</b>	
Melissa Lee Rong and Wong Jhiew Zhan	Formulation and Characterisation of Chitosan Films Containing Gatifloxacin and Efficacy against P. Aureus and P. Aeruginosa. First prize in the IADRSEA / Dentsply Student Clinician Award  Melissa Lee Rong received sponsorship to present her paper at the 56 <sup>th</sup> Annual American Dental Association/Dentsply Student Clinician Research Program in conjunction with the American Dental Association's Scientific Session in Washington, DC in November 2015
<b>41<sup>st</sup> Asia Pacific Dental Students' Congress, 2014, in Phnom Penh</b>	
Wong Yin Mun	Effect of Different Surface Treatments on Shear Bond Strengths of Composite Resin Repair. First prize in the oral presentation category
Wong Choon Yoong	The Effect of Psychological Interventions on Patients with Dental Anxiety. Second prize in the oral presentation category
Wong Jhiew Zhan	The Development of a Local Drug Delivery System Containing Gatifloxacin for Periodontal Disease. First prize in the poster category
Gan Shou Wan	An Experimental Study of the Effect of Combination of Psychological Interventions on Patients with Dental Anxiety. Third prize in the poster category

## Education

### Research Publications

Chong JA; Chew JKY; Ravindranath S, Pau A.  
Clinical Audit Teaching in Record-Keeping for Dental Undergraduates. J Dent Educ. 2014;78(2):206-12.  
Impact factor 1.82

Chua EG, Parolia A, Ahlawat P, Pau A, Amalraj FD. Antifungal Effectiveness of Various Intracanal Medicaments against Candida Albicans. An Ex-vivo Study. BMC Oral Health 2014;14:53. Impact factor 1.34

### Case Presentations

Wong Choon Yong won the first prize in the 3M Fixed Prosthodontic Case Presentation Competition, presenting a case in which he restored aesthetics using fixed prostheses.

In the Dentsply Endodontic Student Case Competition Chow Jun Ving won the third prize for presenting on a challenging root canal treatment he carried out on a molar tooth.

### Community Service Awards

The SEAADE GC Student Prevention Table Clinic Competition is open to all 50 member dental institutions in the Asia Pacific region. Each member institution is allowed to submit only one paper to the competition. At the 24<sup>th</sup> SEAADE Annual Scientific Meeting, Tan Wei Hong and Tham Ru Yueh won the

Second Prize for their project Oral Health Promotion at My Father's Home, a Residential Care Home for the Elderly.

### Staff Achievements

Dr Haider Abdulameer Al-Waeli received the IMU John Simpson Teaching Excellence Award for 2014. Dr Shekhar Bhatia was voted Best Lecturer by students. At the E-Learning Festival in November, A/Prof Muneer Gohar Babar received the E-Learning Guru Award for his services to the development of e-Learning in the University and in the School of Dentistry. At the festival, A/Prof Hanan Omar and Dr Sobia Bilal won the first prize for their project, The Use of Storyline to Develop an Interactive Instructional Manual. An inter-professional learning collaboration between the dentistry and pharmacy programmes was awarded second prize for their poster Collaborative Online Interprofessional Learning. The staff involved were Dr Mari Kannan and Dr Dinesh Kumar (School of Pharmacy), and Dr Sunil Subhash Mutalik, Dr Shahidul Ahsan, Dr Vimi Sunil Mutalik, Dr Shahidul Ahsan and Prof Khoo Suan Phaik (School of Dentistry). At the 24<sup>th</sup> South East Asia Association for Dental Education Annual Scientific Meeting, A/Prof Hanan Omar won the second prize for her presentation on Dental Students' Perceptions of an Inter-professional Learning Experience with Chiropractic Students.

### Presentations

Haider Abdulameer Al-Waeli and Khoo Suan Phaik	Making Clinical Teaching Interprofessional Workshop at the 9th International Medical Education Conference; March 2014, Kuala Lumpur
Haider Abdulameer Al-Waeli	Noninvasive Periodontal and Peri-implant Therapy; What is new and where are we now? at the 24 <sup>th</sup> International Jordanian Dental Conference; October 2014, Amman

## Education

Shekhar Bhatia	Low Risk Minimally Invasive Endodontics Workshop at the 6 <sup>th</sup> National Dental Students Scientific Conference; May 2014, AIMST University
	Revitalise, Regenerate & Rejuvenate the SAF system at the Malaysian Association of Paediatric Dentistry Seminar & Workshop; May 2014, Penang
	SAF System Advanced Technology in Root Canal Treatment at the 25 <sup>th</sup> Malaysian Private Dental Practitioners Association Scientific Convention, August 2014, Kuala Lumpur
Sobia Bilal	Translating Research into Clinical Practice at the 1 <sup>st</sup> Annual Conference of the Pakistan Association for Dental Research, October 2014; Lahore
Khoo Suan Phaik	Stem Cells and Regenerative Medicine In Restoring Periodontal Health in the Elderly at the International Conference on Healthy Ageing; October 2014, Kuala Lumpur
	The Enigma and Dilemma of Neuropathic Pain at the 34 <sup>th</sup> Myanmar Dental Conference and the 15 <sup>th</sup> FDI-MDA Joint Educational Meeting; January 2014, Yangon
Pravinkumar G. Patil	Prosthodontic Rehabilitation of Orofacial Defects: Conventional and Contemporary Practices at the 4 <sup>th</sup> Annual Scientific & General Meeting of the Malaysian Association of Prosthodontists; September 2014, Kuala Lumpur
Allan Pau Kah Heng	The Evaluation of Oral Health Services at the 1 <sup>st</sup> Biennial Malaysian Association of Dental Public Health Specialists Conference and the 5 <sup>th</sup> Annual General Meeting; March 2014, Kuala Lumpur
	An Inter-Professional Care Model for Institutionalised Elders at the International Conference on Healthy Ageing, October 2014, Kuala Lumpur
	Multiple Mini Interviews at the 25 <sup>th</sup> South East Asian Association for Dental Education Annual Scientific Meeting; August 2014, Kuching
Seow Liang Lin	Best Practices in Caries Management at the International Dental and Exhibition Meeting 2014; April, Singapore
	Changing Trends in Caries Management at the 12 <sup>th</sup> Dental Faculty Consortium of Thailand Academic Meeting & Research Presentation, July 2014, Bangkok
Toh Chooi Gait	Mastering the Impression - For Well Fitting Restorations at the 25 <sup>th</sup> Malaysian Private Dental Practitioners Association Scientific Convention; August 2014, Kuala Lumpur
	A Paradigm Shift in Dentistry Using Digital Technology Workshop at Future Innovation and Usage of CAD-CAM in Dentistry; November 2014, Subang Jaya
	Managing Dental Caries Through Early Detection, Monitoring of Risk Factors and Arresting Caries Progression Using Non-Invasive Methods at the 3M ESPE APAC Dental Key Opinion Leader Symposium, September 2014, Minnesota
	Adhesive Restorations – Factors Influencing Long-term Success and Aesthetics. at the 10 <sup>th</sup> FDI-IDA Continuing Dental Education Meeting & Exhibition; November 2014, Surabaya



## Education

---

### **Collaborations**

Two collaborative research projects were implemented with University of Otago, one on aligning and improving problem based learning in cariology teaching. Staff from the School involved in this project include A/Prof Hanan Omar, Dr Pulikkotil Shaju Jacob, Prof Toh Chooi Gait, Dr Haider Abdulameer Al-Waeli and Dr Shahid Mitha. Staff from University of Otago involved include Dr Lyndie Foster Page, Dr Janet Roundtree, Vivienne Anderson and Dr Andrew Tawse-Smith. A PBL expert, Prof Lorna Uden from the University of Staffordshire was also involved in this project. The other project is on the practice of direct pulp capping among dental students and staff in dental schools. The research is being carried out by dentistry students of both universities, and staff involved are Prof Toh Chooi Gait for IMU; and Dr Lara Friedlander and Dr Suzanne Hanelin of the University of Otago.

Another collaborative project of note is with University of Adelaide, on an International Benchmarking Online Programme centred on the development, running and evaluation of student-generated formative assessment tasks using common questions from IMU and Adelaide.

The Royal College of Surgeons of Edinburgh held the Part 2 OSCE examination for Membership of the Faculty of Dental Surgery at IMU. The College was pleased with the popularity of the examination venue amongst candidates from various countries. The examination board was also impressed with the organisation of the examination and have agreed to hold the examination twice a year. School of Dentistry faculty who have been trained as examiners include Profs Toh Chooi Gait, Khoo Suan Phaik, Seow Liang Lin, Allan Pau Kah Heng and Frederick C. Smales. Prof Toh has also been trained as an examiner for the Royal College Diploma in Implant Dentistry.

Profs David Billington (Pro-Vice Chancellor) and Stuart Morganstein (Dean of Dentistry) of University of Buckingham visited IMU in November to discuss the

possibility of the IMU School of Dentistry being their mentor school. This role involves provision of advice and guidance in their planning of the first dentistry programme to be offered by a private university in the United Kingdom. Profs Billington and Morganstein met with University management and staff of the School of Dentistry. They were impressed with the School and found the visit to be very useful. The School has agreed to serve as mentor.

### **Healthcare and Community Service**

2014 has seen a significant increase in patients seeking consultations and treatment at the Oral Health Centre (OHC). In addition a number of charitable homes have been adopted under the IMU Cares Programme. Complimentary dental treatment is provided to home residents by dentistry students using the OHC facilities. Funding of this treatment is in part underwritten by the Malaysian Dental Association Foundation, the Subang Jaya Lions' Club and Khazanah. Five additional dental chair units have been installed in the OHC to cater for the increased number of students who treat patients in the OHC.

### **Planning for Postgraduate Programmes**

A strategic plan to introduce taught postgraduate programmes in dentistry has been developed. Documentation for a proposed postgraduate diploma in implant dentistry have been submitted to the Malaysian Qualifications Agency for approval.

---

## School of Pharmacy

### **Introduction**

The School of Pharmacy conducts three undergraduate courses: the Bachelor of Pharmacy (Hons), the IMU-University of Strathclyde collaborative MPharm programme, and the Bachelor of Science (Hons) Pharmaceutical Chemistry. The School also conducts

## Education

---

two Masters programmes, Master of Molecular Medicine and Master of Analytical and Pharmaceutical Chemistry. Two Masters programmes are in planning to start in 2015: Master in Formulation Science and the Master in Pharmacy Practice.

At the beginning of the year, Prof Yeoh Peng Nam was appointed Acting Dean. She became the Dean in April. She has been ably supported by the Associate Dean, A/Prof Er Hui Meng who held the post until June, when she was replaced by Prof Mallikarjuna Rao Pichika. Five of the Schools' faculty hold University level positions: A/Prof Er Hui Meng is now Associate Dean for Teaching and Learning; A/Prof Kang Yew Beng is Associate Dean for E-Learning; Prof Leong Chee Onn is Head of Cancer and Stem Cell Research; A/Prof Tan Eng Lai is Head of Bioactive Molecules and Drug Delivery; and A/Prof Yiap Beow Chin is the Associate Director of the Centre for Lifelong Learning.

### **Bachelor of Pharmacy (Hons) Programme**

2014 marks the tenth anniversary of the ground breaking BPharm programme, which took its first cohort of students in 2004. The School is celebrating this achievement with a programme of various activities, including a health exhibition, health screening, a series of continuing professional development events, and health campaigns. The celebrations will continue until June 2015. Since its inception the Programme has developed credit transfer options with University of Queensland in Australia and University of Otago in New Zealand. Students in Semester 6 (under the Elective Module) have the opportunity to gain pharmaceutical industrial experience for 6-8 weeks. This year, for the first time the Malaysian Pharmacy Board Pharmacy Jurisprudence examination was held at the University for final year BPharm students, with a pass rate of over 90%. Passing means that these students will not have to take the examination during their registration training year. The Malaysian Qualifications Agency, with the Pharmacy Board, reaccredited the Programme in

November. The accreditation panel congratulated the University on the fulfilment of the Pharmacy Board stipulated staff-student ratio for pharmacy programmes, good facilities, curriculum and quality of teaching. They reminded faculty to be aware of the constant changes in the pharmacy profession and to ensure that the curriculum would train pharmacists relevant to the workplace.

### **Review of the BPharm Curriculum**

Since the Government has re-allowed provisionally registered pharmacists to train in the private sector, the BPharm curriculum has been revised to strengthen content specifically relevant to primary care pharmacy, and to pharmaceutical industry. This year 16 students from the BP111 cohort spent 6 to 8 weeks (May-June) with various companies in Malaysia to gain first hand working experience of pharmaceutical manufacturing and other processes and operations.

Faculty continue to develop and adopt innovations in teaching and learning. A/Prof Kang Yew Beng, Dr Pran Kishore Deb and Dr Wong Pei Se won E-Learning Guru Awards at the University's annual E-Learning Festival. Dr Mari Kannan Maharajan received Second Prize in the poster competition, for his poster on collaborative online inter-professional learning.

### **Transfer students to the School of Pharmacy of the University of Otago**

BPharm transfer student, Yip Lin Fong, graduated with distinction from the pharmacy degree programme at the University of Otago. Lin Fong is now an intern pharmacist in New Zealand.

Credit transfer options to the University of Tasmania and to Curtin University start in 2015, pending approval from the Malaysian Pharmacy Board.

### **25 September: World Pharmacist Day**

For the first time this year, pharmacy students and staff celebrated World Pharmacist Day, as designated

## Education

---

by the International Pharmaceutical Federation, with a ceremony in the Bukit Jalil campus with guest-of-honour, Andrew Tan, Vice President of the Malaysian Pharmaceutical Society. Andrew emphasised the vital role of pharmacists in healthcare systems. The theme for World Pharmacist Day 2014 was "Access to Pharmacists is Access to Health".

### **BPharm Tenth Year Anniversary Programme, 2014 – 2015**

This year the BPharm (Hons) programme is marking its tenth anniversary year with various activities to highlight the pharmacist's role as a healthcare provider. Continuing professional development events, jointly organised by IMU Alumni and the Young Pharmacists Chapter of the Malaysian Pharmaceutical Society, were held throughout the year. The School ran seven other events including an exhibition, health screening, Pharmacy Professional Day and World Pharmacist Day. More anniversary events, including a dinner, are planned for 2015.

### **Collaborative Master of Pharmacy (MPharm) Programme**

The collaborative programme with the University of Strathclyde continued to grow and develop. Eighty-eight students enrolled in 2014. All students continued to perform well in both academic and extracurricular activities. Students took part in various University events, including Chariofare 2014, the Open Days, student cultural events and student club activities. Graduating students are awarded the MPharm degree of the University of Strathclyde. The MPharm curriculum has recently been completely revised following a review by the United Kingdom General Pharmaceutical Council (GPhC). The overarching aim of this curriculum revision was to strengthen its structure and to incorporate experiential learning throughout the curriculum. The revised curriculum was implemented in September 2014. The GPhC visited the School in May to reaccredit the portion of the curriculum delivered in Malaysia. This accreditation will apply

until the last cohort of IMU students transfers to the University of Strathclyde.

In November, the Malaysian Qualifications Agency with the Pharmacy Board conducted the reaccreditation exercise for the MPharm programme. The panel was pleased with the conduct and delivery of the curriculum and the programme.

The Director of the MPharm Programme and the Academic Vice Dean of the University of Strathclyde visited the University to audit teaching and learning in the MPharm programme. Both were delighted with their findings and complimented our staff for their effort and dedication. Several faculty members of the Institute of Pharmacy and Biomedical Science of the University of Strathclyde visited in 2014, including Prof Emeritus Brian Furman, Prof Sandy Gray and Derna Campbell. Prof Leong Chee Onn and Dr Srinivasan Ramamurthy were seconded to Strathclyde to give lectures in basic sciences and pharmaceuticals, respectively.

In 2014, we implemented new experiential learning and personal skills development components in the MPharm, with revisions in the structure of the curriculum involving changes in module sequencing. Collaborations for experiential learning component were initiated with Guardian Pharmacy and Hospital Tuanku Ja'afar in Seremban. Students participated in various extra-curricular activities in and outside the campus. The students also took part in IMU Cares and Open Day activities, Chariofare 2014 and a charity bazaar.

### **BSc (Hons) in Pharmaceutical Chemistry**

The Honours BSc programme in Pharmaceutical Chemistry was accredited by the Royal Society of Chemistry (RSC) in January, for 5 years. RSC accreditation is an endorsement of the quality of the Pharmaceutical Chemistry programme. This accreditation has thus served as a benchmarking

## Education

---

exercise to establish comparability between the programme and other internationally recognised chemistry courses. This accreditation will further enhance the reputation of the programme nationally and internationally. A review of assessment was carried out in several chemistry modules to meet RSC accreditation requirements.

Students in their final year of this programme have the opportunity to undertake laboratory based research work. This year their research produced two conference presentations.

In September the Pharmaceutical Chemistry programme graduated its fourth cohort, PC 1/11, awarding one First Class Honours, eleven Second-Class Honours (Upper Division) and five Second-Class Honours (Lower Division) degrees. For high academic achievement Chong Ming Kang was in the Dean's List and the recipient of Tun Dato' Seri Dr Mohamed Zahir Merit Award. He was also a recipient of the 2014 Institut Kimia Malaysia Graduate Chemistry awards. All graduates of PC1/11 have found employment in the pharmaceutical industry or have registered for postgraduate studies. Two graduates of the first cohort joined the MPharm programme at University of Sydney, have completed Semester 3 with high grades and will complete the programme by end of 2014. They will then be eligible to register and practise as pharmacists in Australia and Singapore.

With RSC, the Pharmaceutical Chemistry Department co-organised the first Joint Malaysia-UK Symposium on Natural Product Chemistry and Drug Discovery, held on 13 December. Four speakers from the United Kingdom and four from Malaysia gave plenary talks at the symposium, which was attended by more than 150 participants. In addition, 50 posters were submitted. ChemCareers Malaysia, an associated event for students, was run on 14 December. Apart from our students ChemCareers also attracted students from other RSC accredited universities such as Universiti

Malaya and Universiti Tunku Abdul Rahman, providing networking opportunities between universities. The events generated useful media publicity about the Pharmaceutical Chemistry Programme.

### **Involvement in the MU Cares Programme**

The IMU Cares Programme of community service continues to provide opportunities for service, learning and research, to improve the welfare of our adopted communities, and promote inter-professional collaborative practise and learning. In 2014 the School of Pharmacy contributed services to eight homes:

1. Taman Megah's Handicapped and Disabled Children's Home
2. Pusat Penjagaan Kanak-Kanak Cacat Klang
3. Rumah Orang Tua Charis
4. Beautiful Gate Foundation for the Disabled
5. Rumah Victory Elderly Home
6. Pusat Jagaan Orang-Orang Kurang Upaya & Terbiar
7. Pusat Jagaan Kanak-Kanak Sayang
8. Rumah Sejahtera Seri Setia

Staff and students also collaborated with staff from other schools to provide care for residents of My Father's Home; the Ti-Ratana Community Centre; and Dignity for Children. Activities included management of medication inventory and storage; educating carers on medication administration; medication administration itself; preparation of medical and medication profiles; monitoring of blood pressure and blood glucose; dental screening and education on dental hygiene. Referrals for treatment were made where needed. Talks about specific areas of self-care were provided, including diabetes awareness, the importance of self-care, healthy eating, personal hygiene and dental hygiene. Many visits also involve interactive activity with residents such as games, other entertainment and morning exercises.



## Education

---

School of Pharmacy participants focus on helping with medication management, such as medication labelling and administration; safe arrangement and storage; identification of time expired stock and its safe disposal; medication inventory management; medication counselling for residents or caregivers, including the importance of medication adherence, and reducing risk for the development of chronic conditions such as diabetes and some cardiac conditions. The preparation of medical and medication profiles for two homes has been partially completed. Donations to homes are in the form of food items, cleaning agents and detergents, first aid materials, shampoo, soft toys, health educational posters, and medication organisers. During the year the School participated fully in other University projects such as health screening events for the Sri Petaling community, with the Malaysian Pharmaceutical Society and at Chariofare 2014.

### **Achievements in Research 2014**

The School of Pharmacy in 2014 obtained research grants totalling RM1,812,350, of which RM1,574,350 or 87% comprised external grants. The external grants were obtained by faculty in Life Sciences (RM756,759), Pharmaceutical Chemistry (RM718,800) and Pharmaceutical Technology (RM98,800). A total of RM238,000 internal grants were obtained by staff from all four departments of the School. A total of 53 BPharm research projects were conducted, receiving RM444,000 of internal funding. A total of 84 publications (50 in ISI journals) and 86 research conference presentations were made by staff.

### **Collaborations: Student Mobility**

The Student Mobility Programme continued to grow. Five students came to IMU from the University of Strathclyde to spend 6 weeks conducting research projects under the supervision of IMU faculty. Twenty-seven IMU students carried out research projects in overseas universities: University of Strathclyde, Glasgow; Robert Gordon University, Aberdeen; Curtin University, Western Australia; Hacettepe University,

Turkey; National University of Singapore; Queen's University in Belfast and University of Copenhagen, Denmark.

### **Research Experience at the University of Strathclyde**

Mai Chun Wai spent six months at the Institute of Pharmacy and Biomedical Sciences of the University of Strathclyde, to carry out his PhD research in molecular modelling. In June he graduated with a PhD in Medical and Health Sciences.

### **Visit by Faculty of Prince of Songkla University, Thailand**

In August, six faculty members of Prince of Songkla University including the Dean of the Faculty of Pharmaceutical Sciences and the Associate Dean for Research and Graduate Studies, visited the School to explore avenues for interactive, multi-disciplinary research between our universities.

### **Consultancy**

The Pharmaceutical Technology Department successfully secured research collaboration with InQPharm which specialises in natural product based dietary supplements and medical devices.

### **AWARDS**

#### **Pharmacy Alumni: Innovation and Technology Exhibition (ITEX) 2014**

The Ipharm team consisting of three practising pharmacists, Lau Dah Yun, Harvey Chow and Raymond Foo, developed Stericase, a self-sterilising mobile phone cover. Stericase utilises UV technology to sterilise the mobile phone automatically when it is flipped close. The team won the Gold Medal in International Invention, ITEX 2014.

#### **13 September: The First National Pharmacy Debate**

In the Pharmacy Debate organised by Cyberjaya University, our pharmacy student team (from Years 2 and 3) competed against teams from seven other universities:

## Education

---

University Malaya, Universiti Sains Malaysia, Monash University Malaysia, Taylors University, Segi University, International Islamic University of Malaysia, and the host university. Our team progressed to the second round.

### **16 – 18 May:**

#### **National Clinical Pharmacy Challenge**

Two teams of Year 4 pharmacy students participated in the National Clinical Pharmacy Challenge at the Universiti Kebangsaan Malaysia (UKM) Kuala Lumpur campus. IMU team A was the first runner-up. The Best Participant Award went to Tiffany Soon Huey Ling of IMU team A. The event was jointly organised by the UKM Faculty of Pharmacy and Persatuan Mahasiswa Fakulti Farmasi.

#### **Continuing Professional Development**

The faculty participated in the organisation and attended many IMU in-house training sessions on teaching and learning, local and international scientific conferences, where they presented papers on their research projects. Four faculty members completed PhD studies in 2014: Dr Anil Tumkur Mruthyunjaya, Dr Piyush Mittal, Dr Mari Kannan Maharajan and Dr Mai Chun Wai. Mr Lim Wei Meng completed his MSc.

---

## School of Health Sciences

#### **Developments in Teaching, Learning and Assessment**

In 2014, three programmes received full accreditation from the Malaysian Qualifications Agency (MQA). The BSc (Hons) Chiropractic received perpetual accreditation; BNursing (Hons) was accredited for 3 years; and BNursing Science (Post Registration) was accredited for 2 years.

All programmes have undertaken curricular revision or review:

- (1) **Medical Biotechnology Programme:** The revised curriculum has been fully implemented. Positive student feedback was received following a trial of the newly designed Objective Structured Laboratory Examination (OSLE). OSLE will be part of the Semester 6 assessment scheme beginning with the MB14 cohort. Other assessment formats have also been reviewed to ensure their validity and reliability, and to assess their impact upon learning, particularly the development of problem solving skills.
- (2) **Biomedical Science Programme:** In accordance with MQA requirements, curriculum revision has increased the credit hours from 123 to 136. OSLE has also been added to the Semester 6 assessment scheme.
- (3) **Dietetics with Nutrition Programme:** The final year clinical training curriculum has been augmented by the introduction of two modules of experiential learning – Dietetics Practicum I & II. A full curriculum review is ongoing and will be completed in March 2015. The new curriculum is to be implemented for the 2015 cohort.
- (4) **Nutrition Programme:** Module development has been completed, and discussion on the implementation of the practicum module is ongoing. A full review of assessment will be undertaken together with the Dietetics with Nutrition programme.
- (5) **Nursing Division:** The curricula for both BNursing (Hons) and the Bachelor of Nursing Science are being reviewed.
- (6) **Chiropractic Division** commenced curriculum review as a response to recommendations from the MQA and the Council on Chiropractic Education Australasia. At the time of writing revisions have included streamlining, removing redundancy, and the inclusion of more reflective content.
- (7) **Psychology Programme:** Curriculum revision is underway as recommended by a Professional Education Advisory Committee (PEAC) internal review. Revisions have so far included enhancement of workplace based learning such as industry placements.

## Education

- (8) **Chinese Medicine Division** is reviewing its curriculum in order to be aligned with MQA requirements. PEAC will review the revised curriculum in 2015.

### E-Learning

The School's two e-learning champions are Wong Pak Fong and Dr David Hannah. All programmes have continued to enhance their use of e-learning.

- (1) Medical Biotechnology has enhanced its teaching and learning strategy through the introduction of flipped classrooms, reflective writing and e-portfolio captured through the MAHARA platform. Online assessment are increasingly used, ranging from online quizzes or tests in earlier semesters to more complex e-assessments requiring deeper analysis and more decision making, in higher semesters.
- (2) The Biomedical Science programme presented a number of posters at the University's e-Learning Festival including Blended Active Learning and The Flipped Classroom with Poll Everywhere.
- (3) The Dietetics and Nutrition programmes will soon complete data input into their curriculum database.
- (4) In the Nursing Division, e-learning is used for academic discussions, reflection, personal and professional development portfolios. Online assessments support teaching and learning activity. The delivery format in the Nursing Science programme is predominantly online.
- (5) The Chiropractic Division has identified areas in which faculty and students need more support in order to effectively use the MAHARA platform.
- (6) Lecture notes and learning resources are now on the new Learning Portal for every module of the Psychology programme. Integrated online tests and i-lectures are also available for some modules.
- (7) The Chinese Medicine programme is planning full implementation of its e-portfolio system in 2015.

### Programme Expansion

A number of plans are in the pipeline

- (1) The Nursing Science Programme will be able to offer face-to-face sessions at IMC Ayer Keroh if the number of candidates from the southern region achieves the break even number.
- (2) In collaboration with Shanghai University of Traditional Chinese Medicine, the Chinese Medicine Division is planning to offer a Masters in Acupuncture.
- (3) The Chiropractic Division is planning to offer a Masters degree in Clinical Chiropractic.

Under the Student Mobility initiative, an undergraduate from the University of Sharjah (United Arab Emirates), undertook a research internship with us in July and August. This student is enrolled in the honours Bachelors programme in biotechnology at her university, and was supervised by Dr Anna Ling and Wong Ying Pei. Enrolment into the Psychology programme is growing: The most recent intake in September 2014 consisted of 33 students, which is the largest single cohort since the programme commenced in 2008.

### Collaborations

The School continues to develop and foster partnerships in industry or the healthcare sector for the benefit of students (experiential learning) and faculty (research).

- (1) The Medical Biotechnology programme works closely with several organisations to enhance teaching and learning, including internship placements. The affiliation with the Malaysian Biotechnology Corporation helps to better prepare students for entry into the workplace.
- (2) Biomedical Science students successfully completed placements in Singapore and Taiwan.
- (3) Staff of the Dietetics with Nutrition Programme are in discussion with private hospitals, non-governmental organisations and community pharmacy outlets to increase the number of placement sites available for final year training.

## Education

---

- (4) The Nutrition Programme is working with its industry and government partners to prepare for the Semester 6 practicum.
- (5) The Nursing Division has signed a memorandum of understanding with the University of Queensland that will allow students to transfer after undertaking the first year of their studies at IMU. The Division is also in discussion with the Universities of Brighton and Swansea in the United Kingdom for a 'two plus two' Bachelor of Nursing transfer programme.
- (6) The Psychology Programme is engaged in a number of collaborations with various organisations to facilitate workplace-based learning.
- (7) The Chinese Medicine Division continues to work closely with Tung Shin Hospital in Kuala Lumpur for final year student clinical placements. The Division also works with the Ti-Ratana Welfare Society for community service. This collaboration helps ensure students achieve the total clinical training credits stipulated by MQA.

### **Student Progress and Achievements**

School of Health Sciences students continue to present at international conferences and meetings. In 2014, three Medical Biotechnology students presented research findings at conferences in Australia and Thailand, and seven students in Nutrition and Dietetics won prizes for their presentations.

For students, graduation signifies the success of reaching the final destination of a long academic journey. Students graduating in 2014 included the inaugural cohort of 28 Chiropractic graduates with four attaining First Class Honours; 9 from Medical Biotechnology; 23 from Biomedical Science; 11 from Psychology; 41 from Nutrition and Dietetics; 14 from Nursing and 8 from Nursing Science. All the Nursing graduates passed the Nursing Board of Malaysia registration examination. More than half of the graduates in Medical Biotechnology have registered to undertake postgraduate studies in Malaysia, and the

remainder have been employed. At the convocations in June and September a number of graduands received awards for high academic achievement. In the Nursing programme, Grace Annabel Tan Shen Yen received the Tun Zahir Merit Award for heading the Dean's List of high academic achievers. Grace Annabel was awarded First Class honours degree.

### **Staff Achievements, Research and Publications**

2014 has been a busy year as we continue to improve our academic programmes, to increase research and publication capabilities, and work professionally as teams with all in IMU and with our stakeholders to move the undergraduate and postgraduate programmes forward. The School will continue to recruit academic and clinical faculty with competence and experience in interdisciplinary education, curriculum development and assessment, and research.

School faculty and students continued their significant contribution to University events. Faculty worked with other Schools to plan and run the International Conference on Healthy Ageing in October. The School made good contributions to the care of communities adopted by the University under the IMU Cares umbrella. These included My Father's Home, PPR Kota Damansara, and Kg Serendah. We participated fully in Chariofare 2014, and in the Open Days held throughout 2014.

2014 has also been a productive year for research funding and publications, with the award of external grants totalling some RM1.5 million, and the publication of 26 papers in indexed journals. Several faculty members are co-investigators with University colleagues and with other universities or research institutes. Faculty conference attendance and presentations continue unabated. Two Nutrition and Dietetics faculty received travel grants for research. From April to July, Dr Tan Seok Shin was a Visiting Fellow at the University of Nottingham in England to carry out research into diabetes and nitric oxide signalling in foetal vessels. Lee Ching Li received a



## Education

scholarship award from The Canadian Obesity Network to attend the 2014 Obesity Summer Boot Camp. Ms Lee was one of only two Malaysian researchers who participated in this international event, which promotes research collaboration and learning among researchers in the field of obesity.

### Nursing

#### Developments in Teaching, Learning and Assessment

The Programme underwent re-accreditation by the Malaysian Qualifications Agency and Malaysia Nursing Board in February; official notification is awaited. A mid-programme review of the curriculum is in progress. This Programme collaborates with the University of Queensland (Australia) for a 3 + 1 programme.

Discussions on offering collaborative (credit transfer) Honours programmes are ongoing with the Universities of Brighton (England), and Swansea (Wales). 2+2 programmes will be offered with the Universities of Brighton and Swansea.

E-learning continues to be integral to teaching and learning activity, particularly for academic discussions, reflection, personal and professional development portfolios, and online assessments.

#### Enrolment, Student Progress and Achievement

At the time of writing, the cohorts enrolled are NU1/14 (6 students), NU1/13 (7 students), NU1/12 (7 students), and NU1/11 (8 students). The 15 individuals of the NU1/10 cohort graduated in September. They have all passed the Lembaga Jururawat Malaysia registration examination. Grace Annabel Tan Shen Yen, awarded First Class honours, also won the Tun Zahir Merit Award for heading the Dean's List of high achieving students. Grace Annabel's classmate Christine Chng won the Third Prize in the Young Investigator's Award at the University's 2014 International Conference on Healthy Ageing. Five NU1/10 graduates participated in The Heart Exhibition 2014 at the Mid Valley Exhibition Centre in Kuala Lumpur in September. This collaborative event

was organised by Heart Foundation of Malaysia, the National Heart Association of Malaysia, Women's Health Organisation and the National Heart Institute Malaysia.

Semesters 5 and 7 students participated in inter-professional learning with students from the Medicine and the Nutrition and Dietetics programmes, at Hospital Tuanku Ja'afar, Seremban. NU1/14 students presented posters at the University's Inter-Professional Week in October.

#### Faculty Development and Achievement

Inthira Purusothaman obtained a Master of Nursing Degree from the Open University Malaysia in December 2013. Nine members of faculty have completed the University's Fundamentals of Teaching and Learning Course.

The faculty ran a conference on research in nursing, The ABCs of Nursing Research, in August. Faculty members served as external examiners to the International Medical College; Sunway Nursing College; Universiti Tunku Abdul Rahman (Bachelor of Nursing Programme); and Universiti Kebangsaan Malaysia (the Master of Nursing Programme). Faculty members are also academic advisors to the International Medical College. A member of faculty was a reviewer for the second of a series of evidence-based guidelines initiated by the Malaysian Infusion Nurse Special Interest Group under the auspices of the Malaysian Nurses Association.

#### Publications and Conference Presentations

1. Chan, JJE & Lim, PH. (2013). Are Malaysian Nurses Working Overtime? Journal of the Malaysian Nurses Association, 9, 12-18.
2. Lai, PK & Hong, PH (2013). Professional Socialisation among the Diploma and Degree Nursing Students in Malaysia. Journal of the Malaysian Nurses Association, Volume 9, 19-30.

## Education

3. Lim Swee Geok & Muhamad Asyraf Muhtar. Why Choose Nursing? at the 5th International Nursing Conference, Surabaya, Indonesia, November 2014.
4. Tang Wai Mun, Pak Fong Wong, Gracia Wong Ling Ya & Goh Pei Ling. Perceptions of Older Adults on Readiness for Discharge after Hip and Knee Replacement Surgeries: A Pilot Study at the 8th Asia Pacific Nurses Convention: Visibility and Versatility Nurses at the Forefront of Care, Singapore, May 2014.
5. Saraswathy, Patricia Matizha, Wong Pak Fong. Development of a Script Concordance Test to Assess Ethical Reasoning Ability (SCT-ERA). The Association for Medical Education in Europe Conference, Milan, October 2014.
6. Chow Suh Hing, Christine Chng & Engelbert Teh Fu Chang. Factors Contributing to Nurse-Patient Communication as Perceived By Elderly Patients in the Medical-Surgical Wards of a Selected Public Hospital, Malaysia. International Conference on Healthy Ageing 2014, International Medical University, October 2014.

### Nursing Science

#### Introduction

The Bachelor of Nursing Science (Hons) post-registration Programme began in 2009. As it caters to working nurses, much of the programme is delivered online, with strategic periods when students meet their tutors and each other, at the University or at other institutions.

#### Developments in Teaching, Learning and Assessment

A curriculum review is in progress. In June the Programme was re-accredited by the Malaysian Qualifications Agency and the Nursing Board of Malaysia, for two years. Student enrolment has steadily increased since the Programme began, and there are now 168 active students:

NS4/11 – 10 students  
NS1/12 – 22 students  
NS2/12 – 30 students  
NS1/13 – 20 students  
NS2/13 – 28 students  
NS1/14 – 13 students  
NS2/14 – 45 students

We have begun collaborating with the Adventist College of Nursing and Health Sciences in Penang, for the conduct of face-to-face sessions for students in the northern region of peninsular Malaysia. We aim to expand the face-to-face session to International Medical College Ayer Keroh if the number of candidates from the southern region warrants a need for this. The Modules, Teaching and Learning I and II were conducted as short courses.

#### Student Progress and Achievement

Students are generally progressing to schedule. As with any distance programme designed for working individuals, a few face challenges of being able to devote enough time to study, particularly in areas where the demands are relatively higher, such as research.

In November, Banu Parmanadan of NS 1/10 gave a research presentation at the Fifth International Nursing Conference, in Surabaya, Indonesia. Her research supervisor is Lim Swee Geok.

#### Staff Achievements

In October, faculty were reviewers for the second of a series of evidence-based guidelines “Insertion and Management of Peripheral Intravenous Cannula in Adults by Registered Nurses (Second Edition)” to be initiated by the Malaysian Infusion Nurse Special Interest Group (MINSIG), under the Malaysian Nurses Association. Faculty have served as external examiners to the Universiti Kebangsaan Malaysia Master of Nursing Programme and to Sunway Nursing College. One staff member is on the Board of Directors of Penang Adventist Hospital.

## Education

### Publications

Ramli, A., Tang W.M., Aung, H.H. (2013). Anxiety And Depression Among the Adult Patients with Chronic Obstructive Pulmonary Disease (COPD) in a Selected Private Hospital in Malaysia. Journal of Malaysian Nurses Association, 9, 1-11.

### Medical Biotechnology

#### Introduction

The Bachelor of Science (Hons) Medical Biotechnology was accredited by the Malaysian Qualifications Agency in 2010. A curriculum revision was carried out in 2012. To better prepare students for entry to the workplace, the Programme has established strong links with the Malaysian Biotechnology Corporation (BioTechCorp). This link also helps to increase awareness of biotechnology, its applications and opportunities in potential students and the public.

#### Developments in Teaching, Learning and Assessment

The revised curriculum has now been fully operationalised. This included the introduction of a formative Objective Structured Laboratory Examination (OSLE) for the MB12 cohort which undertook Semester 5 of the Programme. Post-OSLE feedback helped students identify strengths and weaknesses and helped them formulate improvement plans. OSLE is to be incorporated into the Semester 6 assessment scheme for the Applied Biotechniques and the Community Health modules.

Assessment formats in two modules (Analytical Chemistry for Biotechnologists I and II) were revised to enhance assessment validity and reliability. Online tests are increasingly being used as part of formative and summative assessment schemes. In the earlier semesters, online quizzes are the main format. In the higher semesters (Semester 4 through 6), more complex assessments such as e-posters and online practical tests are used. These require analysis and promote critical thinking. E-learning has been

further enhanced throughout the Programme, via the introduction of 'flipped classroom' in several modules, reflective writing, and online portfolios using the MAHARA platform.

Programme faculty members, Wong Ying Pei, Dr Wong Chiew Yen, Dr Kiruthiga Vijayaraman, Chow Yen Yen, Prof Chin Beek Yoke and Dr Kavitha Mohandas undertook the University's Fundamentals in Teaching and Learning training programme.

#### Student Progress and Achievement

Nine students from the MB11 cohort graduated. More than half of this cohort is now undertaking postgraduate study whilst the remainder have found employment. One student from MB12 transferred to University of Newcastle in Australia, our partner school in biotechnology. Three students from MB11 presented final year research findings at international conferences. Lim Lee Teing and Tan Siew Zhuan presented at the International Association of Plant Biotechnology Congress in Melbourne, Australia, while Ooi Yun Pin presented at the International Conference on Latest Trends in Food, Biological and Ecological Sciences in Phuket, Thailand.

#### Collaborations

The Programme is working closely with industry, research institutes and universities to facilitate various teaching and learning activities embedded in the curriculum. These include internships and placements. Students of the MB12 and MB13 cohorts undertook the Graduate Employability, Adaptability and Reshaping (GEAR) Programme offered by BioTechCorp, an intensive four-day course aimed at enhancing preparation for employment. Interactive seminars, educational visits and focus group discussions on medical biotechnology have been held. In November, faculty and students were invited to participate in BioCareer 2014 held in conjunction with the BioMalaysia and Bioeconomy Asia Pacific 2014 at University Malaya.

## Education

---

Under the Student Mobility initiative, a Bachelor of Science (Hons) Biotechnology student from the University of Sharjah, United Arab Emirates undertook a research internship at IMU, under the supervision of Dr Anna Ling and Wong Ying Pei. International marketing activity by faculty was also initiated this year, with the first destination being Medan, Indonesia.

### Staff Strength and Achievement

Staff helped organise and run the University's Conference on Healthy Ageing, in October 2014. Faculty and students continued to contribute to IMU Cares activities and projects such as IMU Chariofare 2014.

Three members of the faculty, Premdass Ramdass, Wong Ying Pei and Chow Yen Yen continue to progress well in their PhD studies. Early in the year two experienced and highly credentialed researchers joined the faculty, Dr Kiruthiga Perumal Vijayaraman in February, and Prof Chin Beek Yoke, in April. Prof Chin recently returned to Malaysia from the United States, where her career included being a faculty member of the medical schools at Harvard University, and the Johns Hopkins University in Baltimore.

Together with research collaborators from Nuclear Malaysia and Universiti Putra Malaysia, Dr Anna Ling was the silver medalist for an innovation entitled 'Functional Mutant Rice for Diabetes and Obesity' at the Malaysian Agricultural Innovation Challenge held in November at the Malaysian Agricultural Research and Development Institute in Serdang. Dr Ling served as an external examiner for MSc students at Universiti Malaysia Sabah and Universiti Putra Malaysia. In August Ms Wong Ying Pei was a keynote speaker and chairperson at the International Conference on Biological, Environment and Food Engineering in Bali, Indonesia. She spoke on plant-derived products in medical biotechnology.

### Grants

Faculty members were awarded a number of grants related to Flagship Projects, from the Ministry of Science, Technology & Innovation (MOSTI) grant scheme, and under the Fundamental Research Grant Scheme (FRGS) of the Ministry of Higher Education. These grants enable IMU researchers to continue their significant contribution to advancing algal science, particularly in polar conditions.

Dr Wong Chiew Yen was awarded RM827,600 as principal investigator for Physiological and Genomic Responses of Microalgae to Climate Change Across a Global Gradient; and RM785,591 for Impact of climate change: acclimatisation, adaptation and recovery of sea-ice algae in extreme environments, as a co-investigator.

Dr Kok Yih Yih was awarded RM819,902 for project entitled Biomarkers of polar and lower latitudes microbes in relation to heavy metal stress, as a co-investigator. Dr Wong Chiew Yen and Dr Kok Yih Yih received RM100,000 for 'Assessment of the Combined Effects of Nutrient Enrichment and Pesticide Toxicity on various Biomarkers in Microalgae'.

### Publications

1. Woon, S.M., Seng, Y.W., Ling, A.P.K., Chye, S.M., & Koh, R.Y. (2014). Anti-adipogenic effects of *Ficus deltoidea* var. *deltoidea* and var. *angustifolia* on 3T3-L1 adipocytes. *Journal of Zhejiang University SCIENCE B*, 15(3):295-302.
2. Law, B.N.T., Ling, A.P.K., Koh, R.Y., Chye, S.M., Wong Y.P. (2014). Neuroprotective effects of orientin on hydrogen peroxide-induced apoptosis in SH-SY5Y cells. *Molecular Medicine Reports*, 9:947-954.
3. Kok YY, Chu WL, Phang SM, Mohamed SM, Naidu R, Lai PJ, Ling SN, Mak JW, Lim PKC, Balraj P, & Khoo ASB. (2014) Inhibitory activity of microalgal extracts against the expression of Epstein-Barr virus

## Education

(EBV) antigens in lymphoblastoid cells. Archives of Biological Science, Belgrade, 66 (3): 1009-1024.

4. Yee MWL, Khiew PS, Tan YF, Kok YY, Cheong KW, Chiu WS, & Leong CO. (2014) Potent antifouling silver-polymer nanocomposite microspheres using ion-exchange resin as templating matrix. Colloids and Surfaces A: Physicochem. Eng. Aspects. 457: 382–391.

### Presentations

1. Lai JWS, Wong CY, Lim PE and Phang SM. Comparison of photosynthetic response of Antarctic and tropical *Chlorella* subjected to acute UVR stress. World Conference on Marine Biodiversity, Qingdao, China. October 2014.
2. Wong CY, Lim AJP, Chu WL and Phang SM. Effects of Lindane on the Growth and Photosynthetic Performance of Antarctic, Arctic and Tropical *Chlorella*. SCAR Open Science Conference, Auckland, New Zealand. August 2014.
3. Kok YY, Ng AYY, Chu WL, Leong CO. Toxic effects of functionalised single-walled carbon nanotubes on two marine microalgae. The 2<sup>nd</sup> International Conference on Contaminated Land, Ecological Assessment and Remediation, Chuncheon, South Korea. October 2014.
4. Wong YP, Voon KGL, Koh RY, Mohd Lila MA, Hussein S, Mohamed SM, Ling, APK. Effects of antibiotic selective agents on *Centella asiatica* callus prior to *Agrobacterium tumefaciens* transformations. International Association of Plant Biotechnology Congress, Melbourne, Australia. August 2014.
5. Wong YP, Ng RC, Chuah SP, Koh RY, Ling, APK. Antioxidant and xanthine oxidase inhibitory activities of *Swietenia macrophylla* and *Punica granatum*. International Conference on Biological Environmental and Food Engineering, Bali, Indonesia. August 2014.
6. Chong YH, Koh RY, Ling APK, Chye SM, Yew MY. *Strobilanthes crispus* extract induces apoptosis through enhanced caspases activities in cervical cancer cells. International Conference on Biological Environmental and Food Engineering, Bali, Indonesia. August 2014.
7. Ling, APK, Khoo BF, Seah CH, Foo KY, Cheah RK, Chye SM, Koh RY. Inhibitory activities of methanol extracts of *Andrographis paniculata* and *Ocimum sanctum* against Dengue-1 virus. International Conference on Biological Environmental and Food Engineering, Bali, Indonesia, 4-5 August 2014.
8. Lim LT, Koh RY, Wong YP, Ling APK. Anti-inflammatory effects of methanol extract of *Hylocereus undatus* on lipopolysaccharide stimulated RAW 264.7 macrophages. International Association of Plant Biotechnology Congress, Melbourne, Australia. August 2014.
9. Tan SZ, Koh RY, Wong YP, Ling APK. Investigating anti-inflammatory property of canarium odontophyllum on Lipopolysaccharide stimulated RAW 264.7 macrophages. International Association of Plant Biotechnology Congress, Melbourne, Australia. August 2014.
10. Ooi YP, Koh RY, Wong YP, Ling APK. An Investigation of anti-inflammatory properties of methanol extract of *Syzygium malaccense* on lipopolysaccharide-stimulated RAW 264.7 cells. International Conference on Latest Trends in Food, Biological and Ecological Sciences, Phuket, Thailand. July 2014.
11. Kadar AI, Hussein S, Harun AR, Mohd Saaya F, Ling APK, Koh RY, Ibrahim R, Abdul Rahim K, Khamis S, Yusop MR, Tanaka A. Yield traits, physico-chemical characteristics and nutritional composition of MR219 M3 generation and its effect on glycemic index and responses in animal model. Malaysian Nuclear Agency R&D Seminar, Bangi, Selangor. October 2014.
12. Hussein S, Ling APK, Harun AR, Ibrahim R. Mutation breeding of rice for sustainable agriculture. Forum for Nuclear Cooperation in Asia (FNCA)- Mutation breeding project, Jakarta, Indonesia. March 2014.



## Education

---

### **Dietetics with Nutrition**

#### **Developments in Teaching, Learning and Assessment**

The programme reviewed the implementation of the final year clinical training by introducing two modules, Dietetics Practicum I & II. These modules incorporated the mobility aspects aimed at enhancing experiential learning. At the time of writing, a full curriculum review is on-going, and is to be completed by March 2015. The new curriculum will be operationalised beginning with the 2015 cohort. All information pertaining to the modules has been provided to enable input into the e-Learning implementation template.

Discussions are on-going with private hospitals, non-government organisations and community pharmacies to increase the placement sites for final year training.

#### **Enrolment, Student Progress and Achievement**

This year, the BSc (Hons) Dietetics with Nutrition programme enrolled its seventh cohort, of 80 students. In September 2013, 41 students of cohort ND1/10 graduated. This cohort has done well: two individuals were awarded First Class Honours and their classmates all achieved Upper Second Class Honours. Aaron Ang won the Leadership in Dietetics book prize, and Charmaine Lavinia the Best Clinical Dietetics book prize.

Three students from cohort ND1/11 used the break between Semesters 6 and 7 to undertake a month's placement at the Taipei Veterans General Hospital. The cohort embarked upon Semester 7 in July, taking the revised Dietetic Practicum modules. August marked the end of their basic training: The students undertook clinical training at Hospital Tuanku Ja'afar in Seremban, and completed Semester 7 in November. In November 49 students of ND1/12 progressed to Semester 6, and in October, 51 students of cohort DN1/13 progressed into Semester 3, whilst four students from cohort DN1/12 transferred to the University of Newcastle in New South Wales.

In August, Ong Jing Yi, Wong Peh Ying and Gan Shea Yin of ND1/11 won the Recipient of Fellowship Award for presenting their experience on international student mobility at the 6<sup>th</sup> Asian Congress of Dietetics in Taipei. In June, Alex Teoh Wei Jie won the Best Undergraduate Poster in the 29<sup>th</sup> Nutrition Society Malaysia Annual Scientific Conference. Lim Hui Hui won the Best Clinical Case Presentation Competition at the 20<sup>th</sup> Malaysian Dietitians' Association National Conference. Lee Zhi Yee won the 3<sup>rd</sup> Prize in the Poster Competition at the 20<sup>th</sup> Malaysian Dietitians' Association National Conference.

#### **Continuing Professional Development Events**

In May the Division ran a National Level Train the Trainers Workshop for dietetics preceptors. This inaugural workshop was a collaborative effort with six public universities and the support of the Malaysian Dietitians Association. A seminar themed Glycaemic Index: Science and Application was held in November. This seminar was conducted in collaboration with IMU, Universiti Putra Malaysia, Institute of Public Health and Malaysian Endocrine and Metabolic Society.

#### **IMU Cares**

The Nutrition and Dietetics Division participated in five projects under the IMU Cares programme, the beneficiaries of which were PPR Kota Damansara, Ti-Ratana, My Father's Home, Kampung Serendah and the National Autism Society of Malaysia. The Division also contributed to the very successful Chariofare 2014 and helped provide health screening during Health Awareness Day.

#### **Nutrition Week**

Students ran two 'Nutrition Weeks' in 2014. The ND 1/11 cohort launched one in March under the module Nutrition in Health Promotion, using the theme Safe Food Saves Lives. To raise awareness of the often hidden dangers of unsafe food they devised a variety of illustrative activities. The ND 1/12 students launched a second Nutrition Week in August, also under the Nutrition

## Education

---

in Health Promotion module. The theme was Guard against Obesity: Combat and Shield through Nutrition. Once again the various activities were aimed at enhancing awareness of the danger to health of overweight and obesity, and offered dietary and other lifestyle change strategies to prevent and address these dangers.

### Staff Achievements

Prof Winnie Chee Swee Siew was made a Fellow of the Nutrition Society of Malaysia. She also received a University Teaching Excellence Award. For a presentation of her PhD work, Yang Wai Yew won the 2014 Nestle Nutrition Institute Young Researcher Award at the 5th Nestlé Nutrition Institute Symposium. Jamilah Abdul Jamil won the First Prize in the poster category at the International Conference on Occupational Medicine 2014. Kelly Num Sze Fang won First Prize for her poster on dietetics education and research at the 6<sup>th</sup> Asian Congress of Dietetics in Taipei, Taiwan. Dr Tan Sue Yee won the Second Prize for her poster at the Malaysian Paediatrics Haematology and Oncology 19<sup>th</sup> Annual Scientific Meeting. She received a Special Mention in the University's Teaching Excellence Awards. Lee Ching Li received a scholarship award from the Canadian Obesity Network to attend the 2014 Obesity Summer Boot Camp. She was one of only two Malaysian researchers who participated in this international event, which promotes research collaboration and learning among researchers in obesity.

### Research and Publications

In 2014 members of the Division of Nutrition and Dietetics successfully bid for external research funding amounting to more than half a million ringgit, published 5 articles, gave 12 conference presentations and presented 14 conference posters.

Prof Khor Geok Lin was awarded a grant of RM254,875 for Project Bambino from the Fonterra Co-operative Group Limited. Prof Khor is the principle investigator. Prof Winnie Chee received a grant of RM198,000

from Abbott Nutrition for her project 'Efficacy of a Transcultural Diabetes-specific Nutrition Algorithm (tDNA) Care on Weight Loss and Metabolic Outcomes in Overweight and Obese Type 2 Diabetes Mellitus Patients'. Dr Megan Chong Hueh Zan, in collaboration with Drs Lucy Green and Jane Cleal of the University of Southampton, were awarded RM121,000 under the Ministry of Higher Education, Fundamental Research Grant Scheme for a study on Vitamin D, sun exposure and parathyroid hormone. From April to July, Dr Tan Seok Shin undertook a Visiting Fellowship at the University of Nottingham in England to research in the field of diabetes and nitric oxide signalling in foetal vessels.

### Publications

Ghani RA, Shyam S, Arshad F, Wahab NA, Chinna K, Safii NS, Nisak MYB, & Kamaruddin NA. The influence of fasting insulin level in post-gestational diabetes mellitus women receiving low-glycaemic-index diets. *Nutrition and Diabetes*, 2014; 4, eXX; doi:10.1038/nutd.2014.5.

Hejazi N, Huang MSL, Khor GL, & Lee CKC. Hypertension among HIV-Infected Adults Receiving Highly Active Antiretroviral Therapy (HAART) in Malaysia. *Global Journal of Health Science* 2014; 6(2)

Lee CL, Ratnasingam J, Vethakkan SR, Chan SP, & Chee WSS. Caloric restriction with meal-replacements versus conventional food for weight loss: Similar yet different challenges. *Obesity Reviews*, 2014; T5: S25-29.

Shanthi D, Low CH, Lim SD, & Lor JP. Whole grain consumption among adolescents (13-14 years) in Kuala Lumpur. *Malaysia IPCBEE*, 2014; 72(1). ISSN: 2010-4618 ISBN 978-981-1310-6.

Shariff ZM, Sulaiman N, Jalil RA, Wong CY, & Yong HY, Mohd Nasir Mohd Taib; Kandiah M, Khor GL. Food insecurity and the metabolic syndrome among women from low income communities in Malaysia. *Asia Pacific Journal of Clinical Nutrition*, 2014; 23(1): 138-147.

## Education

---

Shyam S, Arshad F, Ghani RA, Wahab NA, Chinna K, et al. Metabolic syndrome, abnormal glucose tolerance and high sensitivity - C-Reactive protein among women with a history of gestational diabetes mellitus. *Journal of Diabetes & Metabolism*, 2014; 5: 424. doi:10.4172/2155-6156.1000424.

Yang WY, Burrows T, Collins CE, MacDonald-Wicks L, Williams LT, Chee WSS. Prevalence of energy intake misreporting in Malay children varies based on application of different cut-points. *Journal of Tropical Pediatrics*, 2014. doi: 10.1093/tropej/fmu052.

Yang WY, Burrows T, MacDonald-Wicks, Williams LT, Chee WSS, Collins CE. Quality of dietary intake methodology and reporting in epidemiology studies examining relationship between dietary patterns and childhood obesity in Asian developing countries: A systematic review. *Nutrition and Dietetics*, 2014; 71: 201–209.

### Nutrition

#### Introduction

This year the BSc (Hons) Nutrition enrolled its second cohort, of 15 students. The first cohort of 7 students successfully progressed into Semester 3. At University Day 2014 the development of the Programme was recognised by an award under the Development of New Programmes category. The Programme is preparing for Malaysian Qualification Agency accreditation, due in March 2016.

#### Developments in Teaching, Learning and Assessment

The module development exercise has been completed, and discussion on the implementation of the practicum (workplace based experiential learning) is currently ongoing. To secure practicum places we are in active discussion with a number of potential partners and collaborators. These discussions will culminate in memoranda of understanding with the Nutrition Division of the Ministry of Health, and industry partners. A review of the programme's assessment

schemes is to be undertaken together with the Dietetics with Nutrition programme. We are preparing curriculum information for input into a database that will allow rapid information retrieval and analysis.

#### Student Progress and Achievement

The cohort NT1/13 commenced Semester 3 in September 2014 and at the time of writing are progressing well. The new cohort, NT1/14, embarked on Semester 1 in September.

#### Staff Achievements Research and Publications

As the faculty of the Division manage and teach into both the BSc Nutrition and the BSc Dietetics with Nutrition programmes, these have been reported together under the latter.

### Psychology

#### Enrolment, Student Progress and Achievement

Enrolment into the Psychology Programme is growing. The most recent intake in September 2014 consisted of 33 students, which is the largest single intake since the programme commenced in 2008. All student cohorts are progressing well, and teaching and learning activity is progressing as planned. Lee Hon Liu, Lim Chinn Ying, Shreas Suresh and Jocelyn Tang of cohort PS1/12 received Merit Awards.

#### Developments in Teaching, Learning and Assessment

The programme curriculum is under review, including enhancing student placements for better workplace-based learning. We have continued to add to the placement sites available, and these now include the National Institute of Mental Health, Angoda, Sri Lanka; Sime Darby, Petaling Jaya; Hospital Lam Wah Ee, Penang; Malaysian Care, Kuala Lumpur; Hospital Kuala Lumpur; and the Women and Children Hospital, Sabah.

The use of the e-learning portal continues to grow. Recent additions to online learning resources include integrated online tests and i-lectures. For example for the module 'Sensation and Perception', Alexius Cheang

## Education

has incorporated an online quiz and student feedback on teaching and learning activities.

### Staff Achievements

Dr Nicole Chen participated in the University's workshops on Providing Effective Feedback, How to Improve Students Self-Assessment and Evaluation Skills, Patient Centred Health Professionals and Leadership in Health Care Professionals. In 2014 she gave several media interviews on 8TV, on providing psychological support to families of the victims of MAS Flight MH370; on AiFM Radio on sexual harassment in educational institutions, and the prevention of child sexual abuse; and the China Press on healing from childhood sexual abuse. Dr Chen is a trainer for student school visits, for the enrichment course for medical students preparing to transfer to partner schools, and for student counsellors in Kuching, Sarawak. She was a panel speaker at the Mental Health Day forum on living with schizophrenia, and a facilitator for the event on expressive art therapy. She was a facilitator at the University's qualitative research event. Dr Chen and Sam Jeng Mun have provided psychological support to MAS staff at KLIA affected by the tragic loss of flights MH370 and MH17.

In January Mr Alexius Cheang gave talks in Indonesia entitled The Fascinating World of Psychology, Choosing the Right Career Pathway, and Understanding Your Teenager Better. He has worked with the Language Department to train English Student Ambassadors; with the student committee members of Chariofare 2014; the Organising Committee of the University's Festival of Arts, and has assisted in the multiple mini (student admissions) interviews. He also gave talks to school counsellors.

Zuhrah Beevi continues to contribute to the clinical services at IMU Healthcare, and helps the Human Resource Department conduct team-building activity for new staff as part of their orientation. She is a trainer for student school visits and assists in the multiple mini interviews. In May she conducted a

workshop at the Conference on Evidence Based Practice in Clinical Hypnotherapy, in London, on evidence for prenatal hypnosis.

Drs Gavin Macdonell and Nicole Chen, and Sam Jeng Mun undertook the IMU Foundation in Teaching and Learning programme. Other faculty members unable to undertake this training because of conflicting commitments will attend in 2015. In December, Zahra Fazli Khalaf successfully defended her PhD thesis.

### Publications and Presentations

Khalaf, Z.F., Low, W.Y., Merghati-Khoei, E., & Ghorbani, B. (2014). Sexuality education in Malaysia: Perceived issues and barriers by professionals. *Asia Pacific Journal of Public Health*, 26(4), 358-366.

Khalaf, Z.F., Low, W.Y., Merghati-Khoei, E., & Ghorbani, B. (2014). Sexuality issues among young adult university students in Malaysia. The 46th Conference of the Asia Pacific Academic Consortium for Public Health, Kuala Lumpur, October 2014.

Lai S.T., Beevi, Z., & Yeap, R. (2014). Effects of fast food branding on children's taste preferences. *Southeast Asia Psychology Journal*, 2, 39-56. Liew, S., Dutta, S., Sidhu, J.K., De-Alwis, R., Chen, N., Sow, C., & Barua, A. (2014). Assessors for communication skills: SPs or healthcare professionals? *Medical Teacher*, 36(7), 626-31.

Sam, J.M. (2014). A biopsychosocial approach to pain management: A Selayang hospital experience. The 10th Allied Health Scientific Conference, Kuala Lumpur, September 2014. Verma, R. K., Rajiah, K., Cheang, A., Barua, A. (2014). Textaphrenia: An emerging silent pandemic. *Journal of Psychiatry*, 17, 510-511.

### Biomedical Science

#### Overview

2014 has been a successful year for Biomedical Science. The curriculum review team worked well to increase the syllabus content from 123 to 136

## Education

credit hours. Students successfully undertook work placements in Malaysia and abroad. Our faculty members received a number of research grants and awards, and we published a number of papers.

### Developments in Teaching, Learning and Assessment

In compliance with Malaysian Qualifications Agency recommendations, the curriculum content was increased to an equivalent of 136 credit hours. An Objective Structured Laboratory Skills Examination (OSLE) was added to the final year (Semester 6) assessment scheme to ensure that each biomedical science student is able to demonstrate hands-on competence in laboratory skills. This is an expectation for biomedical scientists.

Faculty participated in the 2014 University e-Learning Festival. Dr Archana Singh presented a poster entitled Blended active learning: The Flipped Classroom with Poll Everywhere at this Festival.

### Student Progress and Achievement

All individuals in the final year cohort graduated with good cGPA scores and one student was placed in the Dean's list.

Students successfully undertook their industrial work-based placements. The Student Mobility Programme enable some students to undertake placements in Singapore (DUKE- National University of Singapore, and Tan Tock Seng Hospital), and in Taiwan (Taipei Veteran General Hospital). Biomedical Science students were also placed in Pantai Premier Pathology and the Cancer Research Initiatives Foundation. Site supervisor assessments of our students were very positive.

### Faculty Achievement, Research and Publications

The Hind Rattan Award 2014 was awarded to Dr Archana Singh Sikarwar by the Government of India and the Non Residence of India Society.

Dr Ebenezer Chitra received a number of research grants under the Fundamental Research Grant Scheme, Malaysia:

- (a) As a principal investigator, RM165,440 for a project evaluating the mechanism of action of lactoferricin B peptide in the inhibition of breast cancer.
- (b) As co-investigator, RM151,650 for Post-translational regulation of glutamine metabolism by acetylases and deacetylases in cancer cells under hypoxic conditions.
- (c) As co-investigator, RM135,000 to investigate the effect of madecassoside in reducing oxidative stress and blood glucose and in protecting the  $\beta$ -cells in streptozotocin-nicotinamide induced diabetes in rats.

### Publications

Yew MY, Koh RY, Chye SM, Othman I & Ng KY. Edible bird's nest ameliorates oxidative stress induced apoptosis in SH-SY5Y human neuroblastoma cells. BMC Complementary Alternative Medicine. 2014;14(1):391.

Chye SM, Tiong YL, Yip WK, Koh RY, Len YW, Seow HF, Ng KY, de Alwis R, & Chen SC. Apoptosis induced by para-phenylenediamine involves formation of ROS and activation of p38 and JNK in chang liver cells. Environmental Toxicology 2014; 29(9):981-90.

Leong CO, Chen SC, Tiong YL, Loh VF, Ng CH, & Chye SM. 4-Chloro-1,2-phenylenediamine Induces Apoptosis in Mardin-Darby Canine Kidney Cells via Activation of Caspases. Environmental Toxicology 2014;29(6):655-64.

Woon SM, Seng YW, Ling AP, Chye SM, Koh RY. Anti-adipogenic effects of extracts of Ficus deltoidea var. deltoidea and var. angustifolia on 3T3-L1 adipocytes. Journal of Zhejiang University SCIENCE B. 2014;15(3):295-302.

Law BN, Ling AP, Koh RY, Chye SM, Wong YP. Neuroprotective effects of orientin on hydrogen peroxide induced apoptosis in SH SY5Y cells. Molecular Medicine Reports 2014;9(3):947-54.



## Education

---

Sikarwar AS, & Rajoo Y. Effects of radiation on patient's health during imaging diagnostics. International Journal of Innovative Research in Science, Engineering & Technology 2014; 3 (7): 14674-14679.

Sikarwar AS, Jhong HT, Nair PM, Teng CY, Ch'ng GK, Phoon ME, Teng YN, Goh IWL, & Goh HS. Botulinum toxin: A friend or an enemy? British Microbiology Research Journal 2014; 6(2):61-70.

Sikarwar AS & Yew MY. Allergy: Effects on health and quality of life. International Journal of Innovative Research in Science, Engineering & Technology 2014;3(11); 17657-17663.

Sikarwar AS & Omasanggar R. A review of advanced serotyping methods for identification of Klebsiella pneumoniae capsular serotypes. Indian Journal of Medical Research & Pharmaceutical Sciences 2014;1(7);27-33.

### Chiropractic

#### Highlights

In 2014 the Chiropractic Programme obtained Perpetual Accreditation status from the Malaysian Qualifications Agency (MQA), and in June graduated its first cohort. Students and faculty undertook the first ever Clinic Abroad mission to the Philippines. Events run for World Spine Day were well received and successful.

#### Developments in Teaching, Learning and Assessment

A curriculum review commenced to accommodate recommendations made by the MQA and the Council on Chiropractic Education Australasia. The review focuses chiefly on streamlining and upgrades to curricular modules with identified redundancy, or which need more reflective content. Review of e-learning identified areas that need strengthening, such as providing assistance to faculty and students in the

use of the online portfolio system (MAHARA®), and increasing the use of online tests.

#### Collaborations

Collaborations involving other IMU programmes is participation in some IMU Care events and more Inter-Professional Learning (IPL) activities.

#### Student Progress and Achievement

As indicated in the Highlights, the CH1/10 cohort graduated in 2014. The CH1/11 cohort completed their clinical requirements and significantly exceeded expectations. CH1/11 await the completion of their end-of-semester assessments.

At the time of writing, Semester 2 students were involved with the Inter-Professional Learning Day in October. As part of their MPU4 modules they undertook more community involvement and assistance activity. More students were involved in the University's annual Chariofare (fundraising) and IMU Cup (sports) activities. In October some students assisted at the 8<sup>th</sup> International Traditional and Complementary Medicine (INTRACOM) Conference, Exhibition and Carnival at Sunway Pyramid.

#### Faculty Achievement, Research and Publications

One faculty member received 'Second Place' as Faculty of the Year 2014. There have been no publications in 2014, but the faculty has been active in facilitating Semesters 7 and 8 students in developing and completing research theses for presentation. Semester 6 students are now involved in research, such that students now have 18 months to work on research activity.

### Chinese Medicine

#### Introduction

2014 marks the fourth year of the Chinese Medicine (CM) Programme. At the time of writing, the Programme has six student cohorts, This is the final

## Education

---

year of the course for CM1/11, and this cohort will graduate in June 2015.

### **Student Progress and Achievement**

CM1/11 students are in their final year. They are undertaking clinical placements (experiential workplace learning) at the Tung Shin Hospital in Kuala Lumpur. Their final year research project is an investigation of the knowledge, perception and attitudes towards traditional and complementary medicine amongst university medical students and staff.

CM1/12 students are in their third year, and now undertaking more clinical modules. Some of these students are preparing for transfer to Partner Universities. CM1/13 and CM2/13 students are in the second year, and will acquire all fundamental knowledge by the end of the academic year. CM1/14 and CM2/14 students are in the first year; teaching and learning activities are focused on fundamental knowledge.

### **Developments in Teaching, Learning and Assessment**

The Malaysian Qualifications Agency (MQA) gave full accreditation to the Programme in 2014.

The University's Professional Education Advisory Committee (PEAC) review took place in October 2014. The Division has started its first full review of the curriculum in the light of recommendations made by PEAC and the MQA. In e-Learning the student e-portfolio will be fully implemented in 2015.

### **Collaborations**

The Division continues to work closely with Tung Shin Hospital for the final year students' clinical placements, and with the Ti-Ratana Welfare Society for community services.

### **Programme Expansion**

The Masters of Acupuncture programme will take its first students in 2015.

---

## Education

### School of Postgraduate Studies

The School of Postgraduate Studies is the academic arm of the Institute for Research, Development and Innovation (IRDI). The School manages the postgraduate programmes by research (MSc and PhD in Medical and Health Sciences), taught Masters programmes, and the intercalated Bachelor of Medical Sciences (BMedSc) programme. The three taught Masters programmes are MSc in Public Health, MSc in Analytical and Pharmaceutical Chemistry and MSc in Molecular Medicine. Two new MSc programmes, in Environmental Health and in Pharmacy

Practice, have been approved by the Malaysian Qualifications Agency and are to be launched in 2015.

The Postgraduate Programmes by Research that began in 2004 have graduated twenty PhD holders and forty-five Masters graduates. In 2014 there were six PhD and twelve MSc graduates (Table 1), and 9 MSc and 9 PhD candidates registered. One candidate is a faculty member. Postgraduate research projects are funded by external grants, mainly from the Ministries of Higher Education (under the Fundamental and Exploratory Research Grant Schemes), and of Science, Technology and Innovation.

**Table 1: 2014 PhD & MSc graduates and their theses**

Candidate	Thesis
<b>PhD in Medical and Health Sciences</b>	
Sitti Rahma Bt Abdul Hafid	Molecular mechanisms of tocotrienol-rich fraction in dendritic cell based vaccines using a mouse model of breast cancer.
Tan Boon Keat	Assessment of the toxicity of pesticides in microalgae and animal cells.
Wong Siew Tung	Production of recombinant group 10 allergens of Dermatophagoides pteronyssinus and Tyrophagus putrescentiae mites and monoclonal antibodies against them, for the study of mite allergy.
Mai Chun Wai	Discovery & structure-activity relationship studies of benzylideneacetophenones and methoxyphenols targeting toll-like receptor-4 (TLR-4) and their molecular mechanisms in cancer.
Ayuba Sunday Buru	Cinnamomum, its antibacterial effects and Cinnamomum impressicostatum, identification of bioactive constituents and possible mechanisms of action against methicillin resistant Staphylococcus aureus.
Ooi Soo Shen	Acanthamoeba from ventilation systems and its association with other environmental pollutants as indicator of indoor air quality.
<b>MSc in Medical Sciences and Community Health</b>	
Shonia Subramaniam	Anti-hyperglycemic potential of standardised ethanolic extracts Nephelium lappaceum rind.

## Education

Ng Siew Mun	The role of conflict resolution styles and emotional intelligence on nurses' mental health.
Kang Mi Shel	Leadership and emotions: the moderation role of cognitive style of employee burnout in the banking industry.
Ramona Khanum	Coating of central venous catheters with anti-microbial loaded nanoparticles: a pilot study on its potential to prevent biofilm colonisation by pathogens.
Simon Toh Wai Hong	Acute effects of sn-1 and sn-3 palmitic acid-rich or stearic acid-rich fats on postprandial markers of cardiovascular risk, insulinemic response and gut hormones in human volunteers.
Kasthuri Bai Magalingam	Antioxidant effects of quercetin glycoside derivatives against 6-hydroxydopamine (6-OHDA) induced cytotoxic damage in PC-12 neuronal cells.
Shashi Kumar S/O Gunasekara Pandaram	Anti-inflammatory effects of standardised ethanolic extracts of the rind of <i>Nephelium lappaceum</i> fruit in a rat model of rheumatoid arthritis.
Lim Wei Meng	Development and characterisation of itraconazole loaded nanostructured lipid carrier for delivery across the blood-brain barrier.
Polly Yap Soo Xi	Antibacterial and synergistic interaction between essential oils and antibiotics and their modes of action against multidrug resistant <i>Escherichia coli</i> .
Doryn Tan Meam Yee	Development of a tumour-targeted based intravenous delivery system for tocotrienols.
Reena A/P Kasi	Induction of apoptosis in normal cell lines following exposure to hair dye component Para—phenylenediamine.
Ong Li Chu	Nanotoxicity of pristine and functionalised single-wall carbon nanotubes.

Published findings of postgraduate research include the following publications in indexed journals:

1. Buru AS, Pichika MR. In vitro antibacterial effects of *Cinnamomum* extracts on common bacteria associated with wound infections with emphasis on methicillin-resistant *Staphylococcus aureus*. *Journal of Ethnopharmacology*, 2014; 153(3):587-595.
2. Mai CW, Yaeghoobi M, Noorsaadah Abd-Rahman, Kang YB, Pichika MR. Chalcones with electron-withdrawing and electron-donating substituents: anticancer activity against TRAIL resistant cancer cells, structure-activity relationship analysis and regulation of apoptotic proteins. *European Journal of Medicinal Chemistry*, 2014; 77:378-387.

## Education

---

3. Tiong KH, Mohammed Yunus NA, Yiap BC, Tan EL, Ismail R, et al. Inhibitory potency of 8-methoxypsoralen on cytochrome P450 2A6 (CYP2A6) allelic variants CYP2A6\*15, CYP2A6\*16, CYP2A6\*21 and CYP2A6\*22: Differential susceptibility due to different sequence locations of the mutations. *PLoS ONE*, 2014; 9(1): e86230.
4. Yap PSX, Yiap BC, Hu CP, Lim ESH. Essential oils, a new horizon in combating bacterial antibiotic resistance. *Open Microbiology Journal*, 2014; 8: 6-14.
5. Lim WM, Rajinikanth PS, Mallikarjun C, Kang YB. Formulation and delivery of itraconazole to the brain using a nanolipid carrier system. *International Journal of Nanomedicine*, 2014; 9: 2117-2126.
6. Magalingam KB, Radhakrishnan A, Haleagrahara N, Ramdas P. Quercetin glycosides induced neuroprotection by changes in gene expression in a cellular model of Parkinson's disease. *Journal of Molecular Neuroscience*, 2014 (in press).
7. Lai PK, Lim PH. Professional socialisation among diploma and degree nursing students in Malaysia. *Journal of the Malaysian Nurses Association*, 2014; 9: 19-30.
8. Shyam S, Arshad F, Ghani RA, Wahab NA, Chinna K, et al. Metabolic syndrome, abnormal glucose tolerance and high sensitivity - C-Reactive protein among women with a history of gestational diabetes mellitus. *Journal of Diabetes & Metabolism*, 2014; 5:424.
9. Ong LC, Chung FF, Tan YF, Leong CO. Toxicity of single-walled carbon nanotubes. *Archives of Toxicology*, 2014 (in press).

In the taught Masters programmes, MSc in Molecular Medicine is currently in its second year since its launch in March 2013. There are a total of four cohorts comprising 14 students. Requisite documentation was submitted to the Malaysian Qualifications Agency in August in anticipation of accreditation of the programme in 2015. In October, Dr Yam Wai Keat was appointed Programme Coordinator, replacing Dr Gan Sook Yee.

The MSc in Analytical and Pharmaceutical Chemistry (MAPC) programme was awarded perpetual accreditation status in 2014. The very first cohort of four students graduated in September; there were two Distinctions. There has also been research collaboration with our industrial partner, CCM Pharmaceuticals Sdn Bhd through joint supervision of an MAPC student.

The MSc in Public Health has now been running for three years. In May 2012 this degree was awarded recognition by the Public Services Department (JPA). IMU is the first private university in the country to conduct a fully recognised MSc in Public Health programme, a significant milestone for the University. There are currently 18 students following the programme. Two students graduated in April 2014.

In 2014, 16 students from two intakes enrolled into the BMedSc programmes. The programme caters mainly for students who wish to transfer to graduate medical schools in the United Kingdom and in Australia. The students are required to undertake a one-year research project, reported as a thesis. BMedSc research projects continue to contribute to some good publications in refereed journals. In September, this published output for the past five years was highlighted in a Seminar on celebrating BMedSc Research. Overall, 2014 has been a very successful year for the School of Postgraduate Studies in training MSc, PhD and BMedSc students.



## Convocation

# June Convocation



The Convocation ceremony at the Bukit Jalil campus saw the installation of the University's new Chancellor, YBhg Dato' Dr Amir Abbas, and new Pro-Chancellor, YBhg Dato' Dr Gan Ee Kiang.

YBhg Dato' Dr Amir Abbas qualified in medicine at University Malaya in Singapore in 1961, and obtained a Diploma in Tropical Medicine and Hygiene from the University of Liverpool in 1969. While in the United Kingdom, he was admitted into Membership of the Royal College of Physicians of London. Dr Amir has served as Foundation Dean of the Faculty of Medicine of Universiti Kebangsaan Malaysia (UKM), and as a member of Councils of University Malaya and of UKM. In 2000, he was awarded an Honorary Doctorate in Medical Science by UKM. From 2006 to 2013, YBhg Dato' Dr Amir was a member of the Board of Governors, and the Pro-Chancellor of the University from 2011 to 2013.

YBhg Dato' Dr Gan Ee Kiang has Bachelor and PhD degrees in Pharmacology from the University of Western Australia. He has been instrumental in setting up three new centres at Universiti Sains Malaysia and is the founder of the USAINS Group. He has published two books, more than a hundred other scientific and professional publications, and has been invited to speak at various eminent professional meetings in North America, Europe and Asia. YBhg Dato' Dr Gan is a co-inventor of two patented inventions. He was appointed on three occasions as a World Health

## Convocation



Organisation temporary advisor. He has been conferred three awards by the Penang State Government and was the second person in Asia to be awarded the Donald C Brodie, PhD Award by the Pan Pacific Foundation. He is active in community service, and has been a member of the Board of Governors since January 2004.

Degrees were awarded to more than 250 graduands, including the first ever cohort from the Chiropractic degree programme. Prof Peter Diakow, Head of the Chiropractic Division, said "Today is an extraordinary day for IMU and all of Malaysia as we witness the graduation of the first batch of chiropractic students not only from IMU but from the only chiropractic programme in Southeast Asia. All have successfully completed the full, local track at IMU, which is only one of four chiropractic programmes in the world that are fully integrated within an existing university structure. The Division is particularly proud of this first cohort, which excelled while dealing with the fine-tuning of an innovative, integrated model of

chiropractic education. This programme was designed not only to address stringent Malaysian requirements, but also to meet recognised international standards. Their clinical year in IMU Healthcare Centres provided real life practical experience that could focus on their professional development of the human side of caring for patients and communities. They will join the small but much sought after group of practicing chiropractors and we have no doubt that they will be excellent additions to the healthcare team in Malaysia."

The half-day ceremony was held over two sessions to cater for the large number of graduands and the mood was one of enthusiasm and joy. A live broadcast of the ceremony as it unfolded in the auditorium was streamed to other lecture theatres in the University for the benefit of family and friends who are unable to be in the auditorium.

At the Prize Presentation Ceremony on 13 June, awards were bestowed on graduands who had

## Convocation



achieved academic excellence. Khor Jie Xun received the Dr John Joseph Bosco Memorial Gold Medal for achieving the highest scores in his cohort. He said "Study hard, play harder; work hard, party harder! – That is the motto to my success. I would advise those who are interested in studying medicine to do it because it is really what you want to do. The title in front of your name is a big responsibility."

Low Chia Ren, top graduand of the convocating BPharm class said "I was really surprised and the happiness was indescribable when I was informed that I am the gold medallist. I find it really useful to listen attentively in classes. I think it is good to learn from very much more knowledgeable and experienced lecturers than thinking I can do self-study and expect the same outcomes. I believe an IMU education provides a mature insight into the profession and cultivates vital skills and knowledge to be applied in the real world. Studying in IMU will then make me better prepared to work as a pharmacist".

Ooi Chia Soon, who was the top student in his class and recipient of the Dr Saidi Hashim Memorial Gold Medal, said, "Nothing comes easy but nothing is impossible. Genius is 1% inspiration and 99% perspiration. Success depends on how much effort we have put in for achieving the goals. I always try my best in whatever I do and hope for the best. I joined quite a few voluntary works, organised blood donation campaign for the Buddhist Society and participated in

bowling and badminton for the IMU Cup. My most memorable moment was the time I spent practising bowling with my teammates in preparation for the bowling competition in the IMU Cup. I truly cherished those moments because they brought us closer to each other and strengthened our bond. I also made more friends through this competition." Chia Soon has completed the first two and a half years of his medical degree in IMU and will transfer to the University of Dundee to complete his degree studies.



Kang Wei Nian, a top student who completed the first part of the pharmacy degree at IMU and due to transfer to the University of Strathclyde said, "I was truly surprised to know that all my hard work has paid off. It reassures me that I am on the right track and also encourages me to work harder to achieve my goals! The most memorable moment in IMU was during our hospital attachment at Seremban. It was an amazing experience which I could never gain from books. Through this fruitful experience, I realised that pharmacy practice is not only about application of knowledge and skills, ethics and teamwork are also important aspects to ensure a patient's well-being. Throughout my learning experience in IMU, I met great tutors who inspired me to greater efforts and fulfil my dreams. Not only being professional, my tutors are helpful, friendly and passionate in teaching. It was a very rewarding experience of learning in IMU."



# September Convocation

In September more than 200 graduands received their degrees, among them graduates of the first cohort to undertake the Master of Science programme in Analytical and Pharmaceutical Chemistry. Dr Ooi Ing Hong, the Coordinator of the MSc in Analytical and Pharmaceutical Chemistry said, "Today is an extraordinary day for IMU as we witness the graduation of our very first cohort of students in the Master of Science in Analytical and Pharmaceutical Chemistry. We are very proud of them as they have successfully completed the modular study programme, some of them without having to leave their job while taking this course. The course was designed to stringent MQA requirements and to international standards. The modular structure allows students to remain current while still fulfilling their usual lifestyle and work commitments. The interactive and engaging curriculum delivery style enables the students to be focused, creating a conducive environment for experiential and lifelong learning. The research module further enhanced their critical thinking and problem solving skills, promoting their professional development to better prepare them for today's challenging workplace. We congratulate our graduates and we are confident that they will do well in their careers."



## Convocation

---



At the Prize Presentation Ceremony on 5 September the academic excellence awards bestowed included the Dr John Joseph Bosco Memorial Gold Medal, the Professor Guan Chong Book Prize in Surgery, the Dr Saidi Hashim Memorial Gold Medal, the Tun Dato' Seri Dr Mohamed Zahir Merit Award, Board of Governors' Gold Medals, and book prizes for the best Clinical Dietetics Student 2014 and for leadership in Nutrition and Dietetics 2014.

Top student and winner of the Dr John Joseph Bosco Memorial Gold Medal, Wong Wei Xiang said, "I was really happy and excited when I was told that I was the gold medallist. The feeling of turning my dream into a reality was exhilarating. The feeling of gratitude was overwhelming at that point. I would also like to take this opportunity to express appreciation to my parents, my brother and my course mates for being supportive throughout my medical school days. Perseverance and the right attitude are the most important qualities that keep me going. I am a person that will not give up if I see the slightest opportunity to achieve my goal. Being humble is one of the most important attitudes to carry in this field – in every aspect of life in fact. I always remind myself to stay humble and to learn from others, even if I know the solution. I always try to be positive. Drawing out concrete goals and developing a plan

to achieve them served as motivation throughout my clinical school years. I believe that nothing worthwhile comes easily. "Work, continuous work and hard work, is the only way to accomplish results that last." – Hamilton Holt. IMU education emphasises lifelong learning and self-directed learning. I think these two qualities will bring us a long way in the future. We have to be inquisitive all time, and keep ourselves up-to-date as medicine is an ever-changing field and new development means new treatment possibly that will be beneficial to patients. We were left with less guidance as we moved to higher semesters. It really trained us to be independent learners. With that, we will be able to adapt to postgraduate studies easier."

To those want to pursue a career in medicine Wei Xiang's advice is "I think we all should be grateful to be able to study medicine and in the future practice medicine. Students should be clear about their goals and remain on track. While it is easier said than done, students should stay positive and 'infect' their course mates or colleagues with positive thinking. Students must also be humble and willing to take criticism as a stepping stone to improve themselves."



## Convocation



# Enhancing Services and Resources

## Library

In 2014 the Library continued to work closely with e-Learning and Information Technology Services to significantly enhance its information provision, processes and services. At the same time the Library embarked on a continuing programme of engagement with its users. This report summarises these developments.

### Library Systems: New CHAMO Web Online Public Access Catalog

Utilising proprietary software CHAMO, a new user interface for the Virtua-VTLS Library Management System was developed to replace the i-Loc interface. This has significantly improved the look and feel of the interface, which now has more convenient search and retrieval features, and is much more user friendly. The User Review feature allows users to rate the collections available, whilst the CHAMO-i-Loc page is used by the Acquisition Librarian to analyse and select new book titles or editions based on users' recommendations and suggestions.



The CHAMO-i-Loc page

### Enhanced Library Portal and the Central Digital Repository

In late August, YBhg Tan Sri Dato' Dr Abu Bakar officially launched the new enhanced Library Portal and the Central Digital Repository. Enhancements to the Portal enable off-campus access to the Library's digital resources using mobile devices including smart phones, tablets and notebook computers. The Repository was developed to electronically house and archive University intellectual property in the form of publications and presentations, theses, portfolios and elective reports (Table 1). The Repository enables this rich content to be systematically searched and retrieved.



The Responsive Library Portal and the Central Digital Repository

## Enhancing Services and Resources

**Table 1: Content of the Central Digital Repository as of November 2014**

Document Category	
<b>Postgraduate Theses</b>	<b>72</b>
MSc in Analytical & Pharmaceutical Chemistry	4
MSc in Medical and Health Sciences (By Research)	47
MSc in Public Health	2
PhD in Medical and Health Sciences	19
<b>Undergraduate Theses &amp; Dissertations</b>	<b>1,447</b>
BMed Science	200
BPharm Theses	491
<b>Clinical School</b>	<b>467</b>
Portfolios	289
Research Reports	178
Medical Biotechnology Theses	13
Medicine Elective Reports	35
Nursing Theses	65
Nutrition & Dietetics Theses	206
<b>Others</b>	<b>130</b>
Conference posters & abstracts	38
Publications	92

### Development of the Library Collection

From January to December 2014 the Library purchased 3095 books, bringing the total collection to 65,396 books. The breakdown of purchases is shown below:

**Table 2: Additions to the Library Collection**

	Bukit Jalil	Seremban	Batu Pahat	Kluang	Total
Titles	805	543	275	233	<b>1,856</b>
Copies	1,281	1,050	406	358	<b>3,095</b>

Concurrently the Library also enhanced the digital collection by adding 239 titles of e-books from the CRC Netbase database, Wiley, Karger and Science Direct. The Library continued to cull the least used and useful books, most of which were donated to the Library of International Medical College in Subang Jaya and Hospital Kluang Library. Some older editions were given to our students during Library Week. In the interests of currency and optimal use of shelf space, periodic culling is needed.

**Table 3: Books culled in 2014**

	Bukit Jalil	Seremban	Total
Titles	2,070	310	<b>2,380</b>
Copies	3,370	374	<b>3,744</b>

## Enhancing Services and Resources

### Engaging Users: Library Promotional Events 2014

The Library highly values its users and continues to build strong working relationships with them. Table 4 details a programme of events throughout the year aimed at engaging and supporting users, particularly students. The other overarching aim is to increase awareness of Library resources, facilities and services, particularly in members of the University community not using the Library, or who are unaware of how Library use can benefit their learning and work. Events included several interesting activities organised in collaboration with vendors and the e-Learning Unit.

**Table 4: Library Engagement and Promotional Events, 2014**

Month	Events
March April May June	<b>Thematic Book Exhibitions</b> for <ul style="list-style-type: none"> <li>• World Oral Health Day, 20 March to 30 April</li> <li>• International Nurses Day, 12 May to 30 June</li> </ul> <b>Library Mini-Engagement Day:</b> Mini Competition. Battle of the Databases
August	<b>Library Week at Bukit Jalil:</b> Library Info. Hunt. The Library Maze. Database Clinic 'Learn and Win' Publisher's Knowledge Test. The Library Info Wheel Book Puzzle and Library Selfie Competitions <b>Research Book Exhibitions</b>
October November December	<b>Thematic Book Exhibition</b> for World Spine Day, 16 October to 30 November <b>Library Mini-Engagement Day:</b> Mini Competition. Battle of the Databases. Know your e-books
20 March 12 May 14 July 29 August	<b>PTS – Library Domain Expert Poster Presentations</b> Dentistry & Oral Health Nursing Day Medline and Cinahl e-journals posters with no embargo Design e-books and databases by programmes posters
22 January 26 March 23 May	<b>Peer Sharing Sessions</b> An Introduction to UpTo Date, by YBhg Prof Dato' Dr Jai Mohan How to use Scientific and Medical ART Imagebase, by Anupa Sivakumar Using BMJ Best Practice, by Dr Lim Chooi Ling



## Enhancing Services and Resources



*The Library Maze*



*Publisher Knowledge Test*



*Library Mini-Engagement Day*



*Thematic Book Exhibitions*



*The Library Info Wheel*



*Book Puzzle*



*Library Selfies!*



*Prize Giving*



## Enhancing Services and Resources

### e-Tutorial via the Library Portal: Databases i-Lecture

i-lectures were developed by the Reference Librarian to guide faculty and students on the use of the major databases available via the Library Portal. These are listed below. The i-lectures were developed using Adobe Articulate and Captivate software.

Databases: ClinicalKey; Ebrary; EbscoHost; Ovid; Oxford Medicine Online E-Books; Primal Picture; ScienceDirect; Springer Link



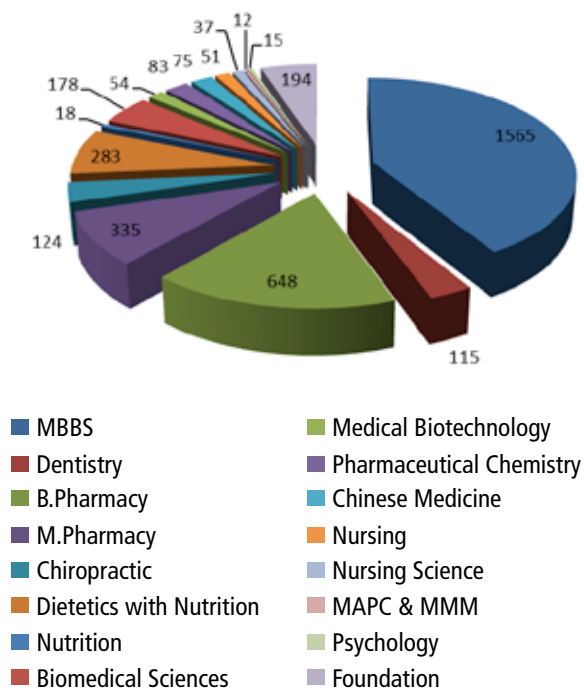
Databases i-Lectures via the Library Portal

### Library Quiz

The Library Quiz was run in December via e-Learning Portal to evaluate student and staff knowledge about the Library's digital resources,

#### Improving Information Literacy

Information Literacy Participants, 2014



A total of 3,787 students from various programmes attended the monthly Information Literacy sessions conducted by Librarians and Library Officers, at Bukit Jalil and the Clinical Schools. The sessions in 2014 saw an increase of 1,332 attendees compared to 2013. Because they are run monthly, session contents can be tailored to syllabus content studied at different times of the year. Students are offered training in effective searching of the digital resources (e-books, e-journals and databases). These strategies include the use of Boolean operators and identifying

## Enhancing Services and Resources

aggregators. Students are shown how to navigate publishers' databases and provided step-by-step guides to identifying and retrieving full text publications. Knowledge of these techniques empowers students and makes them less dependent upon librarians.

Usage statistics (Table 5) for 2013 and 2014 show an overall increase for 2014, but decreases in the use of some individual resources. This is likely to be due to the use of the EBSCO Delivery Service (EDS) search engine acquired in 2014, which allows users to execute a single search across many databases. The EDS usage statistic for 2014 of 389, 245 supports the inference that this is a useful acquisition.

**Table 5: Digital resource usage by direct search, 2013 & 2014**

e-Book Package	2013	2014
Access Medicine	98,540	106,316
Access Pediatrics	-	552
Access Pharmacy	29,702	23,297
Access Surgery	9,650	3,397
ACS Surgery	212	16
ASHP	328	499
Clinical Key	14,946	31,480
CRCNetBase	-	1,215
e-brary	60,336	42,273
FA Davis	4,065	8,967
IGI InfoSci-Medical	-	1,392
Karger	55	99
Medicines Complete	23,215	55,566
Nursing Consult	1,556	1,404
Ovid	54,612	25,308
Oxford Medicine Online	-	3,467

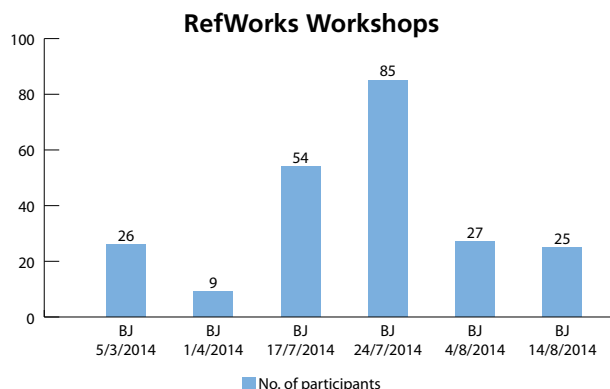
e-Book Package	2013	2014
People's Medical Publishing House (PMPH)	385	641
ScienceDirect	-	1,889
Springer	4,479	13,598
Thieme	11,880	2,058
Thieme Clinical Collection	-	1,488

e-Journal Package	2013	2014
Clinical Key	6,076	15,249
EbscoHost: CINAHL	77,689	32,584
EbscoHost: Dentistry & Oral Sciences Sources	31,428	12,563
EbscoHost: Medline	96,535	28,837
EbscoHost: Psychology & Behavioral Sciences	39,400	17,002
Nursing Consult	576	479
Ovid: LWW Journals	10,297	18,625
Ovid: Evidence-Based Medicine Review (EBMR)	196,288	92,232
Ovid: Medline	27,962	38,558
Paediatrics in Review	7,094	1,271
Science Direct	-	62,410
Springer-Humana Press	139	3,131

## Enhancing Services and Resources

Database Package	2013	2014
BMJ Best Practice	5,388	7,853
Clinical Key: Clinical Trials	-	243
Clinical Key: Drugs Information	-	1,798
Clinical Key: Image	-	1,336
Clinical Key: Expert Consult	-	89
Clinical Key: First Consult	4,063	11,242
Clinical Key: Procedure Consult	307	254
Ebscohost: Dynamed	43,232	11,559
Mosby Nursing Skills	380	923
OnExamination	-	325
Primal Pictures: Anatomy & Physiology	3,587	3,740
Proquest	298,019	48,762
RefWorks	-	1,202
Springer Image	705	810
UpToDate	66,026	122,154
USMLE	252	714

### Reference and Citation Tools: RefWorks® Workshops



The Reference Librarian at the Bukit Jalil campus conducted six RefWorks workshops, which were attended by 226 student and faculty participants. Recommended techniques for using the RefWorks database were demonstrated during hands-on sessions covering five methods:

- Manually adding references to the database
- Manually import references to the database through Pubmed
- Importing reference to the database using Library subscribed e-resources Ebscohost, Proquest and Science Direct.
- RefGrab from websites
- Preparing citations

### Document Delivery Services

In the year to 5 December, 1,373 articles were requested through the Library, compared to 1,960 in 2013. This 30% reduction in requests results from our introduced Library user access to archived contents of the Science Direct database, increased attendance at our Information Literacy sessions, and the effectiveness of these sessions. Some two thirds of the requests were for older publications which the Library tried to retrieve through its network throughout Malaysia and overseas. Of the total number of requests for papers 12 were purchased from the South East Asian Medical Information Centre (SEAMIC) in Japan. Unfortunately SEAMIC ceased operations in August 2014 citing internal reasons.

## Enhancing Services and Resources

**Table 6: Document requests 2014, to 5 December**

User category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec*	Totals
Academic	43	82	60	56	28	67	60	68	80	47	48	8	647
Undergraduate	74	12	45	36	14	37	28	26	12	26	30	12	352
Postgraduate	3	0	0	4	1	0	0	0	0	0	4	1	13
Alumni	1	2	3	4	0	0	1	1	1	2	0	0	15
External	21	15	15	21	29	19	21	15	27	7	25	0	215
Management	37	2	2	0	1	2	0	10	19	0	0	0	73
Clinical School	0	4	5	7	2	9	2	5	4	5	9	6	58
Total	179	117	130	128	75	134	112	125	143	87	116	27	1,373

### Moving Forward

The Library will continue to engage with its users, to understand their needs in terms of retrieving and using information. Continuing effort is needed to convince non-users of the value of learning to use Library resources, particularly the online resources and digital collection. The Library will continue to be an active partner of the learning community, helping learners to enhance their information literacy. The synergy with E-Learning and Information Technology Services continues to generate innovations, for example, linking e-learning environment and digital libraries.

## Enhancing Services and Resources



### Medical Museum

#### Highlights and Major Developments

The Museum continues to fulfil its key role as a University facility supporting and enhancing teaching and learning across degree programmes. For example, in 2014 the Museum accommodated some 815 Medical Museum Sessions, for a diverse range of programmes including Medicine, Dentistry, Chiropractic, Chinese Medicine, Pharmacy, Medical Biotechnology and Nursing. The Museum continued to make good progress towards enhancing the utility of its learning resources, for example by implementing the QR Code project and the use of e-Flexible Learning Modules.

2014 saw ongoing content for quality improvement, including expert revision of structured lesson plans and study guides, particularly for the foundation semester in the MBBS programme. Content included topics in parasitology, microbiology, anatomy and pathology. The Museum Working Group worked with content providers to ensure that the expected learning outcomes of all lesson plans are made explicit, and that all plans provide answers to problems posed. Recordings of completed Medical Museum Sessions have been uploaded into the University e-learning portal for off-site / online access. Apart from illustrating the Museum's commitment to improving quality, these efforts are also a response to student feedback. The Museum has consistently elicited and acted upon feedback from the Student Representative Council in



## Enhancing Services and Resources



order to improve its services to students. This effort for improving students' learning experience has resulted in us receiving a good rating of 3.12 in the I-Barometer survey that was carried out in November 2013.

Working with the e-Learning Department, the Museum continues to expand the use of QR Coding to enhance the utility and utilisation of its learning resources. The QR code takes the user to useful notes, visual resources and web links. These resources are compiled and updated by faculty content experts. The codes also allow teachers to use the Museum's learning resources in their teaching. For instance, QR codes have been developed and added to the Primal Pictures® resources. The Museum showcased QR Code Project at the University e-Learning Festival in

November. Other e-learning tools such as gamification are being considered, and may also be used in promotional activity such as at Open Days.

Notable resource acquisitions in 2014 include an A.D.A.M. Interactive Online package to enhance learning of anatomy and other medical subjects. In December a workshop was conducted to introduce the key features to teaching staff, to enable them to use the resource in their classes. The Museum purchased 33 new models to replace existing models or to add to the collection. These included a real human skeleton, plastinated brain specimens, and several sets of microscope slide specimens. One additional staff member now supports Museum operations, particularly after teaching hours.

### Other Activity

The Museum welcomed visitors on the University Open Days in January, June and August, featuring exhibits around themes such as congenital anomalies; trends in non-communicable disease; and healthy ageing. At the Student Exploratory Workshops, the Museum showed its resources of plastinated and potted specimens and models. University anatomists and pathologists were on hand to explain the significance of these exhibits to the visiting students, who were mostly fascinated with the specimens. In March, Museum staff welcomed students undertaking the Library Science programme at the University of Selangor, and explained the role and activity of the Museum within the University.



## Enhancing Services and Resources

### E-Learning Unit 2014: Empowering to Engage and Assess

#### Highlights

The year's focus has been on empowering teaching staff to enhance their teaching. The Unit has helped teachers develop more interactive e-learning content, construct and run more e-assessments and e-assignments, explore the use of online rubrics, and use interactive web tools to enhance engagement in face-to-face classes. Teachers have been enabled to develop prototype live online classes, and to apply technology in other creative ways to enhance learning. Significant achievements for 2014 include:

- Conducting three revenue generating e-Learning workshops: a 3-day workshop for Bank Simpanan Nasional and two 1-week workshops for participants from the Ministry of Health of Vietnam.
- Empowering more academics to use interactive web tools for their 'flipped classrooms'.
- Revamping the e-Learning Licence Programme to prepare academics better and enable more authentic assessment.
- Training and providing support for academics to develop more interactive and simulated e-learning content using Articulate Storyline.
- Academics using web-conferencing increasingly to facilitate classes, seminars, workshops and online presentations.
- More e-assessments using online rubrics.
- Online student self-assessment of competencies in medicine and dentistry.
- A record number of nominations (17) for the e-Learning Awards.
- Getting three e-learning related research grants.
- The University's second annual e-Learning Festival, and its first ever e-Learning Strategy Retreat.



*The e-Learning Workshop for participants from the Ministry of Health of Vietnam.*

#### Workshops

##### **E-Learning Workshop for participants from Ministry of Health of Vietnam**

In January, the e-Learning team successfully facilitated a 3-day Rapid e-Learning workshop for fifteen Bank Simpanan Nasional (BSN), generating RM 45,000 in revenue. The workshop explored instructional design, Super Brain Yoga, Juggling 3 Balls, Microsoft PowerPoint, and Articulate Studio.

## Enhancing Services and Resources

In collaboration with the Centre for Education the e-Learning team facilitated two 1-week revenue generating workshops for participants from Ministry of Health of Vietnam. In these comprehensive hands-on training events participants were introduced to learning design, learning management systems, interactive e-learning content development, classroom engagement tools, e-assessment and social media.

### 'Flipped Classrooms'

To empower 'flipped classroom' learning environments (currently being implemented) and make face-to-face sessions with students more engaging and fun, various interactive web tools (Poll Everywhere, Socrative, Infuse Learning, Kahoot and Padlet) have been introduced to lecturers over the last two years. These tools enable students to respond to closed-ended questions (including some in games format) in small or large groups using their mobile devices. The responses can be shown in real time for immediate feedback, and enable teachers to pace and adapt the content or direction of learning sessions in response to student needs. Most importantly, these audience response systems stimulate participation, active and deeper learning. Surveys of School of Pharmacy students in 2012 and 2013 showed that 95% of the 113 respondents (84% of whom were in Year 2) agreed that using Poll Everywhere in a flipped class had increased their understanding of the key concepts presented.



Popular Interactive Web Tools.

### The e-Learning Licence

This year the e-Learning Licence Programme was revamped to enhance the realism of the training and its assessment. Previously, participants could obtain a temporary e-Learning Licence simply by undertaking the simulated assessment (clicking and typing). Now participants are required to build a course page in the Learning Management System with all required elements, including an i-Lecture. This more closely mirrors actual practice. The e-Learning Licence covers the basics of instructional design, PowerPoint, e-learning content development, the use of the Learning Management System, and the use of classroom engagement tools (interactive web tools). Since the training programme was launched in 2012, 62 faculty and corporate staff have obtained an e-Learning Licence.

### Interactive e-Learning Content

With the support of the e-Learning team, teachers are increasingly developing more dynamic and interactive e-learning content, using Articulate Storyline, Articulate Studio and other web 2.0 presentation tools.



Screenshot: Depression Disorder.



## Enhancing Services and Resources

The screenshot is from 'Depression Disorder', which requires undergraduate medical students to assess and manage patients with depression. Interestingly, in this project GoAnimate (<http://goanimate.com/>) was used to create a cartoonish animation with text-to-speech narration. The published animation was then integrated into Articulate Storyline, which enabled the author to add dynamic sequencing and interactivity. This is just one creative example from an increasing number, made possible by academic staff exploring the use of Articulate Storyline and other Web 2.0 tools to create engaging e-learning content. Other examples include:

- Renal Pharmacy (Pharmacy)
- Autism Made Easy, for Medical Students (Psychiatry)
- Task Based Learning in Subfertility (Obstetrics and Gynaecology)
- Interactive OSCE (The Clinical School)
- Interactive Instructional Manuals (Dentistry)
- Overview of OSCE via interactive video (Pharmacy)

### Web Conferencing

Academics have started to use web-conferencing tools such as Google Hangout, TeamViewer and WizIQ to facilitate classes, seminars, workshops and student presentations. This trend is set to grow significantly in 2015, as we start to offer more distance learning programmes, and other relevant training to working adults.

Staff in the MSc Analytical and Pharmaceutical Chemistry programme conducted a pilot study on the utility of software tools to develop WOWLA, or Working Group Online Workshops, Lectures and Assessment. WOWLA is now in use to deliver the module Drug Discovery, Design and Development to the students enrolled in the MSc, all of which are in full-time work. WOWLA has enabled live online classes to be held via TeamViewer or Google Hangout. The online sessions have been recorded for online access as open educational resources for all IMU students and beyond the University. Excitingly, student presentations were also made and evaluated online using Google Hangout.



Screenshots: Google Hangout Sessions

### Assessment

The Foundation in Science programme and the Schools of Medicine and of Postgraduate Studies have started using online rubrics for e-assessment and feedback. Online assignments and their corresponding grading rubrics are made available on the Learning Portal, with a field for personalised feedback. The use of grading rubrics as a means of enhancing assessment reliability and validity is well established.

The Schools of Medicine and Dentistry have developed online self-assessments of clinical competency. These formative evaluations enable students to identify strength and weaknesses in specific clinical areas, and to make improvement plans, with the help of staff mentors.

## Enhancing Services and Resources

Grade:	Reflective Thinking	Below Expectations	Below Expectations	Approaching Expectations	Meets Expectations	Above Expectations
	The reflection does not address the student's thinking and learning. 1 point	The reflection does not address the student's thinking and learning. 2 points	The reflection does not address the student's thinking and learning. 3 points	The reflection attempts to address the student's thinking and learning but is vague and unclear. 4 points	The reflection signals the student's thinking and learning but does not address the student's thinking and learning. 5 points	The reflection explains the student's thinking and learning process, as well as, integrating with the learning. 6 points
Analysis:	Below Expectations	Below Expectations	Approaching Expectations	Meets Expectations	Above Expectations	Above Expectations
	The reflection does not address the student's thinking and learning. 1 point	The reflection does not address the student's thinking and learning. 2 points	The reflection attempts to address the student's thinking and learning but is vague and unclear. 3 points	The reflection is an attempt at the student's thinking and learning but does not address the student's thinking and learning. 4 points	The reflection is an attempt at the student's thinking and learning but does not address the student's thinking and learning. 5 points	The reflection is an attempt at the student's thinking and learning but does not address the student's thinking and learning. 6 points

Current grade: A  
in gradebook:

Grading student 2 of 52

**Feedback comments**

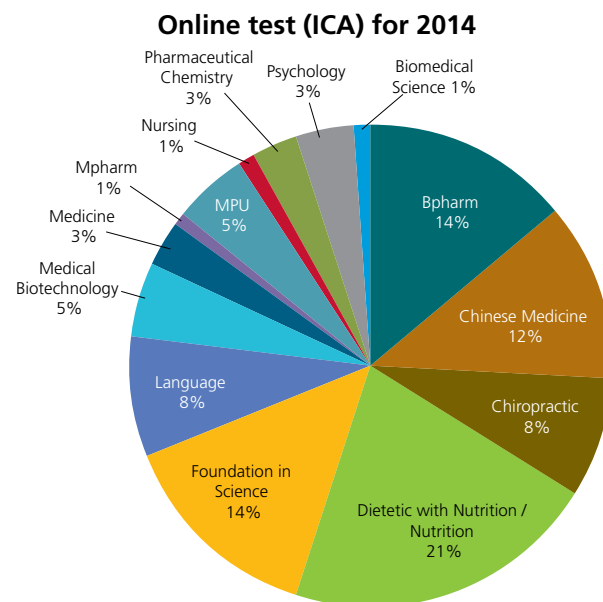
Font family: Font size: Paragraph

Path: p

Save changes Save and show next Cancel

Screenshots: Online Rubrics.

In 2014, 147 summative online tests were conducted in various programmes, breakdown is shown in the pie-chart below.



Total of Online test (ICA) conducted: 147

Breakdown of Online Tests by Programme.



Picture: Online test at the e-Lab.



## Enhancing Services and Resources

### The e-Learning Awards Programme

In 2014 this programme received a record 17 nominations. It was encouraging to see that the nominated projects used a variety of innovative tools to empower their learning innovations. Tools included Articulate Storyline, Padlet, GoAnimate, PowToon, TeamViewer, Google Hangout, and Moodle features. The e-Learning Award winners will be announced early 2015.

### Research

The e-learning related grants received in 2014 are as follows:

- Amutha Navamoney; Dinesh Kumar Chellappan; Sangeetha Shyam; & Hasnain Zafar Baloch for Faculty Development Training using Media and Technology in Instruction. (RM 12,000)
- Keivan Ahmadi, Mai Chun Wai, Liew Siaw Check, Anuradha, Wong Pak Fong, Patricia Mathiza, Hasnain Zafar Baloch, and Chong Pek Sam, for Interprofessional Learning Amongst Health Professions Students: A Trajectory to Consolidate Professionalism. (RM 15,700)
- Sunil Mutalik, Allan Pau, Shekhar Bhatia, Sobia Bilal, Pravinkumar Patil, Hasnain Zafar Baloch, for Development and Validation of an Interactive Gamebased Script Concordance Test (SCT) for Assessing Clinical Reasoning in Odontogenic Pain. (RM 7,000)

In addition, Dentistry staff secured two innovation grants involving the use of Storyline to develop script concordance tests and the use of webinars to achieve some of the learning outcomes in the Children and Orthodontics module.

### The e-Learning Festival

The second annual e-Learning Festival was held over three days in November, and saw the participation of more than 100 staff and students. The theme for this year's Festival was Transforming Health Professional

Education through Educational Technology. Activity included showcasing e-learning innovations and products, Learning Innovation Talks, Nano Workshops and mobile games.

### The e-Learning Strategy Retreat



*The 2014 e-Learning Festival Sub Themes.*



*e-Learning Strategy Retreat.*

## Enhancing Services and Resources

The 2014 e-Learning Strategy Retreat was held at Nilai Springs Resort Hotel in Negeri Sembilan, from 17 to 19 December. The Retreat was aimed at developing School e-learning strategies for 2015 – 16, with a focus on increasing student engagement in teaching, and identifying the capacity building required. The plans developed at the Retreat are targeted to be completed by the first quarter of 2015.

The invited speaker Prof Mohamed Amin Embi (Director, Centre for Teaching and Learning Technologies at Universiti Kebangsaan Malaysia) gave an inspiring talk about the future of e-learning and how he is using various methods and tools to transform learning for his students. Prof Mohamed Amin was the recipient of the ISESCO Science Laureate 2010 & National Academic Award 2006. He is also the chairman for the National e-Learning Committee and the Mobile Learning Association of Malaysia.



*Prof Dr Mohamed Amin Embi.*

### Looking Ahead

Building on this year's momentum of innovation, the University must continue to embrace the idea of designing collaborative learning environments, and engaging with students online. The days of using a single system to connect and engage with students are over. As students increasingly use their mobile devices in learning, the University must enable all its e-learning services to be accessible for mobile learning. We also need to re-think learning engagement as empowering students to express their learning and creativity.

Today, there are hundreds of online tools to engage learning, and therefore there needs to be an increased focus on learning design and how to use these tools appropriately and effectively. For example, the gamification of learning has enhanced and deepened learning. We should also explore augmented reality and use it to connect the University's physical world to relevant resources online, for example empowering students to find relevant online resources as they explore the Medical Museum. Finally, we should continue the trend to conduct more formative and summative assessments online, and to eventually personalise all learning content and activity, based on learning analytics.

## Enhancing Services and Resources

### Centre for Education (ICE)

#### Faculty Development Activity

Overall, 2014 was another busy year for the Centre, with 52 faculty development (FD) events from October 2013 to September 2014. The IMU Ron Harden Visiting Professor, Emeritus Prof Karen Mann, conducted 4 weeks of training and consultations at the Bukit Jalil and Seremban campuses, and at the International Medical College (IMC). She was also the facilitator at our annual Leadership Course. Prof Mann's main focus is on assessment and feedback, which incidentally have been identified as areas of concern from student feedback in the 2013 Student Barometer Survey. The FD activities were generally well attended, attracting a total of over 1800 participants, both internal and external.

#### Faculty Development Events, October 2013 – September 2014

Event Type and Content		Participants
Mandatory faculty training	<ul style="list-style-type: none"><li>– Fundamentals of Teaching &amp; Learning</li><li>– Admissions Interview Training</li><li>– Mentoring</li><li>– Problem Based Learning (PBL) tutor training</li></ul>	135
Workshops	Teaching and Learning	136
E- Learning for faculty	<ul style="list-style-type: none"><li>– Using e-learning in teaching &amp; learning</li><li>– Lunch time sessions on the utility and use of various e-learning tools</li></ul>	120
Leadership Course & Consultations	For participants from the Ministry of Health, Vietnam	146
Internship in medical education	For an intern from Kazakhstan State Medical University	1
Conference	International Medical Education Conference (IMEC) 2014	303

## Enhancing Services and Resources

### Consultative Services

In collaboration with the e-learning Department, the Centre designed a 5-day e-learning faculty development programme for health professions educators from Vietnam. Feedback from the participants was positive. The programme will be refined and be promoted, as there may be a regional demand. The Centre also ran the Fundamentals in Teaching and Learning Programme for two groups of Vietnamese health professions educators, totalling 20 individuals.

### The IMU Basic Teaching License Course

Four of these Courses were conducted for University faculty. The Course has been renamed Fundamentals of Teaching and Learning in Health Professions Education, as it has been developed into a module within the Master in Health Professions Education (MHPE) programme.

### Qualitative Research Methodology

In September the Centre ran a retreat at the Bangi Hotel in Putrajaya, with the aim of introducing qualitative research, its ethos and methodology, to the faculty. Prof Ray Peterson and three University faculty facilitated the programme.

### Evaluation Schemes

The University's Quality Improvement Committee has initiated a University level review of the evaluation of learning environment, courses and faculty. The first review meeting in October sought feedback from all stakeholders, including the Student Representative Council. The types and numbers of evaluations conducted in the first three quarters of 2014 are summarised below. Because of a shortage of personnel the Centre has a backlog of evaluation data to analyse.

Evaluation Type	Frequency	Number (Jan - Oct 2014)
Courses (Modules)	Every course (module) is evaluated once a year	357
Faculty	Each faculty member is evaluated for 1 large group and 2 small group teaching events annually	1,001
The Learning Environment	The International student barometer evaluation is conducted every other year. The first was conducted in November 2013.	58

## Enhancing Services and Resources

---

### Centre for Lifelong Learning (ICL)

In 2014, the Centre for Lifelong Learning (ICL) conducted fifteen short courses, and organised one national and one international conference. These events were attended by more than 700 healthcare professionals from various countries. The success of the conferences demonstrated the Centre's capability to handle large events. Additionally, we ran collaborative courses with more than ten industrial partners, both local and international.

2014 continued to demonstrate the Centre's ability to generate revenue, a feature of its activity ever since its inception. The income generated has increased year-on-year, with a cumulative income of more than RM2 million in 4 years, a margin of more than 25% and a gross profit of more than 60%. The income per participant has increased RM553 per head in 2013, to RM801 per head in 2014, a jump of 50%. This increase is consistent with the increasing value and quality of our courses.

The Centre has drawn up its own standard of service, benchmarking these against other leading service providers, in order to enhance the University's ability to meet the continuing educational needs of both internal and external clients. The Standard of Service encompasses five different touch points, including event promotion; the handling of enquiries; participant registration and payment; event organisation, and follow up of participants, who become our alumni.

### Centre for Health Professionals Education Research (CHPER)

For 2014, the Centre for Health Professionals Education Research (CHPER) has mainly focused on increasing the number of research projects related to health professionals education and providing faculty training opportunities in specific areas of education research and methodology. Working in collaboration with the IMU Centre for Education, faculty training was conducted with international experts for developing research proposals, both quantitative and qualitative analysis of data and tips for publishing in health professionals education. Externally we are also being invited to train national and international faculty based on programmes developed in IMU. This provides an opportunity for research on the transferability of our training programmes in various other institution. Reflecting on the 2014 publications related to health professionals education, there were 34 publications from all the Schools at IMU suggesting there is active development of research expertise in health professionals education within IMU.

Strategies for 2015 include the need to coordinate and support research groups with departments / units with resources (this includes obtaining external research grants). We also need to cultivate the practice of using, (i) educational problems from the real experiences to develop research projects and (ii) evidence from educational research to make decisions related teaching and learning within IMU.



## Enhancing Services and Resources

### Quality Improvement

#### ISO 9001:2008 Quality Management System

The University's corporate, academic support, and teaching and learning processes have been certified under this international standard since 2006. The certification body, Lloyd's Register Quality Assurance Limited, conducted surveillance audits in March and September. They looked at quality assurance processes in all 16 departments, and found that the Quality Management System is in compliance with the requirements of the ISO 9001:2008. Though several opportunities for improvement were identified, no serious breach was found in the system. The quality assurance system also includes measures such as management review meetings, internal process audits, and periodic student evaluations.

#### Management Review

There were two Management Review Meetings (February and August) held during the year, 54 Quality Objectives (QOs) from all academic support and corporate departments were tabled and discussed. Corrective actions for shortfalls in QOs have been identified and improvement is expected during subsequent measurement cycles. One new procedure, on Management of Evaluations, was approved in 2014. This implements a systematic process flow for the periodic student surveys conducted by the Centre for Education which evaluates curriculum modules, teachers and the learning environment.

An initiative to link quality to performance has started. Based on the University's core values, operational excellence is to focus on four main areas, to achieve zero processing error; end-to-end process efficiency; excellence in customer service; and customer satisfaction.



#### Internal Audits

Two ISO 9001:2008 internal audits have been carried out each year. Considering the development and maturation of the Quality Management System since its certification in 2006, the frequency of these internal audits has been reviewed. The review showed that 15 of the 16 Departments have sufficient compliance and consistency to warrant an internal audit only once in a year. It has been thus decided that Departments with an accumulated three or fewer non-conformity incidents for 2011 - 2013 will be audited once a year.

The Internal Audits conducted in May and November involved 34 internal auditors, nine of whom received training in the 'ISO 9001:2008 Internal Auditing Training Programme' in April. The team ran a compliance audit on 34 Standard Operating Procedures. The team identified one non-conformance and 20 Opportunities for Improvement. The non-conformity was due to inefficient monitoring of

## Enhancing Services and Resources

student attendance involving several stakeholders. This has resulted in a review and re-structure of the attendance monitoring system. Opportunities for improvement were raised in minor areas of recording and monitoring, and in the updating of standard operating procedures to reflect continuing improvement in processes. Pre-audit briefings with internal auditors have been introduced to improve management of audits. These briefings help develop more comprehensive audit checklists and streamline the process.

### Customer Feedback

The University places high importance on eliciting and using customer feedback as a means of strengthening the quality of our facilities and services. The Customer Feedback Management System captures feedback from internal and external customers, who include students, parents, alumni and staff. In 2014, just over 52% of feedback was deemed to be negative and 45% were suggestions for improvement (Figure 1). The main groups providing feedback were students (64%), parents or family (15%), and staff (9%) (Figure 2). Most of the feedback concerned University facilities or their management, and information technology services, both serving students and staff. Improvement measures have been put in place and communicated to customers as a response to their valuable suggestions.

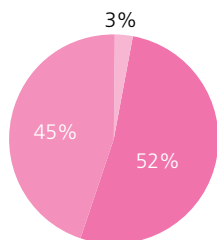


Figure 1: Types of feedback & their proportions in 2014

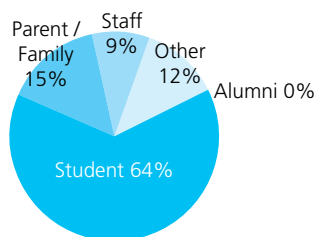


Figure 2: Types of customers giving feedback in 2014

Positive Negative Suggestion

### Training and Awareness

Training events were run throughout 2014. Awareness training was run in April, and training on internal audit processes, in May. Periodic training and re-training are part of the quality assurance system, and allow newly joined staff members to become familiar with standard operating procedures and the requirements of ISO 9001:2008.

### ISO / IEC 17025:2005 – Research Laboratory Management

In May the Research Laboratory received recognition of its technical competence when it obtained certification under the ISO/IEC 17025:2005 international standard. This certification is valid for 3 years and for three testing services offered by the Laboratory. This achievement is the result of more than three years' preparation by Laboratory staff and management, working with a team of internal auditors. A significant part of preparation has been generation of data and supporting departments. The next step is to expand the scope of accreditation to other testing services that are to begin planning in 2016.



## Enhancing Services and Resources

### Student Development and Services

#### Introduction

The Student Services Department is tasked with encouraging and supporting the student in the non-academic aspects of their personal development. These aspects are vital for students to become competent, efficient professionals who are effective members of a team. The Department supports and fosters activity that helps build organisational and leadership skills, people and communication skills, caring and empathy. Community related activities are emphasised. To ensure that these aims are met, financial, administrative and infrastructural support is given to student clubs, societies and the Student Representative Council. Financial support is provided for students to present their research at local and international conferences. Support for student involvement in emergency relief in Malaysia or abroad reflects the University's mission of 'producing' caring individuals. We are very pleased that students in all our campuses have been particularly active in charity and community services this year, as reflected in this report.

The Department's other key role is to provide effective administrative support for students who are seeking financial assistance from private and government sponsors. The Department also administers the IMU Scholarships. Other assistance provided to our student body include financial assistance for taking part in inter-university co-curriculum activities, rental of sports facilities, facilitating hostel accommodation, and a counselling service. As a relatively young university, the IMU realises the need for establishing the university Alumni. As such, we have a very active Alumni office to provide the necessary assistance to create an effective alumnus, in the longer term. The above services are provided to the student bodies in all the IMU campuses.

#### Student Participation in Conferences

The University encourages students to report their research at conferences as a good means of professional development. In 2014, 59 students participated in conferences locally and internationally.

#### Conferences attended by students from the Bukit Jalil campus

Students	Event	Presentation
<b>Kasthuri Bai Magalingam</b> (Master of Science in Medical and Health Sciences)	18 <sup>th</sup> Biological Sciences Graduate Congress, 6 - 8 Jan 2014, Universiti Malaya	Bioflavonoid Antioxidant, Quercetin Glycosides Protects Rat Pheochromocytoma (PC-12) Cells Against 6-Hydroxydopamine (6-OHDA)-Induced Neurotoxicity
<b>Leong Shan Wei</b> (Bachelor of Medicine and Bachelor of Surgery)	East Asian Medical Student Conference, 12 - 16 Jan 2014, Seoul, South Korea	Diabetic Amputees - The Neglected Group in Diabetic Care and Management
<b>Wong Choon Yoong</b> (Bachelor of Dental Surgery)	21 <sup>st</sup> FDI/MDA 2014 Scientific Convention and Trade Exhibition, 18 - 19 Jan 2014, PWTC Kuala Lumpur	Diabetic Amputees - The Neglected Group in Diabetic Care and Management
<b>Chen Lee Chian</b> (Bachelor of Dental Surgery)		

## Enhancing Services and Resources

Students	Event	Presentation
<b>Ooi Jing Wei</b> (Bachelor of Dental Surgery)	1 <sup>st</sup> Biennial Dental Public Health Conference, 28 - 30 Mar 2014, Kuala Lumpur	Qualitative Perspectives of Private Kindergarten Teachers On Oral Health Promotion for Malaysian Preschool Children
<b>Cassandra Beh Li Jean</b> (Bachelor of Dental Surgery)		Oral Pain and Impact on Daily Performances in Malaysian Secondary School Children
<b>Tan Boon Shing</b> (Doctor of Philosophy in Medical and Health Sciences)	American Association for Cancer Research (AACR) Meeting 2014, 5 - 9 Apr 2014	Harnessing Breakthrough Targeting Cures
<b>Doryn Tan Meam Yee</b> (Master of Science in Medical and Health Sciences)	5 <sup>th</sup> FIP Pharmaceutical Sciences World Congress	Enhancement of Tumor Suppressive Effect of Tocotrienols via Tumor-targeted Nanocarrier-based Delivery
<b>Teo Siew Yong</b> (Master of Science in Medical and Health Sciences)	International Symposium on Advanced Polymeric Materials 2014 (ISAPM 2014), 13 - 16 May 2014	Development of Renewable Palm Kernel Oil Alkyd Nano-Emulsions: Stability Study
<b>Gracia Wong Ling Ya</b> (Bachelor of Nursing Science)	8 <sup>th</sup> Asia Pacific Nurses Convention (ASPAN) Visibility & Versatility: Nurses at the Forefront of Care, 9 - 11 May 2014	Perceptions of Older Adults on Readiness for Discharge after Hip and Knee Replacement Surgeries: A Pilot Study
<b>Saw Pui San</b> (Master of Science in Medical and Health Sciences)	National Medicines Symposium 2014, 21 - 23 May 2014	Medicines in Health: Shaping our Future
<b>Harvinder Kaur</b> (Doctor of Philosophy in Science of Medical and Health Sciences)	Malaysian Dieticians' Association 20 <sup>th</sup> National Conference 2014	Effects of oral whey protein supplementation on nutrition status, quality of life and physical function in malnourished haemodialysis patients
<b>Joshua Foo Chuan Yung</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		The Association of Total Energy Expenditure (TEE) and Physical Activity Level (PAL) with Fasting Plasma Glucose (FPG) and Fasting Triacylglycerol (TAG) in a Sample of Malaysian Adults
<b>Looi Kock Hwua</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		Second Meal Effect of Low Glycaemic Index Meals

## Enhancing Services and Resources

Students	Event	Presentation
<b>Tan Jie Wei</b> (Bachelor of Science (Hons) Dietetics with Nutrition)	Nutrition Society of Malaysia (NSM) 29 <sup>th</sup> Scientific Conference "Improving Lives Through Public Health Nutrition", 3 - 4 June	Assessment of Total Body Water, Fat-free Mass and Fat Mass using Bioelectrical Impedance Analysis (BIA) Among Distance Runners
<b>Tan Lai San</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		Association of Psychological Stress Domains and Metabolic Biomarkers Among Malaysian Adults
<b>Neo Wen Joo</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		Effect of Television Viewing Hours, Consumption of Energy Density of Food and Drinks while Watching TV on Weight Status of Working Adults
<b>Kong Pun Pun</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		Association of Weight Status with Socio-demographic Factors, Sleep Quality, Nutrient Intake Among Working Adults
<b>Tan Thuang Lin</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		Association of Body Weight Status with Eating Behaviours, Self-efficacy and Nutrition Knowledge Among Working Adults
<b>Adeline Sim Su Sheng</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		-
<b>Ooi Yun Pin</b> (Bachelor of Science (Hons) Medical Biotechnology)	International Conference on Latest Trends in Food, Biological & Ecological Sciences (ICLTFB'14), 15 -16 Jul	An Investigation of Anti-Inflammatory Properties of Methanol Extract of Syzygium Malaccense on Lipopolysaccharide-Stimulated Raw 264.7 Macrophages
<b>Choong Siew Ling</b> (Bachelor of Science (Hons) Medical Biotechnology)	Energy, Environment and Sustainable Economy, 18 - 19 Jul	Toxicity Effects on Titanium Dioxide Nanoparticles in Marine Algae
<b>Carin Ooi</b> (Bachelor of Medicine and Bachelor of Surgery)	5 <sup>th</sup> University Scholars Leadership Symposium, 1 - 7 Aug	-
<b>Toh Tin Rui</b> (Bachelor of Medicine and Bachelor of Surgery)		-



## Enhancing Services and Resources

Students	Event	Presentation
<b>Wong Choon Yoong</b> (Bachelor of Dental Surgery)	APDSA-Asia Pacific Dental Student Association Cambodia 2014, 4 - 10 Aug	The Effect of Psychological Treatments on Patients with Dental Anxiety
<b>Wong Jhiew Zhan</b> (Bachelor of Dental Surgery)		Development of a local drug delivery system containing gatifloxacin for periodontal diseases
<b>Goh Kai Hoe</b> (Bachelor of Dental Surgery)		Occlusal Force as a Diagnostic Parameter for Patients with Pain of Dental Origin
<b>Gan Shou Wan</b> (Bachelor of Dental Surgery)		An Experimental Study of the Effect of Combination of Psychological Interventions on Patients with Dental Anxiety
<b>Wong Yin Mun</b> (Bachelor of Dental Surgery)		Effect of Different Surface Treatments on Shear Bond Strengths of Composite Resin Repair
<b>Tan Siew Zhuan</b> (Bachelor of Science (Hons) Medical Biotechnology)	International Association of Plant Biotechnology Congress 2014, 10 - 15 Aug	Investigation into the anti-inflammatory property of Canarium odontophyllum on lipopolysaccharide-stimulated RAW 264.7 macrophages
<b>Wong Choon Yoong</b> (Bachelor of Dental Surgery)	IADR/SEAADE Annual Scientific Meeting, 11 - 14 Aug	An Experimental Study of the Effect of Combination of Psychological Interventions on Patients with Dental Anxiety
<b>Gan Shou Wan</b> (Bachelor of Dental Surgery)		An Experimental Study of the Effect of Combination of Psychological Interventions on Patients with Dental Anxiety
<b>Khoo Shun Wei</b> (Bachelor of Dental Surgery)		Bond Strengths Evaluation for Composite Repairs with Various Surface Treatments
<b>Wong Yin Mun</b> (Bachelor of Dental Surgery)		Bond Strengths Evaluation for Composite Repairs with Various Surface Treatments
<b>Tan Wei Hong</b> (Bachelor of Dental Surgery)		Oral Health Promotion at My Father's Home (MFH)
<b>Tham Ru Yueh</b> (Bachelor of Dental Surgery)		Oral Health Promotion at My Father's Home (MFH)

## Enhancing Services and Resources

Students	Event	Presentation
<b>Ong Jing Yi</b> (Bachelor of Science (Hons) Dietetics with Nutrition)	6 <sup>th</sup> Asian Congress of Dietetics, 21 - 24 Aug	Dietitians Without Borders
<b>Wong Peh Ying</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		
<b>Gan Shea Yin</b> (Bachelor of Science (Hons) Dietetics with Nutrition)		
<b>Dang Nguk Ling</b> (Master of Science (Hons) Medical and Health Sciences)	Clear 2014 Conference, 5 - 8 Oct	Cell Death in Microalgae in Response to Heavy Metal Toxicity
<b>Chin Yin Yien</b> (Master of Science (Hons) Medical and Health Sciences)		Cell Viability and Oxidative Stress Biomarkers for Assessing Toxicity of Triclosan and Ibuprofen in Microalgae
<b>Hong Wei Siong</b> (Bachelor of Pharmacy)	25 <sup>th</sup> Federation of Asian Pharmaceutical Association Congress 2014	Hydrolase Activity of Bacteria Isolated from Pristine Mangrove Soil
<b>Khiew Chun Hoe</b> (Bachelor of Pharmacy)		Effect of Bromelain from Pineapple Fruit Stem on Motility of the Gastrointestinal Tract
<b>Hema A/P Balakrishnan</b> (Bachelor of Pharmacy)		In-vitro Antibacterial Effects of Alterranthera Sessill Leave Extracts on Common Bacteria associated with Wound Infections with Emphasis on Methicilin - Resistant Staphylococcus Aureus
<b>Tye Kar Yee</b> (Bachelor of Pharmacy)		Antimicrobial Activity of Dichloromethane Extract of Turbinaria Omata
<b>Rebecca Lim Vern Nieu</b> (Bachelor of Pharmacy)		Characterisation and Optimisation of Hydrolase- producing Bacteria Strains Isolated from Non- pristine Mangrove Soil

## Enhancing Services and Resources

Students	Event	Presentation
<b>Yew Sheng Qian</b> (Bachelor of Medicine and Bachelor of Surgery)	International Conference for Healthcare and Medical Students	Preparing Kaempferol Nanosuspension using High Pressure Homogenisation Technique
<b>Christine Chng</b> (Bachelor of Nursing Science)	International Conference on Healthy Ageing 2014: Bridging Science and Health Care	High Prevalence of Vitamin D Insufficiency and its Association with BMI-for-age among Primary School Children in KL, Malaysia
<b>Alicia Wong Jia Ping</b> (Bachelor of Medicine and Bachelor of Surgery)	First National Medical Undergraduate Research Conference 2014	Knowledge and Preventive Practices Regarding Dengue Infection Among Occupants In High Rise Apartments In Kuala Lumpur
<b>Kwek Elaine</b> (Bachelor of Medicine and Bachelor of Surgery)		
<b>Reuben Parama Iswara</b> (Bachelor of Medicine and Bachelor of Surgery)		
<b>Sharatha Chandran</b> (Bachelor of Medicine and Bachelor of Surgery)		
<b>Tan Ke Ying</b> (Bachelor of Medicine and Bachelor of Surgery)		Knowledge and Perceptions of Diabetes in a Semi-urban Population in Malaysia
<b>Amanda Dinukshi Mahabage</b> (Bachelor of Medicine and Bachelor of Surgery)		
<b>Gan Pou Wee</b> (Bachelor of Medicine and Bachelor of Surgery)		
<b>Gan Pou Wee</b> (Bachelor of Medicine and Bachelor of Surgery)		

## Enhancing Services and Resources

Students	Event	Presentation
<b>Lim Sue Yin</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	First National Medical Undergraduate Research Conference 2014	Knowledge and perceptions of diabetes in a semi-urban population in Malaysia
<b>Bibi Zahra</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>		
<b>Masnah Banu Bt Kamal</b> <i>(Doctor of Philosophy in Medical and Health Sciences)</i>	18 <sup>th</sup> Malaysian International Chemical Congress	Method Development for Acetylation of Alcohols and Thiols Catalysed by Polyvinyl Pyridine
<b>Teo Siew Yong</b> <i>(Master of Science in Medical and Health Sciences)</i>		Synthesis and Characterisation of Biocompatible Alkyds as Advanced Biomaterials for Drug Delivery Applications
<b>Ng Pei Ying</b> <i>(Master of Science in Medical and Health Sciences)</i>		Anticancer Properties of Chinral Ternary Copper (II) Complexes
<b>Chong Yie Kie</b> <i>(Master of Science in Medical and Health Sciences)</i>		Nanocarrier for Drug Delivery: Synthesis, Characterisation and InVitro Drug Release Study
<b>Siti Aisya Bt Saud Gany</b> <i>(Master of Science in Medical and Health Sciences)</i>	Vietnam Malaysia International Chemical Congress	Anti-oxidative and Anti-neuroinflammatory Activities of Compounds Isolated from Malaysia Algae
<b>Jane George Sempelo</b> <i>(Master of Science in Public Health)</i>	International Conference on Neurology and Epidemiology	Determinants and Effects of Pre-hospitalisation Delays in Stroke Patients in Universiti Kebangsaan Malaysia Medical Centre

## Enhancing Services and Resources

### Conferences attended by students from the Clinical Schools

Students	Event
<b>Nidhish</b> (Bachelor of Medicine and Bachelor of Surgery)	Asia Pacific Council on Contraception, Kuala Lumpur, 17 – 19 Apr 2014
<b>Ho Yuen Yu</b> <b>Siow Ee Lin</b> <b>Nigel Loke Chun Hoe</b> <b>Wan Jun Kit</b> <b>Renushah Devi Vickneshwaran</b> <b>Chan Yi-min</b> (Bachelor of Medicine and Bachelor of Surgery)	3 <sup>rd</sup> National House Officer Survival Skills Course Seminars. The Malaysian Medical Association Perak at Hospital Raja Permaisuri Bainun, Ipoh, 10 – 11 May 2014
<b>Sim Ru Hui</b> (Bachelor of Medicine and Bachelor of Surgery)	Saturday Teach-In Dermatology. The Academy of Medicine of Malaysia, Kuala Lumpur, 14 June 2014
<b>Yong Kai Yunn</b> (Bachelor of Medicine and Bachelor of Surgery)	Hospital Survival Course. Organised by Kuala Lumpur Tzu Chi Jing, Kuala Lumpur, 29 June 2014
<b>Ho Yan Zheng</b> (Bachelor of Medicine and Bachelor of Surgery)	Medicine in Malaysia Conference. MMI Malaysian Medics International, held at University of Malaya, 16 – 17 Aug 2014
<b>See Jie Siang</b> <b>Sim Ru Hui</b> <b>Teng Yi Han</b> (Bachelor of Medicine and Bachelor of Surgery)	Medical Humanitarian Action. Medecins Sans Frontieres International, 3 Sep 2014



## Enhancing Services and Resources

Students	Event
<b>Aslinah Binti Velayit Hussein</b> <b>Ashley Nicholas Dong</b> <b>Wong Wei Shi</b> <b>Shwetambra Vythialingam</b> <b>Chua Ter Wei</b> <b>Ng Chun Sien</b> <b>Aruna Kumarasamy</b> <b>Tang Lik Xian</b> <b>Kuang Ting Shiuan</b> <b>Selina Tee Sze Meng</b> <b>Meroshini</b> <b>Yong Kai Yun</b> <b>Ho Yan Zheng</b> <b>Vaisnavi Sivanesvaran</b> <b>Eric Tan Jin Wee</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	Asia-Pacific Global Health Conference Suturing Workshop by IMU Surgical Society at AIMST University, 4 – 6 Sep 2014
<b>Shobna Kumari</b> <b>Ho Yan Zheng</b> <b>Adrian Low Sheng Kian</b> <b>Andrea Goh</b> <b>Gan Kai San</b> <b>Geraldine Lee Yue Hui</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	Dengue Update. Hospital Tuanku Ja'afar Seremban, 13 Nov 2014
-	1 <sup>st</sup> IMU National Clinical Skills Conference. Clinical School Seremban at and Royale Bintang Resort and Spa, 25 - 27 Sep 2014

## Enhancing Services and Resources

Students	Event
<b>Compulsory involvement of all Semester 8 and 9 students</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	1st National Medical Undergraduate Research Conference 2014. Organised by IMU Clinical School in collaboration with SRC held at IMU Clinical School Seremban on 16 -17 Oct 2014
<b>Syahidah Bt Mohd Noh</b> <b>Salha Bt Mohd Fadil</b> <b>Mohd Aqiuddin Naim Bin Ahmad Puzi</b> <b>Nurliyana Mardhiah Mohd Fauzi</b> <b>Amy Amalina Mohd Yunus</b> <b>Noor Hazwany Bt Noor Hazin</b> <b>Fatin Nooramimi Bt Johan</b> <b>Nurul Izzati Bt A Razak</b> <b>Ahmad Syahmie Bin Shamsudin</b> <b>Ahmad Azfar Bin Azwan</b> <b>Ahmad Farhan Bin Agusalim</b> <b>Saef Bin Umar Barnett</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	Konvensyen Mahasiswa Perubatan Muslim Malaysia 2014. Organised by I-Medik at Universiti Islam Antarabangsa Malaysia (UIAM) Kuantan Pahang on 18 Oct 2014
<b>Top 3 teams</b>  <b>Team 1</b> <b>Michelle Teo Jia Hui (Presenter)</b> <b>Gan TeikYiap</b> <b>Joanne Thing</b> <b>Then Siaw Ling</b> <b>Velentine Anderson</b>	Negeri Sembilan Research Day 2014 on 30 Oct 2014 at Hospital Tuanku Ja'afar Seremban  Assessment Of Symptoms And Quality Of Life In Patients With Advanced Cancer Using The Palliative Care Outcome Scale

## Enhancing Services and Resources

Students	Event
<b>Team 2</b> <b>Siti Aishah Bt Mohd Yusof</b> <b>Ahmed Ikhwan Bin Mohamad</b> <b>Lau Kit Mun</b>	When Did Medical Students Learn How to Use Abbreviations in Clinical Practice
<b>Team 3</b> <b>Noor Hazirah Binti Ahmat</b> <b>Farah Syazana Bt Ahmad</b> <b>Shahabuddin</b>  <b>Other participation:</b> <b>Yap Wei Xian (Presenter)</b> <b>Gan De Yee</b> <b>Chia Su Fen</b> <b>Kaizerin Kaur</b> <b>Nur Ain</b>  <b>Poster entries from IMU:</b> <b>Siti Aishah</b> <b>Noor Hazirah</b> <b>Ho Yuen Teng</b> <b>Michelle Teo Jia Hui</b> <b>Yap Wei Xian</b> <b>Nidhish A/L Balachandren</b>  <b>Volunteers :</b> <b>Reena Prihya</b> <b>Maryam Raya Rasheed</b>	Hypertension Control Among Adult Non-diabetic Patients in the Primary Care Setting of Malaysia: A Systematic Review and Meta-analysis (Poster)
<b>Fatin Nooramimi Bt Johan</b> <b>Noor Hazwany Bt Noor Hazin</b> <b>Aslinah Binti Velayit Hussein</b> <b>Nuur Ijlal Bt Suraini</b> <b>Raja Nor Khalidah Bt Raja Yacob</b> <b>Muhammad Amir Bin Nazri</b> <b>Ahmad Muklis Bin Rahimi</b> <b>Mohd Aqiuddin Naim Bin Ahmad</b> <b>Puzi</b> <i>(Bachelor of Medicine and Bachelor of Surgery)</i>	“Seminar Pendidikan Fatwa Kesihatan Peringkat Negeri Sembilan Tahun 2014” Organised by Jabatan Kesihatan Negeri, Negeri Sembilan on 6 Nov 2014

## Enhancing Services and Resources

### Financial Assistance

The University provides strong administrative support to our students in obtaining financial assistance from various bodies. In 2014, 1,708 students received financial assistance from government and private organisations including the IMU Scholarship scheme.

Sponsor	Students
National Higher Education Fund	954
Jabatan Perkhidmatan Awam	459
Bahagian Penganjuran Pelajaran Mara	85
Kuok Foundation Berhad	31
IMU Scholars	29
Pantai Holding Group	28
Kementerian Pengajian Tinggi Malaysia (MoHE)	17
Penang Adventist Hospital	17
Yayasan Peneraju Pendidikan BU	15
Jabatan Perkhidmatan Awam Negeri	9
Gleneagles Hospital (KL) Sdn Bhd	8
Lee Foundation	8
Maldives Presidential Scholarship Award	7
Malaysian Palm Oil Berhad	6

Sponsor	Students
Yayasan Khazanah	6
Hong Leong Foundation	4
Ministry Of Health And Family Maldives	4
Yayasan Sabah	4
Assunta Hospital	3
ECM Libra Foundation	3
1Malaysia Development Berhad	2
Embassy of Libya	2
IMU Graduate Research Assistant	2
Yayasan Pahang	2
Honda Malaysia Fund	1
Loh Guan Lye Specialist Centre	1
Yayasan Sime Darby	1
<b>Total</b>	<b>1,708</b>

## Enhancing Services and Resources

### The Alumni Association

The Alumni Association was established in November 2002. The University now has more than 6,000 alumni residing in all parts of the world: Malaysia, the United Kingdom and Ireland, North America and Australasia. The alumni website communicates useful information such as postgraduate training courses, job vacancies and events. In addition to the new website, the alumni connect with each other through the IMU Alumni Facebook page. The Alumni Association organised or participated in the following events for 2014:

Date	Event	Invited Speaker	Organised by
14 Jan	Pharmacy Alumni Talk – The Roles of Pharmacists in the Management of Substance Misuse	A/Prof Janie Sheridan	Pharmacy Alumni
7 Feb	Alumni Talk – Alumni Experience about Dundee	Dundee Alumni	Student Representative Council (SRC)
26 Feb	Pharmacy Alumni Talk – Pharmacotherapy of Gout Updates in Management	Gan Pou Wee	Pharmacy Alumni
19 Mar	Pharmacy Alumni Talk – Traditional Chinese Medicine for Pharmacists: A Practical Approach	Ng Shih Chau	Pharmacy Alumni
30 Apr	Alumni Talk – Alumni Experience about Dundee	Dr Ben Luke Choo	SRC
22 May	Pharmacy Alumni Talk – Management of Tuberculosis: Updates on Pharmacotherapy	Rahela Ambaras Khan Rosmaliah Alias	Pharmacy Alumni
11 Jun	Alumni Talk – Sleep Medicine Practicing in the USA	Dr Avinesh Singh Bhar	Medical Alumni Student Services Department (SSD)
17 Jun	Pharmacy Alumni Talk – Management of Peptic Ulcer Bleeding	Hoo Yee Yin	Pharmacy Alumni
20 Jun	Alumni Talk – Alumni Experience about Southampton	Southampton Alumni	SRC
1 Jul	Alumni Talk – Talk on Life in UK, Studying in UK for our Students Going for UK PMS	Dr Mike Titheradge	SRC
8 Jul	Pharmacy Alumni Talk – Diabetic Education: A Practical Approach	Wong Yoke Lian	Pharmacy Alumni
12 Aug	Pharmacy Alumni Talk – Novel Treatments for Diabetes	Prof Brian L Furman	Pharmacy Alumni



## Enhancing Services and Resources

Date	Event	Invited Speaker	Organised by
2 Sep	Pharmacy Alumni Talk – Promoting Treatment Adherence with Motivational Interviewing	Lee Ching Li	Pharmacy Alumni
14 Oct	Pharmacy Alumni Talk – Prevention & Treatment Venous Thromboembolism	Amy Chin Shin Chee	IMU Department of Psychiatry SSD
15 Oct	Alumni Talk – Postnatal Depression & Puerperal Psychosis	Dr Sivakumar Appan	IMU Department of Psychiatry SSD
17 Oct	Alumni Talk – Dentistry Homecoming	Dental Alumni	Dentistry Alumni
13 Nov	Talk on Travel Medicine – Promoting Healthy International Travel – The Emerging Specialty of Travel Medicine	Dr Gerard Flaherty	Bukit Jalil
19 Nov	Pharmacy Alumni Talk – Community Pharmacy Professional Services in United Kingdom: Possible Step Forward	Shi Hao Lim	Pharmacy Alumni
22 Nov	IMU Nutrition and Dietetics Reunion Night 2014	Ng Kar Foo	ND Alumni
24 Nov	An IMU Cares Talk on Use of Locally Made Mobility and Rehabilitation Aids for Children with Cerebral Palsy	A/Prof Toh Teck Hock	SSD
3 Dec	Alumni Talk – Urology in the 21 <sup>st</sup> Century and the Future of Surgical Training	Dr Surayne Segaran	IMU Department of Surgery SSD

### The Student Counselling Unit

The Student Counselling Unit provides confidential services to all IMU students. For the student, university years can be a time of personal discovery and a unique time to work on personal issues. The Counselling Unit helps to enhance and support intellectual, spiritual, sexual and emotional growth, through empowering students towards achieving a fulfilling life. Personal counselling is provided on an individual basis and in a confidential setting. Counselling provides the student opportunities to understand and manage their feelings, and to change behaviours that are not life enriching. Apart from individual counselling, the Unit offers opportunities to work on personal issues in a group setting. In addition, the unit organises developmental programmes to increase the students' life's skills.

## Enhancing Services and Resources

The Unit has three full-time and one part-time counsellors at the Bukit Jalil campus, and one part-time counsellor for the Seremban Clinical School. Students at the Clinical Schools in Kluang and Batu Pahat have access to a counselling service provider. Unit services and activities may be categorised as covering:

- Counselling
- Student development: Talks and workshops; self-discovery sessions
  - Personal Development
  - Career Development
  - Peer support: Training for peers
- Training for staff mentors of students under the Mentor Mentee Programme.

### Counselling Services

Students may seek help personally or be confidentially referred by peers or University staff. Counsellors offer individual attention, empathic support, advice and guidance through individual counselling, career guidance, referral services and crisis intervention. Group counselling is organised on a need basis e.g. study skills group.

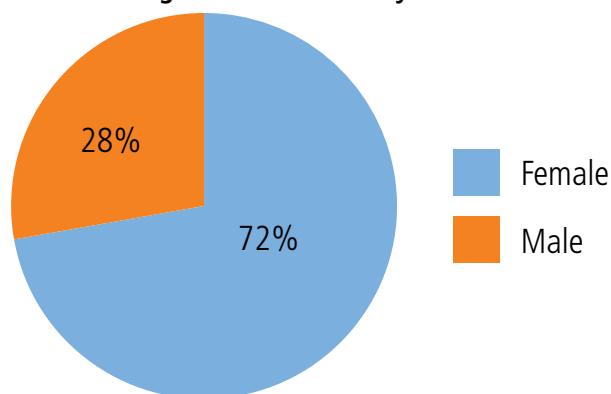
### Service Uptake at the Bukit Jalil Campus

2014 has seen an increase in the total number of cases per month at the Bukit Jalil campus; 173 students (5% of the total student population) were counselled and of these 140 were seen for the first time; of the total 72% were female and 28% male. The total counselling hours were 749, with the largest number of sessions in March, May and November, these being examination or enrolment months.

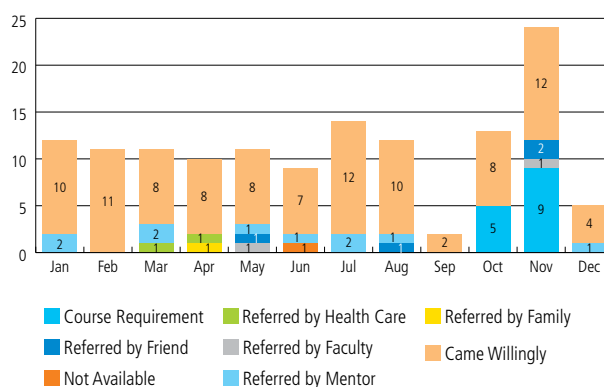
Mental health, stress and relationships problems were the most common presenting problems in 2014. Clients were mainly from the MBBS programme, followed by Psychology and BPharm programmes. The number of clients from each programme is generally proportionate to the enrolment in that

programme. The Psychology students are an exception as it is part of the prerequisite of the Counselling Module.

**Percentage of Total Clients by Gender 2014**



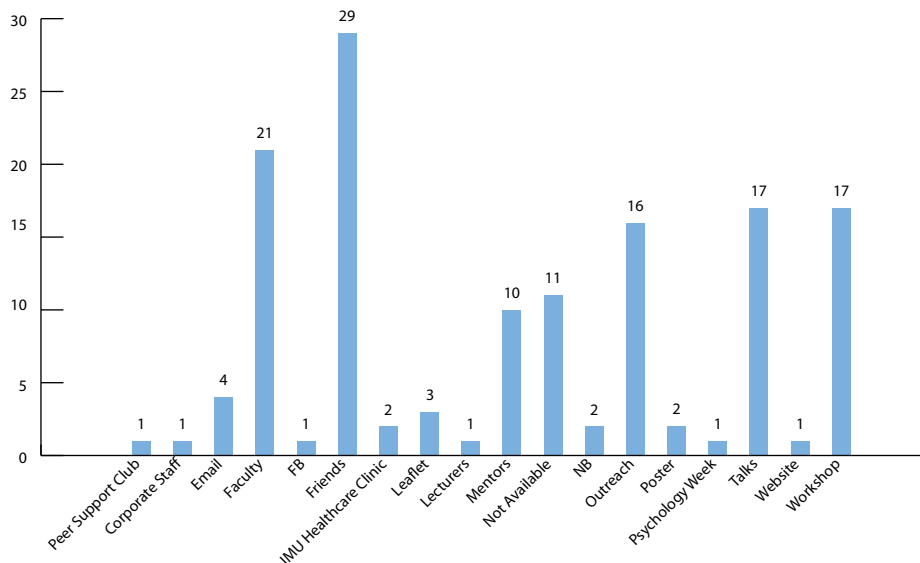
**Attend Counselling due to Referral / Course / Free Will by Month**



Most of the students chose to seek counselling of their own volition, with a relatively small number being referred.

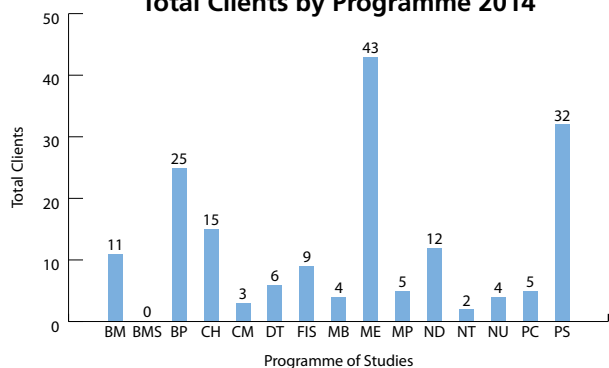
## Enhancing Services and Resources

**How did the Students know about the Counselling Services 2014**

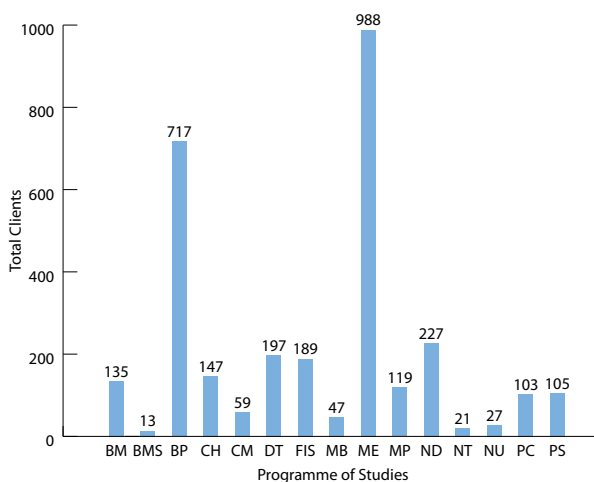


Though the outreach and orientation workshops and talks were important, friends, followed by faculty, were the main source of either informing or reminding their friends about the counselling services.

**Total Clients by Programme 2014**

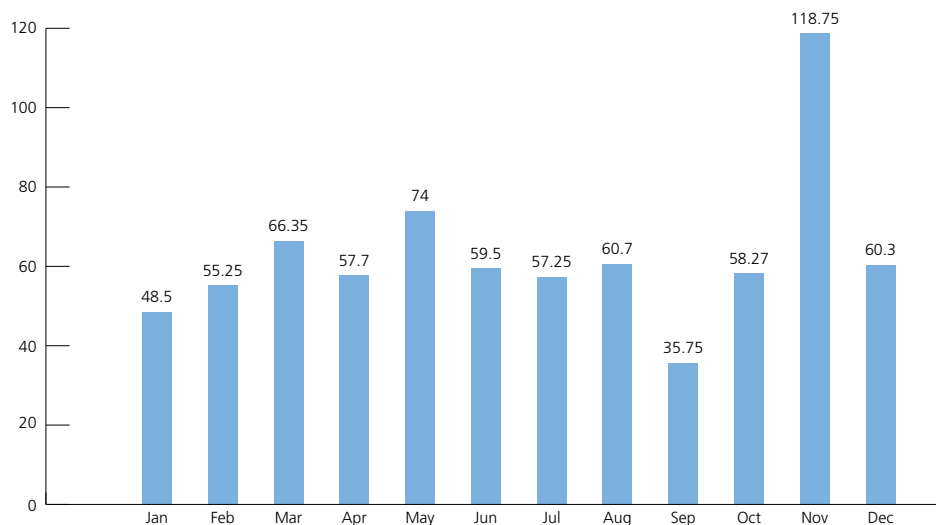


**Total Active Students as 31st 2014**



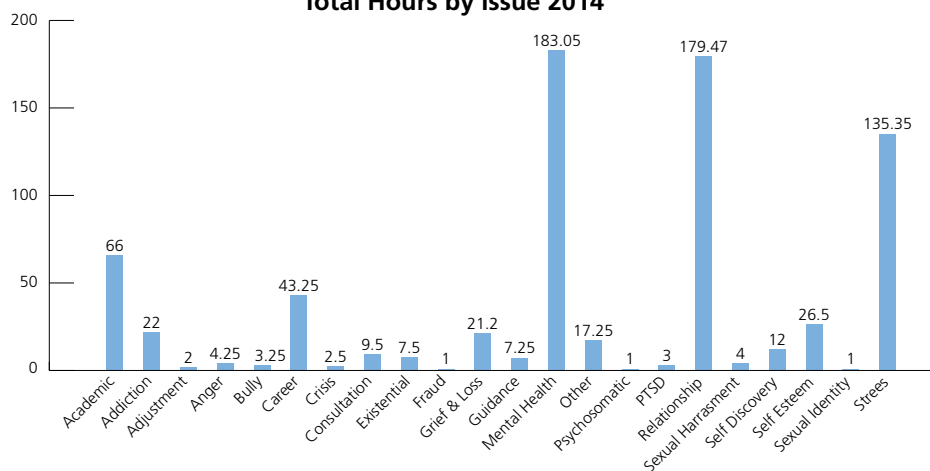
## Enhancing Services and Resources

**Total Hours by Month 2014**



There has been an increase in counselling in 2014 where we did not experience any month with a particularly low number of counselling hours.

**Total Hours by Issue 2014**

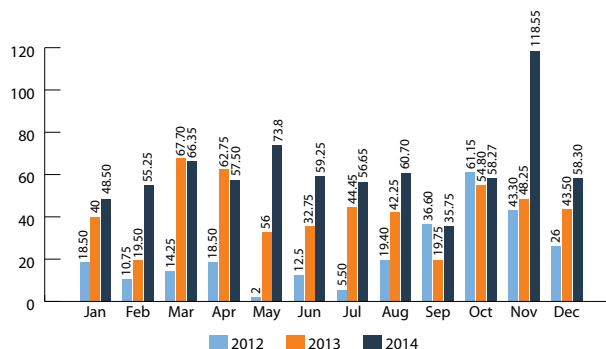


## Enhancing Services and Resources

Students' with mental health issues required more support and follow-up. This was indicated in the total hours, with 183 hours for students with mental health issues followed by 179 hours for relationship problems, and 135 hours for stress. In 2013, more hours were spent on stress than relationship issues. The trend since 2012 shows a 100% increase in numbers from 2012 to 2013, and a 27% increase from 2013 to 2014, with corresponding increases in hours. This increase may reflect the increased number of full-time counsellors since 2012, and increasing openness of students to seek counselling

Year	Female	Male	Total
2012	49	19	68
2013	97	39	136
2014	125	48	173

**Total Hours for 2012, 2013 and 2014**



### Group Counselling

Group counselling is for a group of students who may be experiencing similar difficulties, or who have similar personal developmental goals. Group counselling provides a unique way to learn about one's own self and relationships, to gain confidence or to develop new skills and abilities through the dynamics of the group, which includes learning healthy ways to give and receive support and feedback.

For 2014, four groups were organised. One group of individuals wished to improve their study skills, and one group was formed on the basis of career interest. The other two groups were of psychology students who asked to experience group counselling as part of their course requirement. Each group session was approximately 1.5-2 hours long. In the sessions, students were able to learn new skills such as time management, relaxation techniques, and being focused. Students were also able to learn from each other's experience. The counsellor facilitated sharing of feedback and experience.

Theme	Month	Sessions / Total Hours	Number of Students	Programme of Study
Study skills	September – November	4 / 5.5	4	Foundation in Science
Self development	October – November	3 / 6	5	Psychology
Self discovery	November – December	3 / 4.5	4	Psychology
Career interest	November	1 / 1	2	Biomedical Science

### Counselling at the Seremban, Kluang and Batu Pahat Clinical Schools

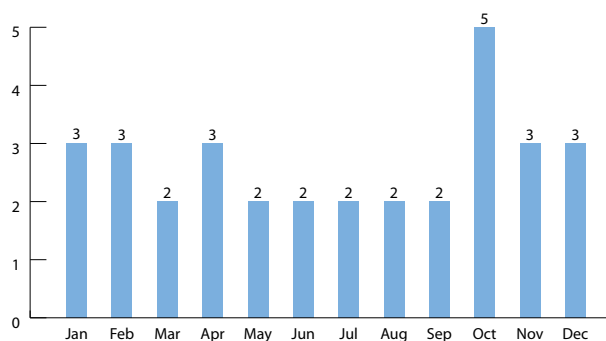
Most students at the clinical schools manage their problems on their own without seeking counselling. We have appointed two counselling centres for clinical school students. In an effort to provide more support to students at the Seremban Clinical School, staff

## Enhancing Services and Resources

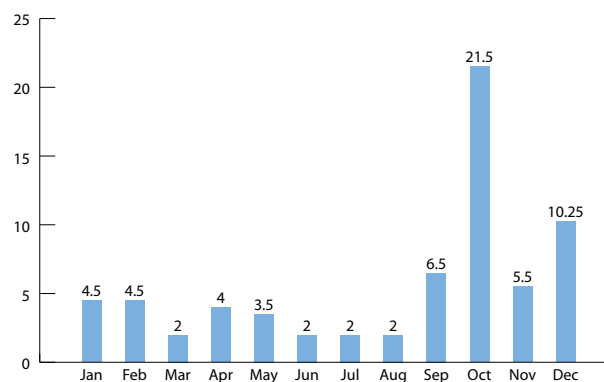
met with students facing academic difficulties. These students were found to be facing challenges resulting in increased stress and affecting their concentration. These students were referred to the counsellor at Seremban. There has been better coping among these students with half being able to progress in their academic programme. The tools in Mindful Gym were helpful to curb anxiety during the examination period.

At Seremban 13 students (2.8% of the total population of 469) attended counselling sessions in 2014. Of these 8 were females and 5 were males. There was a total of 68.25 contact hours in 52 counselling sessions. The number of cases peaked in October and one case required crisis intervention. The most common problems reported by students seeking counselling were related to academic issues, stress and depression. In order to better address the needs of the students, the Counselling Unit organises workshops as reported below.

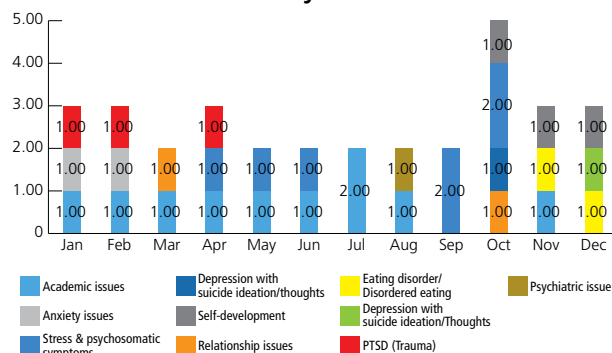
**Total Clients by Month (Clinical School SB) 2014**



**Total contact hours 2014 Clinical School SB**



**Case issues (Clinical School SB) attended by month 2014**



### Summary of the Activities Organised by Counselling Unit for 2014

Throughout the year, workshops and talks are conducted at regular intervals on a variety of subjects. The Counselling Unit developmental programmes aim to enhance students' emotional intelligence, skills in managing life, and job readiness. All new students are given a talk on the role and functions of the Unit, and the Unit could journey with them through their time at university via our talk. We welcome them warmly and extend our hospitality through the introduction of our self-development programmes of Sand-tray, Oh cards,



## Enhancing Services and Resources

Expressive Arts, Psycho-educational programmes such as Learning How to Learn and Knowing your Whys and What's Your Journey? There are talks on personal safety, behavioural style, time management and study skills and stress management. Workshops for job readiness such as Resume Writing; Interviews Skills; Reading Body Language; Personal Grooming and How to Dress Appropriately for the Workplace are other on-going events offered to our final year students.

The support activities of the Unit can be classified as student or career development.

- I. Student Development
- II. Career Development
- III. Support for Student Ambassadors
- IV. Peer Support Club Training and Activities
- V. Training for Student Mentors

### Career Guidance & Counselling

In 2014, the Partnership with Industry Steering Committee was formed under the leadership of Prof Ong Kok Hai. The remit of the Committee is to establish collaborative links with stakeholders and potential employers of our graduates, and to advise on strategies and methods that enhance the employability of our graduates, and facilitate student mobility within Malaysia and abroad. The Counsellors contribute to this effort by working with the Committee, by providing career counselling and by organising career development and career events. Career counselling includes guidance on career information, career decision-making and career assessment.

In 2014, the Unit designed a Career Workshop to guide the first cohorts of students undertaking the Foundation in Science programme, choose a programme of study after they completed the Foundation programme. The workshop began with a Self-Directed Assessment (SDS) based on Holland's theory of matching six personality types with six work environments, with the caveat that no test can provide a perfect assurance of the right career. The students

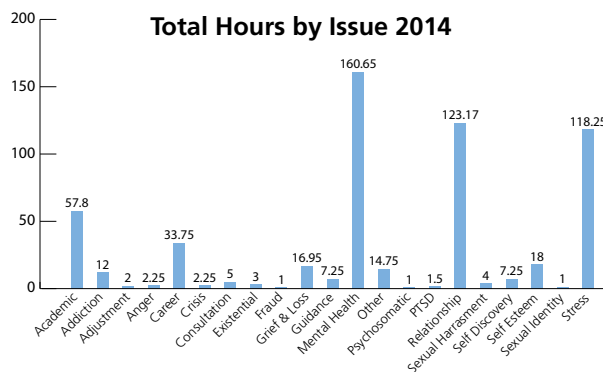
were encouraged to learn as much as they can about themselves and the occupations or professions they may wish to choose.

### Potential Students

The Unit provides career counselling to potential students during university Open Days. A career test is given followed by individual counselling. Students who face challenges about choices made earlier are assisted to explore other career options. In 2014, 187 potential students benefited from this help at our Open Days in January, June and August.

### Current Students

The Unit offers career guidance to enhance students' confidence and clarify their direction. In 2014, 33.75 hours of career counselling were used for our students. Some students chose to change their programme of study while others realigned their career goals.



### The Health Sciences and Pharmacy Career Week 2014

2014 saw a new way of engaging with our industry partners. The Health Sciences and Pharmacy Career Week was organised to provide an opportunity for our graduating students to meet and network with various companies.

## Enhancing Services and Resources

The 2014 graduating cohorts were from Nursing (NU1/10), Biomedical Science (BM1/10), Medical Biotechnology (MB1/11), Nutrition and Dietetics (ND1/10), Pharmacy (BP1/11), Pharmaceutical Chemistry (PC1/11) and Psychology (PS1/11 and PS2/11).

Two workshops were organised in February 2014 to help the students and prepare them for interviews. Generally the students found the workshops useful with more preferring to choose Resume Writing and Interviewing Skills to Personal Grooming.

Resume Writing and Interviewing Skills workshop was to equip the students with latest information on what employers required during interviews and in their resumes besides educating them on the corporate challenges and culture. Personal Grooming workshop was to help both the male and female students to know the importance of first impression and the importance of grooming and dressing for interviews.

Lunch talks by different industries were organised for the students during Career Week. The whole event ended successfully with a "Career Day," where 19 companies came to IMU to set-up their booth for the benefit of the students who may be interested to know more about the company and the industry. The main objective is to provide an opportunity for our students to talk to potential employers about the current job market and explore the availability of job opportunities. Current students were encouraged to take up internship opportunities made available by certain companies. It was an avenue for our students to learn to communicate with the company representatives.

The 19 participating companies were Ajinomoto (Malaysia) Berhad, BP Healthcare Group, CCM Chemicals Sdn Bhd, DKSH Malaysia Sdn Bhd, Eli Lilly, Glaxosmithkline Consumer Healthcare Sdn Bhd, Guardian Pharmacy, JobsCentral (M) Sdn Bhd, JobsDB Malaysia, JobStreet.com, Johnson & Johnson Sdn Bhd, Juzcare Pharmacy, Kotra Pharma (M) Sdn Bhd, Mahkota Medical Centre, Novo Nordisk Pharma (M) Sdn Bhd, Pantai & Gleneagles Hospitals, Pharmaniaga Berhad, Schmidt Biomedtech Sdn Bhd and Zenotec Pharma Sdn Bhd.

For the participating companies, it was not only an opportunity to network with our existing students but also to enhance its organisation image amongst job seekers. Participation is free for both the companies and the students.

### Career Development Activity 2014

Month	Theme	Total Hours	Participants
January	Career Test and Counselling for Open Day	6.5	60
February	Interviewing Skills and Resume Writing Workshop by <b>Tim</b> , Jobstreet.com	3.5	78
	Personal Grooming workshop by <b>Anba</b> (Persona Coach)	3.5	36
	Interviewing Skills and Resume Writing Workshop by <b>Azmi A Bakar</b> (Smart Knowledge Consultant)	3.5	108
	Personal Grooming workshop by <b>Sherin Callay</b> <i>Professional Image Consultant, Chapter One</i>	3.5	15

## Enhancing Services and Resources

Month	Theme	Total Hours	Participants
February	Career as a Dietitian in Malaysia by <b>Tuan Haji Ridzoni</b> , Head for MOH Dietitians, Hospital Kuala Lumpur	1.5	73
	Professional Roles of Dietitians in Malaysia by <b>Prof Winnie Chee</b> , President, Malaysian Dietitians' Association	0.5	73
	Pharmacist Job Perspectives by <b>Lee Mun Sun</b> , <b>Jamuna Rani</b> , <b>Dr Wong Pei Se</b> and <b>Lee E Lyn</b> , Lecturers, IMU	1	58
	Ethics and Stakeholder Management At The Workplace by <b>Cheah Ming Loong</b> , General Manager for Ethical Division, Kotra Pharma (M) Sdn Bhd	1	58
	Career Talk by Pfizer by <b>Shazmi Ali</b> , Director of Human Resource, Pfizer	1	64
	Career Opportunities in Life Sciences by <b>Hellen Goh</b> , Assistant Sales Manager, Science Vision Sdn Bhd	1	32
	Provisionally Registered Pharmacist ( PRP) training programme at Guardian Pharmacy	1	73
	Exploring Career Opportunities with Pantai by <b>Ron Shashi</b> , Senior Manager, Learning and Development, Pantai Management Resources	1	94
	Career in a Coordinated Healthcare Environment by <b>Rainee Jay</b> , Director of Klang Valley Group Management, BP HealthCare Group.	1	26
	Postgraduate Study: Is it for me? by <b>Prof Chu Wan Loy</b> , Dean, School of Postgraduate Studies, IMU	0.75	43
March	Careers Day	3.5	100
April	Resume Writing & Interview Skills (MPharm Semester 4) by <b>Tim</b> (JobStreet)	4.5	61
	Personal Grooming (MPharm Semester 4) by <b>Anba</b> (Personal Coach)	2.5	61
May	Career Development Workshop (Foundation in Science – FiS January Intake) by <b>Carina Lai</b> , <b>Low Xin Yuan</b> and <b>Mrs Phoong</b>	7.5	41
June	Career Test and Counselling for Open Day	6.5	50
August	Resume Writing and Interviewing Skills (All Graduating Cohorts) by <b>Lilian Kok</b> , Social Media Strategist/ Writer of GTI	1	142
	Career Test and Counselling for Open Day	6.5	77
September	Career Development Workshop (FIS May Intake) by <b>Carina Lai</b> , <b>Low Xin Yuan</b> and <b>Mrs Phoong</b>	2.5	66

## Enhancing Services and Resources

### **Outreach: Student Development Talks and Workshops at the Bukit Jalil Campus**

Students who need help may have various reasons for not using the Counselling Service. For instance they may perceive seeking help to be a sign of weakness. The Counsellors therefore seek to disseminate understanding about the role of the Unit to students, in a non-threatening way. To do this, the counsellors have introduced one-to-one sessions for self-exploration and discovery using various techniques such as use of sand-tray, cards and art. The aims are to facilitate student self-exploration and to enable the student to acquire deeper understanding about themselves.

### **Self-Discovery Using Sand and Cards**

Sand tray and Cards are forms of expressive art therapy which typically brings to surface unconscious or subconscious material. This is offered as a means for self-discovery. It is usually very satisfying for the participants to see an external representation of their internal state. Twenty-five sand tray sessions and six card sessions were conducted in 2014. Each session is normally one hour on an individual basis ie one student per session with some being conducted in groups upon request. Students responded that they had gained a better understanding of self, through the activity. This outreach activity has resulted in several students seeking further counselling who would not otherwise have done so.

### **Orientation Talks and Workshops for New Students.**

The orientation programme for new students is aimed at helping newly enrolled students adjust to University life. The briefing on Personal Safety highlights the need for vigilance, awareness of surroundings and immediate environment, potential dangers and risks; and outlines the prevalence and common types of crime, with practical strategies and methods for self-protection. Students are introduced to the Counsellors and the services offered by the Counselling Unit. A

workshop themed My Behavioural Style provides understanding of individual behavioural styles, and thus insight into how individuals might work together. At the session on Study Skills, senior students from each programme share their knowledge and insights about the learning environment; strategies they use to effectively manage their academic work, the study skills new students will find useful; and the vital need for good time management and development of self-direction in learning. The orientation programme is repeated for each new incoming cohort.

### **Other Developmental Events**

In 2014, talks were given on Time Management, Study Skills etc. Total attendance at events was 167.

### **Clinical Schools, Seremban**

In Seremban Clinical School, students are empowered to manage stress using “Mindful Gym,” developed by psychiatrist Dr Phang Cheng Kar in 2010. This programme is based on ancient spiritual wisdom and state-of-the-art scientific research in mindfulness, cognitive behavior therapy and positive psychology.

In October 2014 under the workshop “Train the Trainers”, Dr Phang personally trained our students. These students in turn are to conduct the workshop for their peers. Dr Phang’s workshop was attended by a group of Semester 7 Medical students at the psychiatric posting, two students from Semester 8 Nutrition and Dietetics (N&D) and five psychology students. The two students from N&D were the first to conduct a workshop for their peers. The feedback was encouraging. Those who attended found the techniques useful and easy to apply. We hope to continue this “Mindful Gym workshop” conducted by the students for their peers.

### **Kluang and Batu Pahat**

Contrary to general perception, the feedback from students in Semester 10 is, the stress level is far higher

## Enhancing Services and Resources

than the earlier semesters. Therefore, to give our graduating students a better experience in this final semester, the unit organised a mini-workshop on “Being a 3Q Doctor” given by our contract counsellor, Tam Wei Poh. The students enjoyed his wit and informative workshop. It was also an opportunity for the students to meet the counsellor. The table summarises self-development activities for 2014.

Category	Theme	Total Hours	Participants
Self-Discovery Sessions	Sand Tray	1hr x 25 sessions	25
	Cards session	1hr x 6 sessions	6
Orientation Talks and Workshops	My Behavioural Style	17.5 (7sessions)	635
	Personal Safety & Introduction to the Counselling Unit	9.5 (8 sessions)	915
	Managing Work & Study for Nursing Science	1	45
	Study Skills Sharing with Seniors	9	361
Personal Development Talks and Workshop at Main Campus	Students' Success Workshop (FIS)	3.5	7
	What's Your Journey - Study Skills (PC)	1	27
	Steps to Help Oneself and Others Who are Suicidal. (ME110)	1	37
	Time Management (BP)	1	96
Personal Development Talks & Workshop at Clinical Schools	Stress Management – Mindful Gym	5 sessions	324
	Being a 3Q Doctor	2 sessions	88

### Support and Training for the Student Ambassadors

The Student Ambassadors are students selected to represent the University in various activities. These individuals go through a training programme with the aim of enabling them to interact effectively with members of the public and students of other universities, alumni, faculty and other staff. The programme is also aimed at preparing students for transition from university to working life as smoothly as possible. In 2014, we had 30 Ambassadors. The Counselling Unit supports them through training them on team building and leadership skills, communications and presentation skills; about grooming; problem solving and decision-making skills.

Date	Topic & Facilitator
25 – 27 Apr	3D2N Leadership Team Work. Nomad Adventure Sdn Bhd.
17 May	Personal Grooming. Cynthia, Color and Styles
24 May	Dynamic SA. Dolly Kee, D’Kee Image Power Sdn Bhd
16 Aug	Communication Skills using the Color Brain Profiling Yeong Wai Ling, Culture Dynamics.
27 Sep	Communication Skills. Wilson Tee, Turning Point.
8 Nov	Conflict Management. Low Mi Yen and Wilson Tee, Turning Point.

## Enhancing Services and Resources

### The Peer Support Club

The Club, which before 2014 was the Campus Friends Club, is a group of volunteer students with training in basic helping skills. These students pro-actively offer support to peers who are in need. The aims of the Club are to aid students in need through respectful support, and the Club represents that part of the University's mission aimed at creating a supportive and caring community. Club members offer a valuable service to student welfare by putting the counselling staff in contact with students who may otherwise be neglected.

In 2014, 20 peer supporters completed the 16 hours of Level 1 training in basic helping skills. The supporters attended follow-up supervision group meetings to continue practicing their skills, and 18 have advanced to Level 2 training on suicide prevention by The Befrienders. The Counselling Unit is to launch an email service that will provide another avenue for students to confidentially share their concerns with peers. This service will be offered by the peer supporters who have completed their training and their responses to students will be supervised by Counsellors.

### Mental Health Day 2014

In October, the Unit together with the Peer Support Club and the Asian Medical Student Association organised the Mental Health Day with the theme Living with Schizophrenia. The aims were to raise awareness of mental health problems, and to enhance understanding of schizophrenia and what could be done to help those in need. The Day included an exhibition, a forum, and various student-led activities. Many positive comments were received. An unexpected side benefit was the enhanced awareness of services and help offered by the Counselling Unit.

Month	Event	Participants	Remarks
March, May	Peer Support Training Level One (Module 1 & 2), 16 hours	21	Students found it very useful to learn listening and basic helping skills. They also learned to be more empathetic towards others.
September	Half Day CSR Project at PPR Kota Damansara - Students taught the children self-cleanliness through activities and games	10	The children reported having fun with the activities. Students who helped out with this has also broadened their perspectives and developed their communication skills.



## Enhancing Services and Resources

Month	Event	Participants	Remarks
October	<b>Mental Health Day “Living with Schizophrenia”</b> <b>2 Days Exhibition</b> - Useful information about Schizophrenia, tips on self-care, stress management, nutrition and diet, as well as reliable resource’s information were provided  <b>Student Activities:</b> a) Art and Video Competition with the theme “Schizophrenia” b) Positive Quotes Distribution c) Hearty Search Competition d) Food Tasting Booth e) Message & Donation Booth f) Malaysian Mental Health Association Booth	200	<p>There was a continuous stream of students dropping by to read the contents of the exhibition daily. Students found the information and resources helpful.</p> <p>Students were actively participating in all the activities and found the activities interesting and meaningful.</p> <p>A total of RM752.85 was collected and was donated to Malaysian Mental Health Association (MMHA) and Care NS Family Support Group.</p>
	<b>“Living with Schizophrenia” Forum Programme:</b> 1. Talk on “The Truth about Schizophrenia” by A/Prof Philip George 2. Sharing of the topic “The Emotional Toll Schizophrenia can have on the Entire Family” by Benjamin Dorai 3. Panel Discussion: i) A/Prof Philip George (Psychiatrist) ii) Dr Nicole Chen (Counsellor) iii) Dr Chee Jiunn Heng (IMU Alumni) iv) Dr Eileen Nadarajah (Committee Member of Malaysian Mental Health Association) v) Poh Kim Pheng (Vice President of Malaysian Mental Health Association)	250	<p>Participants included IMU staff and students, caregivers of patients with schizophrenia, students from other universities and the public.</p> <p>Many positive feedbacks were received regarding the whole forum. Participants had gained a lot of insights and knowledge about schizophrenia from the speakers.</p>
November	<b>Peer Support Training Level Two</b> By Befrienders KL Listening Skills and Suicide Prevention Workshop, 3 hours	18	Students have gained better skills in active listening and approaching suicidal person.

## Enhancing Services and Resources

### Mentoring Students: Workshops for Mentors

Each student is assigned a faculty member as mentor. The training workshop for mentors conducted twice yearly to train new mentors on their role and responsibilities. Case studies are used to illustrate the management of different types of mentee situations and feedback is elicited to improve the workshop's content and structure. In 2014 the workshops were run in April and in November for 37 and 23 participants respectively. Mentors learnt from more experienced colleagues and were introduced to cultural differences in mentoring.

### Student Extra Curricular Activities

The University fosters an atmosphere in which students can openly share ideas, interests, and concerns. Through involvement with co-curricular activities and attendance at programmes organised by students' groups, students can develop their skills, knowledge, attitudes, and behaviour in regards to ethics, communications, management, vision and aesthetics, as well as find opportunities to confront and discuss ideas that may be new to them. Involvement in co-curricular activities plays an important and complementary role to learning in the classroom and the University strongly supports student creativity and involvement in organisations. As such, the Department is responsible for all the extra-curricular activities organised or participated by IMU students. Most student involvement in extra-curricular activity occurs through student clubs and societies. These are of three general categories: social; cultural-religious; or games/sports.

### Activities by Students at the Bukit Jalil campus

Month	Intra-University Event	Inter-University Event
January	<ul style="list-style-type: none"><li>• MPQ1/14 Orientation</li><li>• FIS Orientation</li><li>• Christian Fellowship Society – IMU Staff Appreciation Week</li><li>• CH1/14 Orientation</li></ul>	<ul style="list-style-type: none"><li>• GACC International IV Chess Championship</li></ul>
February	<ul style="list-style-type: none"><li>• IMU Ball Ticket Sales</li><li>• Dart Club – Cricket Dart Competition</li><li>• Infinity Milers – Registration for Nottingham Run</li><li>• Oral Health Committee – Dental Ball</li><li>• MDCTP 114 Orientation</li></ul>	

## Enhancing Services and Resources

Month	Intra-University Event	Inter-University Event
March	<ul style="list-style-type: none"> <li>• Chiro Cup 2014</li> <li>• Oral Health Club – Dental Orientation 2014</li> <li>• BPharm 1/11 – Charity Bazaar</li> <li>• First Aid Club – First Aid Training</li> <li>• Hindu Society – Cultural Week</li> <li>• Nurturing Club – Suture Workshop</li> <li>• Annual Club Recruitment Drive</li> <li>• Dental Cup 2014</li> <li>• Chinese Martial Arts – Self Defense Seminar</li> <li>• Buddhist Society – Inter-religious Forum</li> <li>• Muslim Society – Workshop on Al Fatihah</li> <li>• Music &amp; Performance Club – Battle of the Bands</li> <li>• Dance Club – Dance Night</li> </ul>	
April	<ul style="list-style-type: none"> <li>• IMU CF – Easter Event</li> <li>• AMSA – EMPOWERED Colorectal Cancer Screening Training</li> <li>• Buddhist Society – Blood Donation</li> <li>• In Support of Women – HPV Awareness Week</li> <li>• Health Science Orientation</li> </ul>	<ul style="list-style-type: none"> <li>• MMU Swimming Competition</li> <li>• Community Service Club – World Parkinson Day Run</li> </ul>
May	<ul style="list-style-type: none"> <li>• MPharm – Fundraising for Lovely Nursing Home</li> <li>• FIS 2/13 – Orientation</li> <li>• Exhibition on Traditional &amp; Complimentary Medicine</li> <li>• AMSA – NAPS</li> <li>• Buddhist Society – Wesak Day Exhibition and Wesak Night</li> <li>• Music and Performance Club – Acoustic Night</li> <li>• Chariofare – Movie Screening Week</li> </ul>	<ul style="list-style-type: none"> <li>• MAPCU Track &amp; Field</li> <li>• National Clinical Pharmacy Challenge 2014</li> </ul>
June	<ul style="list-style-type: none"> <li>• Oral Health Week</li> <li>• Muslim Society – Entrepreneur Month 2014</li> <li>• MP1/14 – Engaging with Strathclyde students</li> <li>• AMSA Ambassador ME1/14 – Fundraising Event</li> <li>• Infinity Milers – Blood Donation Run Race Pack Distribution</li> <li>• IMU Convocation</li> <li>• FIS – Bazaar Fundraising</li> <li>• Chariofare Run Registration</li> <li>• MSOC – Syria Week</li> <li>• FIS – Fundraising by recyclable item collection</li> <li>• Muslim Society – Ihya Ramadhan Bazaar</li> </ul>	<ul style="list-style-type: none"> <li>• Infinity Milers – Run for the Blind Registration</li> <li>• IMU Inter-University Ultimate Frisbee Beginner's Hat</li> <li>• Intervarsity Bhajan Competition 2014</li> </ul>

## Enhancing Services and Resources

Month	Intra-University Event	Inter-University Event
July	<ul style="list-style-type: none"> <li>• MSOC - Community Services</li> <li>• Charity for underprivileged in India</li> <li>• Brighton Talk</li> <li>• 2014 BPharm and Health Science Orientation</li> <li>• Muslim Society Exhibition for Ihya Ramadhan</li> <li>• Muslim Society Grand Iftar</li> <li>• Muslim Society (MSOC) Talk</li> </ul>	
August	<ul style="list-style-type: none"> <li>• ND1/12 Health Promotion Week</li> <li>• Hua Xia Chinese Cultural Society – Mid Autumn Festival</li> <li>• Merdeka Week</li> <li>• ME21/4 and FIS Orientation</li> </ul>	<ul style="list-style-type: none"> <li>• Tzu Chi Collegiate Youth Association – Environmental Protection and Vegetarian</li> </ul>
September	<ul style="list-style-type: none"> <li>• Hua Xia Chinese Cultural Society – Chinese Cultural Week</li> <li>• Buddhist Society – Organ Donation Campaign</li> <li>• Convocation</li> <li>• IMU Cup</li> <li>• Chariofare – International Food Day</li> <li>• IMU Yoga club – Yoga trial for the public</li> <li>• Eco Friends Club – Annual Tree Planting</li> <li>• Walk for Cure 2014</li> </ul>	<ul style="list-style-type: none"> <li>• Chariofare</li> <li>• IMU Pharmacy – 1<sup>st</sup> National Pharmacy Debate Competition</li> <li>• MAPCU Board Game</li> </ul>
October	<ul style="list-style-type: none"> <li>• IMU Scholars – Faculty Appreciation Week</li> <li>• Health Science Orientation</li> <li>• Community Service Club – World Vision (Exhibition)</li> <li>• Buddhist Society – Blood Donation Drive</li> <li>• Crime Prevention Dialogue Session with Police Officers</li> <li>• Fundraising for World Vision</li> <li>• IMC Convocation</li> <li>• World Spine Day</li> <li>• Peer Supporter – Mental Health Day</li> <li>• Community Service Club – Photo Exhibition for MICCP</li> <li>• IMU Scholar Club – International Forum</li> <li>• Biomedical Science – Senior Junior Night</li> <li>• Indian &amp; Sri Lankan Cultural Society - Diwali Week</li> </ul>	<ul style="list-style-type: none"> <li>• Festival of Arts</li> <li>• IMU Cares – Fundraising for Rumah Megah</li> <li>• Board Game Club – UTP</li> <li>• Taekwondo Club – MAPCU</li> <li>• Photography Club –Walking with Light Healthwalk</li> <li>• PC1/13 – Fundraising for Rumah Elderly Victory and Loving Care Home</li> <li>• IMU Cares – Kampung Serendah Orang Asli Project (Fundraising and Donation Drive)</li> </ul>

## Enhancing Services and Resources

Month	Intra-University Event	Inter-University Event
November	<ul style="list-style-type: none"> <li>• Community Service Club – Slipper Sales for MICCP 2014</li> <li>• Music &amp; Performance Club – Acoustic Night</li> <li>• IMU Cup Closing Ceremony</li> <li>• Infinity Milers Gua Tempurung One Day Trip</li> <li>• Student Ambassador Workshop</li> <li>• Taekwondo and IMU Martial Arts Club – Martial Arts Camp 2014</li> <li>• Malay Cultural Week</li> <li>• Scholar Club – Inter-professional Forum 2014</li> <li>• Editorial Board – IMU Model Search</li> <li>• Buddhist Society – Buddhist Camp</li> <li>• Christian Fellowship/AMSA/Intravarsity Club – Christmas Week</li> </ul>	<ul style="list-style-type: none"> <li>• IMU Halloween Night</li> <li>• Festival of Light</li> <li>• IMU Debate Open</li> </ul>
December	<ul style="list-style-type: none"> <li>• Dance Club – Dance Concert 2014</li> <li>• Community Service Club – Paediatric Ward Christmas Party</li> </ul>	

### Activities by Students of the Clinical School, 2014

Period	Intra-University Event	Inter-University Event
January	Launching of IMU Cancer Awareness Website	Community Project Kg Sebir, Labu, Negeri Sembilan
February	<ul style="list-style-type: none"> <li>• IMEC - Special Lectures on Bioethics &amp; Humanism in collaboration with the IMEC - 2014</li> <li>• C2/11 MBBS Oath Taking (Declaration) Ceremony</li> </ul>	Community Project Kg Sebir, Labu, Negeri Sembilan
March	<ul style="list-style-type: none"> <li>• Orientation - Semester 6 C1/14</li> <li>• C1/14 White Coat Ceremony</li> <li>• MBBS Programme 15<sup>th</sup> Anniversary Dinner</li> <li>• C1/14 Orientation Nite</li> <li>• IMEC 2014 - Special Lecturers' on Humanism</li> <li>• Christian Fellowship - Welcoming Party for Semester 6</li> <li>• Surgical Society - Basic Surgical Skills Workshop in collaboration with Nurturing Club, IMU Bukit Jalil</li> <li>• Surgical Society - The Basic Surgical Skills National Competition for Medical Students 2014: Preliminary Rounds</li> <li>• Surgical Society Welcoming Party 2014</li> </ul>	Community Project Kg Sebir, Labu, Negeri Sembilan

## Enhancing Services and Resources

Period	Intra-University Event	Inter-University Event
April	<ul style="list-style-type: none"> <li>• IMU Surgical Society - In-Campus Suture Training Workshop</li> <li>• IMU University Day</li> <li>• Providing an Effective Feedback for Student Portfolio</li> <li>• Clinical Meeting at Hospital Tuanku Ja'afar</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project Kg Sebir, Labu, Negeri Sembilan</li> <li>• Medical Faculty Bowling Competition with HSNI</li> <li>• Community Project Old Folks Home, Sikamat</li> <li>• 3<sup>rd</sup> ICP Kuala Pilah – Promoting Adolescent Health</li> </ul>
May	<ul style="list-style-type: none"> <li>• Goodwill Games 2014</li> <li>• 4<sup>th</sup> Elective / Selective Oral Presentation</li> <li>• Sharing session by Dean, SOM and HOD, HDPH</li> <li>• Prof Ed Peile's session in Clinical School</li> <li>• Blood Transfusion Talk by Blood Bank Dr Ismawati at CS Kluang</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project Kg Sebir, Labu, Negeri Sembilan</li> <li>• IMU Cares Project Kluang – Semester 10 (Health Screen &amp; Cancer Awareness Day – Blood &amp; Organ Donation Drive)</li> <li>• MMA Seminars</li> </ul>
June	<ul style="list-style-type: none"> <li>• Housemanship - Briefing</li> <li>• CME Talk - Dr Avinesh Bhar (IMU Alumnus)</li> <li>• PEAC Reviews</li> <li>• IMU Convocation Ceremony – 1</li> <li>• Housemanship - Interview with SPA</li> <li>• Medicolegal Workshop at Hospital Kluang</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project - Kg Sebir, Labu, Negeri Sembilan</li> <li>• Community Project - Health Screening, Port Dickson</li> <li>• Community Project - Rumah Sejahtera Jimah Lukut Port Dickson</li> </ul>
July	<ul style="list-style-type: none"> <li>• MCAC Meeting - SRC</li> <li>• Muslim Society - Grand Iftar</li> <li>• Farewell Dinner for Semester 10</li> <li>• IMU Surgical Society - Surgical Suture Workshop</li> <li>• CME Surgical at HEBKH Auditorium, Second Floor</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project Kg Sebir, Labu, Negeri Sembilan</li> <li>• Jemputan Ke Majlis Berbuka Puasa dan Solat Tarawih Bersama YAB Perdana Menteri Malaysia</li> </ul>
August	<ul style="list-style-type: none"> <li>• C1/12 MBBS Oath Taking (Declaration) Ceremony</li> <li>• CPD and Fellowship High Tea during the Semester 9 exams</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project - Kg Sebir, Labu, Negeri Sembilan</li> </ul>



## Enhancing Services and Resources

Period	Intra-University Event	Inter-University Event
October	<ul style="list-style-type: none"> <li>• PEAC - Meet Students 'Learning on Social Accountability' - SRC</li> <li>• Christian Fellowship Talk</li> <li>• Muslim Society - Strategising Studies - 3 Secrets to Surviving Clinical Years</li> <li>• IMU Surgical Society - Surgical Suture Workshop</li> <li>• Christian Fellowship - Religious Talk</li> <li>• CME / Debate on Environmental Protection</li> <li>• Negeri Sembilan Research Day 2014</li> <li>• Teaching Excellence Award (TEA) 2014</li> <li>• Benign Breast Disease by A/Prof Dr Ramji Narayanan</li> <li>• CME: Orthopedic at Hospital HEBHK</li> <li>• CME: IMU by Dr Ng Kian Seng at Prime City Hotel Johore</li> <li>• CME in BP at Hospital Auditorium HEBHK</li> <li>• CME / Debate on Environmental Protection – Bioethic Forum at Hospital Auditorium HEBHK</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project - Kg Sebir, Labu, Negeri Sembilan</li> <li>• Community Project Batu Pahat – Parit Lapis – Semester 10 (Batu Pahat Kg Angkat project launch)</li> <li>• 1<sup>st</sup> National Medical Undergraduate Research Conference 2014</li> </ul>
November	<ul style="list-style-type: none"> <li>• Canteen Committee Meeting with SRC</li> <li>• Seminar Pendidikan Fatwa Kesihatan Peringkat Negeri Sembilan Tahun 2014</li> <li>• Christian Fellowship - Religious Talk</li> <li>• SRC Meeting with Dean of Clinical School</li> <li>• MCAC Meeting – SRC</li> <li>• 7<sup>th</sup> Elective/Selective Oral Presentation</li> <li>• Pregnancy in Advanced Maternal Age by YBhg Dato' Prof Sivalingam Nalliah</li> <li>• Premenstrual Syndrome by Dr Emad Eldin Naguib Saleh</li> <li>• CME O&amp;G by Dr Sheila in CS Kluang</li> <li>• Medicolegal at CS Batu Pahat</li> <li>• CME O&amp;G by Dr Emad at CS Batu Pahat</li> <li>• CME: IMU by Dr Ng Kian Seng at Prime City Hotel Johor</li> <li>• Obstetrics &amp; Gynaecology (O &amp; G) – Heavy Menstrual Bleeding NICE Guidelines by Dr Hussein AKL at HEBHK/CS Kluang</li> </ul>	<ul style="list-style-type: none"> <li>• Community Project: Kg Sebir, Labu, Negeri Sembilan</li> </ul>

## Enhancing Services and Resources

Period	Intra-University Event	Inter-University Event
December	<ul style="list-style-type: none"> <li>• IMU Cares Community Project - Health Screening</li> <li>• Housemanship Briefing</li> <li>• CME O&amp;G by Dr Hussein at Kluang</li> <li>• CME: IMU by Dr Ng Kian Seng at Prime City Hotel Johor</li> <li>• Surgery – Malignant Breast Lump by Dr George Choo (MOH) at Main Auditorium at HEBHK/CS Kluang</li> <li>• CME by Prof Vela at CS Kluang</li> </ul>	IMU Community Project Kg Sebir, Labu, Negeri Sembilan

### Student and Alumni Achievements, 2014

Tiffany Soon Huey Ling (Bachelor of Pharmacy)	National Clinical Pharmacy Challenge 2014 - Best Performer Award
Wong Choon Yoong (Bachelor of Dental Surgery)	6 <sup>th</sup> National Dental Students' Scientific Conference (NDSSC) - Second runner-up in Oral Presentation - Joseph Lister Award in Oral Disease Prevention
Gan Shou Wan (Bachelor of Dental Surgery)	6 <sup>th</sup> National Dental Students' Scientific Conference (NDSSC) - Second runner-up in Oral Presentation - Joseph Lister Award in Oral Disease Prevention
Khoo Shun Wei (Bachelor of Dental Surgery)	6 <sup>th</sup> National Dental Students' Scientific Conference (NDSSC) - First runner-up in Poster Presentation - Junior Travel Award
Wong Yin Mun (Bachelor of Dental Surgery)	6 <sup>th</sup> National Dental Students' Scientific Conference (NDSSC) - First runner-up in Poster Presentation - Junior Travel Award
Lee Shean Woei (Bachelor of Dental Surgery)	- Elected to be Treasurer of Malaysian Dental Students Association (MDSA)
Jonathan Goh Chong Ming (Bachelor of Dental Surgery)	- Elected to be Academic and Research Officer of Malaysian Dental Students Association (MDSA)
Wong Hui Xim (Bachelor of Dental Surgery)	- Elected to be Auditor of Malaysian Dental Students Association (MDSA)
Prof Winnie Chee	Nutrition Society of Malaysia (NSM) Conference - NSM Fellows Award
Teoh Wei Jie (Bachelor of Science (Hons) Dietetics with Nutrition)	Nutrition Society of Malaysia (NSM) Conference - First prize undergraduate poster presentation
Kamalan Jeevaratnam	International Attachment - 2014 Merdeka Award Grant

## Enhancing Services and Resources

Melissa Lee Rong (Bachelor of Dental Surgery)	2014 International Association for Dental Research Southeast Asian Division (IADR SEA) / Dentsply Student Clinician Program - Malaysia country winner 41 <sup>st</sup> APDSA Congress & Young Dentist Forum, Cambodia - Best poster award
Wong Jhiew Zhan (Bachelor of Dental Surgery)	2014 International Association for Dental Research Southeast Asian Division (IADR SEA) / Dentsply Student Clinician Program - Malaysia country winner 41 <sup>st</sup> APDSA Congress & Young Dentist Forum, Cambodia - Best poster award
Tan Wei Hong (Bachelor of Dental Surgery)	SEAADE Award Dinner and IADR Closing Ceremony - SEAADE-GC Student Prevention Table Clinic Competition Second Prize Winner
Tham Ru Yueh (Bachelor of Dental Surgery)	SEAADE Award Dinner and IADR Closing Ceremony - SEAADE-GC Student Prevention Table Clinic Competition Second Prize Winner
A/Prof Dr Hanan Omar	SEAADE Award Dinner and IADR Closing Ceremony - SEAADE Best Oral Presentation - Second Prize Winner
Kelly Sze Fang Num	6 <sup>th</sup> Asian Congress of Dietetics in Taipei, Taiwan - First Prize in Poster Presentation in Dietetics Education and Research
Ong Jing Yi (Bachelor of Science (Hons) Dietetics with Nutrition)	6 <sup>th</sup> Asian Congress of Dietetics in Taipei, Taiwan - Recipient of Fellowship Award for presenting their experience on international student mobility
Onesh Charles De Silva (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 100M (Men) – Bronze 200M (Men) – Gold 4x100M (Men) – Silver 4x400M (Men) Gold
Radin Farizuan Bin Radin Baidrul Ikram (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 800M (Men) – Bronze 1500M (Men) – Silver 4x400M (Men) - Gold
Abel Tan Chun Tsen (Bachelor of Science in Chiropractic)	MAPCU Event (Track & Field) Long Jump (Men) – Bronze 4x400M (Men) - Gold

## Enhancing Services and Resources

Ng Woon Woon (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 100M (Women) – Bronze 4x400M (Women) - Gold
Ng Ban Ling (Bachelor of Science in Dietetics with Nutrition)	MAPCU Event (Track & Field) 200M (Women) – Bronze 4x400M (Women) - Gold
Kalaiyarasi Arujunan (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 400M (Women) - Gold 800M (Women) – Gold 4x400M (Women) - Gold
Tan Zhi Xin (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 800M (Women) – Bronze 1500M (Women) - Silver
Loh Chooi Shawn (Bachelor of Medicine and Bachelor of Surgery)	1500M (Women) – Bronze 4x400M (Women) - Gold
Lim Kah Kit Christopher (Bachelor of Science in Chiropractic)	MAPCU Event (Track & Field) 4x100M (Men) - Silver
Cheah Dong Lum (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 4x100M (Men) – Silver 4x400M (Men) - Gold
Tan You Qian (Master of Pharmacy)	MAPCU Event (Track & Field) 4x100M (Men) - Silver
Pang Jing Han (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 4x100M (Men) – Silver 4x400M (Men) - Gold
Lim Li Vern (Bachelor of Medicine and Bachelor of Surgery)	MAPCU Event (Track & Field) 4x100M (Men) – Silver 4x400M (Men) - Gold
Lee Jo Rynn (Bachelor of Dental Surgery)	MAPCU Event (Track & Field) 4x400M (Women) - Gold
Yeap Sue Phin (Bachelor of Pharmacy)	MAPCU Event (Track & Field) 4x400M (Women) - Gold
Chen Xue Ruu (Bachelor of Pharmacy)	Nottingham Inter-University Friendly Match 2014 - Table Tennis (Female) – Gold

## Enhancing Services and Resources

---

Khor Kai Lin (Bachelor of Medicine and Bachelor of Surgery)	Nottingham Inter-University Friendly Match 2014 - Table Tennis (Female) – Gold Medic Intervarsity Game (MIVG) 2014 - Table Tennis – Champion
Yip Swee Yan (Bachelor of Medicine and Bachelor of Surgery)	Nottingham Inter-University Friendly Match 2014 - Table Tennis (Female) – Gold Medic Intervarsity Game (MIVG) 2014 - Table Tennis – Champion
Lim Zhi Kai (Bachelor of Medicine and Bachelor of Surgery)	Medic Intervarsity Game (MIVG) 2014 - Table Tennis – Champion
Chung Luo Bin (Bachelor of Medicine and Bachelor of Surgery)	Medic Intervarsity Game (MIVG) 2014 - Table Tennis – Champion
Selina Tee Sze Meng (Bachelor of Medicine and Bachelor of Surgery)	Medic Intervarsity Game (MIVG) 2014 - Table Tennis – Champion

### Conclusion

The Student Services Department has been particularly active in 2014. In order to achieve all these activities well, it must be stated that the cooperation and closeness of the Department to the student body and societies in general, and the Student Representative Council in particular has been the key factor to our success, not forgetting also the goodwill and advice of all sponsoring bodies and the University management.

## Enhancing Services and Resources

### Staff and Faculty Training

In 2014 the training and development function continued to play a pivotal role in staff learning and development, moving us closer to becoming a learning organisation. We continued to execute initiatives under the Five Year Human Resources Transformation Plan, the aims of which are to improve organisational effectiveness, to enhance human capital optimisation, to build and strengthen organisational capabilities, and to create a sustainable culture of high performance. We continued to work closely with the other main providers of training, the University's Centres for Education and for Lifelong Learning.

The University has always embraced a philosophy of enhancing individual capabilities and competencies through learning and development. We believe that 70% of staff learning should derive from on-the-job training, including participation in project and committee work, job enlargement, stretched assignments, and conference presentations. A further 20% should derive from peer relationships, and feedback from mentors and coaches, and the remaining 10% from formal education and training, including courses, workshops and seminars. In 2014 we invested more than 2% of the value of our staff payroll in learning and development activity. Approximately RM1.6 million was spent, with an average of 6.5 training days per employee.

Training events run by the Human Resources Department included workshops on customer service, competency based interviewing, performance management review, and leading change, for both corporate and academic staff. The initiatives and action plans under the HR Strategy, such as a revised New Employee On-Boarding Programme, were implemented. These initiatives have recorded positive outcomes. Analysis of the results of the International Barometer Employee Satisfaction Survey in 2014

showed overall positive results when compared against local and regional comparator academic institutions. For instance our staff attrition rate improved over that for 2012 and 2013: We recorded an overall staff turnover rate of 13%, compared with 17.4% in 2013. Faculty turnover decreased from 13% in 2013 to 10% in 2014, and non-faculty from 22% in 2013 to 16% in 2014.

Key frameworks such as the Conducive Work Environment and the New Employee On-Boarding Programme were developed. Creating a conducive work environment is the responsibility of every staff member. This initiative is aligned with the University's Five Year Strategic Plan (ASPIRE) that outlines the importance of work environment for becoming an employer of choice. Staff engagement initiatives included celebrating religious festivals and other festive occasions, staff movie nights, an international culture day, sports and fitness classes, all aimed at strengthening intra and inter departmental collaboration and teamwork. The biannual staff trip to Sri Lanka took place in August and November, with 339 members of staff participating.

The New Employee On-Boarding Framework is aimed at enhancing employee engagement and retention by going the extra mile to ensure new staff are well supported when they join the University. The framework encompasses the pre-hire stage and the 'just joined' period, to enable new staff to understand our values, culture and systems, supporting them in their period of greatest assimilation and adjustment.



## Enhancing Services and Resources



### 2014 Staff Trip

#### Sri Lanka

In 2014 we went to Sri Lanka in two 'batches', one in August and the other in November, in order to accommodate as many individuals as possible, given that work schedules differ in relation to the University's educational programmes. Staff trips have been times to build rapport between individuals from different departments who may not have extensive opportunities to socialise. The tour groups are intentionally 'cross-departmental' to foster goodwill and enhance team building.

More than 320 individuals, or 57% of the staff workforce signed up for the trips, which were '4 day, 3 night' tours. Overall feedback was very good, with many staff appreciating the experience.

# Healthcare





## IMU Healthcare in 2014

The Academic Health Centre and its associated clinics made advances in 2014. A new Dialysis Clinic was opened in September in Sri Petaling, under a joint venture agreement. The Clinic brings the convenience of outpatient haemodialysis to serve our local community of Sri Petaling. In addition, the Clinic complements our diabetic care programme in Bukit Jalil.

Existing clinics have continued to develop and expand in their various locations, and have seen increases in numbers of patients and revenue. The increase in clinic services is reflected in a rise of patient numbers of some 20%, or 7,292 more consultations, to a total of 43,827 patients. Revenue increased 26%, or RM732,010, to a total revenue of RM3,595,134. In the fourth quarter of 2014 an agency was contracted to increase public awareness of IMU Healthcare. Marketing, promotion, advertising and branding are expected to grow patients and revenue in 2015. Promotional methods will include printed media, pole banners, billboards, and service campaigns in stores, banks and wet markets. Patient education will continue to expand.

The Clinics in Bukit Jalil and at Setia Walk are structured primarily as student training centres. Students provide 47% and 56% of the services at the Dental and Chiropractic clinics respectively, under the direct supervision of an international faculty. These students, though currently under training, meet the highest international standards. They treated approximately 17,000 patients or 39% of the total 43,827 in all three clinics.



## IMU Healthcare in 2014

### The Medical Clinic at Bukit Jalil

The primary care clinic is staffed by specialists in Family Medicine and in Endocrinology. In 2014 a 24% growth in patient volume and revenue growth of 41% were recorded. This growth was associated with increases in IMU student medical screening; in diabetic services; in rehabilitation and in more effective collaboration with Better Blue.

### DIABETES CARE

The endocrinology and diabetic clinic has grown from 55 patients in 2013 to 115 patients in 2014. Using HbA1c as an indicator, 46% have improved and additionally 36% have maintained their target numbers. The diabetic team headed, by an endocrinologist, includes family practice physicians, two diabetic nurses, dieticians, a clinical psychologist and a podiatrist. Development of a compressive industrial diabetic support programme is well underway and is expected to become fully operational by July 2015.

### REHABILITATION

The rehabilitation service is operational daily. The service reopened in the fourth quarter of 2014 and significant growth is expected in 2015.

### RADIOGRAPHY SERVICES

All x-ray services are located in the Bukit Jalil Campus, and support the Dental, Medical and Chiropractic clinics. The three radiographers also support the radiography training of dental and chiropractic students.

### CLINIC EXPANSION

A Podiatrist, Stella Chai, has joined the clinic to provide the foot care part of the diabetic services group. The collaboration with Better Blue, services for erectile dysfunction, began in the second quarter.

### The Dental Clinic & Oral Health Centre

This facility has seen increases of 38% in patient numbers with a 31% increase in revenue. Students see 47% of the patients. Five dental chairs were added in 2014 bringing the total to 45 chairs. In 2015 11 chairs will be added to cater for an increased number of students, bringing the total to 56 chairs.

### The Chiropractic Clinics

The Chiropractic Clinics in Bukit Jalil and Setia Walk, Puchong have recorded a 12% increase in patient numbers patients and increased revenue of 8%, with students seeing 56% of the patients. Chiropractic students of Semesters 7 & 8 completed their clinical requirements 60 days sooner than in 2013. The Residency Program for IMU Chiropractic graduates will commence in July 2015, adopting the residency program created by Prof Peter Diakow and A/Prof Edward Crowther.



## IMU Healthcare in 2014

---

### The Chinese Medicine Clinic

There are plans to utilise more locally prepared herbal remedies versus pre-packed sachets imported from China, which cost more. More Chinese physicians specialising in dermatology and other sub-specialties will be recruited in early 2015. There are plans to provide traditional Chinese medicine student clinical practicum at the community centre in 2015.

### Looking Ahead

The primary mission of IMU Healthcare is to provide participatory workplace education for IMU students. A specific location has been identified for the Community Service Clinic, at Salak South Plaza (Spark). To facilitate student clinical training, this facility is now under renovation. It is scheduled to open in March 2015 and will primarily be for the Chiropractic and Chinese Medicine programmes.





The background is a complex, layered collage. On the left, a large, light gray silhouette of a human head in profile, facing right, is outlined in black. Inside the head, there are faint, stylized representations of a DNA double helix and various mathematical or scientific symbols like >, <, and >|. To the right of the head, the word "Research" is written in a large, white, serif font. Below the word, there are faint, stylized illustrations of scientific equipment, including a large Erlenmeyer flask and a rectangular container with a red outline. The background is composed of various shades of blue, teal, and pink, with patterns of dots and lines. The overall aesthetic is modern and scientific.

# Research



# About Research at IMU

## Overview

Research continued to progress at a significant pace in terms of numbers and amounts of external funding secured, and the number and quality of publications produced in 2014. Research activity is focused on four thrust areas: cancer and stem cells; bioactive molecules and drug delivery; environmental and population health; and health professional education. These thrust areas are driven by four Centres under the Institute for Research, Development and Innovation (<http://irdi.imu.edu.my/about/overview>). In addition to research and development, the Institute oversees commercialisation and research support. The latter includes the organisation of various continuing development courses aimed at enhancing research ability, and the management of the Research Laboratory. The School of Postgraduate Studies is the academic management arm of the Institute. The School plans and coordinates all postgraduate programmes, and the intercalated Bachelor of Medical Sciences (BMedSc) programme.

An important development for 2014 was the strengthening of collaborative research with our partner schools, especially with Universities of Southampton and Strathclyde. In October a memorandum of understanding was signed with University of Southampton, with the primary aim of establishing joint research in areas of mutual interest. On-going collaboration with partner schools primarily occurs through joint supervision of undergraduate and postgraduate students, and joint applications for research funding.

## Research Funding

The total external funding rose from RM3,160,240 in 2013 to RM3,398,193 in 2014 (Figure 1), with a scheduled disbursement of RM1,127,251 in 2014; RM1,712,922 in 2015; and RM 558,020 in 2016. The main sources of external funding continue to be the Ministry of Education Fundamental and Exploratory Research Grant Schemes (FRGS & ERGS); and the Ministry of Science, Technology and Innovation (MoSTI)

Science Fund. Collaborative projects also received funding from the Malaysian Palm Oil Board (MPOB). In 2014 ten projects received FRGS funding totalling RM1,307,610; one project received Science Fund support of RM173,400; and two projects were funded by the MPOB to the tune of RM188,700. The Malaysia Toray Science Foundation awarded three grants, totalling RM60,000 to our young researchers; and two projects were awarded grants under the MOSTI Flagship Program on Antarctica (RM1,647,502).

The University continued to support research through internal funding which amounted to RM1,752,695 in 2014. These internal funds supported faculty, postgraduate (MSc and PhD) and undergraduate research. Substantial amounts from the internal funding were used to support the Bachelor of Pharmacy (RM446,100) and BMedSc (RM320,000) student projects, with another RM240,000 for PhD and RM196,100 for faculty research (Figure 2).

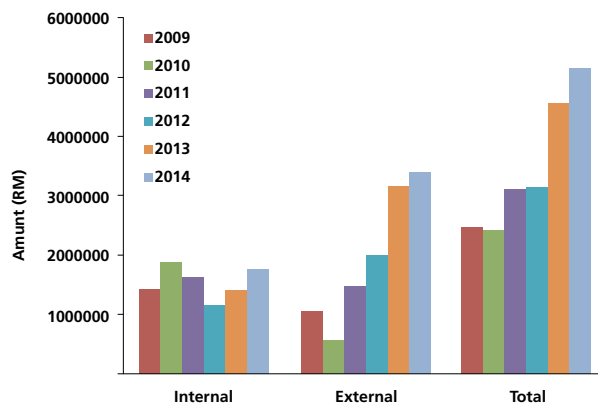
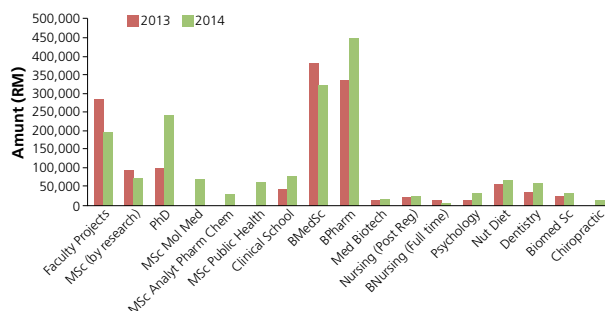


Figure 1. Research fundina, 2009 – 2014

## About Research at IMU



Numbers of Project 2013 - 2014

Figure 2. Distribution of internal funding, 2013 & 2014.

### Publications

In 2014 the University produced 314 publications compared to 190 in 2013 (Table 1). Of this total, 203 (70.2%) were in indexed journals and 29 were books or book chapters. Of the indexed papers, 56 were in Tier 1, 60 in Tier 2, 46 in Tier 3 and 8 in Tier 4 journals. The total impact factor (IF) of the indexed papers was 340.180 compared to 255.382 for 2013. The average IF per indexed paper in 2014 was 1.676, compared with 1.577 in 2013. The total H-index value obtained for the papers was 5871 compared to 5077 in 2013. In 2014, there were a total of 208 scientific presentations, comprising 143 oral presentations and 65 posters.

### Student and Alumni Achievements, 2014

Year	Presentations			Publications: Indexed Papers with IF			Impact Factor	
	Oral	Poster	Total	Papers	Others	Total	Total	Per paper
2009	149	80	229	48	66	114	122.159	2.545
2010	130	71	201	81	65	146	206.006	2.543
2011	180	96	276	116	96	212	274.029	2.362
2012	78	55	133	82	67	149	148.298	1.809
2013	166	75	241	162	28	190	255.382	1.577
2014	143	65	208	203	86	289	340.180	1.676

### Commercialisation and Support Activity

In 2014 the Commercialisation and Support arm intensified its efforts to promote and market the Institute's products and services through its website (<http://irdi.imu.edu.my/products-a-services>). One major area of testing services involves the determination of water quality and that of biological samples through the detection and quantification of chemical and biological contaminants. In partnership with SRAS Berhad, the Institute also provides consultative and testing for monitoring air quality. In 2014, we marketed our services for indoor air quality assessment to various private hospitals in the Klang Valley. Additional equipment has been purchased to expand the range of environmental tests we are able to provide.

A significant achievement for the Research Laboratory was accreditation under International Standard ISO/IEC 17025:2005. This was awarded in May and is effective for 3 years. This accreditation demonstrates the technical competence of the Research Laboratory in defined testing services.

University researchers also provide advisory and consultation services in the design and planning of research in specialised areas, and undertake contract research. In 2014, IRDI forged industrial links through consultancy and contract research in areas that included vaccine development, nutrition, implantology and healthcare. A total revenue of RM742,201 was generated from testing, consultancy and contract research. Of this, RM663,323 was obtained through five contract research projects, and RM78,878 through laboratory testing services including monitoring air and water quality. In addition, IRDI continued to work with its research hub partner SRAS Berhad to offer large-scale purification of active compounds from herbal and medicinal plants for research and pilot trials.

Core facilities represent increasingly important operational and strategic components of research institutions' enterprises, particularly in biomolecular

## About Research at IMU

science. With this realisation, IRDI established the RNAi Core Facility in April, leveraging on the existing expertise in RNAi library screening for the discovery of new molecular targets in various diseases. The RNAi core facility is currently collaborating with a number of institutions including University of Malaya, Institute for Medical Research, National University of Singapore, University of Nottingham and most recently University of Strathclyde to explore complex signal transduction mechanisms in human cancers. Additional core facilities are being planned with the intention of improving shared resources that support research in the region.

**As part of the support activity to enhance the research capabilities of our faculty, IRDI ran a number of continuing education and development events in 2014:**

February	Introduction to meta-analysis (workshop)
June	Epidemiological methods in observational studies: Cross-sectional designs (workshop)
July	Writing grant proposals in medical sciences and clinical research (workshop)
August	Developing and validating research questionnaires (workshop)
November	Good Clinical Practice Seminar

In August the Institute also ran a summer research attachment on research methodology for medical students from Al-Imam University, Saudi Arabia. The Commercialisation and Support Arm of IRDI also oversees the University journal, International e-Journal of Science, Medicine and Education (IeJSME). The journal is currently indexed under the Malaysian Citation Index (MyCite) and its 5-year impact factor is 0.024. Three issues, including a Supplementary Issue were published in 2014 (<http://web.imu.edu.my/imuejournal/default.asp>).

### Highlights from the Research Centres

#### The Centre for Bioactive Molecules and Drug Delivery

In 2014 the total external funding received by the Centre amounted to RM647, 381 (Table 2).

The Synthetic Chemistry Laboratory has been completed and at the time of writing had already produced 66 pure compounds which await further investigation. The Laboratory is a major support facility for research into bioactive molecules, drug discovery and drug delivery. Compounds produced are stored in our compound depository and shared among researchers and their collaborators. The compounds can be broadly classified in the following categories: anticancer; antidiabetic; neuroprotective; or antimicrobial properties.

Earlier in the year we formed the Diabetes Focus Group as a research cluster. The Group is an important means of bringing together the University researchers who work on diabetes. Apart from critical mass, the Group supports its members in matters and procedures related to research and grant applications.

## About Research at IMU

**Table 2: List of projects on bioactive molecules & drug delivery funded by external grants in 2014**

Project Leader	Project & Funding Agency	Amount (RM)
Prof Mallikarjuna R Rao	Cheminformatics Assisted Drug Discovery of Novel Drug-Like Triazoles as Potential Compounds for the Treatment of Gram Negative Sepsis (MoSTI)	173,400
Dr Wong Lai Chun	The Synthesis of Novel Compounds with Anticancer Properties (RSC, UK)	20,981
Dr Norman Chieng	The Role of Phase Behaviour in the Stability of Lyophilised Biomacromolecules (FRGS)	98,800
Prof Mallikarjuna P Rao	Identification of Molecular Mechanisms Involved in Swietenine's Ability in Potentiating the Antidiabetic Actions of Metformin (FRGS)	90,200
Dr Venkata Rao Kaki	Drug-Like Compounds with Pancreatic $\beta$ -Cell-Selective Replication Promoting Activity: The New Paradigm in Anti-Diabetic Drug Discover (FRGS)	154,000
Prof Ammu Radhakrishnan	Elucidating the Effects of Gamma-Tocotrienol ( $\gamma$ -T3) Supplementation on The Ratio of T-Helper: T-Regulatory Cells in a Syngeneic Mouse Model of Breast Cancer (MPOB)	90,000
Dr Lee Siang Yin	Synthesis, Cytotoxic And Stability Evaluation Of Nanostructured Alkyds As Advanced Biomaterials For Biomedical And Pharmaceutical Applications (MTSF)	20,000
<b>Total</b>		<b>647, 381</b>

*MoSTI: Ministry of Science, Technology & Innovation Grant Scheme*

*FRGS: Fundamental Research Grant Scheme (Ministry of Education)*

*RSC: Royal Society of Chemistry*

*MPOB: Malaysian Palm Oil Board*

*MTSF: Malaysia Toray Science Foundation*

## About Research at IMU

In 2014 the Centre had 69 publications with a total impact factor of 97.133. This is a significant increase from the same period in 2013, when the Centre had 31 publications with a total impact factor of 44.233.

Research collaboration has been initiated with the Robert Gordon University in Scotland through the exchange of undergraduate research students. This year 26 of our BPharm students undertook their research semester in universities abroad: University of Strathclyde; Robert Gordon University; University of Tasmania; Hacettepe University, Turkey; the University of Copenhagen, and the National University of Singapore. We received 6 students from the University of Strathclyde, who spent six weeks here working on two research projects. We have been receiving students from Strathclyde each year. This scheme was initiated by Emeritus Prof Brian Furman, and is jointly funded by the British Council Prime Minister Initiative 2 Programme, IMU and University of Strathclyde.

In December, the Centre joined forces with the Royal Society of Chemistry to hold a one-day symposium: The Joint Malaysia-UK Symposium on Natural Product Chemistry and Drug Discovery. This was our first joint meeting with members of the Royal Society of Chemistry. The focus of the symposium was on natural product chemistry and drug discovery, and showcased some of the best research in these areas, from Malaysia and from United Kingdom.

### Centre for Environmental and Population Health

The Centre has progressed in all the thrust areas outlined in our strategic plan (<http://irdi.imu.edu.my/images/stories/pdf/ceph-strategic-plan.pdf>). The Centre secured 6 external grants amounting to RM2,185,792 for its research projects in 2014 (Table 3). These projects have a common focus on microbiology, including soil bacteria, algae and parasites. The two projects under the MOSTI Flagship Program on Antarctica aim to investigate the effects of climate change and heavy metal pollution on polar algae in comparison with tropical species.

**Table 3: Projects on environmental & population health awarded external grants in 2014**

Project Leader	Project & Funding Agency	Amount (RM)
Dr Chan Li Li	Functional Roles of DNA-Methyltransferase and Histone-Deacetylases on the Regulation of Genes Encoding Virulence-Associated Proteins in Acanthamoeba Species (FRGS)	114,920
Dr Megan Chong Hueh Zan	Vitamin D: Dietary Intake, Sun Exposure and VD Receptor Polymorphism in Relation to Serum 25-Hydroxyvitamin D Level (FRGS)	121,120
Dr Chong Chun Wie	Effects of Co-Aggregation to the Pathogenicity of Vibrio Cholerae (FRGS)	145,400
Prof Chu Wan Loy	Biomarkers of Polar and Lower Latitudes Microbes in Relation to Heavy Metal Stress (MOSTI Flagship Programme)	819,902
Prof Chu Wan Loy	Assessment of the Combined Effects of Nutrient Enrichment and Pesticide Toxicity on Various Biomarkers in Microalgae. (FRGS)	100,000
Dr Wong Chiew Yen	Physiological and Genomic Responses of Microalgae to Climate Change Across a Global Gradient. (MOSTI Flagship Programme)	827,600
<b>Total</b>		<b>2,128,942</b>

## About Research at IMU

---

In 2014 researchers working with the Centre produced 55 research publications. These papers included a structural analysis of edible birds' nests (Kew et al. 2014); the characterisation of cysts and trophozoite proteins from environmental isolates of *Acanthamoeba* (Yap et al. 2014); anti-biofilm agents against multi-drug resistant *Staphylococcus aureus* (Chung et al. 2014); the correlation between hypertension and antihypertensives with the phases of female sexual response cycle (Rozimah et al. 2014); and a meta-analysis of *Plasmodium vivax* malaria (Cho 2014).

An International Conference themed Healthy Ageing 2014: Bridging Science and Health Care was successfully held in October. For 2015 the Centre is planning a colloquium on priorities in public health research, with a particular focus on diabetes and linked cardiovascular disease.

The Malaysian Qualifications Agency has approved the Masters programme (MSc) in Environmental Health, and we will enrol our first cohort in September 2015. The introduction of this programme is anticipated to stimulate growth in research on environmental health.

### Centre for Cancer and Stem Cell Research

In 2014, the Centre for Cancer and Stem Cell Research has seen both consolidation of its scientific themes, and the preparation for important change. The Centre has maintained its output of high impact papers, regular programme of meetings, as well as some notable events and notable individual successes.

In March, we welcomed Dr Costas Demonacos of University of Manchester, to conduct a seminar on oxidative stress in cancer prognosis and treatment. In August Prof Manuel Salto-Tellez (Chair of Molecular Pathology, Queen's University, Belfast) gave an excellent talk entitled 'Molecular Pathology: The Value of an Integrative Approach'. The lecture venue was overflowing with some 150 participants from various institutions. The Cancer Centre Free Seminar Series, continuing our established relationship with industrial partners, focused on emerging technologies in cancer research. Again, we had an outstanding set of speakers, lively discussion, and a record attendance of 240, including many from outside the University.

The Centre, in association with IRDI, drafted a strategic plan for 2015 – 2020 (<http://irdi.imu.edu.my/images/stories/pdf/Cancer%20Centre%20Strategic%20Plan%202013-2015.pdf>). To support basic and translational research, the Centre also launched a new pilot core resource, the RNAi Core facility. The Centre has also appointed immunologist Prof Seow Heng Fong (University Putra Malaysia) and breast cancer biologist Prof David Flint (University of Strathclyde) as members of the Scientific Advisory Board. In December, the Centre Head, Prof Leong Chee Onn visited the University of Strathclyde to explore opportunities to strengthen research collaboration in areas of common interest.

IMU oncologist and senior lecturer Dr Sangeetha Poovaneswaran, Prof Ariyananda, Prof Esha Das Gupta, A/Prof Rumi Khajotia, Dr Thiruselvi Subramaniam, Dr Nagandla Kavitha and importantly, IMU medical students, have continued to provide educational articles on cancer for the Health section of IMU News. This is a continuing effort to raise public awareness of cancer.



## About Research at IMU

In 2014, the Centre secured external grants amounting to RM502,090.

**Table 4: Projects on cancer research awarded external grants in 2014**

Project Leader	Project & Funding Agency	Amount (RM)
Dr Ebenezer Chitra	Evaluation of the Mechanism of Action of Lactoferricin B Peptide in the Inhibition of Breast Cancer. (FRGS)	165,440
Dr Ramkumar Rajendran	Post-Translational Regulation of Glutamine Metabolism by Acetylases and Deacetylases in Cancer Cells under Hypoxic Conditions. (FRGS)	151,650
Prof Ammu Radhakrishnan	Elucidating the Effects of Gamma-Tocotrienol ( $\gamma$ -T3) Supplementation on The Ratio of T-Helper: T-Regulatory Cells in a Syngeneic Mouse Model of Breast Cancer. (MPOB)	90,000
Dr Felicia Chung Fei Lei	Effectors of GATA4 Epigenetic Silencing. (MTSF)	20,000
Dr Yam Wai Keat	Targeting the Tumor-Specific Splicosome through in Silico Virtual Screening for Discovery of New SF3B1 Small Molecule Inhibitors. (FRGS)	95,000
<b>Total</b>		<b>522,090</b>

In 2015 the Centre will continue to focus on research areas with the greatest potential impact on reducing cancer deaths. We want to build on our current strengths in basic science, drug discovery and development, population studies and clinical research. We will do more in key areas such as prevention and early detection. We will boost research in key areas such as molecular target discovery and cancer immunology, and research into cancers where survival is still low, such as childhood, pancreatic and brain cancers.

## Service to the Community

---



### The IMU Cares Programme

Launched in October 2002, the IMU Cares Programme has grown into a significant part of University life, providing opportunities for students and staff to engage meaningfully with the community beyond the University. The Programme has become a key means for the University's people to live its values: Reaching out to communities in service is a manifestation of these values, of 'walking the talk.'

From small-scale fund-raising activity in 2002, IMU Cares has expanded to provide more than just financial assistance to the less privileged. The Programme now strives to deliver healthcare, to promote health and wellness, and to prevent disease. As we continue to screen and monitor for treatable conditions (eg dyslipidaemia, hypertension and diabetes), we have also started to provide dental and chiropractic screening. In addition, IMU Cares has begun providing more holistic care, including medication counselling and nutritional assessment. Cases requiring further treatment are referred to the IMU Healthcare clinics, and the Khazanah IHH Healthcare Fund underwrites treatment costs. IMU Cares has also looked into the education and training of caregivers, to enable and empower them to provide better care. From integration and application of knowledge and skills to inter-professional learning and collaborative practise, the Programme has become a platform for experiential learning. It enables students to learn leadership and teamwork, and to practice the values of professionalism and ethics while making a difference to communities.

## Service to the Community

### IMU Cares in 2014

Many projects fall under the IMU Cares umbrella. This Report highlights several from the more than 50 projects that took place in 2014. We worked with children's homes, homes for the elderly, rural and urban communities, and non-governmental organisations (NGOs). A new van was purchased to ease the transportation of equipment and University participants to less easily accessible venues. The van now enables us to reach out to smaller communities that are not accessible by bus or on foot. The van can also be used to transport residents from our community partners to our clinics, for treatment.



*Prof Ong unveils the new IMU Cares van*

In 2014 we benefitted greatly from the Khazanah IHH Healthcare Fund, which provides financial aid for healthcare, enabling us to refer needy patients, identified through the projects, to various Pantai Group Hospitals or to the IMU Healthcare clinics. The Fund was launched in October 2013 and since then, we have utilised over RM30,000 for the treatment of more than 40 patients. These patients have made more than 200 visits to IMU Healthcare clinics, and have clearly benefitted from treatment.

In August, a team of dentistry students participated in the South East Asia Association for Dental Education

(SEAADE) meeting, and submitted an entry to the SEAADE-GC Student Prevention Table Clinician Competition. This competition required applicants to show case prevention ideas and activities in combating oral disease or conditions prevalent in their countries. The students' entry was based on an IMU Cares project with My Father's Home, where the School of Dentistry has been providing consistent dental screening and treatment to the elderly residents. The student team faced stiff competitions from other institutions in the Asia Pacific region, and came out as the first runner-up.

### Continuity of Care

The Programme stresses the value of sustained effort for communities over time. We believe that this continuity is really the only way that communities can benefit from our engagement with them. Hence, we ensure that staff and student participants plan and execute sustainable projects with clear goals and clear long term benefits, rather than engage in single visits so commonly seen in community projects. This year the project involving My Father's Home stood out from the others for its consistent monthly visits throughout the year. These monthly visits enabled the project to expand holistically from a small one offering dental screening, to the inclusion of other preventive and therapeutic measures, such as nutritional and chiropractic (spinal health) screening, and referral to



*Dental screening at My Father's Home*

## Service to the Community

IMU Healthcare for treatment. These measures are only possible with consistent effort put into building rapport and identifying the real needs of the Home and its residents. The project team made an assessment of living conditions in the home, and obtained approval to improve these conditions in many ways, such as by laying non-slip tiles in the bathrooms, supplying items of equipment such as wheelchairs, and bath trolleys for bedridden residents.



*Medical check up at My Father's Home*

### Broadening Project Scope

Many projects started off as simple health-screening efforts, but over time we realised the need to provide more holistic care. We need to provide more than just cholesterol, blood glucose and blood pressure screening. Many of our projects now work with staff and students of our healthcare degree programmes, encouraging cross programme, inter-professional collaboration.

### More than Screening

To date, the Programme has engaged with seven urban and rural communities, providing health screening, health education, and treatment for those who require it. Our partnered communities range from our neighbours - the Sri Petaling parliamentary



*Health screening at the Ti-Ratana Welfare Society*

constituency, to Projek Perumahan Rakyat (PPR) to villages. Different communities have different needs, requiring accurate, on-going assessment and appropriate response.

A good example is the Kampung Sebir project undertaken by staff and students of the Clinical School in Seremban. We engaged with this Orang Asli village when we came to know of the high prevalence of asthma among the villagers, and their poor access to treatment and continuity of care. Similar to many our



*Providing Chiropractic consultation for residents from the Sri Petaling Constituency*

## Service to the Community

other projects, we had initially provided a basic primary care service which included the management of chronic diseases, referral for treatment, and periodic health talks. However, the project became more challenging when it became clear that the villagers would continue to decline help from IMU Cares. This spurred us to build rapport with the villagers, to provide tuition for their children, and to work with non-governmental organisations such as Ladang MCare to offer agricultural training.



*Medical checks for residents of Orang Asli villages*



*Health screening for rural communities*

The overarching aim of these efforts is to help rural communities break the cycle of poverty. This aim can be realised by imparting empowering knowledge about managing their health, and life skills training for social improvement.



### Strength in Unity

Continuing our fundraising for charitable organisations, we ran IMU Chariofare 2014 on 21 September. This year, we raised more than RM170,000 for Pertubuhan Hospice Negeri Sembilan, Pusat Penjagaan Kanak-Kanak Cacat Taman Megah, the Dignity for Children Foundation and the IMU Cares Disaster Fund. More than 1,200 individuals participated in the Charity Run, and the Carnival attracted more than 2,500 visitors. We were very honoured by the presence of Datin Paduka Marina Mahathir, who visited the entire event and showed great interest in its activities. We were also humbled by the support of more than 25 sponsors, not to mention many members of the public who contributed in every way possible, proving once again that we can achieve great things with collaboration. In 2015, we very much hope to see you on 19 September, as we strive to reach the next target- Raising RM200,000!



## Service to the Community



*Highlights from Chariofare 2014*

### Beyond Healthcare

Part of our social accountability is to look beyond providing community healthcare. The IMU EcoFriends Club continued their effort from last year, encouraging staff and students to participate in the Earth Hour organised by the World Wildlife Fund. On 29 March 2014, the lights went out between 8:30pm and 9:30pm at the Bukit Jalil Campus, joining the rest of the world in our effort to protect the Earth. The Club has also organised annual Tree Planting events. This year the Club worked with the Global Environment Centre to plant trees in the Raja Musa Forest. In the last three years participants have planted more than 300 forest trees, with 97% still surviving.



*Participants at the annual tree planting, Raja Musa Forest*

In 2014 our pioneer Foundation in Science (FiS) students planned and executed a recycling project as part of their Cross Boundary Studies. Over 10 days, more than a hundred students collected nearly 1.5 tonnes of recyclable material that was sold. The proceeds were donated to one of our adopted homes. We hope that their effort will continue to inspire more projects that will contribute to our communities beyond providing just healthcare.



*FiS students at Pusat Penjagaan Kanak-Kanak Cacat Taman Megah*

### Sustainability

In IMU Cares, we believe that we should focus on ensuring that the community will become self-sustaining by the end of our partnership with them.



## Service to the Community

---

As such, we have short-term projects such as training workshops for caregivers, through which we aim to impart skills and knowledge on how to properly manage residents of care homes, especially the elderly. In the Basic First Aid Courses we work with our community partners to ensure that they are equipped with fundamental first aid skills that will enable them to manage many common emergencies while waiting for more expert help. We have also started the E-Mentorship Programme, where we assigned University students to mentor the children in the communities that we help. The goal of personal, friendly guidance is to enable these children to realise their potential and excel in life.



*Workshop for caregivers at a home for the elderly*

### Smart Partnerships

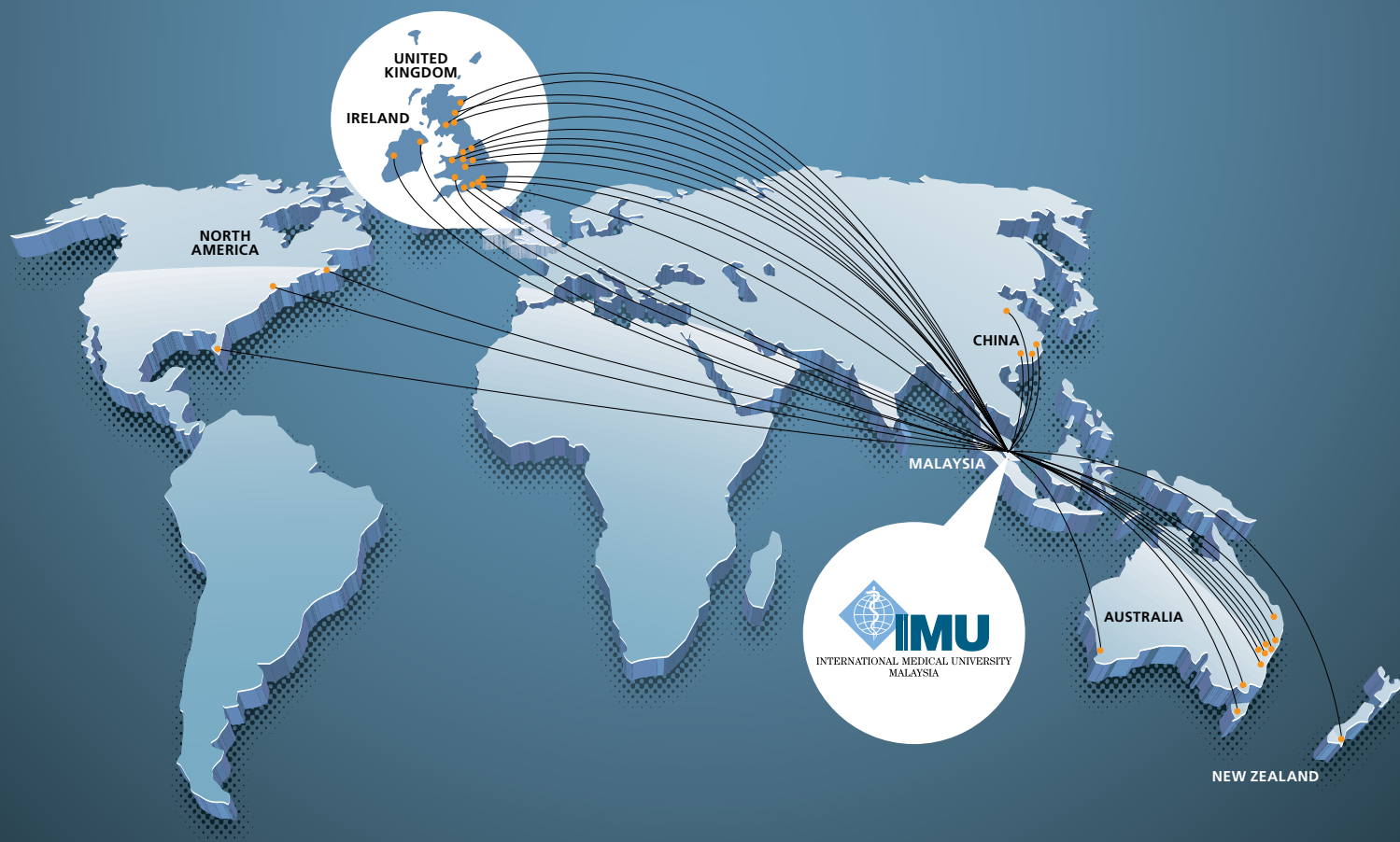
We believe that we need to engage with the community on many levels. Hence we have partnered with organisations such as Kiwanis Malaysia, the Lions Club of Subang Jaya, and the Malaysian Dental Association. These partners pledge funds to organise project activity, or to provide treatment for residents from our adopted communities. We have also partnered with the Tun Hussein Onn National Eye Hospital to provide optometric screening and spectacles for children who need these services.

### Moving Forward

In 2015 we will undertake some restructuring in order to consolidate and better assess and direct our efforts. More focus will be placed on identifying measurable outcomes. We also hope to engage our alumni, to help extend our reach beyond Bukit Jalil and our Clinical Schools.

# IMU in the World

The University has established a strong global network of 38 partner institutions of higher learning. These collaborations in health professional education cover most of the undergraduate programmes offered at the University. Indeed, the University is unique in fostering and establishing collaborations for the training of practitioners in complementary therapies. This reflects its historic commitment to opening doors to education and training opportunities outside Malaysia via credit transfer, opportunities that would not otherwise be available to Malaysians. Building and developing these worldwide relationships strengthens the University's ability to secure global talent, which in turn helps attract the brightest and the best to come and study at the IMU. Since 1995, IMU's Partner Schools have graduated more than 3,000 individuals. IMU has become a household name in Malaysia and is steadily gaining international recognition.



## IMU in the World

---

### Australasia

University of Adelaide, Australia  
Australian National University, Australia  
Curtin University, Australia  
University of Newcastle, Australia  
University of New South Wales, Australia  
University of Queensland, Australia  
RMIT University, Australia  
University of Sydney, Australia  
University of Tasmania, Australia  
University of Western Sydney, Australia  
University of Wollongong, Australia

### China

Beijing University of Chinese Medicine, China  
Guangzhou University of TCM, China  
Shangdong University of TCM, China  
Shanghai University of TCM, China

### Ireland

National University of Ireland, Galway

### New Zealand

University of Otago, New Zealand


### North America


Dalhousie University, Canada  
Sidney Kimmel Medical College, United States  
*(formerly known as Jefferson Medical School)*  
University of Miami, United States


### United Kingdom


University of Aberdeen, Scotland  
Anglo-European College of Chiropractic, England  
University of Dundee, Scotland  
University of Edinburgh, Scotland  
University of Exeter, England  
Keele University, England  
University of Leeds, England  
University of Glasgow, Scotland  
University of Warwick, England  
University of Strathclyde, Scotland  
Queen Mary, University of London, England  
University of Liverpool, England  
University of Manchester, England  
University of Nottingham, England  
Queen's University of Belfast, Northern Ireland  
University of Southampton, England  
St George's University of London, England  
University of South Wales, England

## Contact us

start@imu.edu.my 

+60 3 2727 7457 

www.imu.edu.my 

InternationalMedicalUniversity 

IMUMalaysia 

### **IMU Main Campus, Bukit Jalil**

No. 126, Jalan Jalil Perkasa 19, Bukit Jalil,  
57000 Kuala Lumpur  
+603 8656 7228

### **IMU Clinical School, Seremban**

Jalan Rasah, 70300 Seremban,  
Negeri Sembilan  
+606 767 7798

### **IMU Clinical School, Batu Pahat**

No. 12, Jalan Indah, Taman Sri Kenangan,  
83000 Batu Pahat, Johor  
+607 732 2787 / 0580

### **IMU Clinical School, Kluang**

No.19 & 20, Jalan Seri Impian 1/1, Taman Seri Impian,  
86000 Kluang, Johor  
+607 776 2681



**Delivering the future  
of better healthcare**



INTERNATIONAL MEDICAL UNIVERSITY  
MALAYSIA

No. 126, Jalan Jalil Perkasa 19, Bukit Jalil, 57000 Kuala Lumpur, Malaysia

Tel: +60 3 8656 7228 Fax: +60 3 8656 7229 [www.imu.edu.my](http://www.imu.edu.my)