

# Embracing Change Remaining Relevant

Vice-Chancellor's  
Report 2016



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# MESSAGE FROM THE VICE-CHANCELLOR

Dear Readers,

It is indeed a privilege and an honour to present IMU's 2016 Vice-Chancellor's Report which encapsulates the University's journey thus far and provides some insights into where we are heading as a leading educational institution.

Most of you will be familiar with the President's Report which was delivered by YBhg Tan Sri Dato' Dr Abu Bakar Suleiman, IMU's President, who also held the responsibilities of Vice-Chancellor for a good 15 years. Effective 2016, Tan Sri stepped down from his role as Vice-Chancellor and handed the reins over to me. We owe this accomplished individual a deep debt of gratitude for his remarkable contributions to the medical field and for making IMU what it is today – an institution founded on quality as well as best practices, and which today epitomises the spirit of excellence. I trust this inaugural Vice-Chancellor's Report will serve as a worthy reflection of how the team at IMU have endeavoured to not only uphold the University's reputation, but to continue with Tan Sri's fine legacy of inspiring the IMU family through innovation, quality programmes and a passion for excellence.

## CONTINUING TO UPHOLD EXCELLENCE

The year 2016 brought with it its fair share of challenges even as IMU contended with intense competition in an over-saturated education market. The field of higher education continued to undergo tremendous change on the back of factors such as globalisation, the emergence of new technologies to facilitate the teaching and learning process, plus increased demand for highly competent and skilled graduates.

I am pleased to say that the University continued to take things in its stride. We got down to the job of upholding excellence by steadfastly innovating our curriculum to ensure that our healthcare graduates not only met but exceeded the mark. Our students and graduates continued to shine as they participated in local and international meetings and conferences.

The manner in which we prepare our graduates to work in their respective fields

continues to ensure that IMU graduates stay relevant in the changing marketplace. Surveys undertaken by the University to assess quality and standards have consistently shown that our graduates are well prepared to function as junior doctors in the Malaysian healthcare system. Likewise, our pharmacy graduates are highly sought out by potential employers.

The year also saw us focusing our efforts on creating a conducive environment for our students to learn and practise their skills by according them the appropriate role models, evidence-based instruction and diverse learning experiences. One of the year's highlights for our students was a pilot clinical rotational programme, which saw some of them interning at one of the IHH Healthcare Group's hospitals.

We have also begun to embed more technology into the way we deliver our classes and lectures. From leveraging on Big Data to tapping virtual platforms to aid in the learning process, we are putting in place the building blocks towards more personalised and tailor-made learning at IMU.

**"One of the developments we can look forward to in the future is the upcoming IMU Hospital."**

## **STRENGTHENING OUR FOUNDATIONS**

In 2016, the team at IMU continued to lay strong foundations to maintain and extend our market share amidst a highly competitive playing field. We launched and implemented IMU ASPIRE II, our five-year strategic plan for 2016-2020. ASPIRE II aims to ensure that the University is able to respond to the external environment in a manner where we remain relevant and are able to strengthen our leadership role in healthcare education front.

It embodies these lofty goals:

- To be a leading private Asian health educator that creates value through integrating education, healthcare and research;
- To be a leading private Asian health educator recognised for quality and innovative curricula;
- To develop a values-based academic health centre that focuses on the needs of the patient and community;
- To be recognised for research and consultancies in focus areas leveraging upon strategic alliances; and
- To demonstrate excellence in capacity and capability building to ensure growth and sustainability of the organisation.







## STEADFAST PROGRESS ON SEVERAL FRONTS

IMU continued to make concrete progress on several fronts. Despite intense competition and the challenging economic backdrop, we continued to enrol a good number of students. Our efforts to optimise our courses, helped us rationalise our costs and ensured that we remained viable and sustainable as a business entity. We continued to receive endorsements from the Malaysian Qualifications Agency (MQA) with all our programmes securing the necessary accreditations or re-accreditations, thereby attesting to the calibre of our offerings.

We also designed and introduced new pioneering programmes such as the Postgraduate Diploma in Implant Dentistry for working health professionals. The first course of its kind in Malaysia, it is designed specifically for working dentists who will not be required to leave their practices but can work from their own offices under the guidance of appointed supervisors.

As part of our efforts to deliver more innovative healthcare instruction, we continued to champion team-based care where collaboration is the key to delivering the best in healthcare. To promote this concept, we organised inter-professional learning in which the participants from the various programmes came to learn from and about each other. Today, team-based and collaborative learning is being strengthened through the community services initiatives championed by IMU Cares. At the same time, IMU Cares activities are also helping to hone our students' leadership skills.

Experiential learning is another important component of student development,

particularly by way of industry internships and work-integrated learning opportunities. To this end, we continued to strengthen and deepen relationships with stakeholders such as our industry partners and partner schools as well as added a few more partnerships to our extensive list.

A key achievement for our research department was the establishment of the IMU Centre for Translational Research (CTR). The CTR will provide a platform for the integration of basic research with applied research and collaboration with external parties. Another key initiative in 2016 was the introduction of an alumni office and an appointed officer in line with our efforts to boost engagement with IMU alumni.

## MOVING FORWARD

One of the developments we can look forward to in the future is the upcoming IMU Hospital. Scheduled to become operational in 2021, the hospital will add another dimension to IMU's development as a healthcare provider and augment our educational offerings. It will provide us a platform to practice what we preach in the terms of delivering team-based centred healthcare and innovative industry practices. It is our hope that this project, which is still at its very early stages, will enable us to showcase the integration of education, research and healthcare while improving patient outcomes.

As IMU ventures forth into an environment characterised by intense competition and shifting boundaries arising from globalisation, we are more determined than ever to build upon the good foundations that Tan Sri has built. Our focus going forward will be to adapt quickly to the changing environment, look for

opportunities to extend our reach, uphold excellence, and tackle all challenges that come our way.

A concerted focus on technological innovation, adult learning and professional development will help pave the way for us, as will other inventive ways to enhance the quality of our offerings. By upholding innovation, quality and excellence, I am confident IMU will continue to pioneer new ground as we set out effect *better health* and *better societies*.

While we gained some ground in 2016, there is still much work that needs to be done to ensure the University remains relevant to its target audiences. To ensure our success, the team at IMU cannot afford to rest on its laurels but must make every effort to deliver on the objectives under ASPIRE II. Business unusual has become the new norm in the education sector and everyone must play their part to embrace the new market realities and respond to change in a prompt, purposeful and professional manner. Only then can we sustain our leadership position and safeguard our reputation as an institution championing educational excellence.

In closing, I would like to convey my sincere gratitude to Tan Sri, the staff, students and alumni of IMU for their worthy contributions throughout 2016. I also wish to extend my heartfelt gratitude to all our stakeholders and our Ministry of Higher Education and Ministry of Health colleagues for helping make 2016 another great year for the University. IMU stands poised to expand its horizons and pursue new opportunities and I call upon all our stakeholders to continue lending us their steadfast support.

Thank you.

**Prof Abdul Aziz Baba**  
Vice-Chancellor  
International Medical University

# THE WAY FORWARD – ASPIRE II

The IMU Strategic Plan  
(2016-2020)



The University aspires to be an institution that integrates education, healthcare and research in a conducive environment for the betterment of both the patient and the student. We seek to create a holistic environment for our students to learn and practise their skills by providing them the appropriate role models, evidence-based instruction and diverse learning experiences. In response to changing needs and emerging trends in education and healthcare, we have rolled out the second phase of IMU's Strategic Plan 2016-2020. Dubbed IMU ASPIRE II, our blueprint will enable us to respond to the external environment and remain relevant as we work to extend our leadership position in healthcare education. ASPIRE II will see us undertaking annual planning and budgeting to operationalise the various initiatives at school, divisional and departmental levels and monitoring our progress via relevant performance indicators.

## DETAILS OF KEY INITIATIVES

ASPIRE II upholds the following three goals and strategic enablers, all of which are supported by a variety of initiatives:

- We will strive to extend our leadership in healthcare education by continually driving the quality of our programmes to meet the needs of the marketplace, providing leadership in focus areas for our various schools, reorganising our training and professional development programmes and further developing them.
- We will establish clinical facilities and services to provide our students with vast exposure to different healthcare settings thereby enriching their learning experience. In the clinical facilities developed by IMU, we will continue to deliver health services based on the model of care espoused in the University's education philosophy.
- We are dedicated to facilitating innovation and enhancing research outputs and outcomes, especially on the four focus areas (Cancer & Stem Cell, Bioactive Molecules & Drug Delivery, Environmental & Population Health, and Health Professional Education). We will also place more emphasis on moving towards application research.
- We will continue to focus on building and strengthening collaboration with strategic partners in academia, the industry and among IMU alumni. The relationships will fortify the IMU academic programmes and serve as a critical component of the feedback system.
- We are committed to building a culture of learning and sustaining the University's ability to change and improve through creating a conducive work environment and motivated workforce. We will support endeavours that drive the operational excellence, efficiency and quality service.

## SUMMARY OF KEY ACHIEVEMENTS

With our strategy and goals in place, we implemented several initiatives throughout the year. In January 2016, we commenced the IMU Specialist Practice Programme at Pantai Hospital Kuala Lumpur as part of our initiative to set the foundation for the University's model of practice. Similarly, in line with our third strategic goal, we established the Centre for Translational Research to provide the catalyst for the paradigm shift for research to move towards application and solving problems. We have also obtained the Board of Directors' approval to build a tertiary hospital on the land adjacent to the Bukit Jalil campus pursuant to our strategy. The project will require various authorities' approvals and is projected to be completed by 2021.

## MOVING FORWARD (2017 AND BEYOND)

Under ASPIRE II, the planning and development of the hospital will be an important aspect of our initiatives in the coming years. The development of IMU's healthcare presence with additional services and clinical sites at the clinic and ambulatory level will be complementary to this initiative. The University will also strengthen and build upon its position in the education sector by developing new health-related programmes, and concentrating on enhancing and enlarging our partnership with our alumni and industry to drive mutual beneficial value.

STRATEGIC  
GOAL

1

A leading private Asian **health educator** recognised for quality and innovative curricula

STRATEGIC  
GOAL

2

A values-based academic **health centre** that focuses on the needs of the patient and community

STRATEGIC  
GOAL

3

Recognised for **research and consultancies** in focus areas leveraging upon strategic alliances

STRATEGIC

Enabler

Excellence in **capacity and capability building** to ensure growth and sustainability of the organisation



## 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 IMU as a centre of excellence for undergraduate programmes in medicine, pharmacy and other health sciences programmes
- To establish IMU as a centre for higher education providing training through multidisciplinary programmes
- To establish 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:

<b>Trusworthy</b>	We are trustworthy and stand for integrity, reliability and commitment
<b>Responsive</b>	To change, and to the needs of individuals and communities
<b>Unity</b>	Of vision and in working towards the achievement of common goals
<b>Service</b>	A commitment to providing outstanding service
<b>Tenacity</b>	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 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**  
MBBS (Monash), MMed (S'pore), DMedSc, Hon (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), Hon DSc (Soton)

**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, FMCVS, 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 Prof Abdul Aziz Baba**  
MBBS (Melb), MRCP (UK), MRCP (Ireland), FRCP (Edin), AM

**7 Dr Mei Ling Young**  
BA, MA (Hons) (Auckland), PhD (ANU), DSc (Strath), LLD (Dundee)

**8 Prof Victor Lim**  
MBBS (Malaya), MSc (London), MRCPPath, FRCPPath, FAMM, FASc

# SENATE



**Prof Abdul Aziz Baba**

Vice-Chancellor, IMU Education

**Dr Mei Ling Young**

Deputy Vice-Chancellor,  
International & Engagement

**Prof Peter Pook**

Deputy Vice-Chancellor, Academic

**Prof Victor Lim**

Pro Vice-Chancellor, Education

**Prof Mak Joon Wah**

Pro Vice-Chancellor, Research

**Prof Toh Chooi Gait**

Pro Vice-Chancellor, Development

**YBhg Prof Dato' Dr (Mrs) Kew Siang Tong**

Dean, School of Medicine

**Prof Toh Chooi Gait**

Dean, School of Dentistry

**A/Prof Dr Mohd Zulkefeli bin Mat Jusoh**

Dean, School of Pharmacy

**Prof Winnie Chee Siew Swee**

Dean, School of Health Sciences

**Prof Chu Wan Loy**

Dean, School of Postgraduate

**Prof Vishna Devi Nadarajah**

Dean, Teaching and Learning

**Prof Ong Kok Hai**

Director, External Affairs

**Prof Zainurrashid Zainuddin**

Professor, Obstetrics & Gynaecology

**YBhg Prof Dato' P Kandasami a/l Palayan**

Professor, Surgery

**YBhg Prof Dato' N Sivalingam a/l Nalliah**

Head of Division, Surgery

**YBhg Prof Dato' Jai Mohan a/l C.A Nayar**

Director of Learning Resources

**Prof John Arokiasamy**

Head of Division, Community Medicine

**Prof Azizi bin Ayob**

Programme Director, School of Medicine

**Prof Ammu Radhakrishnan**

Associate Dean, School of Medicine

**Prof Stephen a/l Periathamby Ambu**

Associate Dean, School of Postgraduate

**Prof Chin Beek Yoke**

Associate Dean, School of Health Sciences

**Prof Leong Chee Onn**

Professor, Life Sciences

**Prof Mallikarjuna Rao Pichika**

Associate Dean, School of Pharmacy

**Prof Seow Liang Lin**

Associate Dean, Oral Clinical Science

**Prof Lum Siew Kheong**

Head of Department, Surgery

**Prof Lin Xun**

Head of Department, Chinese Medicine

**Prof Peter Roman Paul Diakow**

Head of Department, Chiropractic

**Prof Allan Pau Kah Heng**

Associate Dean, Oral Health

**Prof Khoo Suan Phaik**

Associate Dean, Oral Sciences

**Prof Esha Das Gupta**

Professor, Internal Medicine

**Prof Nazimah Idris**

Associate Dean, Clinical Affairs

## EX-OFFICIO MEMBERS

**Christy Chiu Lai Heng**

Vice President, Finance & Administration

**Zuhanariah Mohd Nordin**

Chief Librarian

## SECRETARY

**Noraidah Yusoff**

Registrar



# ACADEMIC COUNCIL



- 01 An Academic Council meeting in session  
02 Pro Vice-Chancellor, Education, Prof Victor Lim, is one of the IMU representatives at the Academic Council 2016.



Henry Ford once said, "If everyone is moving forward together, then success takes care of itself." In other words, a united force is destined only to progress and meet with triumph. With this aim in mind, we made it a point to ensure that the University and its Partner Medical and Dental Schools continue to be of the same mind and vision. Every year, the University hosts its annual Academic Council where the deans or senior representatives of the University's Partner Medical and Dental Schools gather to discuss matters pertaining to admissions processes, curricula, assessment and faculty appointments and development, as well as research and postgraduate training in medicine and dentistry. The gathering also serves as a reunion as Council members gather from all over the world to discuss the direction for the year in an atmosphere that is filled with camaraderie and a sense of unity.

Held at the University's Bukit Jalil Campus, the 27<sup>th</sup> IMU Academic Council took place on 18-19 April 2016. During the meeting, among the topics on the agenda, Council members actively discussed the levels and standards of our curriculum and if any changes were to be actively made. This was done to ensure that students of the University are provided with only the best offerings in education. To this end, there were three breakout sessions on curriculum revision which the delegates attended. Focused discussions regarding the curriculum took place during the three following talks:

- Impact of Revised Curriculum - Effects on Student Preparedness by Dr Arun Kumar
- Evaluation of Changes in Communication and Clinical Skills Curriculum by Dr Sow Chew Fei
- IMU MBBS Revised Assessment with 5 Domains Criteria by Prof Jade Chow

## 27<sup>TH</sup> ACADEMIC COUNCIL MEETING, APRIL 2016



27TH ACADEMIC COUNCIL MEETING, APRIL 2016





27TH ACADEMIC COUNCIL MEETING, APRIL 2016

- 03 Dean, Teaching and Learning,  
Prof Vishna Devi Nadarajah presenting  
at the Academic Council in 2016
- 04 One of our international speakers getting ready  
to present at the Academic Council
- 05 Vice-Chancellor, IMU Education, Prof Abdul  
Aziz Baba giving a present to one of the  
members of the Academic Council
- 06 Academic Council 2016 in session

An additional breakout session was held with the representatives from our Partner Medical Schools (PMS). Separated into three groups, the selected representatives from each group presented data on the collective average performance of students who transferred to their schools. The objective of the session was to evaluate the performance of the IMU students, benchmarked against direct entry international students and home students. The session also raised areas of concern and verified if these are across the board issues that need to be addressed immediately by the IMU, and also to highlight successes of students and areas of strength.

During the summary of the Academic Council, it was suggested that, in the future, the International Medical Education Conference (IMEC) be held prior to the Council so that issues and ideas discussed during the Conference could be brought forward to the Council for further investigation and exploration of viability.

The Partner Dental School (PDS) Meeting was also conducted concurrently on 18 April. Led by the University's Dental Dean, Prof Toh Chooi Gait, the PDS meeting followed up with several of the initiatives that the School had rolled out in the previous year. The initiatives, that were piloted in 2014 and officially implemented in 2015 as Phase 1 of the IMU programme include:

- A Professional Practice Assessment which was modified according to feedback received from the Academic Council meeting.
- A Student Portfolio that employs the MAHARA e-portfolio platform.
- Expected Progressive Clinical Competencies – an electronic self-evaluation record uploaded to the Student Portfolio on MAHARA platform.
- The generating of One Best Answer (OBA) questions by Semester 5 students for formative assessment of Semester 3 and 4 students under the International Benchmarking Online Programme (iBOP) initiative with the University of Adelaide.
- Introduction of a web-based gamified mobile application for script concordance test for odontogenic pain.



03



04



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The meeting also featured an update on research and research collaboration, which was presented by Prof Allan Pau Kah Heng. A discussion on Postgraduate Programme Strategies and Partnership was also led by Prof Khoo Suan Phaik. Another item on the agenda was the briefing led by A/Prof Christopher Vincent regarding the celebration plans to mark the 10<sup>th</sup> year anniversary of the IMU Dental School in 2017.

A new addition to the delegates present at the PDS meeting was the University of Dalhousie who attended the meeting to observe proceedings. Represented by Dr Tom Boran, Dr Ronald Bannerman and Nancy Webb, the University will be the latest addition to the PDS Consortium.

# PROFESSIONAL EDUCATION ADVISORY COMMITTEE



01



02

- 01 PEAC members with IMU's Senior Management and some members of the IMU team
- 02 PEAC meeting in session

The Professional Education Advisory Committee (PEAC) provides advice and guidance to the University on all matters relating to professional education and training, including continuing professional development. The Committee may also address issues raised by the Academic Council. As the in-house monitoring body for quality, standards and efficiency, the Committee annually conducts a limited number of focused reviews, which are often carried out by three-member panels. The findings of their reviews among other matters of import, will then be discussed in their main meeting at the University.

The Committee conducted the following reviews in 2016, also revisiting a review that was conducted in the previous year:

- Review of Biomedical Science Programme, 8-10 June 2016
- Review of Medical Biotechnology Programme, 13-15 June 2016
- Review of Master of Public Health, 12-13 July 2016
- Review of Student Feedback (revisited), 5-7 October 2015

During the main meeting which convened on 10-11 October 2016, the Committee discussed the following issues:

- Progress Report on the Review of Implementation of Competency Based Education, 2015
- Report on the Review of Student Feedback, 2016
- Progress Report on the Review of Bachelor of Science (Hons) Chinese Medicine Programme, 2015
- Progress Report on the Review of Bachelor of Science (Hons) Pharmaceutical Chemistry Programme, 2015
- Report and Response on the Review of Biomedical Science Programme 2016
- Report and Response on the Review of Master of Science in Public Health Programme, 2016
- Report and Response on the Review of Medical Biotechnology Programme 2016
- i-Barometer report / analysis of i-Barometer with IMU-REEM

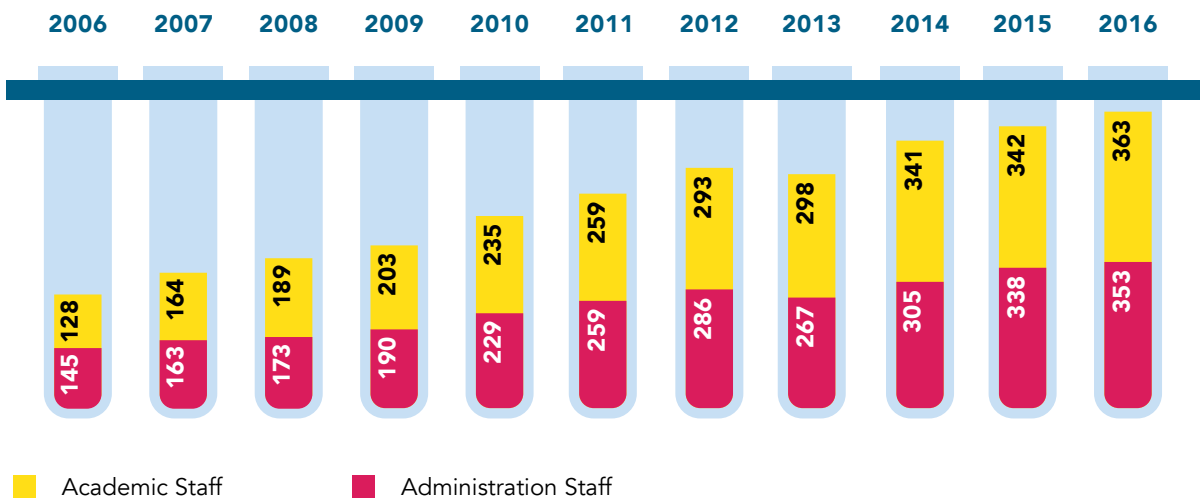
Several General Topic Exploration (GTE) papers were also discussed:

- Update on Assessment
- Marking Criteria
- Programme Organisation
- Arrival and welcome of new students
- Academic Appraisal and Mentoring for Academic Staff in IMU

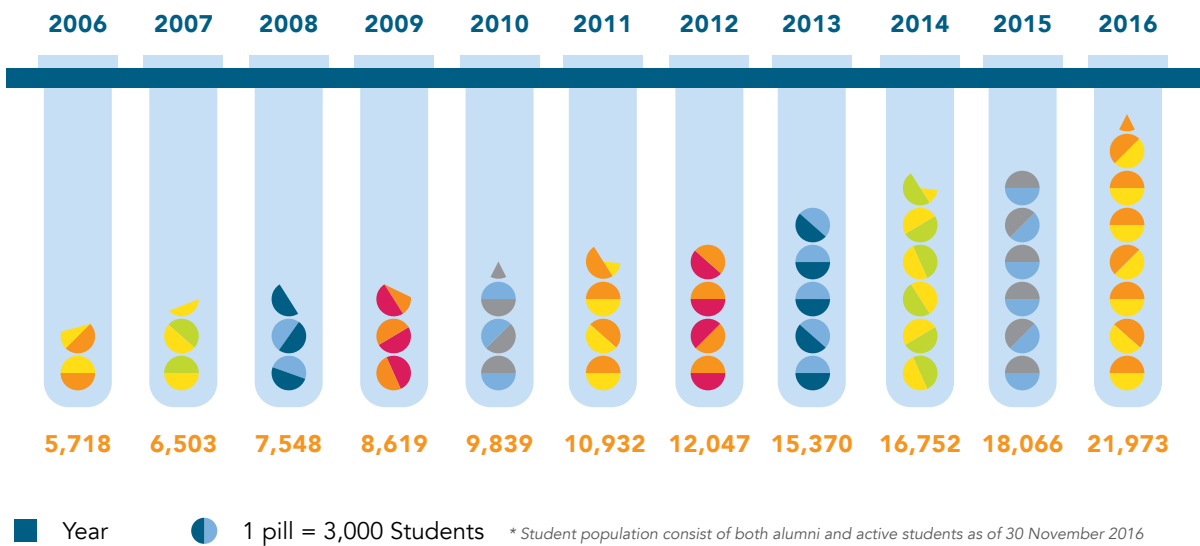
Following the meeting, a plan for improvement based on the Committee members' feedback and recommendations was issued to the relevant parties for further action. All implemented changes and the results effected by them will be discussed in the 2017 PEAC meeting.



STAFF POPULATION



STUDENT POPULATION



# UNIVERSITY HIGHLIGHTS 2016

1

## NEW VICE-CHANCELLOR TAKES OFFICE

1 JANUARY 2016

On January 1, Prof Abdul Aziz Baba formally began his role as Vice-Chancellor (CEO) of IMU Education. Previously, he served as the Vice President responsible for the Medical and Dental programmes at IMU. Prof Aziz has since assumed the roles and responsibilities of Vice-Chancellor after Tan Sri Dato' Dr Abu Bakar Suleiman stepped down from the position on 31 December 2015. Since his appointment, Prof Aziz has set IMU in the direction of operating on a more impactful scale.



2

## UNIVERSITY DAY

17 MARCH 2016

In commemoration of being conferred University status in 1999, IMU celebrated our annual University Day. To mark the day, we organised several activities for our alumni, staff and students, including an interactive forum entitled 'The 21<sup>st</sup> Century Learner.' IMU's achievements in 2015 were

also highlighted during the event and various awards were presented to staff. The awards presented include the Long Service Awards and Staff Achievement Awards. The Aflame Student Award was also conferred upon a graduating student who had demonstrated high humane values throughout the course of study.



3

## CONVOCATION (JUNE)

25 JUNE 2016

On June 25, the University conferred 450 students in its first convocation of the year.



# UNIVERSITY HIGHLIGHTS 2016

4

## NEW DEAN, SCHOOL OF PHARMACY

19 SEPTEMBER 2016

IMU welcomed A/Prof Mohd Zulkefeli as Dean of the School of Pharmacy. As of 2016, he is also an Associate Professor of the Pharmaceutical Chemistry Department at IMU.

Before joining IMU, he was a Senior Lecturer in the Faculty of Pharmacy at Universiti Teknologi MARA (UiTM) and had served in various administrative positions including Deputy Dean of Academic, Quality and Research (2007 to 2008) and Deputy Dean of Research and Industrial Linkages (2011 to 2012). He was also a Director of the Centre of Excellence for Natural Products Discovery Research (2012 until 2014).



5

## CHARIOFARE

24 SEPTEMBER 2016

Over 6,000 people, consisting of members of the public, students and staff, participated in IMU Chariofare 2016 - IMU's largest charity run and carnival. Organised entirely by first year students of IMU, the event raised a whopping RM203,215 thanks to the generous contributions and support of over 70 sponsors, partners in the industry and the community. The students' efforts resulted in meeting the needs of the residents of Home of Peace, Rumah Titian Kasih and the IMU Cares Humanitarian Aid Fund.





# UNIVERSITY HIGHLIGHTS 2016



6

## BEST EMPLOYER AWARD

29 SEPTEMBER 2016

In recognition of its exemplary conduct, IMU Education Sdn Bhd was awarded the "Anugerah Majikan Terbaik 2016" (Best Employer Award 2016) by KWSP (Employees Provident Fund) Wilayah

Persekutuan. We are proud to announce that IMU is one of the few companies selected among the thousands of companies in Wilayah Persekutuan to achieve this recognition.

7

## NEW PROGRAMME IN IMPLANT DENTISTRY

19 OCTOBER 2016

In October, IMU welcomed the first cohort of the Postgraduate Diploma in Implant Dentistry Programme. As an internationally benchmarked programme with the Diploma

in Implant Dentistry at the Royal College of Surgeons of Edinburgh in the United Kingdom, this programme is the first of its kind in Malaysia to be MQA approved.

Upon completion of the programme, students will be well-prepared to sit for the diploma exam in implant dentistry at the Royal College of Surgeons of Edinburgh, United Kingdom.



# UNIVERSITY HIGHLIGHTS 2016

8

## CONVOCATION (OCT)

22 OCTOBER 2016

During its second convocation in 2016, IMU graduated the first cohort of Bachelor of Science (Hons) Nutrition students. At the same event, Emeritus Professor James Roland Lawrence, was bestowed the Honorary Doctor of Medical Education in recognition for his exemplary and extensive contribution towards the development and growth of medical education.



9

## HEALTH & WELLNESS WEEK LAUNCHED

24-28 OCTOBER 2016

IMU launched our annual Health & Wellness Week. This initiative saw a week filled with various activities organised by both our staff and students with the aim of promoting better health and living.

10

## NEW DIRECTOR, IMU HEALTHCARE

28 NOVEMBER 2016

In the month of November, IMU Healthcare welcomed Caroline Tan Phaik Choo as its Director. She is now responsible for overseeing IMU Healthcare's entire

operations. Prior to joining IMU, Caroline was the COO of Beverly Wilshire Medical Centre. Before that she was the Chief Executive Officer of Tung Shin Hospital from 2012-2014. Overall, Caroline has more than nine years of experience in the healthcare industry.



# EDUCATION



# CENTRE FOR PRE-UNIVERSITY STUDIES

Setting Strong Foundations

## 2016 HIGHLIGHTS



**224 students enrolled  
in 2016's Foundation in  
Science programme**



**students sponsored by  
various foundations**



**students awarded IMU  
Scholarships to pursue  
undergraduate programmes**



**71.6% graduates from our 2015  
intake enrolled in the University's  
2016 undergraduate programmes**

## OUR 2016 ENROLMENTS

The year 2016 saw 224 students begin an exciting new journey in IMU's Foundation in Science (FiS) Programme. Our April intake was our biggest intake with some 130 students enrolling, followed by our July and September intakes with 69 and 25 student enrolments respectively. 2016 saw a slight decline in student enrolment from the previous year's 230 students. However, it was still an increase compared to 2014's 220 students.

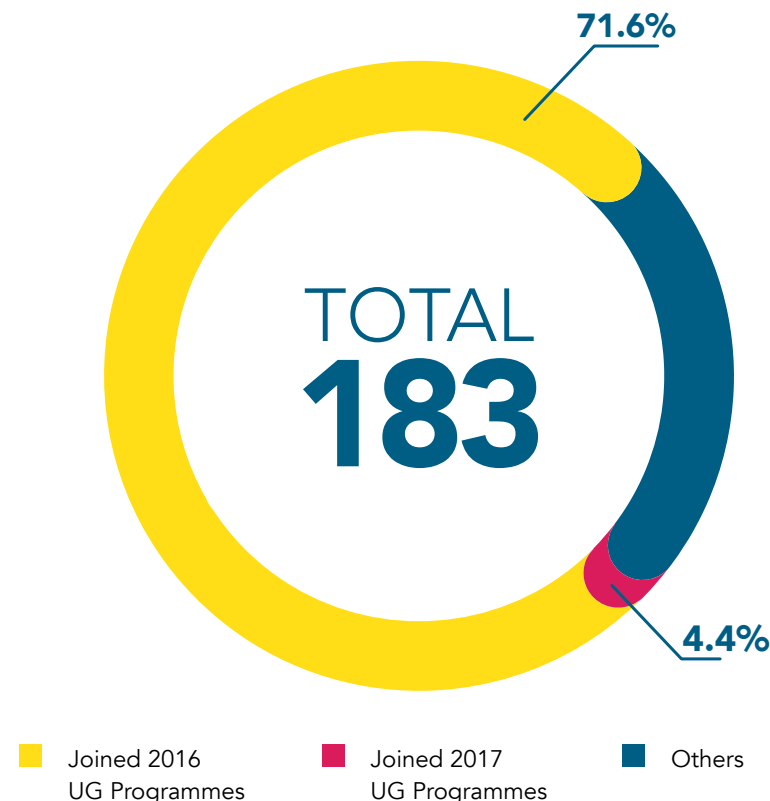
Approximately nine percent of the total number of students who enrolled in 2016 received sponsorships from foundations such as Yayasan Khazanah and Yayasan Peneraju as well as the Public Service Department (Jabatan Perkhidmatan Awam or the JPA). Yayasan Khazanah sponsored two students, while Yayasan Peneraju and the JPA sponsored nine students each.

## MAINTAINING CONVERSION RATE MOMENTUM

In February, the first cohort of FiS graduands (from the January 2014 intake) enrolled in the University's undergraduate programmes in Medicine, Dentistry, Pharmacy, Chiropractic and Psychology, with a 76% conversion rate. The second cohort of FiS students, who had enrolled in May and September 2014 respectively, enrolled in the August-September 2015 University intake, with an 87.5% conversion rate.

Out of the programme's 183 graduates from its 2015 intake, as many as 131 students enrolled in the University's undergraduate programmes. This brought our overall conversion rate to 71.6% for 2016, a slight decrease from 2015's 84.2%.

Of these 131 students, 11 students joined the Bachelor of Medicine and Bachelor of Surgery (MBBS) programme, 47 students



*Percentage of 2015 FiS Graduands enrolling into IMU Undergraduate (UG) Programmes in 2016*

chose to pursue Pharmacy, and 28 opted for the Chiropractic programme. Our Dietetics with Nutrition programme received 12 students from FiS, while one student elected to pursue Nutrition. Eight students took up Biomedical Science while another four students selected Medical Biotechnology. On top of this, nine FiS students chose to study Chinese Medicine, seven took up Psychology while four students opted for Pharmaceutical Chemistry.

## NURTURING OUTSTANDING ACHIEVERS

The year also saw six outstanding FiS graduates being awarded full and partial IMU Scholarships to pursue various degree

programmes within the University. These included scholarships for the Bachelor of Science (Hons) Nutrition and Dietetics, Bachelor of Science (Hons) Psychology, Bachelor of Science (Hons) Chinese Medicine as well as Bachelor of Science (Hons) Biomedical Science programmes.

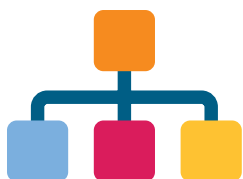
## MOVING FORWARD

Plans are in the pipeline for the Centre of Pre-University Studies to offer elective modules within the FiS programme. As part of the academic preparation they will receive from FiS, students will be given the flexibility to choose electives which will cater more specifically to their areas of interest.

# SCHOOL OF MEDICINE

Driving Innovation  
in Medical Education

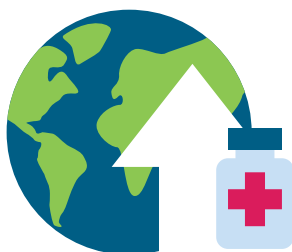
## 2016 HIGHLIGHTS



**New organisational structure introduced to strengthen foundations**



**students successfully underwent training within a private hospital setting**



**Steady increase in the number of international students in the medical programme**



**Psychology brought under School of Medicine's ambit**



**Targets for new student numbers and research activities achieved**



# “2 degree programmes

now offered under the

## School of Medicine's ambit:

- the Bachelor of Medicine and Bachelor of Surgery (MBBS) programme plus the Bachelor of Science (Hons) Psychology programme. //

### REINFORCING OUR FOUNDATIONS

The School of Medicine underwent a period of change in 2016 with the implementation of a new organisational structure and the addition of a Psychology programme to our offering. We also began our partnership with Pantai Hospital Ayer Keroh and saw a steady increase in the number of international students in our Bachelor of Medicine and Bachelor of Surgery (MBBS) programme.

The year saw us implementing a new organisational structure with the appointment of a Dean for the entire School. We also appointed three Associate Deans who will contribute their own valuable experiences to the running of the School. This realignment aims to provide us with more flexibility and help escalate our efforts to drive greater

efficiency and growth as well as enable us to leverage on the synergies between our Medical Sciences and Clinical Sciences activities.

### STRENGTHENING OUR OVERALL OFFERING

In 2016, the Psychology Division, previously under the School of Health Sciences, came under our School. This addition, together with the existing Psychiatry Department, has led to the formation of the Department of Psychology Medicine. With the inclusion of this course, the School of Medicine is now able to offer two degree programmes, namely the Bachelor of Medicine and Bachelor of Surgery (MBBS) programme and the Bachelor of Science (Hons) Psychology programme.

### LEVERAGING ON ASSOCIATION

For the year in review, nine of our senior students underwent a successful inaugural posting to Pantai Hospital Ayer Keroh, a hospital under the care of IHH Healthcare Berhad, of which IMU is a part of. Implemented between August and November 2016, this pilot project generated excellent feedback from both students and their consultant-teachers. Through this initiative, which leverages on the synergies within the IHH Healthcare Group, senior students are given the opportunity to learn about medicine in a private healthcare setting.

355

**new students**  
enrolled in the medical programme

50

**ISI publication**  
produced

26%

**new student intake**  
comprising international students

4

external grants amounting  
to **RM359,660** obtained

## RISING STUDENT NUMBERS

In 2016, the School of Medicine recruited a total of 355 students exceeding our target of 350. We also saw a steady increase in the number of international students attending our medical programme. Since 2015, international students have accounted for 26 percent of the total new students at the School and 37-46 percent of the students within our Partner Medical Schools track are international students. We continue to be committed to taking steps to address the specific needs of international students. Our efforts include teaching them to master conversational Bahasa Malaysia to get the most out of the clinical encounters at our teaching facilities.

## GOOD PROGRESS ON THE RESEARCH FRONT

In the area of research, the school obtained four external grants amounting to RM359,660, a sum which exceeded our target of RM310,000. We also exceeded our target of 30 ISI publications with a total output of 50 publications in 2016.

## PLANS FOR EXPANSION APPROVED

With the increasing number of clinical students in the Medicine, Dentistry, Pharmacy and Health Sciences programmes, the School will be expanding the teaching-learning infrastructure of its Clinical Campus in Seremban. The expansion will include the transformation

of the Clinical Skill and Simulation Centre (CSSC), the addition of more classrooms, and the integration of an online assessment system for the computer lab. All plans relating to the expansion received the necessary approvals in 2016.

## MOVING FORWARD

In the near future, the School of Medicine will be introducing several new programmes to its line-up. This will include an Audiology Course, Master in Medical Sciences (MMedSc), MBA in Health Management, and Master in Psychology. We will also be incorporating the United States Medical Licensing Examination (USMLE) into the Medical Sciences to help our students to prepare and sit for the Step 1 examination.

## The School of Medicine is also committed to championing the cause of "people-centred care".

We will also be further developing our current programmes. Those in the School of Medicine's MBBS track now have the opportunity to gain a double degree comprising our Bachelor of Medical Science (BMedSc) and our MBBS courses. Plans are also underway to extend our BSc (Hon) Psychology by offering Online Distance Learning as an option. Additionally, our BMedSc programme will be shortened, to a total of three years, as opposed to three and a half years.

The School of Medicine is also committed to championing the cause of "people-centred care". In line with the findings of the World Health Organisation report at the 69<sup>th</sup> World Health Assembly in April 2016, we will focus our efforts on enriching our students' healthcare service experience across community groups.

We also endeavour to develop caring, empathetic healthcare professionals by strengthening the patient safety component in our medical curriculum. Medical humanities will be another core focus of our endeavours. We will strengthen elective postings to focus on medical humanities activities and develop opportunities for students to be involved in medical humanities projects by collaborating with external partners.



# SCHOOL OF DENTISTRY

Elevating Dental Education

## 2016 HIGHLIGHTS



**MQA approved  
Postgraduate Diploma in  
Implant Dentistry launched**



**100% uptake for  
the BDS Programme**



**Postgraduate students enrolled  
for the first cohort of the new  
Postgraduate Diploma in Implant  
Dentistry in 2016**



**Two new international  
Partner Dental Schools added**



**Conducted 5 full-day  
CPD programmes**

## SETTING THE HIGHEST BENCHMARKS

2016 proved to be a very productive year for the School of Dentistry. In October, we launched the first Malaysian Qualifications Agency (MQA) approved Postgraduate Diploma in Implant Dentistry programme that incorporates onsite and offsite activities relevant to dentists at work. The course enables dentists to provide implant treatments to patients under direct (chairside) or indirect clinical supervision (through the use of video recording technology). The programme has been benchmarked with the standards set by the Royal College of Surgeons of Edinburgh (RCSEd) for the Diploma in Implant Dentistry Examination.

The year saw RCSEd's Chairman of the Advisory Board for the Diploma in Implant Dentistry Examination, Dr Shakeel Shahdad, visiting IMU to welcome the first cohort and to introduce them to the RCSEd implant examination. Students will be eligible to take the exam after completing the course and a one-year review of their completed cases. Aside from staff from IMU, experts in the implant dentistry from the private sector in Malaysia and Singapore, as well as academic staff from the University of Otago and University of Mahidol, will be contributing to course instruction. Since its launch, a total of ten postgraduate students have enrolled for the first cohort.

## ENGAGING IN NEW PARTNERSHIPS

In 2016, the University of Dundee and the University of Dalhousie provided letters of intention to join as Partner Universities, with each university offering five places for credit transfers. Following the completion of Phase 1 of their IMU dental programme, students will pursue another three years of study at our partner universities to graduate with dental qualifications from these universities. During the year, the University of Queensland provided notification that it would cease to be a partner dental school.

**75**  
high achievers enrolled for  
the **dental programme**

**40**  
**journal publications**  
were published by  
the School of Dentistry

**14**  
of these publications were  
in Tier 1 and Tier 2  
**ISI journals**

## TAKING IN HIGH ACHIEVERS

Despite the general economic downturn, all available places within our Bachelor of Dental Surgery (BDS) programme were taken up by high academic achievers. All 75 of these students were individuals who had achieved high grades in their pre-university qualifications as well as high scores in their selection interviews.

## IN SUPPORT OF DIVERSE AUDIENCES

Aligning with the University's goal of continual development, the School of Dentistry conducted five full-day CPD programmes in 2016. The various programmes catered specifically to dental practitioners, dental technologists and dental surgery assistants respectively.

All programmes were well attended by internal and external participants.

In support of oral wellness in the community, we collaborated with Colgate to provide each dental student with an IMU-Colgate Oral Wellness Kit. The kit contained models and various types of oral hygiene products that aimed to help students promote oral wellness during their community visits.

In line with the international and national thrust for dental practitioners to take an active role in smoking cessation, Dr Sobia Bilal, a lecturer specialising in dental health introduced smoking cessation training for dental students. Students then proceeded to execute these proactive interventions at the IMU Oral Health Centre for patients who are smokers.



## ADVANCES IN RESEARCH AND PUBLICATIONS

In the area of research and publications, Prof Khoo Suan Phaik, who led a team from IMU to collaborate with staff from Hiroshima University and University of Malaya, was awarded a FRGS grant of RM87,000 for their joint project entitled *"The effects of lipopolysaccharide-induced local inflammation and hyperglycaemic states on mesenchymal stem cells of the periodontal tissues."*

In 2016, a total of 40 journal publications were published with 18 publications in tiered ISI journals. Of this number, 14 of them were Tier 1 and 2 publications, with five of the articles stemming from students' research work.

## ENHANCING PERFORMANCE AND TEAMWORK

To strengthen staff performance and teamwork, the School of Dentistry organised two workshops for staff. One of the workshops focused on question setting, while the other workshop focused on the standardisation of assessments of competency tests using standardised criteria and rubrics. The year's staff engagement-cum-teamwork activities included weekend hiking, ATV rides at an adventure park and a year-end gala ball.



## MOVING FORWARD

The School of Dentistry will continue to enhance its BDS programme by introducing personalised learning in its Dental Practice Phase 1 programme. This new development aims to encourage self-directed learning among the students and get them to pace themselves in acquisition of required skills. There will also be a further reduction in conventional face-to-face lectures and didactic activities as we move towards interactive e-learning and other student-centred activities.

In the offing are plans to introduce more postgraduate-taught courses for dentists at work. These will include the Master in Implant Dentistry, the Postgraduate Diploma in Endodontics and the Postgraduate Diploma in Prosthodontics programmes.



# SCHOOL OF PHARMACY

Upholding Academic Excellence

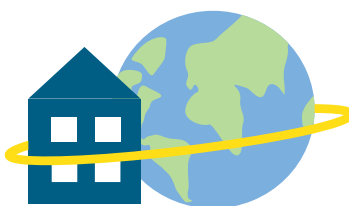
## 2016 HIGHLIGHTS



**Successful 5-year  
MQA reaccreditation of  
the BPharm programme**



**Memorandum of  
Understanding signed with  
pharmaceutical companies**



**Strong research collaboration  
with international and local  
universities and organisations**



**school within IMU to pilot the  
use of the online assessment  
system (OAS)**



**research grants obtained**

# “The Full 5-year reaccreditation for the BPharm programme programme was successfully obtained from the MQA”

## ENSURING EXCELLENT CURRICULUM DELIVERY

The year in review saw the School of Pharmacy's Bachelor of Pharmacy (BPharm) programme receiving the full five-year reaccreditation from the Malaysian Qualifications Agency (MQA) for the period 13 January 2016 to 12 January 2021. Prior to the MQA reaccreditation, we conducted our own mock accreditation exercise with help from the Academic Programme Development Department as well as arranged various briefing sessions for faculty members.

In February 2016, a panel of assessors from the MQA visited the School to assess the viability of the reaccreditation. The panel identified several inherent strengths of the School and the BPharm programme. They commended us for our quality assurance processes and academic leadership as well as highlighted the merits of the new BPharm

curriculum and its innovative approach. Several changes were suggested and the School was given approval to implement the new curriculum beginning 2017.

During the year, we also completed a curriculum review of our BSc (Hons) Pharmaceutical Chemistry to ensure the course curriculum was updated and relevant. We also ensured compliance with the regulatory requirements stipulated by the MQA, Institut Kimia Malaysia (IKM) and the Royal Society of Chemistry United Kingdom (RSC). The members of the RSC accreditation panel who visited IMU in September 2016 commended us for the good progress achieved in the programme. We provided a series of updates to the RSC panel. These included updates on the innovations in teaching and learning methodology as well as insights into the revised curriculum. The curriculum was approved by the Senate and sent to the MQA in December 2016 for approval.

## INTENSIFYING THE FIRST-HAND LEARNING EXPERIENCE

We introduced and successfully implemented two-week learning attachments in community pharmacy and the pharmaceutical industry as part of the experiential learning component of our BPharm programme. As part of our commitment to ensuring that we provide the best learning services to our students, the School signed a memorandum of understanding with IKOP Sdn Bhd, a local pharmaceutical company based in Kuantan with a Good Manufacturing Practice (GMP) facility that aspires to comply with Shariah requirements. This facility is equipped with state-of-the-art pharmaceutical equipment and advanced analytical instruments that are used extensively from the research and development stage to the finished product stage.

# 97%

pass rate on average for  
**BPharm students**

# 351

students attended the  
**School of Pharmacy's exam  
preparation workshops**

## LEVERAGING INNOVATION FOR ASSESSMENTS

Another milestone was achieved by the School of Pharmacy when it became the first school within the University to successfully pilot the use of an online assessment system (OAS) for summative assessments. As part of the class-related trial run for the OAS, the School nominated two leads to work closely with the IMU's OAS team and the faculty to develop a prototype question paper.

## ENSURING OUR STUDENTS EXCEL

The year saw students of our BPharm programme achieving a 97% pass rate in their examinations. The high pass rate can be partly accredited to the workshops that the School conducted for students and faculty alike as part of the examination

preparation process. Featuring external experts as speakers, the workshops saw 178 students attend the workshops in March and June 2016 and a further 173 students attend the workshop in November.

## STRENGTHENING COLLABORATIVE EFFORTS

The School continues to take proactive measures to strengthen collaboration with pharmaceutical-related industries. These include visits to pharmaceutical-related companies to highlight our faculty knowledge, strengths and lab facilities. The School has also been approached by various companies, such as CCM Duopharma and Kotra Pharma, for consultancy work. One such company, InQPharma, approached our School to solve issues in the development of some of their herbal formulations which we were successful in doing so.

## IN SUPPORT OF CONTINUAL PROFESSIONAL DEVELOPMENT

As part of our contribution to the University's efforts to foster continued professional development (CPD), we conducted 10 CPD events in collaboration with the Malaysian Pharmaceutical Society-Young Pharmacists Chapter (MPS-YPYC). Supported by our alumni office, the 10 CPD talks featured experts in their respective fields, some of them members of our alumni. The collaboration between IMU and MPS-YPYC continues to be strong as the young faculty in our School actively participate in the Chapter with some even holding positions within the organisation.

The Pharmaceutical Technology Department conducted two more CPD events that attracted a good number of participants. The activities for these sessions included talks from national and international experts as well as hands-on practical activities at our multi-disciplinary labs.

In total,  
**12**  
**CPD events**  
 were conducted

**85**  
**research publications**  
 in ISI journals released by  
 the School of Pharmacy

## RESEARCH AND PUBLICATIONS

In 2016, IMU's School of Pharmacy continued to make good advances in the field of research through the publication of numerous research papers and collaboration with distinguished universities and organisations globally. The School produced 85 research publications in ISI journals and successfully completed two contract research projects with InQPharma. Another contract research project with KL-Kepong Oleomas Sdn Bhd is currently underway.

To encourage the faculty to write the research proposals and papers, the School implemented several support mechanisms. These included mentoring of the faculty by senior faculty members who have track records of obtaining research grants; the use of internal vetting processes combined with feedback received from the IMU Joint Committee; and the creation of a network with renowned researchers in local and overseas universities. Furthermore, we appointed Emeritus Professor Brian Furman from the University of Strathclyde to guide and vet the research proposals.

These support mechanisms resulted in the School obtaining a number of external research grants with our faculty as principal investigators or co-investigators and the output of a good number of publications in ISI journals.

The following is a summary of the published works that the school put out in 2016:

- The faculty in Pharmacy Practice Department published 37 research papers out of which 20 were in ISI journals (Impact factor: 39.33; publications in journals of tier 1: 9; tier 2: 5; tier 3: 2; tier 4: 4)
- The faculty in Pharmaceutical Technology Department published 16 research papers out of which 13 were in ISI journals (Impact factor: 27.09)
- The faculty in Pharmaceutical Chemistry Department published 36 research papers out of which 30 were in ISI journals (Impact factor: 60.63; publications in journals of tier 1: 15; tier 2: 13; tier 3: 2)
- The faculty in Life Sciences Department published 22 research papers in ISI journals





The School obtained three new external research grants with our faculty acting as principal investigator; five new external research grants with our faculty acting as co-investigator; and one new Toray grant in which our faculty acted as the principal supervisor to our postgraduate students. Additionally, the School obtained three new international research grants including the uBiome industry grant, USA; the Cambodia-Laos-Myanmar-Vietnam Summit Research grant; and the Royal Society of Chemistry, UK grant.

We also carried out strong research collaboration with the following universities and organisations at both national and international levels:

- Australia Antarctic Division
- British Antarctic Survey
- Cambridge University
- Cancer Research Initiatives Foundation (CARIF)
- Harvard University
- Imperial College London
- Institute for Medical Research
- Institute of Protein Biochemistry Italy
- Malaysian Palm Oil Board
- Massachusetts Institute of Technology (MIT)
- Monash University
- Nottingham University
- Prince of Songkla University
- Queen's University Belfast
- Taylor's University
- Universiti Kebangsaan Malaysia
- Universiti Malaya
- Universiti Putra Malaysia
- Universiti Teknologi MARA
- Universiti Tunku Abdul Rahman
- University of Manchester
- University of Southampton
- University of Strathclyde



The faculty of the School of Pharmacy are also members of the following prestigious research committees:

- Academy of Science Malaysia Science Technology and Innovation Policy and Advisory Committee (National Committee)
- Member of ASM Working Group on Science Outlook 2016-2017 (Strategic International Alliance) (National Committee)
- Member of the Working Group on ASEAN Economic Community and TPPA Strategic Plan (Emerging STI-based Industries) (National Committee)
- Malaysian Code of Responsible Conduct in Research (MCRCR) (National Committee)
- Scientific Convener for Scientific Committee of Antarctic Research (SCAR) Open Science Conference
- Workgroup member for the drafting of Malaysia Polar Roadmap 2017-2030

## MOVING FORWARD

For 2017 and the near future, the School of Pharmacy will focus on the enhancement of work readiness in graduates, the implementation of evidence-based teaching and learning practices, plus the continuous drive to improve the quality of educational and research activities. The School will also concentrate on engaging alumni, industry, hospital and community partners in curriculum development and delivery as well as research efforts. Meanwhile, we will also work on strengthening and expanding our active collaboration with academic, research and industry organisations whilst enhancing our CPD programmes and the School's IMU Cares-based activities.

# SCHOOL OF HEALTH SCIENCES

Promoting Programme  
Excellence

## 2016 HIGHLIGHTS



International accreditation  
from the Institute of  
Biomedical Science, UK



Perpetual MQA accreditation  
for BSc (Hons) Nutrition  
programme



Enhancing experiential training  
with industry partners



39 research publications were  
released by the School of  
Health Sciences



MoUs were signed with  
industry partners paving the  
way for collaboration between  
industry and the School



## RECOGNISED FOR UPHOLDING EXCELLENCE

For the year in review, the School of Health Sciences (SOHS) focused its efforts on strengthening and enhancing the foundations of its various programmes. This included obtaining the relevant certification and accreditation from various bodies.

The year saw the BSc (Hons) Biomedical Science programme receiving accreditation from the Institute of Biomedical Science (IBMS), UK for a five-year period. With the IBMS accreditation, IMU now joins the ranks of three other institutions in Malaysia who are running IBMS-accredited degree programmes, namely Universiti Putra Malaysia, Universiti Kebangsaan Malaysia and Universiti Kuala Lumpur. The IBMS is a professional body for biomedical scientists based in the United Kingdom and IBMS-accredited degree programmes are assessed by professional and academic experts to ensure high standards in the way of teaching, facilities and course content. This accreditation signifies that our curriculum meets the academic requirements of the Health and Care Professions Council, UK.

Several of our other programmes attained Malaysian Qualifications Agency (MQA) accreditation. These included our BSc (Hons) Nutrition programme which



obtained perpetual accreditation from the MQA, the Post-basic Certificate in Teaching Methodology for Nurses programme which attained the five-year accreditation, and our Chinese Medicine Division which obtained provisional approval to conduct its MSc Acupuncture course.

## PARTNERING WITH INDUSTRY

In 2016, several of our other divisions, including Nursing and Nutrition and Dietetics signed Memorandums of Understanding (MoUs) with organisations to enhance students' real-life training. The Nursing Division's MoU with Pantai Hospital Kuala Lumpur will enable students of the School's BSc (Hons) Nursing programme to intern at the hospital while the hospital's nursing faculty embark on clinical supervision.

The Nutrition and Dietetics Division signed a MoU with Nestle (M) Bhd for the purpose of enriching the curriculum specifically in food preparation and development of healthy recipes with input from qualified chefs from the industry. Nestle is also a partner for final year industry placements for nutrition students. It is envisioned that this MoU will also enhance graduate competency and employability.

During the year, the SOHS signed a 'Partnership with Industry' MoU with Novo Nordisk Pharma Sdn Bhd, a supplier that provides services in clinical research among other things. This MoU will allow IMU students, particularly Medical Biotechnology students, to carry out their internships at the company's facility.

## CONTRIBUTING TO CONTINUAL PROFESSIONAL DEVELOPMENT

As part of our School's contribution to the University's continuous professional development agenda, the divisions within the School successfully organised a total of seven seminars and workshops in 2016. All of these were well attended by external and internal participants from the respective professions. Our Chinese Medicine Division also organised one public talk by a visiting lecturer from the Shanghai University of Traditional Chinese Medicine.



## FACILITATING STUDENT MOBILITY

Our ongoing Student Mobility scheme is enabling SOHS students to gain a global perspective of their respective fields. Under the mobility scheme, ten students and two faculty members from our Chiropractic division performed community service in Myanmar and the Philippines for the duration of four weeks and three weeks respectively. Students from RMIT University, Australia also joined the IMU students in Philippines. Two students from the Nursing

Division served in Tzu Chi Hospital, Taiwan for four weeks. Additionally, two students from Umeå University, Sweden came on board the mobility scheme for two months and interacted with the School's Nutrition and Dietetic students as well as dietitians from the Klang Valley. The Swedish students collected their data for their thesis in fulfilment of their degree in Dietetics at Umeå University.

Some students from the Division chose to complete their external clinical dietetics placements overseas for four weeks at the following hospitals:

HOSPITAL	COUNTRY
Chang Hua Christian Hospital	Taiwan
Cipto Mangunkusumo Hospital	Indonesia
Kaohsiung Chang Gung Memorial Hospital	Taiwan
National Yang-Ming University Hospital	Taiwan
Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital	Brunei
Taichung Veterans General Hospital	Taiwan
Theptarin Hospital	Thailand

# “ IMU 4

is one of only

## institutions in Malaysia offering courses accredited by the Institute of Biomedical Science, UK //

### RESEARCH AND PUBLICATIONS

The following is a summary of the published works that the various divisions of the School put out in 2016:

#### *Applied Biomedical Science and Biotechnology*

- 21 scientific presentations in both regional and international conferences;
- 20 publications;
- Three FRGS grants worth RM678,300 were allocated to Dr Lim Chooi Ling (RM249,800), Dr Koh Rhun Yian (RM180,700) and Dr Wong Chiew Yen (RM247,800); and
- One Toray grant valued at RM20,000 was allocated to Dr Chye Soi Moi.

#### *Nutrition and Dietetics*

- 11 publications;
- An industry-sponsored grant of RM1.18 million was awarded to Prof Winnie Chee for clinical study on the effects of soluble corn fibre and bone health; and
- RM30,000 was granted to Dr Sangeetha Shyam for research consultancy on the glycemic index of milk products.

#### *Nursing*

- Four local and international conference presentations; and
- Eight publications.

### MOVING FORWARD

The various divisions within the SOHS will continue to focus on enhancing their programmes. All divisions will continue to strengthen their partnerships with industry bodies to provide students experiential learning, placements, research and consultancy as well as CPD opportunities. The divisions will also prioritise increasing their visibility through community outreach programmes under the IMU Cares platform and via public talks. Student mobility for outgoing and incoming students will also be a priority across the board.

In line with the University's goal of standardising our quality of services, both our Applied Biomedical Science and Biotechnology and Nursing Divisions will enforce the implementation of competency-based education across all cohorts of students as well as conduct graduate and employer surveys. Additionally, the Applied Biomedical Science and Biotechnology Division will continue its good output on research and publications by students and faculty.

Our Chinese Medicine Division will focus on strengthening the curriculum to meet international and local standards as well as the standards of practice and competency in clinical services and students' training. The Division will also look at ramping up the student intake for the MSc Acupuncture programme.

The School's Chiropractic Division is currently seeking re-accreditation by the Council on Chiropractic Education, Australasia (CCEA). The School will also focus on setting up IMU as the Southeast Asian regional centre for National Board Exams for Chiropractic, USA.

For 2017, the Nutrition and Dietetics Division will prioritise the implementation of competency-based education across all cohorts of students, offer lifelong learning courses to enhance skills for working adults, explore development of new undergraduate and postgraduate degrees as well as strengthen dietetics services at IMU Healthcare. The division will also continue to champion nutrition and wellness for IMU staff and the public.



# SCHOOL OF POSTGRADUATE STUDIES

Providing Top-notch  
Teaching and Research  
Opportunities

## 2016 HIGHLIGHTS



**Master of Pharmacy Practice  
introduced**



**MSc in Molecular Medicine  
received MOHE approval to  
offer blended learning**



**29 PhD and 58 MSc students  
in Medical and Health Sciences  
(by Research) programmes  
graduated to date**



**Out of 71 postgraduate  
students in 2016, 11 were  
international students**



**Two MSc students awarded  
the Malaysia Toray Science  
Foundation (MTSF) research  
grants worth RM20,000 each**

## STRENGTHENING OUR OFFERING

The academic arm of the Institute for Research, Development and Innovation (IRDI), the School of Postgraduate Studies continues to coordinate the MSc and PhD in Medical and Health Sciences (by Research) and taught Master's programmes as well as the Bachelor of Medical Sciences (BMedSc) programme. Our taught Master's programmes currently include the MSc in Public Health, MSc in Analytical and Pharmaceutical Chemistry as well as MSc in Molecular Medicine. A new programme, the Master of Pharmacy Practice, commenced its inaugural intake in January 2017.

## SOLID MOMENTUM ON THE POSTGRADUATE FRONT

To date, our postgraduate research programmes have produced 29 PhD and 58 MSc graduates (since 2004). As of December 2016, there were 71 students in these programmes (39 PhD and 32 MSc of which 11 were international students). The year saw three PhD and seven MSc students graduating (refer Table 1). In terms of new enrolments, eight MSc and 12 PhD candidates registered in 2016. The postgraduate research projects were mainly funded by external grants, especially from the Ministry of Higher Education (MOHE), the Ministry of Science, Technology and Innovation (MOSTI), as well as the Malaysia Palm Oil Board (MPOB).

## MASTER'S AND BACHELOR'S PROGRAMMES GAIN GOOD GROUND

In our taught Master's programmes, a total of seven students graduated from the MSc in Molecular Medicine (MScMM) programme in 2016. To date, there are 22 active students in the programme. The programme obtained approval to offer blended learning from the Malaysian Qualifications Agency (MQA) and the MOHE on 2 November 2015 and 25 July 2016 respectively. With these approvals, a portion of the teaching and learning activities can now be conducted online. The preparation for blended learning commenced in early 2016 and the new mode of delivery of the programme is expected to be launched in 2017.

The MSc in Analytical and Pharmaceutical Chemistry (MAPC) programme, which has been accredited by the MQA, was awarded perpetual accreditation status in 2014. In 2016, the programme underwent a review by two experts, namely Prof Vishna Devi Nadarajah (IMU) and Prof Ahmad

Sazali Hamzah (Universiti Teknologi MARA), as part of a continual quality improvement exercise. Two students, Tan Khaishin and Muna Othman Salem of the MAPC1/15 cohort, presented their research findings at the International Conference in Organic Synthesis (ICOS), held from the 21-24 August 2016 in Kuching, Sarawak. Additionally, one student from the MAPC2/13 cohort has published her research findings in an indexed journal.

The MSc in Public Health (MSPH) programme, which has been running for five years, is fully accredited by the MQA and is recognised by the Public Services Department (JPA) of Malaysia. In 2016, the programme was reviewed by the PEAC as part of a quality improvement exercise. The reviewers concluded that the programme was satisfactory and that there were no major concerns.

In 2016, there were seven students enrolled into the Bachelor of Medical Sciences or BMedSc programme. A total of 12 BMedSc students graduated in 2016, with nine transferring to graduate Partner Medical Schools. Additionally, one candidate received the Tun Zahir Merit Award at the convocation in June 2016.



STUDENT NAME	THESIS TITLE
<b>PhD in Medical and Health Sciences</b>	
Choo Heng Lungh	Putative roles of c-Jun N-terminal kinase and downstream proteins as therapeutic molecular targets in nasopharyngeal carcinoma.
Muniswaran a/l Sivanathan	Development of an economical method for ostrich oil refinement and evaluation of its therapeutical effects on rheumatoid arthritis in a rat model.
Peter Asaga Mac	<i>Toxoplasma gondii</i> MIC8 gene as DNA and crude protein vaccine against toxoplasmosis in a mouse model.
<b>MSc in Medical Sciences and Community Health</b>	
Kho Mee Teck	Characterising host parasite metabolic interaction of <i>Toxoplasma gondii</i> infection in a murine model: a systems biology approach.
Lee E Lyn	An assessment of the diabetes knowledge and self-management behaviours of patients treated in primary health clinics: exploring any potential roles for community pharmacist. A mixed-methods study.
Tan Goi Chuan	Elucidation of molecular targets regulated by delta-tocotrienol and gamma-tocotrienol in 4T1 murine mammary carcinoma cells.
Teo Siew Yong	Synthesis and characterisation of novel palm kernel oil-based alkyds and evaluation of their potential as pharmaceutical excipients for topical nanoemulsions.
Yamuna a/p Rajoo	Association between intestinal parasitic infections, nutritional status, socioeconomic and environmental sanitary behaviour among the longhouse communities in the Sarikei Division, Sarawak.

Table 1: PhD and MSc thesis titles developed by IMU students in 2016

## RESEARCH AND PUBLICATIONS

There were a total of three journal papers (two in ISI-indexed journals) published by postgraduate students in 2016; as well as 14 conference presentations (eight oral and six poster papers) based on postgraduate research. Two postgraduate students, Harvinder Kaur (PhD) and Wong Yi Hao (MSc) won Best Presentation Awards for their conference presentations.

The School marked a milestone in 2016 when two of its MSc students, Yeo Pei Ling and Tan Si Hoey, were awarded the Malaysia Toray Science Foundation (MTSF) research grants worth RM20,000 each. Details of the two MSc projects which were awarded with the grants are as follows:

- Yeo Pei Ling - The role of miRNA-331-5p in apoptosis via MAPK signalling pathway in 6-OHDA-induced Parkinson's disease cell model
- Tan Si Hoey - Phosphoproteomic analysis of p21 protein-activated kinase 4 (PAK4)-mediated phosphorylation signalling in invasive oral squamous cell carcinoma (OSCC)

Another achievement for the School in 2016 was the award of Sultan Mizan Antarctic Research Foundation (YPASM) Fellowship to PhD Dang Nguk Ling. The fellowship, which is worth RM49,500, enabled Dang to go for an attachment with the British Antarctic Survey (BAS) for five months from November 2016 to March 2017, to work on a project titled "*Phylogenetic study on microalgae isolated from pristine and heavy metal-impacted sites on Signy Island, Antarctica.*"

An MSc student, Aniqah Zulfa binti Abdul Latif also embarked on an expedition to the Antarctic Peninsula from January 25-31, 2016 for her research to assess the effects of ultraviolet radiation (UVR) on Antarctic algae. Aniqah joined the Malaysian Scientific Expedition to Antarctica 2016, which was organised by the Sultan Mizan Antarctic Research Foundation (YPASM).

## MOVING FORWARD

In 2017, the School plans to further strengthen its programmes by offering selected taught Master's programmes through Online Distance Learning (ODL) and introducing a new taught Master's programme, MSc Medical Sciences. We will also strengthen industry linkages to offer more opportunities for postgraduate students to gain work-based learning experiences.

# ACADEMIC ACHIEVEMENTS AND AWARDS

Staff and Students

## SCHOOL OF MEDICINE

The following list is a summary of the School of Medicine's staff's achievements in 2016:

- YBhg Prof Dato' Dr P Kandasami, Department of Surgery, was re-elected as Master of the Academy of Medicine Malaysia.
- A/Prof Datuk Dr Soo Thian Lian, Department of Paediatrics, was named a committee member of The Regional Verification Commission for Measles Elimination in the Western Pacific to the World Health Organisation.
- A/Prof Dr James Koh Kwee Choy was appointed as the chairperson of MMA AIDS/STI Committee 2016/2017 and MMA's representative to Malaysian AIDS Council.
- Dr Nalini Somawera, Senior Lecturer, Department of Radiology, was awarded Fellowship in Radiology at the Inauguration of Academic Sessions of the Sri Lanka College of Radiologists on 2 September 2016.
- Dr Meenal Mavinkurve, Lecturer, Department of Paediatrics, won Best Oral Presentation Award at the Diabetes Asia 2016 Conference organised by NADI on 9 October 2016 for her research into natural killer (NK) cell dysfunction in adolescent and childhood obesity.

- Dr Vasudeva Challakere passed the fellowship examination in Forensic Medicine conducted by the Academy of Forensic Medical Sciences, UK. He is now a Fellow of Forensic Pathology i.e. FAFMS (ForensPath UK).

- Dr Abdul Rasyid Sulaiman passed the finals in the Masters in Psychological Medicine, University Malaya. He is now back in the Department of Psychiatry as of 1 December 2016.

The following list is a summary of the School of Medicine's alumni's achievements in 2016:

- Dr Avinesh Singh Bhar, an alumnus of IMU MBBS, was elected as one of the Asia 21 Young Leaders 2016.
- Dr Suzanna Sulaiman, M1/94 alumnus, was conferred the Singapore Health Quality Service Award.
- Dr Sabrina Balakrishnan won first prize in the Resident Paper Competition at the ATLS Asia Pacific Meeting in Hong Kong in November 2016.
- Jocelyn Tang, who started her studies in Psychology at IMU in 2012, was awarded the UM High Potential Scholarship from Maastricht University, Netherlands to pursue the MA Psychology programme.



The following list is a summary of the School of Medicine's students' achievements in 2016:

- Aaron Cheong Chee Qing and Nikki Palaruan from the Philippines won the pair category in the International Business Case Analysis competition at The Asean Colloquium (TAC) February 2016 in Bangkok, Thailand.
- Dairshini Sithambaram won the Best International Student Award from the University of Dundee.
- Tan Shi Hun, Lau Shi Lin, Annete Hove and Dorcas Selven won the Best Poster Award at the College of Surgeons Academy of Medicine Annual Scientific Meeting on 13 May 2016. The title of the presentation was *"Factors influencing the outcome of laparoscopic cholecystectomy in our setup at Hospital Tuanku Ja'afar Seremban Malaysia"*.
- Bushra Farooq, a 2<sup>nd</sup> year Psychology student, was a recipient of one of the Diana Awards in recognition of her volunteerism

activities. The presentation of the award certificate by Earl Spencer was held at the Barclays HQ in Canary Wharf, London on 4 July 2016. It was witnessed by Dr Andrew Foong HOD Psychology, and Ms Nur Herzazila Ghazali, Second Secretary of the Malaysian High Commission in London.

- Swarna Sanmuganathan (PS214) Psychology student won the Best Poster Award for her poster entitled *"Barriers to exercise among Malaysian women"* at the Undergraduate Research Symposium held on 5 November 2016.
- See Sher Rene, who will be graduating from Psychology this year, won the prize for The Best Oral Presentation entitled *"The effect of positive reappraisal on perceived stress and psychological wellbeing among University students"* which she co-authored with Nicole Chen Lee Ping at IMEC 2016.
- Banumathy R, Lee KW, Goh PL, Saw MM, Ng HF and Sivalingam N's work *"The effectiveness of pelvic floor muscle exercise in treatment of genuine stress incontinence*

*in women: A systematic review"* was published in the Indian Journal of Physiotherapy and Occupational Therapy.

- Mok Yi Ting, Ned Ya Theng, Kong Shu Ning, Heng Hian Ee, Cheong Yih Jeng and Tan Yee Wen won first prize in the Negeri Sembilan Research Day 2016 poster presentation for their poster entitled *"Low hemoglobin level and conversion of laparoscopic to open surgery increase the risk of surgical site infection: A three-month prospective study"*.
- Hamitra a/p Gandhi, Muhammad Faiz Bin Ismail, Tee Shi Ting, Joanne Sue James and Kong Shu Ning won second prize in the Negeri Sembilan Research Day 2016 poster presentation for their work entitled *"24 hours observation of patients after intrathecal morphine for lower segment caesarean section - Is it overrated?"*



## SCHOOL OF DENTISTRY

The following list is a summary of the School of Dentistry's staff's achievements in 2016:

- Dr Shekhar Bhatia was awarded the IMU John Simpson Teaching Excellence Award in 2016.
- Staff teams won the second and third prizes for best poster award in the IMU e-Learning Festival.
- Dr Shahid Mitha was awarded Best Oral Presentation prize in Student Evaluation category for his paper *"Special healthcare needs - Dental students' educational experiences, perceptions and practices"* at the 27<sup>th</sup> Annual Scientific Meeting of the South East Asia Association for Dental Education (SEAADE).
- Dr Chong Jun Ai won the Best Poster Award for her paper entitled *"Enlargement of the inferior alveolar canal: Case series"* at the 1<sup>st</sup> National CME CPD Clinical Case Conference.



The following staff have acquired additional professional and academic qualifications in 2016:

STAFF NAME & INSTITUTE	QUALIFICATION
<b>Dr Venkatesh Babu</b> Sri Ramachandra University	Doctor of Philosophy (PhD)
<b>Dr Shaju Jacob Pulikkotil</b> University of Madras	Doctor of Philosophy (PhD)
<b>Dr Sneha Ravindranath</b> Royal College of Surgeons of Edinburgh	Member of Orthodontics (MOrth)
<b>Dr Rohit Pandurangappa</b> Royal College of Surgeons of Edinburgh	Diploma in Implant Dentistry (DID)
<b>Dr Chong Jun Ai</b> Royal College of Surgeons of Edinburgh	Member, Faculty of Dental Surgery (MFDS)

The following list is a summary of the School of Dentistry's alumni's achievements in 2016:

The following alumni from the first batch are pursuing their postgraduate studies:

- Dr Wong Jin Lin has received a scholarship to pursue a structured residency programme in the National University of Singapore that will lead to a Master in Dental Surgery (Prosthodontics) and Specialty Membership in Prosthodontics of the Royal College of Surgeons of Edinburgh.
- Dr Nor Shafina binti Mohamed Nazari has received a scholarship to enrol in the MSc in Clinical Dentistry (Periodontology) of the University of Manchester.
- Dr Tallan Chew is enrolled in Doctor of Clinical Dentistry programme specialising in Endodontics in the University of Adelaide.

The following alumni have acquired additional professional qualifications in 2016:

ALUMNI BATCH & NAME	QUALIFICATION	NAME OF INSTITUTE
<b>DT1/08</b> Dr Pramilah a/p Streram	Membership of the Joint Dental Faculties (MJDF)	Royal College of Surgeons of England and Faculty of General Dental Practice (UK)
<b>DT1/08</b> Dr Chong Jun Ai	Member, Faculty of Dental Surgery (MFDS)	Royal College of Surgeons of Edinburgh
<b>DT1/09</b> Dr Sam Ye Han	Member, Faculty of Dental Surgery (MFDS)	Royal College of Surgeons of Edinburgh

The following alumni have set up their own dental practices:

Alumni from first (DT1/08) batch

- Dr Chan Ee Mee

Alumni from second (DT1/09) batch

- Dr Vincent Lee Han Hing
- Dr Rezzuan bin Rahim

The following list is a summary of the School of Dentistry's students' achievements in 2016:

- Lim Wei Gin and Ng Kai Ling were awarded with the second prize in the 8<sup>th</sup> National Dental Students' Scientific Conference's Poster Presentation competition for their paper entitled "*Salivary alpha amylase and its association with body mass status and perceived stress among adolescents.*"
- Athena Tan Yen Yee placed first in the Malaysian International Dental Expo and Conference's (MIDEC) Poster Presentation event with her paper entitled "*Formulation, development and in-vitro evaluation of triamcinolone acetonide-loaded bioadhesive gels for the treatment of oral ulcers.*". The same poster presentation also won first prize at the 11<sup>th</sup> Asia Pacific Dental and Oral Health Congress in Bangkok.

- Yow Yu Xiang of DT1/13 (Semester eight cohort), won the Joseph Lister Award for oral disease prevention at the General Session of the International Association for Dental Research (IADR) held in Seoul, Republic of Korea on 22-25 June 2016. His paper, entitled "*Upstream downstream prevention activities for a residential care home in Malaysia*", beat five other regional candidates.
- Jenny Fong Yi Ming of DT1/13 was awarded with the Best Poster in Dental Education Research at the 27<sup>th</sup> Annual Scientific Meeting of the South East Asia Association for Dental Education (SEAADE) for her paper "*Clinical audits - An educational and quality improvement tool used in a dental undergraduate programme*".
- Margaret Chia Soo Yee of DT1/13 was awarded with the Jury's Prize at the GC Asia Student Table Prevention Competition for his paper, "*Oral health promotion for an urban socio-economically deprived community*".



## SCHOOL OF PHARMACY

The following list is a summary of the School of Pharmacy's staff's achievements in 2016:

- Lee E Lyn, a faculty member of the Pharmacy Practice Department, was awarded with a Master of Science degree.
- Sajesh Kumar Veettil was nominated by students for the Best Academic Award in Pharmacy Faculty during Faculty Appreciation Week.
- A/Prof Ng Chew Hee obtained a Malaysia patent (MY-157886-A) for his invention "Copper(II)-mixed Ligand Complexes with Anticancer Properties."
- Dr Farrukh Zeeshan was appointed as secretary for the professional body Malaysian Control Release Society.
- Dr Punniyakoti Veeraveedu Thanikachalam received a travel grant (1,00,000 JPY) for attending The 80<sup>th</sup> Annual Scientific Meeting of the Japanese Circulation Society.
- Dr Mai Chun Wai was appointed Deputy Chairperson for the MPS-Young Pharmacists Chapter (2016-2018) and as a member of the Academy of Pharmacy, Malaysia. He was also the recipient of a Southeast Asia-European Union-NET II (SEA-EU-NET II) Fellowship to visit University of Liverpool (UK) and Chulalongkorn University (Thailand); as well as a research mobility grant supported by the Biochemical Society (UK), British Pharmacological Society (UK), Royal Society of Biology (UK) and Royal Society of Chemistry (UK) to visit as a researcher at the Institute of Protein Biochemistry, National Research Council, Naples, Italy and a travel scholarship from the Malaysian Pharmaceutical Society (MPS) to attend the Federation Asian Pharmaceutical Association (FAPA) Congress in Bangkok 2016.
- Dr Ramkumar Rajendran received a travel grant from Gruppo Italiano Mesotelioma headed by Professor Luciano Mutti (University of Salford) to visit the University of Manchester for research.





## SCHOOL OF HEALTH SCIENCES

The following list is a summary of the School of Health Sciences' staff's achievements in 2016:

- Dr Anil Phillip Kunnath of the school's Biomedical Sciences Division became a Fellow of the Institute of Biomedical Sciences (FIBMS) in the UK.
- Medical Biotechnology's Dr Wong Chiew Yen was appointed as a Nominee of Great Woman of Our Time 2016, Science and Technology category, by *The Malaysian Women's Weekly*.
- Nutrition and Dietetics Division, Dr Yang Wai Yew obtained her PhD degree from University of Newcastle, Australia.
- Dr Yang Wai Yew won the Publication Prize from Nutrition Society of Malaysia for her paper entitled "*The Family Diet Study: A cross-sectional study into the associations between diet, food habits and body weight status in malay families*".

- Dr Chang Sui Kiat was awarded the Outstanding Reviewer Award 2016 by Elsevier for his contributions to the *Food Chemistry Journal*.
- Lee Ching Li was awarded Best Oral Presentation at Malaysian Dietitians' Association & American Overseas Dietetic Association Conference. The title of her presentation was "*Meal replacement versus conventional low calorie diet: Similar weight loss in patients with diabetes*".
- Kanimolli Arasu and Prof Winnie Chee were awarded Best Poster at the Malaysian Diabetes Educators Society Conference for their work entitled "*Effect of dietary intervention on carbohydrate intake of individuals with type 2 diabetes mellitus in Klang Valley*".
- Dr Chang Sui Kiat, Dr Tan Seok Shin and Dr Tan Sue Yee were selected for the IUNS workshop on Capacity and Leadership Development in Nutritional Sciences.

The following list is a summary of the School of Health Science's students' achievements in 2016:

- Three former IMU students from our Chinese Medicine programme obtained full Chinese government scholarships to pursue their Masters in China. While one of the students will pursue her Masters at Tian Jin University of TCM the other two recipients will further their studies at Shanghai University of TCM.
- Lim Jia Xin of our Medical Biotechnology Division bagged the first prize at the BioMalaysia and Asia Pacific Bioeconomy 2016 Bioquiz Competition.
- Pichien Mongkolthanit and Farah Ahmad Kutubbudin were also awarded the consolation prize at the same Bioquiz competition.
- Nursing students Alicia Wan and Yen Sze placed third in the Poster Award contest during the Nursing Conference at Chiang Mai University.
- Nutrition and Dietetics' Ang Hui Inn won second prize in the Malaysian Dietitians' Association (MDA) Outstanding Undergraduate Dietetics Student Award 2016.
- Ng Yeng Yi was awarded first prize for Poster Presentation at the Nutrition Society Malaysia (NSM) Conference 2016.





## SCHOOL OF POSTGRADUATE STUDIES

The following list is a summary of the School of Postgraduate Studies' students' achievements in 2016:

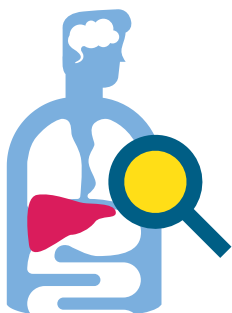
- Harvinder GS, Chee WSS, Karupaiah T, Sahathevan S, Chinna K, Ghazali A, Bavanandan S and Goh BL were awarded second prize for their oral presentation of *"Dialysis malnutrition and malnutrition inflammation scores: Screening tools for prediction of dialysis-related protein-energy wasting in Malaysia"* at the Malaysian Dietitian's Association-American Overseas Dietetic Association Conference held at the Doubletree by Hilton, Kuala Lumpur, 26-28 May 2016.
- Harvinder K, Chee WSS, Lee VKM, Barua A and Siti Z were awarded first prize for their poster presentation of *"Weight Efficacy Lifestyle (WEL) questionnaire – Validation in type 2 diabetes patients in primary care setting in Malaysia"* at the MDES Conference 2016 held at the Nexus Convention Centre on 22-24 April 2016.
- Harvinder K, Chee WSS, Lee VKM and Barua A won second prize for their poster entitled *"Motivational interviewing enhances weight loss and HbA1c reduction in overweight/obese type 2 DM patients following a diabetes specific nutrition algorithm in primary care setting"* at the Diabetes Asia 2016 Conference, Kuala Lumpur.
- Wong YH, Chan LL, Ambu S, Leong CO, Mak JW and Sahu P were conferred the Best Presentation Award for their poster entitled *"Possible involvement of DNA-methyltransferases and histone deacetylases in the regulation of virulence potential of Acanthamoeba Castellani"* held at the 18<sup>th</sup> International Conference on Microbiology and Biotechnology on the 8-9 September in Singapore.



# LEARNING RESOURCES

Using Technology to Design  
Great Learning Experiences

## 2016 HIGHLIGHTS



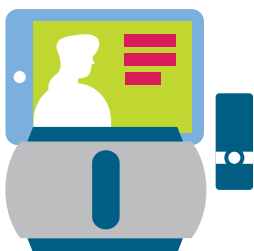
**Virtual Medical  
Museum launched**



**Students attain Basic  
Information Literacy License  
(BILL) certification**



**Utilisation of library resources  
optimised through  
game-based learning**



**SWIVL lecture-capture system  
is made available to students**



**IMU's 3<sup>rd</sup> Annual  
Learning Resources Festival  
rolled out successfully**

In line with the University's vision of becoming a global centre of excellence in learning, research and healthcare, we are committed to providing our students with learning resources of the highest calibre in a convenient and easily accessible manner. In 2016 the Learning Resources Department, comprising the e-Learning Unit, the Medical Library and the Medical Museum, continued to roll out a host of activities which enabled our students to acquire information literacy skills and access all the information they needed to help them excel.

### LICENSING BASIC INFORMATION LITERACY SKILLS

Information literacy skills are an important competency required of health professionals. To address this, the University launched the Basic Information Literacy License (BILL) with quite a number of students completing the programme successfully in 2016. Based on the Sconul Seven Pillars of Information Literacy: Core Model for Higher Education, we made some modifications to the curriculum to suit the local environment at IMU. The programme now incorporates two three-hour sessions on separate days in which students are given a lecture on library resources, followed by group assignments in the first session. Students are also required to conduct research and present their findings in the second session to demonstrate mastery of the use of information resources, citations and references.

**“99 students**  
were awarded the  
**Basic Information**  
**Literacy License (BILL)**  
affirming their information searching  
competencies and qualifying them  
to become lifelong learners. **”**

### PROMOTING LEARNING VIA GAMIFICATION

The Medical Library continues to promote learning in an innovative manner. To ensure optimum utilisation of its digital and print collections, the library has adopted a game-based educational approach whereby students who participate in gamification activities will be rewarded with prizes when they win. The library's activities in 2016 included two Mini Engaging Days, three online quizzes and knowledge challenges during the university's Learning Resources Festival.

### TAPPING AUGMENTED REALITY TO ENHANCE MEDICAL EDUCATION

In tandem with the increasing digitisation of medical education and demands to make our museum material more accessible, the year saw the development of a virtual museum. IMU's Virtual Medical Museum permits students to virtually tour the museum and study the anatomical and pathological models, specimens and charts. Links to external additional resources and self-assessment quizzes and clinical reasoning information have also been added. The Virtual Medical Museum, IMU's first major foray into virtual reality, has certainly gone down well with its target audiences.



**"23 staff**  
were awarded the  
**Basic e-Learning License**  
attesting to their understanding  
of the e-Learning methodology. //



### STRENGTHENING STAFF'S E-LEARNING ABILITIES

The IMU Basic e-Learning License Certification is an in-house developed e-Learning simulation methodology. It provides the necessary learning resources and self-assessment features to evaluate whether one has the basic skills required to use the e-Learning portal and rapid e-Learning development tools available at IMU. The programme contains four modules with 30 online simulated assessments. The self-paced online course comprising several learning activities was designed to cater to academics' busy schedules and can be taken anytime, anywhere. Since the programme's launch in 2012, more than 150 staff have completed the course and been awarded the Basic e-Learning License. Of these, 23 staff members obtained the license in 2016.

### ENHANCING THE LEARNING EXPERIENCE

In 2016, distance learning and lecture capturing was made even easier with the incorporation of Swivl in our lesson delivery. Swivl is an automated mobile accessory that enables educators to use video for professional development and instruction. It also provides features to make video an interactive experience. Going beyond just video capture, this three-part solution includes the Swivl Robot, Swivl Capture app and Swivl Cloud. These elements

enable voice-tracked lecture capture and posting online to support flipped learning and distance education, especially for postgraduate courses. Over the course of 2016, the University also upgraded its e-Learning Portal. This saw the portal migrate from Moodle version 2.4 to 3.1 with many new features added on while its user friendliness was also enhanced. At the same time the server was moved to the Cloud for greater stability and scalability. As most e-Learning content and activities depend on Moodle, this will greatly enhance the student experience of e-Learning.



SWIVL ROBOT



SWIVL CAPTURE



SWIVL CLOUD



The annual IMU e-Learning Festival that was held from 31 October-1 November 2016 had as its theme "Using Technology to Design Great Learning Experiences". More than 100 IMU staff and students attended the festival which featured e-Learning showcases, learning innovation talks, workshops, and mobile game activities as well as the e-Learning innovation award projects that were submitted in 2016.



## MOVING FORWARD

The Medical Library will continue to offer the BILL Course to all students. Plans are in the offing to conduct the Advanced Information Literacy License course for those who have been awarded the basic license. It will feature a host of new modules including those dealing with plagiarism and copyright issues. Measures will also be taken to continuously enhance

the e-Learning Portal; while monthly staff training will be ongoing. Even as digital technologies are recognised as key enablers for the IMU of the future and several new projects in this area are in the pipeline, we can look forward to the launch of an advanced e-Learning license programme as well as the rollout of a virtual medical hospital project.

**23**  
e-Learning innovation  
award projects  
were featured

# CENTRE FOR EDUCATION

Advancing Health  
Professions Education

## 2016 HIGHLIGHTS



**Quality assurance  
flows strengthened**



**Over 900 faculty participants  
attended training events**



**A workshop on reflective  
writing dubbed "Feedback" was  
designed and conducted**



**research publications  
submitted**



**faculty members invited  
to speak at national and  
international conferences  
and workshops**





Established in 1999, the IMU Centre for Education (ICE) is dedicated specifically to the advancement of health professions educators in the areas of curriculum development, learning and teaching, assessment and quality improvement. 2016 marked another year of progress for ICE with several initiatives implemented to strengthen our overall organisation and offering.

### STRENGTHENING FACULTY AND RESOURCES

As part of our programme design initiative, we recruited three full-time faculty members, namely Prof Shahid Hassan, Dr Waseem Suleman and Dr Simranjeet Judge. Additionally, we developed and aligned our module content for submission to the Malaysian Qualifications Agency and also finalised the names of our module coordinators and facilitators.

Under the Centre's faculty development mandate, a variety of training programmes were conducted in which 246 participants attended mandatory training events, while 671 people attended events that featured guest speakers. One such event, Leadership Training, featured Prof Judy McKimm as an external expert. On the recommendation of the Professional Educational Advisory Committee, we designed and conducted a workshop on reflective writing, dubbed "Feedback".



Over  
**900**  
participants took part  
in **ICE-initiated  
training events**

### MAKING IMPROVEMENTS TO WORK FLOWS AND PROGRAMMES

Under our Student Evaluation of Teaching and Learning initiative, we strengthened the quality assurance of our evaluation process flow by revising our Standard Operating Procedures (SOPs). The Centre also prepared the trend analysis for module and faculty evaluations to help identify areas for improvement within individual programmes.

### BOLSTERING RESEARCH AND CLINICAL INSTRUCTION ACTIVITIES

The Centre also received research submissions under its Vetting of Innovative Research Proposals initiative for the committee's review. Of four submissions, one was approved, another was rejected and the two remaining submissions were sent back for revision.

Under our Student Instruction initiative, two faculty members were involved in clinical instruction at the clinical campus in Seremban. The topics that were taught included neonatology and ENT-Head and neck surgery. Furthermore, three faculty members consented to assist in facilitating problem-based learning and the OSCE examination at our main campus in Bukit Jalil. Similarly, one faculty member was actively involved in the activities of the undergraduate psychology programme.

# 3 research publications

were received  
by the Centre with one  
submission accepted and  
the other two undergoing  
a review process

# 2 faculty members

were invited to speak  
as experts at national and  
international conferences/  
workshops while another  
came in second in a Microsoft  
Excel competition

## EXTENDING OUR SPHERE OF INFLUENCE

Our faculty members, Prof Shahid and A/Prof Stefan, were invited to speak as experts at national and international conferences/workshops. On another occasion, Dr Waseem, one of our faculty members, came in second in an Excel competition organised within IMU in collaboration with Microsoft Malaysia.

the flexibility of part-time or full-time options and all three levels are open to professionals who want to improve and acquire a medical education degree. Participants also have the option to register in any one programme and then choose to move on to the next programme, or they can register directly in MHPE and complete all three accreditations in ten given modules. To date, we have received nine enquiries regarding the programme.

The Centre was also involved in supporting the School of Postgraduate Studies' new Health Professional Education (HPE) programme. Designed in three packages as a Certificate (CerHPE), Diploma (DipHPE) or Masters Programme (MHPE), the module-based course of study is the first of its kind in medical education in Malaysia and the surrounding region as no other single course offers accreditation at all three levels. The course offers participants



## MOVING FORWARD

As we venture into 2017, we will focus on our newly launched health professional education programmes which consist of certificate, diploma and masters-level programmes. ICE will take a lead role in faculty development activities including overseeing activities such as the vetting of written assessment questions as well as designing the OSCE and other workshops. All these serve to enhance IMU's capacity. We will also respond to requests to prepare calendar events relating to Teaching and Learning activities by mapping the faculty development activities against the IMU teacher's role. The Centre will also document and implement SOPs to ease workflow and strengthen collaboration with other units within the University.

# CENTRE FOR LIFELONG LEARNING

Nurturing and  
Empowering Healthcare  
Communities

## 2016 HIGHLIGHTS



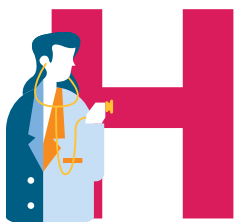
Organisation and  
operations revamped



training events delivered



Master schedule for all CPD  
activities made accessible to all



1,000+ participants  
impacted and 900+  
external clients reached



Courses delivered in a variety  
of formats that included face-  
to-face sessions, technology  
assisted learning, and  
a blended approach



In 2016, as part of our goal to support the personal and career growth of healthcare professionals through diverse learning opportunities, we continued to focus on developing IMU's Centre of Lifelong Learning or ICL as the continuing professional development (CPD) training and development arm of IMU. To this end, several key initiatives were undertaken over the course of the year.

**Our restructuring in 2016 included a revamp of our operations and organisational structure, the appointment of a new head for ICL and the implementation of a master schedule that is accessible to all.**

## RESTRUCTURING OF THE ORGANISATION AND OPERATIONS

To equip ICL in its newly-expanded role, the University revamped the centre's operational systems as well as restructured the roles and responsibilities of its personnel. Among the many changes implemented were the appointment of a new head for ICL and the roll-out of a master schedule for all CPD events which would be accessible to all stakeholders.

We also set out to revisit our purpose and goals through a SWOT analysis identifying our strengths and weaknesses and formulating strategies to meet the challenges. This certainly helped us to distinguish the areas that needed improvement and to conduct a plan of action based on the results of the evaluation.

## CONTINUING TO DELIVER HOLISTIC LEARNING EXPERIENCES

ICL continued to organise numerous courses and workshops which ranged from developing technical, professional and research skills to preparation for professional examinations and personal enrichment or empowerment learning. The courses were delivered in a variety of formats that included face-to-face sessions, technology assisted learning, or a blended approach.

In 2016, the Centre organised 31 CPD training events and successfully trained 1,032 participants of whom 939 were external clients.

## MOVING FORWARD

The ICL will continue to empower the IMU community in developing and implementing training events across the University. Additionally, doing so will ensure the growth of our CDP courses. We will also take measures to ensure an alignment between ICL's and the University's strategies as well as to enhance our ability to influence multiple stakeholders. As part of our long-term goal of establishing IMU as one of the nation's leading brands in the world of learning, we will continue to establish best practices in learning for event design and delivery.

# QUALITY IMPROVEMENT

Continuously Setting  
New Standards of  
Distinction

## 2016 HIGHLIGHTS



First cycle of the revised  
Quality Assurance System  
rolled out



Internal curriculum review of  
two Bachelors and two Masters  
programmes implemented



faculty staff trained in  
the "Fundamentals of  
Programme Quality"



ISO surveillance audits  
fully complied



Conducted our annual review,  
focusing on the quality of  
student feedback as our  
subject matter for 2016



## In 2016, an internal curriculum review was undertaken on 2 Bachelors and 2 Masters programmes, all of which turned in satisfactory results.

Following the establishment of the University's first integrated governance structure for academic quality assurance and the improvements made to it in the previous year, 2016 saw the first cycle of the revised Quality Assurance System focusing on programme and module monitoring.

### SOLID ADVANCES ON THE QUALITY FRONT

As with any new venture, this project had its expected share of teething issues, however, we began to see progress even as the various schools and departments within IMU adapted to and became accustomed to the various quality assurance and continual quality improvement activities. The new integrated governance structure encompasses representatives from every echelon of the University - from students to other IMU stakeholders to the Professional Educational Advisory Committee - as the structure aims to encourage a more holistic consideration of educational programmes. In line with this goal, senior

academics are now assigned to review both school and programme quality reports to encourage interdisciplinary interaction and standardisation.

### SATISFACTORY CURRICULUM CONTENT REVIEWS

With the aim of ensuring that all our curriculum content is appropriate and meets standards in terms of organisation, pedagogy as well as methods of delivery and assessment, we regularly conduct an internal review of all programmes that have completed their cycle of delivery.

In 2016, we completed reviews of the following four programmes:

- Bachelor of Science (Hons) Biomedical Science;
- Bachelor of Science (Hons) Medical Biotechnology;
- Masters of Science in Analytical and Pharmaceutical Chemistry; and
- Masters of Science in Public Health.

All four reviews were generally satisfactory with the majority of recommendations focusing on programme structure, assessment tools and delivery methods. Since then, more attention has been given towards making the programmes, especially the postgraduate programmes, more attractive to potential students.

### HIGH QUALITY TEACHING AND LEARNING PROGRAMMES

We also continued our annual review on specific areas of teaching and learning across all programmes, choosing to focus on the quality of student feedback as the selected area for review in 2016. The purpose of the review was to determine the effectiveness of student feedback at IMU, identify best practices on student feedback within IMU that can be shared across schools, and to recommend strategies to improve and evaluate student feedback based on international best practices.

The reviewers were impressed with the quality and theoretical underpinning of

## The year saw IMU successfully complying with the ISO 9001:2008 (Quality Management) standard and ISO/IEC 17025:2005 (competence of testing and calibration laboratories) standard.

the majority of the papers presented. They denoted a deep understanding at the senior level of the importance of feedback to students as a tool to enhance individual learning and future attainment. Based on the results of the review, we are now looking at the viability of re-evaluating the definition of feedback, executing training based on effective feedback, reviewing the mentoring system and evaluation load, as well as adopting a risk-based approach to quality assurance.

### GOOD RESULTS FROM EXTERNAL AUDITS

IMU continues to support the delivery of teaching and learning in compliance with the ISO 9001:2008 standard. Since our certification in 2006, we have regularly undergone periodic surveillance audits coordinated by Lloyd's Register Quality Assurance Limited. As a precautionary factor, these external audits are preceded by periodic internal audits by a trained team of staff. To date, no major non-conformance has been detected. Similarly, Standards Malaysia conducted an annual

audit with satisfactory results of the IMU Research Laboratories in compliance with the ISO/IEC 17025:2005 standard.

Here at IMU, we are committed to ensuring that our staff are always kept informed of our policies and guidelines. As such, we organised and conducted a workshop entitled the "Fundamentals of Programme Quality" with the objective of providing staff with an understanding of the concept of quality, the fundamentals to implement the quality management system at all levels (programme, semester and module) and the encouragement to seek future improvement that is evidenced-based. The workshop, which was held on several occasions throughout the year, garnered very positive feedback with 80% of participants saying that it belonged in the 'good and excellent' category and 90% saying that they would recommend the workshop to others. Participants also indicated that they now understood the quality system and MQA requirements better, and were able to take a more evidenced-based approach in relation to improving quality of programmes and modules.



### MOVING FORWARD

We are currently exploring the feasibility of simplifying our current quality management system so as to decrease the work burden for both our faculty and support staff while maintaining our stringent quality standards. We are also preparing to revise our quality management system so that it will comply with the new ISO 9001 standard that the International Organisation for Standardisation published in 2015.

# STUDENT SERVICES HUB

Providing a Holistic Education Experience

## 2016 HIGHLIGHTS



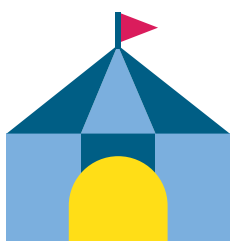
Students' self-development and mental health needs looked after by the Self-Development Unit



A student alumni office was opened and a liaison officer appointed



The maiden IMU-Student Ambassador Courtesy Week was launched



27 collaborative events with external companies drew good student response



alumni gatherings were held throughout Malaysia

At IMU, we are committed to ensuring that our students receive a holistic and well-balanced education. Under the guidance of our Student Services Hub, we have made it our priority to ensure that our students not only achieve their goals, but also remain physically, emotionally and mentally fit.

## ENSURING WELL-BALANCED STUDENTS

For the year 2016, self-development and students' well-being continued to be a focal point of our Student Services Hub initiatives. Employing tools such as counselling, expressive arts therapy and peer support, we designed our services and self-development programmes under our Self-Development Unit (SDU) to cater to the student's needs in a comfortable and non-intrusive manner.

Furthermore, in order to cater specifically to students who suffer from some form of mental illness or the other, we assembled a working committee made up of the University's experts in this field to further investigate solutions in this area. In December 2016, the committee presented a paper on their findings to the Senate which has since been endorsed. We are now taking the necessary steps to implement preventive and supportive measures.

## PROMOTING HEALTHY STUDENT ENGAGEMENT ACTIVITIES

For the year in review, our Student Ambassador (SA) team organised the first ever IMU-Student Ambassador Courtesy Week, with the aim of making the University a better place for the IMU community. Held from 8-19 August, the project was organised with the intention of raising awareness about the importance of common courtesy, a trait that is often neglected nowadays in our fast-paced society. The week's activities sought, among other things, to raise awareness about elevator and escalator etiquette, break down the language barrier among students,

plus raise awareness about greeting and appreciating one another.

The University's Eco-Friends Club, under the leadership of Dr Lipika, diversified their activities for the year into several new areas such as animal welfare, recycling and environmentally friendly activities, as well as community projects.

The year also saw IMU organising events involving 27 external companies which drew good student response. These events serve to ensure that campus life is fun-filled and exciting with many students providing positive feedback about the activities organised.

## CULTIVATING SOCIETAL EXCELLENCE



IMU is not restricted solely to aiding the students in their own personal progress, rather, our initiatives are designed to groom our students into becoming pioneers of progress for the communities around them. By way of supporting this goal, the University continues to present our annual Aflame Student Award to graduate students who have demonstrated high humane values throughout their course of study. Candidates for the Award are evaluated for their influence and impact, and particularly for any activity that reflects care, compassion and teamwork. After the winner has been chosen, the Award recipient will go on to nominate a beneficiary organisation that will share in the monetary benefit of the Award.

Dentistry Alumnus and Award Winner for 2016, Auleep Ganguly from India, became actively involved in giving back

to the community on a regular basis since he joined IMU five years ago. For his beneficiary organisation, he chose Sekolah Al Akhlas, one of the many refugee tutoring centres in and around Kuala Lumpur. He believes that these learning centres are one of the only ways to educate refugee kids so as to provide them with the hope and means for a brighter future. The funds given to the school will aid in covering the cost of the children's education. A portion of the money will also be used for the refurbishment of the premises to make it a safer and more comfortable place for the children.

Auleep Ganguly is just one of IMU's many students who are beginning to inspire hope through his community-based efforts. It is our hope that our initiatives will be the first step in inspiring and equipping our students to effect ripples of positive and lasting societal change within the communities that surround them.

## HONOURING LEGACY AND ALUMNI TIES

Legacy is an important concept here at IMU and we have made it a priority that we look after all those who have passed through our doors, students past and present alike. In 2016, we formally set up our alumni office with a specially designated liaison officer who will tend to all alumni matters. We also organised alumni gatherings with the purpose of touching base with our alumni and also to provide assistance in their career development.

The Alumni Office successfully organised five such gatherings held at the following locations throughout Malaysia:

- Kota Kinabalu, Sabah in January 2016
- Penang in May 2016
- Ipoh in July 2016
- Kuala Lumpur in September 2016
- Johor Bahru in November 2016

## ACHIEVEMENTS BY ALUMNI AND STUDENTS

Over the course of the year, our alumni and students continued to do us proud with a range of stellar achievements.

PROGRAMME & NAME	ACHIEVEMENT
<b>CHINESE MEDICINE</b> Shirley Tan	Received a full scholarship to study Chinese medicine at Shanghai University.
<b>DENTISTRY</b> Dr Nicholas Choo Khai How	Graduated from the University of Otago with distinction in BDS and selected for the Dean's List. He was awarded the Craddock Prize (for best student in removable complete prosthodontics) in his fourth year and the Gold Medal in Clinical Dentistry in the final year of his programme.
<b>MEDICINE</b> Dairshini Sithambaram	Awarded the Best International Student Award by the University of Dundee.
<b>MEDICINE</b> Dayangku Fatimah bt Awang Kasumajaya Dennis Clement Forsythe James Chua Sze Wei Nazren binti Othman Nur Hanna Illyana bt Mohd Zulkifli Sobana Gopalakrishnan	Having transferred to the National University of Galway in 2012 and graduating in December 2015, these students obtained overall honours for their medical degrees.
<b>MEDICINE</b> Dr Suzanna Sulaiman	Received the Singapore Health Quality Service Award.
<b>NURSING</b> Wong Ai Hui	Scored a distinction in the recent Nursing Board National Licensure Examination held on 7 September 2016.
<b>PSYCHOLOGY</b> Jocelyn Tang	Having begun her studies in Psychology at IMU in 2012, she was recently awarded the UM High Potential Scholarship from Maastricht University, Netherlands to pursue the MA Psychology programme.



## STUDENT AWARDS FROM SCIENTIFIC CONFERENCES

In 2016, several of IMU's students gained recognition for excellence at various scientific events.

PROGRAMME & NAME	ACHIEVEMENT
<b>DENTISTRY</b> Lau Kherr Siong	Won the first prize for Best Oral Presentation at the 43 <sup>rd</sup> Asia Pacific Dental Students Association (APDSA) Congress in Singapore.
<b>DENTISTRY</b> Tan Yen Yee	Received the Best Poster Award at the 11 <sup>th</sup> Asia-Pacific Congress on Dental and Oral Health in Bangkok, Thailand for his presentation titled <i>"Formulation, development and in vitro evaluation of bio adhesive gels loaded with triamcinolone acetonide for the treatment of oral ulcers"</i> .
<b>DENTISTRY</b> Yow Yu Xiang	Received the Joseph Lister Award for Oral Disease Prevention at the General Session of the International Association for Dental Research (IADR) that was held in Seoul, Korea. With his paper, titled <i>"Upstream downstream prevention activities for a residential care home in Malaysia"</i> , he beat five other candidates in the region.
<b>MEDICINE</b> Aaron Cheong Chee Qing	Won first place for the International Business Case Analysis competition at The ASEAN Colloquium (TAC) 2016 event, in Bangkok, Thailand.
<b>MEDICINE</b> Annete Hove Dorcas Selven Lau Shi Lin Tan Shi Hun	Received the Best Poster Award at the National Medical Student Surgical Programme for their presentation titled <i>"Factors influencing the outcome of laparoscopic cholecystectomy in our setup at Hospital Tuanku Ja'afar Seremban Malaysia"</i> .
<b>NURSING</b> Alicia Wan Lee Yen Sze	Obtained third place in the Outstanding Poster Presentation Award at the international conference held in Chiang Mai, Thailand with a project titled <i>"Decision-making preference of the female adult patient undergoing a major elective surgery"</i> .

PROGRAMME & NAME	ACHIEVEMENT
<b>PHARMACY</b> Chong Yi Qi Chow Jun Neng Jordy Wong Loh Pui Yee Ng Mei Kei	These IMU pharmacy students won second place in the National Clinical Pharmacy Challenge which took place at UKM. This is the second time since 2014 that IMU students have ranked within the top three winners in this competition.
<b>PHARMACY</b> Hong Khai Shien Ong Sze Ling See Mun Ling	Declared Champion of the recent MyPSA Young Entrepreneur Programme 2016.
<b>PHARMACY</b> Wong Peng  Supervisor: Dr Sathish Amirthlingam  Co-Researchers: Dr Ankur Barua Jamuna Rani	Won the Gold Medal Award for Best Poster Presentation with a cash prize at the 26 <sup>th</sup> Federation of Asian Pharmaceutical Association (FAPA) Congress organised by The Pharmaceutical Association of Thailand under Royal Patronage (PAT) in Bangkok, Thailand.
<b>PhD</b> Dr Chan Li Li Wong Yi Hao	Received the Best Presentation Award for his presentation entitled " <i>Possible involvement of DNA-methyltransferases and histone deacetylases in the regulation of virulence potential of acanthamoeba castellanii</i> " at the 18 <sup>th</sup> International Conference on Microbiology and Biotechnology held in Singapore.
<b>PhD</b> Harvinder Kaur	Won second place in the Poster Presentation Awards during the Diabetes Asia 2016 Conference organised annually by NADI (National Diabetes Institute). Her presentation was titled " <i>Motivational interviewing enhances weight loss and HbA1c reduction in overweight/obese type 2 DM patients following a diabetes-specific nutrition algorithm in primary care setting</i> ".
<b>PSYCHOLOGY</b> See Sher Rene	Awarded the Best Oral Presentation for " <i>The effect of positive reappraisal on perceived stress and psychological wellbeing among university students.</i> "

## STUDENT AWARDS FROM EXTRA-CURRICULAR ACTIVITIES

For the year in review, our students continued to gain recognition in other areas.

PROGRAMME & NAME	ACHIEVEMENT
<b>CHIROPRACTIC</b> Semester 4 Chiropractic Students	IMU's World Spine Day activities won first prize in the Chiropractic Educational institutions category at the 2015 World Spine Day competition. The highlight of their activities was a 3D vertical spine, which consisted of 33 vertebrae, stretching from the third floor to the ground floor of the University.
<b>CHIROPRACTIC</b> Lau Siew Qin  <b>MSc IN MEDICAL &amp; HEALTH SCIENCES (by research)</b> Ten Yi Yang  <b>PHARMACY</b> Branda Tan Wan Yi Tan Sing Min Wong Peng Peng  <b>PSYCHOLOGY</b> Azfar Afham bin Zainuddin	These students performed excellently at the Nottingham Ultimate Taekwondo Showdown (NUTS) 2016. In the Poomsae (Pattern) event, Azfar Afham bin Zainuddin won the Bronze Medal for the Senior 1 <sup>st</sup> Division (Individual) category. In the Kyorugi (Sparring) event - Junior (White – Green), Branda Tan Wan Yi won the Silver Medal under the Female Light Category. Wong Peng Peng won the Silver Medal under the Female Feather Category, while Ten Yi Yang won the Bronze Medal under the Male Bantam Category. In the Senior (Blue – Black) event, Lau Siew Qin won the Bronze Medal under the Female Feather Category. Tan Sing Min won Bronze Medal under the Female Fly Category.
<b>CHIROPRACTIC</b> Lau Siew Qin  <b>DENTISTRY</b> Yeoh Hui Woon  <b>MSc IN MEDICAL &amp; HEALTH SCIENCES (by research)</b> Amy Chong Siew Peng  <b>PHARMACEUTICAL CHEMISTRY</b> Soo Xiao Yii  <b>PHARMACY</b> Branda Tan Wan Yi	These students participated in the Macau-APU Taekwondo Championship 2017. One student was ranked within the Top 8 in the Poomsae category and another four students successfully won medals in other categories.

PROGRAMME & NAME	ACHIEVEMENT
<b>DENTISTRY</b> Yeo Hui Woon  <b>PhD</b> Chan Chee Shan	Awarded a gold, a silver and two bronze medals under the Poomsae category (Pair and Individual) at the Nilai University Open Taekwondo Championship.
<b>FOUNDATION IN SCIENCE</b> Chan Lu Yi	Awarded the Gold Medal in Taiji in a competition by SJK C Chung.
<b>PhD</b> Chan Chee Shan	Awarded the Bronze Medal for Malaysia in the Poomsae competition at the World Taekwondo Culture Expo in Korea.
<b>PSYCHOLOGY</b> Bushra Farooq	Awarded the prestigious Diana Award at a national award ceremony in London. She was the Regional Award winner in the Diana Champion Volunteer category. The Diana Award was set up as a lasting legacy to Princess Diana's belief that young people have the power the change the world for the better.

**IMU's Self-Development Unit continues to cater to the overall well-being of students through non-intrusive measures including counselling, expressive art therapy and peer support.**

## MOVING FORWARD

In the coming year, the Student Services Hub will focus primarily on helping IMU students secure guaranteed access into their fields of choice. In line with this endeavour, our SDU will be working with the School of Pharmacy to organise Chemistry Career Day 2017. The Department will also be assisting students to secure a place for their industry attachment by playing an active role in connecting with industry players and supporting alumni in securing a job. We will also be organising an alumni homecoming in November 2017 with the aim of celebrating our alumni and connecting them back to IMU. In alignment with the University's goal of establishing the gold standard in all that we do, we will also be focusing our efforts on enhancing our service standards so that we can proudly call them IMU standards.

# EMPLOYEE ENGAGEMENT AND DEVELOPMENT

Developing Well-Balanced  
Employees

## 2016 HIGHLIGHTS



In addition to the existing Faculty mentor programme, we have extended the mentoring to Corporate staff



Orientations for Newly Appointed Heads launched



Staff i-Barometer Survey results show staff engagement levels at 88% in 2016



IMU Health & Wellness Week launched



IMU Education has been awarded "Anugerah Majikan Terbaik 2016" (Best Employer Award 2016) by the Employees Provident Fund Wilayah Persekutuan



Being Malaysia's leading private medical and healthcare university, IMU is committed to ensuring that our workplace initiatives inspire our staff to achieve their corporate and personal goals while maintaining a good work-life balance. Our initiatives comprise of staff trips, enhancement of Orientations for newly appointed Heads and a health and wellness week, to name a few. For 2016, our Employee Engagement and Development initiatives continued to centre on nurturing productivity in a holistically balanced working environment. Our efforts in this area of development were recognised when IMU was awarded the Best Employer Award 2016 by the Employees Provident Fund Wilayah Persekutuan.

## DEVELOPING EMPLOYEE COMPETENCIES

When it comes to employee development, we endeavour to provide them with all the tools they need to help them accomplish their goals on both a personal and corporate level. In support of continuous learning efforts within IMU, our Human Resources Department (HR) organised the



following training programmes in 2016 to develop the competencies of our people:

- Problem Solving & Decision Making Workshop
- The 80/20 Principle Workshop
- Suicide Intervention Workshop
- Mastering Stress Management Workshop
- Effective Minutes of Meeting Workshop
- Time Management Essentials Workshop
- Projecting a Confident & Professional Image Workshop
- Mentoring Workshop
- Competency Based Interview Workshop

We helped new staff members to assimilate themselves with our revised New Employee Onboarding initiative. Briefing sessions were also conducted for newly appointed

faculty and non-faculty Heads on a regular basis. These sessions ensured that they understood the responsibilities and expectations that came with their new roles. It also allowed the new Heads to familiarise themselves with the operations of the Schools, Department and Centres.

We continue to develop our faculty mentor and academic appraisal initiative which aims to guide faculty members to develop professionally and to chart a career path with clear objectives and timelines. It also enables the university to provide the necessary support to our staff via the Individual Development Plan. This initiative has been extended to Corporate staff members as well.

# Our 2016 Staff i-Barometer Survey results

show that overall  
staff engagement levels  
have risen to **88%**

## PROACTIVE EMPLOYEE ENGAGEMENT

Employee engagement is a core focus in our staff-based endeavours, hence we take measures to ensure that we take note of all related staff needs and queries for continuous improvement. During our annual Town Hall meeting which was held in the third quarter of the year, we presented our Staff i-Barometer Survey results for 2016. The results highlighted an overall improvement in engagement levels at 88% in 2016. Follow-up focus group discussion sessions were conducted between HR and the respective Schools and Departments.

In October 2016, a total of 129 staff members travelled to Bangkok, Thailand for our annual staff trip. The trip, which certainly helped strengthen employee ties, saw our staff visit popular tourist haunts such as the Meaklong Railway Market, Damnoen Saduak Floating Market, Asiatique Night Market, Safari World and Chatuchak Market. A survey taken after the trip showed an average satisfaction rating of 8 from the scale of 1 (very poor) to 10

(excellent). Some of the other employee engagement activities that we organised throughout the year included a movie night, IMU staff bowling tournament and a durian party.

Being an institution that celebrates diversity, we make it a point to celebrate major festive seasons with feasts and performances. For 2016, our activities centred on the Chinese New Year, Hari Raya, Diwali and Christmas celebrations.

To recognise staff for their contributions and dedication to IMU, we continue to hold our annual Staff Achievement Awards and Long Service Awards. Based on certain categorical criteria that must be fulfilled throughout the year, the Awards consist of cash prizes that are presented to the best individuals and teams who were nominated by IMU staff and even students. The year saw us honouring a total of 54 staff who had gained outstanding achievement and demonstrated significant contribution in 2015 in the following categories: "Research & Publications", "Community Services", "Individual Development",

"Teaching Excellence", "Business Process Improvement", "E-Learning", and "Excellence in demonstrating IMU Core Values". Similarly, a total of 30 staff received their Long Service Awards for completing their 10<sup>th</sup>, 15<sup>th</sup> and 20<sup>th</sup> year of service in IMU.

## ENSURING A HEALTHY WORK-LIFE BALANCE

We are also committed to ensuring that our employees work in an environment that inspires them to stay healthy. June saw us organising a Healthy Breakfast Day with the aim of promoting healthy eating habits at breakfast, while October saw us officiating the soft launch of the IMU Wellness Programme for our employees in conjunction with IMU's Health & Wellness Week. During the week-long event, we organised various health related activities such as a physical health screening, online health risk assessments with movie redemptions, a Zumba dancing session and a students' exhibition. We also shut down the escalators to encourage walking and encouraged healthy eating at the cafeteria and Medifoods amongst IMU staff.

**During the hiring process, our interviewers are equipped with a competency-based approach which enables them to gather data from candidates in a systematic and professional manner.**

### **BOLSTERING HIRING EFFORTS**

To better equip our interviewers and to enhance our hiring process, we conducted several sessions to help our interviewers make accurate and informed hiring decisions. Featuring mandatory competencies such as Self-Awareness, Service Orientation, Drive for Results, Working Relationships and Communication modules, the programme sought to equip interviewers with a competency-based approach in gathering data from candidates in a systematic and professional manner.

### **MOVING FORWARD**

Our end goal is to create a value driven culture in IMU. As such, we will continue to focus on strengthening our staff bench and talent pool in addition to providing a conducive work environment for all. Key initiatives to enhance our staff capabilities and capacities will also continue. These will include strengthening our talent supply by developing, sourcing and retaining the right talents and the optimisation of talents via staff engagement, managing personal growth and diversity. It is our hope that all these endeavours will lead us to achieve IMU's vision and mission.

# HEALTHCARE



# IMU HEALTHCARE

Continuously Enhancing  
Patient Care



IMU Healthcare encompasses all IMU clinics in all locations that provide patient care services through faculty, professional staff and students. As a modern healthcare provider, IMU Healthcare is dedicated to providing quality treatment by embedding the latest international standards and research into its practices. We offer services ranging from basic primary healthcare to advanced specialties and sub-specialties at our main clinic and satellite clinics that specialise in medical, dental, chiropractic and Chinese medicine.

IMU Healthcare also doubles as a training platform for our students' practical skills and is fully focused on the three following academic objectives:

- The development of students' clinical skills to the highest standards;
- The support of faculty in maintaining and expanding their skills, and facilitating research for the improvement of healthcare; and
- The development of healthcare for the benefit of the community.

Managed by the Director of Healthcare and supervised by the Vice-Chancellor, the

multiple clinics under our care have seen a growth in patient numbers and have since become a source of steady revenue. In 2016, we were appointed the panel clinic for Third Party Administrators such as EMGS, Health Connect, PM CARE and SOCSO (Health Screening Programme).

The year also saw us opening our doors as a Specialist Centre within Pantai Hospital Kuala Lumpur and introducing six new specialist services, namely Gastroenterology, Haematology, Neuropsychiatry, Paediatrics, Rheumatology (Adult and Paediatrics) as well as Uro-Gynaecology.

As a testament of our commitment to excellence, members of the IMU Healthcare team were featured as key opinion leaders while our Medical Clinic was once again awarded the full five-year MSQH accreditation (Nov 2015-Nov 2019). IMU Healthcare's Medical Clinic was the first private clinic in Malaysia to obtain this accreditation back in 2010.

To strengthen brand awareness, we launched the IMU Healthcare Facebook page and our quarterly e-newsletter in 2016. By year's end, we had garnered

21,000 likes on our Facebook page while our e-newsletter has a reach of over 6,000 readers. IMU Healthcare was also the proud sponsor of "Hacking Health" as well as the venue sponsor for "Health in the City," an event organised by Hacking Health KL and *Health Today* magazine respectively.

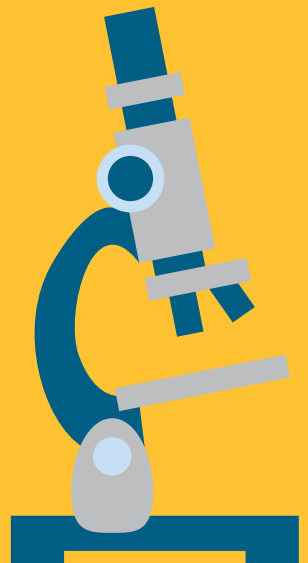
Additionally, in a bid to further strengthen the reputation of our clinics and our service to the community, we rolled out an awareness campaign that saw our chiropractic, Chinese medicine and dental teams go all out to organise and host 20 corporate health screening events throughout the year. Our medical team also played its part by making presentations at several notable health forums.

## MOVING FORWARD

IMU Healthcare looks forward to a greater expansion of its services and these will include an ambulatory care centre (ACC) and additional locations. We will also look to maintain the level of service quality that has placed us firmly in the hearts of our patients.



# RESEARCH



# INSTITUTE FOR RESEARCH, DEVELOPMENT AND INNOVATION

Making Good Headway



## RESEARCH ACTIVITY AND OUTPUT

Despite a challenging economy, IMU's Institute for Research, Development and Innovation (IRDI) continued to gain headway in the field of research, establishing its fifth research centre, the Centre for Translational Research (CTR) in October 2016. The CTR serves to foster better integration of basic science and clinical research at IMU by promoting integration and collaboration across the existing four centres. The year in review saw IRDI's four other centres of

excellence continuing to make advances in promoting research in their four thrust areas, namely cancer and stem cell research; bioactive molecules and drug delivery; environmental and population health; and health professions education.

There has been significant development in commercialisation activities, as reflected in the increased revenue from consultancy and services. Our researchers were also successful in securing external funding and generating a significant number of publications in indexed journals. We

also continued to equip our researchers through our various Continuing Professional Development (CPD) courses.

To date, all targets set by IRDI under the IMU ASPIRE II Strategic Plan for 2016 have been achieved. An important initiative under the strategic plan is to modify our research approach to reduce dependency on external funding, particularly in view of the current economic slowdown. Moving forward, IRDI aims to enhance translational research by leveraging on data mining, especially by making use of Big Data.

## FUNDING

The total amount of external funding obtained decreased from RM1,056,400 in 2015 to RM870,180 in 2016 (Figure 1), with a scheduled disbursement of RM516,720 in 2016, RM328,973 in 2017, and RM28,520 in 2018. Nine new projects were supported by external grants, mainly from the Ministry of Higher Education (MOHE) under the Fundamental Research Grant Scheme (FRGS), and the Ministry of Science, Technology and Innovation (MOSTI Science Fund). Four FRGS projects (RM661,000), one Science Fund project (RM185,000), and one project funded by the Royal Society of Chemistry (RSC) (RM24,180) were approved in 2016.

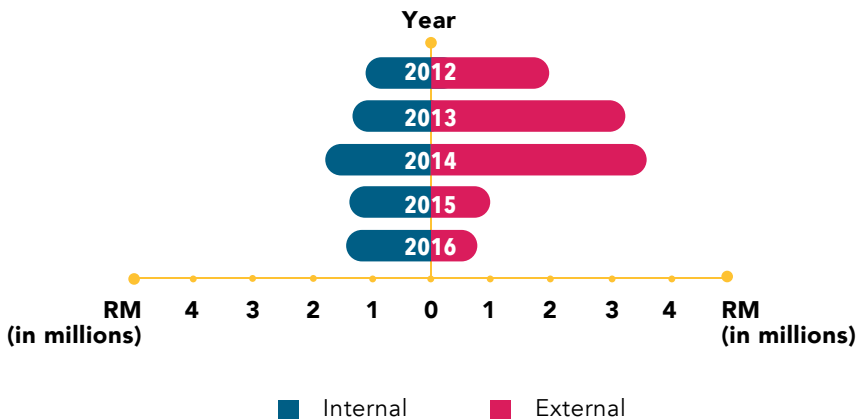


Figure 1: Research funding, 2012 through 2016

IMU continued to support research through internal funding amounting to RM1,471,388. These funds supported faculty, postgraduate (MSc and PhD) and undergraduate research. Substantial amounts were distributed to support

the Bachelor of Pharmacy (RM523,344) and BMedSc (RM140,000) projects, with another RM140,000 allocated specifically for PhD research and RM202,733 for faculty research (Figure 2).

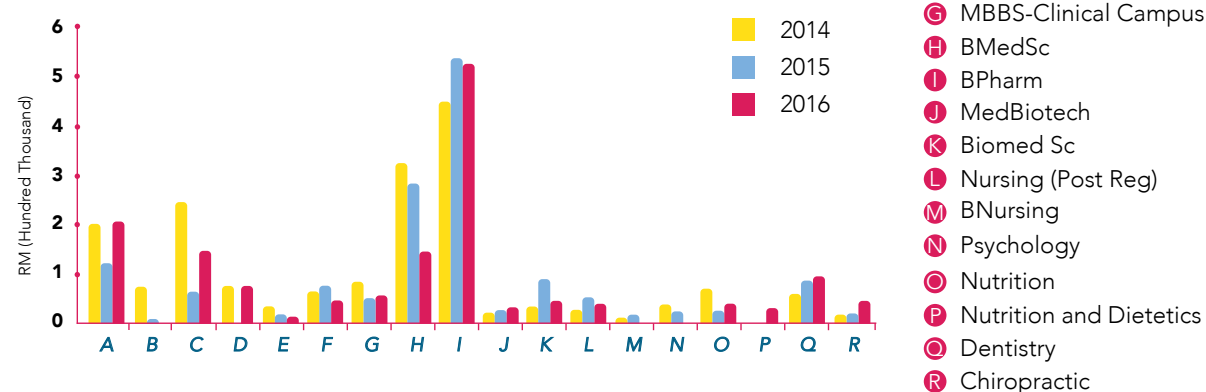


Figure 2: Distribution of internal funding in 2014-2016

## PUBLICATIONS

There were a total of 232 publications in 2016 compared to 221 publications in 2015 (Table 1). Of the total, 154 (66.4%) were in indexed journals (ISI and Scopus) and eight were book chapters. Of the indexed papers, 54 were in Tier one, 33 in Tier two, 21 in Tier three and 3 in Tier four journals.

The total ISI impact factor obtained for the indexed papers was 214.253. The total citations per document according to the Scopus index was 222.523. The average IF per indexed paper in 2016 was 1.391, compared with 1.231 in 2015. In 2016, there were a total of 171 scientific presentations, consisting of 97 oral and 74 poster papers.

	PRESENTATIONS			PUBLICATIONS *Including books & book chapters			IMPACT FACTOR	
	Oral	Poster	Total	Indexed Papers with IF	Others*	Total	Total IF	IF/Indexed Papers
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
2015	131	103	234	151	70	221	272.143	1.231
2016	138	89	227	154	78	232	214.253	1.391

Table 1: Publications and presentations from 2012 through 2016

## COMMERCIALISATION AND SUPPORT

Since its inception in 2015, the Commercialisation and Support arm of IRDI has been providing technical support to IMU researchers in terms of advice on project design and statistics. The unit has since provided statistical assistance to a total of 34 researchers (15 staff and 19 students).

For laboratory services, the IMU Research Laboratory (RL) continued to provide a wide range of testing and analytical services, generating an income of RM68,375 in 2016. Furthermore, researchers of IMU who were involved in contract research and providing industry consultancy services in various disciplines generated a revenue of RM1,297,865 (Figure 3).

In terms of quality assurance (QA) activities, the IMU RL participated in the Asia Pacific

Laboratory Accreditation Cooperation (APLAC) Proficiency Testing Programme, under the Korea Laboratory Accreditation Scheme (KOLAS) in June 2016. The IMU RL has attained ISO 17025 accreditation for laboratory testing services since 23 May 2014. A customer feedback survey showed that 89% of our customers were satisfied with our laboratory services with more than half of the respondents indicating that they were "very satisfied".

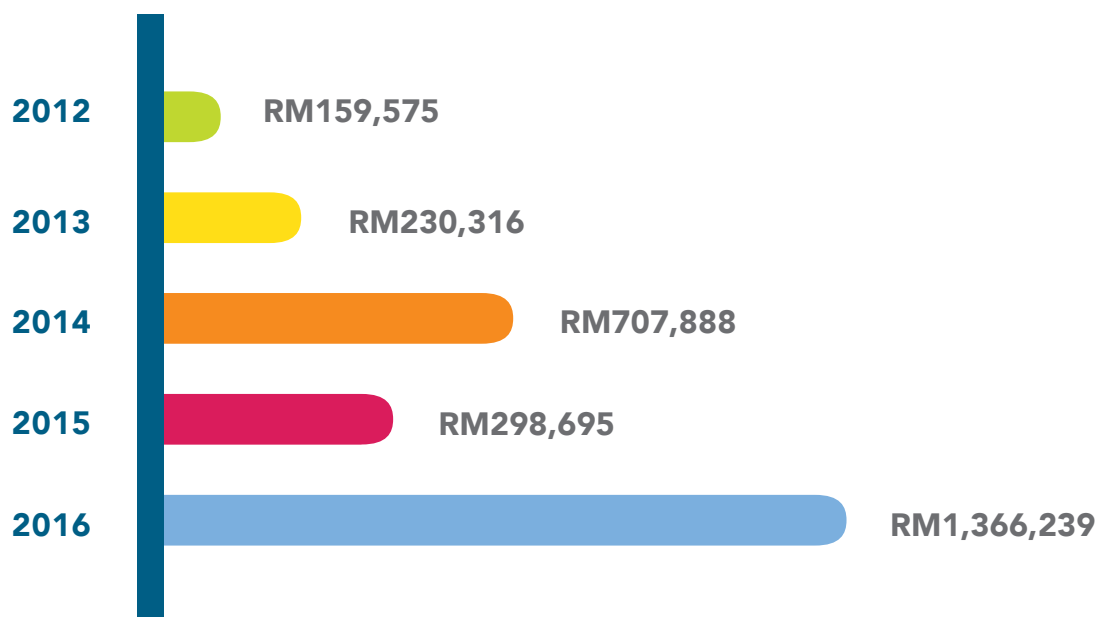


Figure 3: Revenue from services, testing, consultancies and contracts for 2012-2016

EVENT	DATES 2016
Best Practices in Supervisory Processes	9 April
Research Project Management	17 July
Ethics and Professionalism in Research and Publications	19 November

To develop the research capabilities of our faculty, the Institute ran a range of CPD events (Table 2). These included a series of mandatory workshops for the credentialing of supervisors for students' research projects.

Table 2: Continuing education and development (CPD) events, 2016

IRDI also organised a short course on research management for a group of medical students from the Karaganda State Medical University, Kazakhstan from 11-19 May 2016. During the course, the students were introduced to various aspects of research methodology, including Good Clinical Practice (GCP) Guidelines, roles of Institutional Review Boards, research project management, systematic review and meta-analysis, review of scientific literature, ethical issues in publication, and proposal writing.

Another workshop entitled "Introduction to Practical Clinical Research and Clinical Trial", was held on 6 August. Jointly organised by IRDI in collaboration with InClinica, a global clinical research organisation (CRO), the workshop sought to enhance and improve participants' core knowledge and provide practical insights related to the various aspects of clinical trials and research management.

Another major event organised by IRDI in 2016 was the "Undergraduate Research Symposium – A Celebration of Student Innovation and Excellence", which was held on 5 November. Gearing up towards the University's 25<sup>th</sup> anniversary celebrations, the aim of the symposium was to provide a platform for undergraduate interdisciplinary discourse, allowing students to learn from each another about a broad range of exciting research topics. There were a total of 16 oral and 30 poster presentations in this symposium. Tan Wee Kiat, a student from the Bachelor of Pharmacy (Hons) programme, won the Best Oral Presentation Award with his presentation titled "*Identification of liver-Z-receptor (LXR) agonists by high-throughput screening*". In addition, Swarnaa Sammuganathan from the Bachelor of Science (Hons) Psychology programme won the Best Poster Presentation Award for her paper titled "*Barriers to Exercise among Malaysian Women*."

In terms of journal publications, three issues of the International e-Journal of Science, Medicine and Education (IeJSME) were published in 2016 (<http://web.imu.edu.my/ejournal/>). In commemoration of IMU's 25th Anniversary next year, efforts are underway to publish a follow-up book to *The IMU Experiment* book.



## HIGHLIGHTS FROM RESEARCH CENTRES

### Centre for Bioactive Molecules and Drug Delivery

IMU's Centre for Bioactive Molecules and Drug Delivery (CBMDD) continued to focus on Cardiovascular and Metabolic Disease, Drug Delivery, and Neuroscience with the Centre establishing a successful collaboration with the University of Strathclyde in research on cardiovascular

disease, diabetes, and neuroscience. Additionally, members of CBMDD secured a consultancy project funded by a pharmaceutical company to work on the development of formulation for herbal compounds. The CBMDD was also successful in obtaining funding for two Fundamental research Grant Schemes (FRGS) and one Science Fund project, amounting to RM 354,800 (Table 3).

PROJECT LEADER	PROJECT	APPROVED AMOUNT (RM)
Elaine Chan	A microarray-coupled gene trap mutagenesis approach for the identification of NLRP1 inflammasome activation targets mediating beta amyloid (A $\beta$ )-induced neuronal pyroptosis (FRGS)	75,300
Koh Rhun Yian	Roles of Receptor Interacting Protein Kinase 1 in beta-amyloid deposition mediated through autophagy in Alzheimer's disease (FRGS)	94,500
Shadab Md	Nanoformulation of rotigotine intended for direct nose to brain targeting in Parkinson's disease (Science Fund)	185,000

Table 3. Projects on bioactive molecules and drug delivery funded by external grants in 2016

In terms of publications, CBMDD contributed a total of 42 journal papers, with a total impact factor of 71.935. Selected papers related to this area are listed below:

- 1 Ingle PV, Patil SD, Sharma SA, Patil PH, Surana SJ. A prospective study on adverse drug reactions from Pegylated Interferon Alfa-2a and Alfa-2b in combination with Ribavirin in Hepatitis B and C. *Journal of Pharmaceutical Research and Clinical Practice*, 2016; 6(1): 1-6.
- 2 Lai JW, Chan CW, Ng CH, Ooi IH, Tan KW, Maah MJ, Ng SW. Hydrated and Anhydrous Forms of Copper (II) Complex of 3-methylpicolinic Acid,

and spectroscopic studies of their ROS-inducing and proteasome inhibition. *Journal of Molecular Structure*, 2016; 1106: 234-241.

- 3 Lim CK, Subramaniam H, Gan SY, Loo SM, Loo JR, Jong VYM, Soo HC, Leong CO, Mai CW, Chee CF. In-vitro Cytotoxic Activity of Chemical Constituents from Malaysia *Calophyllum* species. *Medicinal Chemistry Research*, 2016; 25: 1686-1694.
- 4 Mai CW, Yap IKS, Kho MT, Nor Hadiani Ismail, Yusoff K, Shaari K, Chin SY, Lim ESH. Mechanisms underlying the anti-inflammatory effects of *Clinacanthus nutans* Lindau extracts: Inhibition of cytokine

production and toll-like receptor-4 activation. *Frontiers in Pharmacology*, 2016; volume 7: 7.

- 5 Qian YS, Ramamurthy S, Candasamy M, Shadab M, Meka VS. Production, characterisation and evaluation of kaempferol nanosuspension for improving oral bioavailability. *Current Pharmaceutical Biotechnology*, 2016; 17(6): 549-555.
- 6 Tan YJ, Lee CS, Er HM, Lim WH, Wong SF. In-vitro evaluation of griseofulvin loaded lipid nanoparticles for topical delivery. *Journal of Drug Delivery Science and Technology*, 2016; 31: 1-10.

## Centre for Cancer and Stem Cell Research

Dedicated researchers of IMU's Centre for Cancer and Stem Cell Research (CCSCR) continued their uphill work of making seminal contributions to the understanding of cancer in order to reduce the burden and eliminate the adverse outcomes of the disease. To date, CCSCR is actively collaborating with 46 institutions around the world. The Centre also successfully secured two international research grants, with an additional six international grant applications submitted as principal institute and a further seven invitations for international grant applications. The Centre successfully secured three FRGS grants amounting to RM301,200 in 2016 (Table 4).

On the operations front, two core facilities, the RNAi Core Facility and Biorepository and Cell Bank, have been established and are in operation. An additional two core facilities, namely the Integrated Genomics Core Facility and Proteomics Core Facility, will commence in 2017.

Throughout the year, the CCSCR conducted several community-based activities to raise public awareness of cancer. These included a forum to raise public awareness of the overall cancer research movement; the use of multimedia to raise cancer awareness

PROJECT LEADER	PROJECT	APPROVED AMOUNT (RM)
<b>Khoo Suan Phaik</b>	The effects of lipopolysaccharide-induced local inflammation and hyperglycaemic states on mesenchymal stem cells of the periodontal tissues (FRGS)	87,000
<b>Leong Chee Onn</b>	Functional roles of sphingosine kinase 1 (SPHK1) in human breast cancer stem cells (FRGS)	103,000
<b>Lim Chooi Ling</b>	Regulation of cancer cell epithelial-mesenchymal plasticity (EMP) by p53 gain-of-function mutations (FRGS)	111,200

Table 4. Projects on cancer and stem cell research funded by external grants in 2016

among the general public and a free seminar series presented by distinguished scientists. We also rolled out several programmes to foster young talent. These include the IMU Post-doctoral Fellowship Programme to attract outstanding young scientists; opportunities for training of individuals at different career stages, ranging from high school students to healthcare professionals; and providing

research experience and mentorship to IMU faculty members.

A total of 20 original and review articles were published in high impact ISI-indexed journal with an accumulative impact factor of 67.75, a 25% and 45% increase respectively over 2015. The average impact factor per publication also increased from 2.924 in 2015 to 3.566 in 2016.



Selected publications on cancer and stem cell research are listed below:

- 1 Chung FFL, Mai CW, Ng PY, Leong CO. Roles of cytochrome P450 2W1 (CYP2W1) in colorectal cancers. *Current Cancer Drug Targets*, 2016; 16(1): 71-78.
- 2 Edib Z, Kumarasamy V, Abdullah N, Rizal AM, Al-Dubai SA. Most prevalent unmet supportive care needs and quality of life of breast cancer patients in a tertiary hospital in Malaysia. *Health and Quality of Life Outcomes*, 2016; 14(1): 1
- 3 Krishnappa P, Eu JL, Ibtisam BM, Mahadevan DT, Meenakshi A, Kandasami P. A histomorphological and immunohistochemical study of gastrointestinal stromal tumours in Hospital Tuanku Ja'afar Seremban, Malaysia. *Asia Pacific Journal of Cancer Prevention*, 2016; 17(6): 2795-2799.
- 4 Lee KTW, Tan JK, Lam AKY, Gan SY. MicroRNAs serving as potential biomarkers and therapeutic targets in nasopharyngeal carcinoma: A critical review. *Critical Reviews in Oncology/Haematology*, 2016; 103: 1-9.
- 5 Tiong KH, Tan BS, Choo HL, Chung FFL, Hii LW, Tan SH, Khor NTW, Wong SF, See SJ, Tan YF, Rozita R, Cheong SK, Leong CO. Fibroblast growth factor receptor 4 (FGFR4) and fibroblast growth factor 19 (FGF19) autocrine enhance breast cancer cells survival. *Oncotarget*, 2016; 7(36): 57633-57650.
- 6 Venkateswaran SP, Nathan LE, Mutalik VS, Shamsuddin NH. Argrophilic nuclear organiser region and p73 expression in head and neck squamous cell carcinomas: Teammates or adversaries? *Journal of Oral and Maxillofacial Pathology*, 2016; 20: 427-435.

## Centre for Environmental and Population Health

In line with its strategic plans for 2015-2020, the Centre for Environmental and Population Health (CEPH) identified the following five thrust areas:

- Association of diabetes with environmental pollutants and food
- Climate change and transmission of leptospirosis and diarrheal diseases
- Predictive model for dengue
- Environmental pollution and endocrine diseases
- Jasmonates as acute and chronic indicators of environmental pollution

As of 2016, some of CEPH's ongoing research projects under the above thrust areas are as follows:

- Trend analysis of ambient air pollution and the impact on diabetes and cardiovascular diseases based on Malaysia National Health and Morbidity Surveys for the year 1996-2014 (in collaboration with the Institute for Public Health)
- Effects of changes in dietary patterns on prevalence of obesity among Malaysian adults living in different air

quality regions (in collaboration with the Institute for Public Health)

- Epidemiology of dengue in Malaysia and the dynamics of dengue virus-vector-host interactions
- Influence of *Wolbachia* on susceptibility to insecticide in *Aedes* mosquitoes and

its underlying mechanism of action

- Production and quantification of jasmonates from *Candida* species

Furthermore, the Centre successfully secured external funding amounting to RM214,180 (Table 5).

PROJECT LEADER	PROJECT	APPROVED AMOUNT (RM)
Keng Pei Sin	Exploitation of low cost natural waste material for the removal of pharmaceutical pollutants in aqueous environment (Roya Society of Chemistry)	24,180
Wong Chiew Yen	Response of microalgae to repeated exposure to glufosinate ammonium at different temperatures (FRGS)	77,000
Wong Shew Fung	The influence of <i>Wolbachia</i> on susceptibility to insecticide in <i>Aedes</i> mosquitoes and its underlying mechanism of action (FRGS)	113,000

Table 5. Projects on environmental and population health funded by external grants in 2016

There were close to 80 indexed papers on environmental and population health published in 2016. Selected papers related to this thrust are listed below.

- 1 Kasi R, Ng KY, Koh RY, Gnanajothe P, Chye SM. para-Phenylenediamine induces apoptosis through activation of reactive oxygen species-mediated mitochondrial pathway, and inhibition of the NF- $\kappa$ B, mTOR and Wnt pathways in human urothelial cells. *Environmental Toxicology*, 2016; 32(1): 265-277.
- 2 Kho MT, Chong CW, Lim ESH, Ismail NH, Draper LO, Yam WK, Lim PKC, Mak JW, Yap IKS. Systems biology analyses of the dynamic host response to *Toxoplasma gondii* infection in

a murine model. *Parasitology Open*, 2016; 2: e9

- 3 Naing C, Sandhu NK, Wai VN. The effect of malaria and HIV co-infection on anaemia: A meta-analysis. *Medicine*, 2016; 95(14): e3205.
- 4 Supramaniam Y, Chong CW, Silvaraj S, Tan IK-P. Effect of short term variation in temperature and water content on the bacterial community in a tropical soil. *Applied Soil Ecology*, 2016; 10: 279-289.
- 5 Veettil SK, Saokaew S, Lim KG, Ching SM, Phisalprapa P,

Chaiyakunapruk N. Comparative effectiveness of chemopreventive interventions for colorectal cancer: Protocol for a systematic review and network meta-analysis of randomised controlled trials. *Journal of Gastrointestinal Oncology*, 2016; 7(4): 595-602

- 6 Yang WY, Burrows T, MacDonald-Wicks L, Williams LT, Collins CE, Chee WSS. The Family Diet Study: A cross-sectional study into the associations between diet, food habits and body weight status in Malay families. *Journal of Human Nutrition and Dietetics*, 2016; 29: 441-448.

## Centre for Health Professions Education Research

The Centre for Health Professions Education Research (CHPER) has seen an increase in Health Professions Education (HPE) journal publications from 24 in 2015 to 34 in 2016. This is probably due to the increase in the number of HPE related research projects being conducted in IMU. Similarly, the number of internal research grants approved by the IMU Joint Committee on Research and Ethics increased from 17 in 2015 to 20 in 2016.

Other contributing factors include an increase in undergraduate research projects related to HPE, especially from medical, pharmacy and nursing programmes. The year 2016 also saw the launch of the *University of the Future* book project, which in return has resulted in a number of top down HPE related research projects to be carried out at university level. These include projects on inspirational teaching, empathy and scholarship.

The CHPER also continues to provide 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 the development of research proposals, both quantitative and qualitative analysis of data, and tips for publishing in HPE. Among the list of experts was Prof Lambert Schuwirth, the IMU Ron Harden Visiting Professor for 2016.

Externally, CHPER experts from IMU are also being invited to train and to present their research findings on both national and international level. These include presentations at the AMEE, APMEC, SEARAME and Ottawa Conference. IMU's own HPE conference in 2016, the 11<sup>th</sup> IMEC, saw tremendous contributions from faculty with interests in CHPER in terms of research papers presented.

CHPER's strategies for 2017 include engagements with Prof Trudie Roberts (the Ron Harden Visiting Professor of 2017) and with national researchers through the Malaysian Medical Educators Network. There are also plans to collaborate with the Malaysian Association of Education for the Medical and Health Sciences and the Asian Pacific Medical Education Research Network to implement the strategic plans of CHPER and to enhance the output of the Centre in areas important to the development of IMU and HPE.



## MOVING FORWARD

The Institute's plans for 2017 include developing cross-disciplinary thematic research that leverages on the expertise drawn from the research centres. The Institute also aims to enhance research capacity and the capability of faculty in areas such as advanced project management skills and consultant report writing. Other key initiatives include strengthening and expanding the research linkages with partner schools, industry and government agencies, as well as enhancing health literacy and scientific awareness amongst the general public through the 'Future of Medicine' series of public talks.

# SERVING THE COMMUNITY



# SERVING THE COMMUNITY

Enriching Lives,  
Elevating Society

## 2016 HIGHLIGHTS



special needs children  
received tailor-made mobility  
aids to improve health  
and well-being



individuals received new  
dentures and oral treatments

↑ RM ↑  
203,215

successfully raised for worthy  
causes led by a team of first year  
students, supported by IMU Staff  
and the community



Training workshops and  
educational videos created  
for proper elderly care for  
the community



3 international  
medical missions



## Serving the Community

As a conscientious provider of medical education and services, the University is fully committed to presenting self-sustaining change to the communities that surround us through IMU Cares, the community-arm of our organisation. IMU Cares aims to promote and improve the health and wellbeing of the community we serve. Since 2002, IMU Cares has been significantly integrated with University life, providing opportunities for the University's staff and students to engage the community in a beneficial and impactful manner. Our support from the Khazanah-IHH Healthcare Fund (KIHf) has helped IMU Cares achieve new records, build new partnerships and explore new opportunities. In 2016, IMU Cares touched the lives of 22,609 people from 40 IMU community partners, which resulted from the efforts of 670 staff and 1,681 IMU students participating in serving the community. Our projects which we executed in partnership with the following organisations revolve around the four main areas of Healthcare, Education, Environment and Humanitarian Aid:

### *IMU Cares Smart Partnerships*

- Abbott Diabetes Care
- Association for Children with Special Needs in Sibü
- Darpain Village Monastery & Monastery-based Free Primary School
- Dewan Bandaraya Kuala Lumpur (DBKL)
- Friends of Lam Wah Ee Volunteer Club
- Hospital Enche Besar Hajjah Khalsom, Kluang
- IJM Land Berhad
- Jabatan Kemajuan Orang Asli (JAKOA)
- Lion's Club of Georgetown
- Lion's Club of Shah Alam
- Lion's Club of Subang
- Malaysian Agricultural Research and Development Institute (MARDI)
- Multimedia University
- National Craft Institute
- SUBUR Community Gardens
- The Electrical and Electronics Association of Malaysia (TEEAM)
- United Nations High Commissions for Refugees (UNHCR)

## ORAL HEALTH EDUCATION AND SCREENING

Oral Health in Malaysia continues to be a matter of importance with an estimated 84% of adults above the age of 15 at risk of periodontitis. As part of our endeavour to contribute to the decrease of these numbers, 124 members of the University's Dental School staff and 271 of its students continued to reach out to over 1,000 children and elderly citizens with the aim of improving their oral health through health education and dental treatment. Educating the community regarding proper oral hygiene is an integral component in the sustainability of this initiative. Our long-term commitments to this cause have so far benefitted children from Dignity for Children Foundation, elderly folks in My Father's Home, and the disabled from Pusat Penjagaan Kanak-Kanak Cacat Taman Megah. In collaboration with students from our Nutrition and Dietetics Department, we expanded the programme to reach out to children in the Chinese Taipei School (KL) Kindergarten and children with poor mobility at Bloomers Training House. During the year, more than 50 individuals benefitted from IMU Oral Health Centre treatments as well as new dentures with the support of the Khazanah-IHH Fund.





## AIDING CHILD MOBILITY

Childhood is one of the most exciting times of a person's life. It marks an age of exploration, discovery and uninhibited play. However, due to debilitating muscular conditions, many children will never get to experience the simple pleasures in life that most people often take for granted. In 2016, we embarked on a project addressing the basic need of mobility in children diagnosed with neuromuscular conditions, such as cerebral palsy and congenital hydrocephalus. These children, who are under the care of the Spastic Children's Association of Selangor and Federal Territory (SCASFT), have poor control over their motor functions preventing them from even being able to sit upright independently. With support from the Khazanah-IHH Fund, IMU Cares collaborated with the Association for Children with Special Needs in SibU to provide tailor-made mobility solutions. These included modified wheel chairs, buggy chairs, wooden chairs and standing frames. These aids were made specially to ensure that the children were able to fit in them properly with no further risk of injury from scoliosis. With these tools, the children are no longer house bound and can be taken outside to enjoy the great outdoors and to learn about nature.



## IMPROVING SKILLS OF CAREGIVERS THROUGH CARE OF THE ELDERLY

With a rapidly ageing population and the decline of the traditional familial structure where several generations would stay in one home, physically caring for the elderly has shifted from family members to professional caregivers and domestic help. However, as many of these caregivers are not equipped with either the understanding or the skills needed in caring for the elderly, neglect and sometimes abuse often take place. In taking a step to changing the current state of elderly care, the Nursing Division worked together with our Senior

Physiotherapist, Shailaja Tholkabian, to conduct a training workshop for proper elderly care. Through the workshop, we trained 25 caregivers from four different elderly homes, who in turn will train their fellow caregivers. This chain of training will help to ensure that elderly folks receive better care in their respective homes. To reach a wider audience, we created educational videos to be shared with our community partners for the caregivers to use as learning platforms. Regular visits to the homes were also made after the workshop to assess the skills of the caregivers, while ensuring that optimal care is delivered. More visits will be made next year to assess more caregivers in elderly homes that have been given the video.





## CHARIOFARE 2016

The University continued to organise Chariofare, one of our largest annual events that aims to raise funds for charity through the use of fun and interactive platforms. With each passing year, Chariofare continues to expand and increase in runners, sponsors and funds raised. 2016 proved to be no exception as the dedicated team of Chariofare successfully raised a record-breaking RM203,215, which is earmarked for donation to Rumah Titian Kasih (a Muslim welfare home for children and adults), Home of Peace (welfare home for girls) and IMU Cares Humanitarian Aid Fund.

The table below shows the total amount raised, number of runners, sponsors and beneficiaries for each Chariofare:

CHARIOFARE	2012	2013	2014	2015	2016
Total Amount Raised (RM)	138,000	150,000	170,000	180,983	203,215
Number of Runners	1,500	1,569	1,200	1,500	1,899
Number of Sponsors	38	59	64	101	71
Number of Beneficiaries	6	2	4	4	3

## DEPARTMENT-BASED ACTIVITIES

In addition to these activities, several of the University's departments initiated their own projects under the guidance of IMU Cares.

One such department was IMU Research Development and Innovation (IRDI) whom adopted Rumah Victory Children and Youth Home, a non-profit organisation which provides care for underprivileged children and troubled youth. 2016 saw the IRDI staff organising a number of continual educational activities which were kick-started by a Dengue Awareness campaign in March which served to educate the children on the disease and the precautionary steps needed to prevent it. Practical and informative exercises pertaining to the campaign were extended

over a ten month period to ensure that the children were fully drilled on the subject. To provide the children with a holistic take on education, the staff organised fortnightly English tuition classes and a Taekwondo course for the children to participate in.

IMU staff members participated in a fundraising bazaar organised by the home by setting up a booth to raise funds. In collaboration with a team of staff and students from the chiropractic and nutrition programmes, the booth served to educate members of the public on the importance of posture, exercise and good nutrition.

One of the highlights of the year was a Crime Scene Investigation (CSI) activity which the department organised to trigger the children's interest in science. Playing the roles of detectives, the children were invited to IMU research laboratories

to perform and learn the principles of latent blood detection, visualise hidden fingerprints, analyse footprints, study fibre samples, extract DNA and match DNA fingerprints.

On the community front, IRDI continued its initiative to enhance health literacy amongst the general public by organising a public talk titled 'Food, glorious food: can it still be healthy' on 3 December under the 'Future of Medicine' series. The talk, which featured three faculty members of IMU as speakers, namely Dr Ong Shu Hwa (Nutrition and Dietetics), Prof Dato' Dr Sivalingam Nalliah (Medicine), and Anthony Wong Wei Bing (Chinese Medicine), discussed the correlation between food and health and the different perspectives offered by Western and Eastern medicine respectively.



In collaboration with IMU Cares and as part of their cross boundary studies, our Foundation in Sciences (FIS) students organised two projects with the Dignity for Children Foundation. Held on 8 March and 25-26 July respectively, the events saw a total of 58 high school students from the Foundation learn practical and vital skills. These events served to benefit our students as well as they learned and developed all the necessary skills needed for project management such as organisation and leadership skills as well as communication skills and teamwork through organising them.

Students of the MSc in Public Health (MSPH) programme have been actively involved in IMU Cares Projects, which include the promotion of awareness of dengue prevention at the IMU Bukit Jalil and Vista Commonwealth Condominiums, and the screening of school children for visual defects at the Sri Sempurna School, Kuala Lumpur.

Our Nutrition and Dietetics Department concluded a year-long community outreach programme for the elderly. They also provided their services in the following outreach programmes that were organised by IMU Cares:

- Dewan Orang Ramai Salak South
- Kampung Malaysia Raya
- Kechara Soup Kitchen
- Malaysian Blind Association
- NASOM
- Rumah Titian Kasih
- Rumah Victory Bazaar and Fun Run at SJK La Salle Sri Petaling
- Rumah Victory for Children-Fundraising Carnival
- Rumah Victory for Elderly Home, Selangor
- Taman Megah's Handicapped & Disabled Children
- The National Autism Society of Malaysia (NASAM)
- Ti Ratana

Similarly, our faculty from the University's School of Pharmacy are in charge of ten homes under the IMU Cares Community Partners initiative. These homes respectively care for children, the disabled, the elderly, the homeless, single mothers as well as those who suffer from Parkinson's Disease:

- Beautiful Gate Foundation for the Disabled
- Lovely Nursing Home
- Malaysian Parkinson's Disease Association
- Pusat Jagaan Kanak-Kanak Sayang
- Rumah Charis
- Rumah Orang Tua Charis
- Rumah Sejahtera Seri Setia
- Rumah Titian Kasih
- Rumah Victory Elderly Home, Selangor
- Taman Megah's Handicapped & Disabled Children

# 22,609

lives enriched from  
**40 IMU community partners**

## EXTENDING OUR SKILLS FOR THE COMMUNITY

Our staff continue to be actively involved in professional and civic organisations where they hold various positions and serve as panel or committee members. Their roles include Master of Academy of Medicine of Malaysia, President of Malaysia Dietitians' Association, National Credentialing Committee (Ministry of Health, Malaysia), Content Expert on the guidelines for Methadone use in Malaysia (Ministry of Health, Malaysia), Panel member for Bachelor of Medicine and Bachelor of Surgery (Malaysian Qualifications Agency) and Committee member of Malaysian Medical Council. The details of our staff's involvement in such activities in 2016 are as follows:

- Number of professional services - 26
- Number of staff members actively involved - 17
- Number of professional and civic organisations that they are involved in - 13

The MOHE-designed Mata Pelajaran Umum (MPU4) programme is a compulsory requirement for students which we have endorsed with the aim of developing practical community-minded skills in our students. As such, IMU students undertake community service based initiatives which are primarily spearheaded by the various student body interest groups. In 2016, student-driven projects included the Asian Medical Student's Association collaboration with EMPOWERED - the Cancer Advocacy Society of Malaysia to organise the Colorectal Cancer Awareness campaign; the Community Service Club's tutoring programme for different refugee centres and NGO's; as well as screenings and organ and blood donation to name a few. As of 21 December 2016, our students organised 36 community service projects with cohort ME2/15 implementing 14 projects and cohort MEDT1/16 rolling out 22 projects respectively.

## MOVING FORWARD

Our achievements in 2016 clearly indicate that health education is among our strongest fields. Leveraging on this strength, IMU Cares 2017 will aim to deliver health education through the use of multimedia in order to impact many more lives. Our target audience will include children's homes, old folk's homes and schools, including schools with refugee children. This initiative will not only involve IMU students and staff, but also IMU alumni who have shown keen interest in serving the community. We will also continue our work in educating caregivers through the expansion of our workshop and video "Care of the Elderly" to cover a larger audience territory that will include Negeri Sembilan and Johor. In support of this initiative, IMU Cares will integrate with the students' Mata Pelajaran Umum (MPU4) module so that more students will be involved in educating and empowering caregivers on proper care of the elderly.

We would like to thank all students, staff, industry and community partners for making 2016 an exciting year for IMU Cares.

# IMU IN THE WORLD: PARTNER UNIVERSITIES



IMU's pledge to offer only the best educational experiences for its students extends far beyond its borders. With a secure and long-established global network of 33 partner institutions of higher learning, IMU is committed to opening doors to education and training opportunities outside Malaysia via our credit transfer programmes. These collaborations in health professional education cover most of the undergraduate programmes offered at the University which makes the dream of studying overseas more accessible to Malaysians. Similarly, IMU is unique in fostering and establishing collaborations for the training of practitioners in complementary therapies. Building and developing these worldwide relationships also strengthens the University's ability to secure global talent, which in turn helps attract the brightest and the best to come and study at IMU. Since 1995, IMU's Partner Schools have conferred more than 3,000 individuals. Having established itself as a household name in Malaysia, IMU is well on its way to international recognition.

## AUSTRALIA

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

## CANADA

- Dalhousie University, Canada

## 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

## UNITED KINGDOM

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