

A
VISION
FOR TOMORROW A
PURPOSE
FOR TODAY

VICE-CHANCELLOR'S REPORT 2017



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This year's cover was inspired by IMU's visual identity guidelines, with each School and division having its own distinct colour. The diversity of hues reflects the University's growth journey over 25 years.

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MESSAGE FROM THE VICE-CHANCELLOR

Dear Readers,

For 2017, it feels appropriate to open my message with the year's final milestone: the groundbreaking ceremony of the IMU Hospital by the honourable Minister of Health, YB Datuk Seri Dr S Subramaniam in Bukit Jalil on 14 December. This event may have taken place just before the year-end, but fundamentally it was about beginnings.

The IMU Hospital is a major initiative under IMU Healthcare, and with the groundbreaking ceremony we have entered a phase that will see our first hospital physically taking shape, brick by brick. The facility will be ready in 2021, at which point another exciting new era will begin.

We also marked our 25th Anniversary in 2017. This was a milestone that gave us ample reason to rediscover and celebrate the International Medical University's (IMU) origins. "Groundbreaking" is indeed an apt word to describe the vision of IMU's founders: when IMU opened its doors in 1992, it was not just the first private medical educational institution in Malaysia, it was also the first in the world to offer a credit transfer option in medical education.

This year, guided by our ASPIRE II Strategic Plan (2016-2020), we endeavoured as always to honour the vision of our founders. We achieved 80 percent of ASPIRE II targets set for 2017, and I can report that it was a year of many highlights. The details by department can be found in the pages of this publication, so allow me here to note the broad themes that emerged.

The unrelenting quest for quality

Quality is what sets us apart. It is the defining characteristic of the IMU brand and the key to our sustainability. In 2017 we sought to maintain the highest standards in our three core areas. In Education, this meant quality with regard to the building blocks: our faculty,

curriculum, administration, facilities, Partner Schools and industry partnerships. In Healthcare, we worked hard to excel in our healthcare services, while in Research we strove to ensure the highest levels of intellectual rigour and scholarship.

The official recognition we received in 2017 testified to our commitment to excellence: in March we were awarded self-accreditation status by the Malaysian Qualifications Agency (MQA), which allows IMU to accredit its non-professional programmes in the health sciences and postgraduate studies. Such autonomy is granted only to an institution with a solid internal quality assurance system, and in



2017 we were proud to be one of only eight Malaysian universities to be accorded this status.

We also gained a six-star rating under SETARA 2017, which is the Ministry of Higher Education's (MOHE) annual rating exercise that measures the performance of undergraduate teaching and learning. Eight universities in Malaysia gained a six-star rating under the Mature University Category in 2017, and IMU was the only home-grown private university among them.

I should also note here that two senior IMU academic members, Prof Victor Lim and Prof Dato' Dr Kandasami Palayan have been appointed by the Ministry of Health (MOH) as members of the Malaysian Medical Council. Prof Allan Pau was also appointed as a member of the Malaysian Dental Council (MDC). This is a unique honour, and we would like to think it reflects the level of confidence the Councils have in IMU.

To ensure that academic staff excellence continues to anchor our Education arm, in 2017 we developed a teaching scholarship framework to support the career progression of academic staff, in line with the University's learning philosophy. As pioneers, we also envision playing an increasingly prominent role in human capital development for the healthcare education industry—in 2017, IMU launched a series of new postgraduate programmes in Health Professions Education.

Maintaining the IMU edge

How do we ensure quality? In Education, we simply ask ourselves, "What will happen the day after our students graduate?" If we have done our jobs right, our graduates will be work-ready and sought after by the best employers. They will also have numerous pathways to opportunities for further study. Increasingly, this will take on a global dimension.

In 2017 we signed a memorandum of agreement with Becker Professional Education, which enabled us to become the first institution in the region to integrate and provide preparation courses for the United States Medical Licensing Examination (USMLE) within our medical programme. We believe this will greatly help our students prepare for an examination that will qualify them to undertake residency positions, and potentially practise professionally and legally, in the USA.

Anticipating our students' needs beyond IMU is also what drives us to constantly strengthen our industry partnerships. "Real-world" exposure is an important component of our students' learning, and in 2017 we focused on strengthening the student internship programme to enhance students' workplace exposure. We also held a stakeholder meeting with industry partners to ensure that our students continued to benefit from meaningful industrial placement opportunities. Yet another initiative was the formalisation of the Career Guidance Unit, whose main role, alongside the Alumni Relations Office, is to

Quality sets us apart. It is the defining characteristic of the IMU brand and the key to our sustainability.

To prepare for a future of disruption, we must reinforce adaptability, innovation and progressiveness. Beyond being responsive to change, however, we must ensure that we ourselves have a hand in shaping the future.

provide assistance and information about training and career opportunities to IMU students and alumni.

Through close industry partnerships we also gain all-important feedback to help us ensure our programmes and graduates remain relevant. In 2017 we began looking into creating a Board of Advisors consisting of key industry representatives who would help ensure that everything we do continues to be relevant.

At IMU we also collaborate with industry partners in Research, and we have been successful in attracting industry-sponsored research grants over the years. One such grant in 2017 was for research undertaken by the School of Nutrition and Dietetics on the impact of soluble corn fibre on bone mass density of adolescent children.

Alongside our partnerships with industry, we have maintained close ties with the Malaysian Ministry of Higher Education and the Ministry of Health, and their support over the years has been invaluable.

Structure and culture: benchmarking against the best

At the organisational level, too, we aim to benchmark ourselves against the best. One of our goals for 2018 is to participate for the first time in the QS World University Rankings. This would show us where we stand in the world and help us aim for even better performance in the future.

While we have come a long way, we should acknowledge that our structure and culture must

continually evolve if we aim to be a true global player. We can ensure that the content of our current programmes is relevant, but we cannot always foresee what the future holds. We must therefore continue to provide a robust curriculum that develops adaptive learners. The best way to prepare for a future of disruption is to equip ourselves with the ability to adapt.

Another way, of course, is to make sure that we ourselves have a hand in shaping the future. Beyond being responsive to change, we want to be change-makers too. We want—and increasingly need—to do more groundbreaking work.

To this end, in 2017 we began restructuring our organisation to create a culture that fully supports innovation, risk-taking and creativity. We also continued to nurture talent and develop future leaders of IMU.

As an institution dedicated to health—our 25th Anniversary theme was *Better Health, Better Society*—we remain committed to walking the talk and creating a work environment that supports healthy lifestyles. Efforts under our Living the Values Initiative continue to bear fruit. In 2017, IMU's Pandan Serai Café was awarded Healthy Café and BeSS (*Bersih, Selamat dan Sihat*) status by the Ministry of Health; and under the Malaysia's Healthiest Workplace programme by AIA Vitality, we won two awards in the medium-sized organisation category: Healthiest Employees and Healthiest Workplace.

The human touch can never be automated

Technology will continue to play a vital role at IMU, and we will need to ensure it is fully integrated not just in Education, Healthcare and Research, but also in the administration and management. In 2017, in Education, we started the accreditation process for several Open and Distance Learning (ODL) courses, and we hope to begin offering these in 2018. We are also developing Massive Open Online Courses (MOOCs). In Healthcare, even as the construction of our new hospital gets underway, we are exploring how technology will help drive our vision to maximise the reach of healthcare, beyond the physical boundaries of our hospital and clinic ecosystem.

In Research, the Institute of Research, Development and Innovation (IRDI) embarked on an initiative to encourage more application of big data analytics to gain insights and improve research outcomes. To this end, IRDI awarded an innovation grant on big data research this year.

As technology becomes more sophisticated, we must keep thinking about our relevance—already, we are being asked by prospective students whether machines will one day replace human beings altogether in healthcare delivery.

The aspects of the profession that require the imaginative, intuitive connecting of the dots as well as those that involve soft skills—empathy, compassion,

the human touch—can never be automated. These are new areas of focus at some medical educational institutions, but at IMU our vision has always been firmly set on the human heart and soul of the medical profession. We are determined to ensure that our students are world-class in terms of the requisite skills and competencies, but we are also determined to ensure that they embody the compassion and sense of service that are part and parcel of the healthcare ethos. I am proud to report that many projects under our Serving the Community initiative are in fact student-driven.

Going forward, we want to remain an organisation that is values-based and purpose-driven. This has enabled us to produce over 10,000 healthcare practitioners thus far, and it will enable us to be world-class in the future.

Thank you.



Prof Abdul Aziz Baba
Vice-Chancellor
International Medical University



As technology becomes more sophisticated, we must keep thinking about our relevance. Imagination, intuition, empathy and compassion are all part of the human touch—and can never be automated.

UNIVERSITY HIGHLIGHTS 2017

1 MASTER OF PHARMACY PRACTICE

9 January

IMU welcomed the pioneer cohort of students for the Master of Pharmacy Practice programme.



2 IMU QUIT SMOKING CLINIC

22 February

The IMU Quit Smoking Clinic was launched by Dr Wan Mansor Hamzah, Director of Public Health Development Division, Ministry of Health.



3 UNIVERSITY DAY

10 March

Every year, University Day is celebrated to commemorate IMU's conferment of university status in 1999. This year we also launched IMU's 25th Anniversary celebrations with the theme *Better Health, Better Society*.

4

SELF-ACCREDITATION STATUS

20 March

IMU became the first private medical university to receive self-accreditation status from the Malaysian Qualifications Agency (MQA). We were one of the eight universities that received this coveted status, which entitles a higher education provider (HEP) to accredit its own programmes (except for those that require accreditation of external professional bodies).



5

SPECIAL CONFERMENT CEREMONY

10 April

As part of our 25th Anniversary celebrations, a special conferment ceremony was held where the University bestowed seven special honorary degrees on individuals whose vision, expertise and generosity of spirit have contributed to its growth and establishment.

The recipients were:

Honorary Doctor of Medicine

- Prof James McKillop
- Prof Nicholas Glasgow
- Prof Richard Hays
- YBhg Prof Dato' Dr Mafauzy Mohamed



Honorary Doctor of Medical Education

- Prof Karen Mann (Posthumous)
- Prof Trudie Roberts

Honorary Doctor of Science

- YBhg Tan Sri Datuk Dr Kamal Salih

6

APUCEN AWARD

20 April

IMU Cares received the Judges' Special Award from the Asia-Pacific University-Community Engagement Network (APUCEN) in recognition of its "serving the community" programme, Chariofare. Since 2012, the programme has raised over RM1 million in funds to help underserved communities. The award was given under the Community Engagement/Regional category.



7

43RD CONVOCAATION CEREMONY

29 April

At the 43rd Convocation Ceremony, 257 students graduated from 11 programmes. The University also conferred the Honorary Doctor of Medicine on our former Chancellor, YBhg Dato' Seri Dr T Devaraj for his excellent contributions to IMU and society.



8

IMU WELLNESS PROGRAMME

11 May

IMU launched its IMU Wellness programme to promote overall wellness among staff and students. At the event, Deputy Minister of Health Malaysia, YB Dato' Seri Dr Hilmi bin Yahaya also endorsed the University as the first to achieve the "Healthy Cafeteria" Award by the Ministry of Health.



9

USMLE PREPARATORY COURSE

28 August

IMU became the first university in the region to integrate the United States Medical Licensing Examination (USMLE) preparation courses into its medical programme. The signing of the MoA with Becker Professional Education enables IMU to offer this fundamental key to qualify medical graduates for a residency position and potentially practise professionally and legally in the USA.

11

BeSS NATIONAL AWARDS 2017**10 October**

Our Pandan Serai Café was named first runner-up for the BeSS (*Bersih, Selamat dan Sihat*) National Awards 2017 in Category C: Individual outlets/institution, shopping complex or hypermarket. YB Dato' Seri Dr Hilmi bin Yahaya, Deputy Minister of Health Malaysia, presented the award to IMU, the first university to receive it. The café also won first prize at the Wilayah Persekutuan Kuala Lumpur and Putrajaya level of competition.



10

CHARIOFARE 2017**16 September**

In the spirit of 1Malaysia, IMU held its sixth annual charity run and fundraising carnival in conjunction with Malaysia Day as well as IMU's 25th Anniversary. Chariofare 2017's theme, *Heartbeating Moments*, focused on the concept that hearts can be united regardless of origin and social status. Gracing the event was former national badminton player, Wong Choon Han, a friend of the University. This year, a record total of RM277,691 was raised for IMU Cares' Humanitarian Fund. The fund collaborates with NGOs such as MERCY Malaysia and Médecins Sans Frontières to extend medical or financial aid to diverse communities.

12

44TH CONVOCATION CEREMONY**4 November**

The 44th Convocation Ceremony saw 470 students graduating.

13 HEALTHIEST EMPLOYEES, HEALTHIEST WORKPLACE

13 November

Under the Malaysia's Healthiest Workplace programme by AIA Vitality, IMU won the "Healthiest Employees" and "Healthiest Workplace" awards in the medium-sized organisation category, in recognition of our healthy workplace programmes and contribution to workplace health.

KEEP UP TO DATE!
Visit imunews.imu.edu.my



14 SETARA 2017 – RANK 6

16 November

We became the first private homegrown university to be awarded the SETARA 2017 – Rank 6 (Outstanding) status by the Ministry of Higher Education. This is the highest ranking under the Mature University Category.

15 BREAKING NEW GROUND

14 December

The IMU Hospital groundbreaking ceremony was officiated by YB Datuk Seri Dr S Subramaniam, Minister of Health Malaysia. The Hospital will be built on land adjacent to the University and is targeted to be operational in 2021. Phase 1 consists of 96 inpatient beds with three operating theatres, an emergency room, 22 specialist clinics and two wellness clinics. The Hospital design adopts concepts that allow some of its facilities to quickly evolve to meet the growing needs of the community, and will expand gradually to a 312-bed hospital.

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

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:

Trustworthy We are trustworthy and stand for integrity, reliability and commitment

Responsive To change, and to the needs of individuals and communities

Unity Of vision and in working towards the achievement of common goals

Service A commitment to providing outstanding service

Tenacity 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.

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.



CHANCELLOR

YBhg Dato' Dr Amir Abbas

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

CHANCELLOR AND PRO-CHANCELLOR

PRO-CHANCELLOR

YBhg Dato' Dr Gan Ee Kiang

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





BOARD OF GOVERNORS

YBhg Tan Sri Dato' Dr Yahya Awang

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

YBhg Tan Sri Dato' Dr Abu Bakar Suleiman

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

YBhg Dato' Dr Gan Ee Kiang

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

YBhg Prof Datin Paduka Dr Aini Ideris

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

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)

Prof Abdul Aziz Baba

MBBS (Melb), MRCP (UK), MRCP (Ireland), FRCP (Edin), AM

Dr Mei Ling Young

BA, MA (Hons) (Auckland), PhD (ANU), DSc (Strath), LL.D (Dundee)

Prof Victor Lim

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

SENATE



Prof Abdul Aziz Baba

Vice-Chancellor, IMU Education

Prof Peter Pook

Deputy Vice-Chancellor, Academic

Dr Mei Ling Young

Deputy Vice-Chancellor,
International & Engagement

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 Allan Pau Kah Heng

Dean, School of Dentistry

A/Prof Mohd Zulkefeli

Mat Jusoh

Dean, School of Pharmacy

Prof Winnie Chee

Dean, School of Health Sciences

Prof Chu Wan Loy

Dean, School of Postgraduate
Studies

Prof Vishna Devi Nadarajah

Dean, Teaching & Learning

Prof Ong Kok Hai

Director, External Affairs

YBhg Prof Dato' Jai Mohan

a/I C.A Nayar

Director of Learning Resources

Prof Ammu Radhakrishnan

Associate Dean, School of Medicine

Prof Stephen a/I Periathamby

Ambu

Associate Dean, School of

Postgraduate Studies

Prof Chin Beek Yoke

Associate Dean, School of Health
Sciences

Prof Mallikarjuna Rao Pichika

Associate Dean, School of Pharmacy

Prof Seow Liang Lin

Associate Dean, Oral Clinical Science

Prof Khoo Suan Phaik

Associate Dean, Oral Sciences

Prof Nazimah Idris

Associate Dean, Clinical Affairs

Prof Lum Siew Kheong

Head of Department, Surgery

YBhg Prof Dato' Dr N Sivalingam

a/I Nalliah

Head of Division, Surgery

Prof John Arokiasamy

Head of Division, Community
Medicine

Prof Azizi Ayob

Programme Director, School of
Medicine

YBhg Prof Dato' Dr P Kandasami

a/I Palayan

Professor, Surgery

Prof Leong Chee Onn

Professor, Life Sciences

Prof Esha Das Gupta

Professor, Internal Medicine

Prof Zainur Rashid Zainuddin

Professor, Obstetrics & Gynaecology

YBhg Prof Datuk Dr Lokman Hakim

Sulaiman

Professor, Community Medicine

YBhg Prof Dato' Dr Maimunah

binti A Hamid

Professor, Community Medicine

Ex-Officio Members

Christy Chiu Lai Heng

Vice President, Finance &
Administration

Zuhanariah Mohd Nordin

Chief Librarian

Secretary

Noraidah Yusoff

Registrar

ACADEMIC COUNCIL



During the 28th annual meeting of the Academic Council (AC) from 10 to 11 April 2017, the University and its Partner Medical and Dental Schools continued their tradition of sharing updates and ideas on all administrative and academic matters.

At this meeting, the Deans of the Partner Schools meet to discuss matters that typically include entry requirements, intakes and other admissions issues; evaluations of all curricula; issues related to the development of our respective faculties; research, strategies, activities and partnerships; and postgraduate training in both medicine and dentistry. The AC is a vital part of our long relationship with our partner institutions, and ensures that all parties share the same perspective as we move forward collectively.

The University once again hosted the main AC meeting at the IMU Bukit Jalil campus. There were three breakout sessions, where discussions focused on the overall theme of the AC's involvement in developing future partnership strategies.

Specifically, the breakout sessions had delegates sharing their ideas on the following topics:

- Establishing viable partnerships to further embed innovation in the education of health professionals
- Using technology to remove borders in teaching, learning and assessment processes
- Conducting a longitudinal study on the work readiness of IMU graduates and the preparedness of our transfer students

The meeting wrapped up with a summary, where delegates narrowed down the areas in which all parties could work even more closely in the future. They identified existing and new academic programmes as collaborative material, particularly the development of joint massive open online courses (MOOCs). The list also included a larger range of joint degrees in postgraduate programmes and more opportunities for student mobility and research among all partner institutions.

28TH ACADEMIC COUNCIL **MEETING**



APRIL
2017



Delegates agreed to explore the possibility of the AC sponsoring scholarships or funding for student research activities, and working together to continue developing the customised Virtual Medical Museum as a self-directed learning resource that is available to students 24 hours a day. In addition, the AC agreed that Partner Schools could use Open and Distance Learning modules to offer one another access to their respective teaching and learning materials, especially those relevant to the Malaysian and ASEAN contexts.

In a bid to better prepare our students for the rigorous academic programmes they must face, the AC decided to set a benchmark for local students at Partner Medical Schools, and to include personal attributes in the students' preparedness surveys. Finally, the delegates agreed to develop the Work Readiness project by including qualitative measures to improve the project's ability to evaluate students.

Meanwhile, the Partner Dental Schools (PDS) Meeting was held concurrently at the campus on 10 April. Prof Allan Pau, the Dean of IMU's School of Dentistry, briefed delegates on the progress of the University of Dundee's and Dalhousie University's process of joining the PDS community. Both institutions submitted letters of intention in 2016 to become partner universities, with each offering five places for credit transfers. This means that students who have completed Phase 1 of our dental programme can then transfer to Dundee and Dalhousie and

graduate with dental qualifications after completing their respective programmes.

Prof Allan Pau also informed delegates that the University of Queensland had notified IMU that it would cease to be a Partner Dental School, and that it had accepted its last student transfers in 2017.

Delegates learnt that IMU's School of Dentistry launched its first Postgraduate Diploma approved by the Malaysian Qualifications Agency (MQA). The Postgraduate Diploma in Implant Dentistry (PGDID) enables working dentists to provide implant treatment to their patients either under chairside (i.e. onsite) conditions, or offsite where they can supervise the procedures via video recording technology. We benchmarked the PGDID against standards set by the Royal College of Surgeons of Edinburgh for its Diploma in Implant Dentistry Examination.

The PDS Meeting also reviewed the following dimensions of the IMU-PDS partnership:

- A/Prof Christopher Vincent led a discussion on its value and success
- Prof Seow Liang Lin spoke on learning experiences
- Prof Khoo Suan Phaik spoke on postgraduate collaboration



Academic Council delegates narrowed down the areas in which all parties could work even more closely in the future.

PROFESSIONAL EDUCATION ADVISORY COMMITTEE

The Professional Education Advisory Committee (PEAC) further bolsters our commitment to providing educational programmes of the highest calibre. The PEAC works closely with all Deans, including those from our partner institutions, to advise the University on all aspects of how we educate and train our students. It also collates its findings in an annual report for submission to our Board of Governors.



As part of its constant evaluation of our academic programmes, the PEAC conducted two focused reviews:

- Review of the Master of Molecular Medicine Programme, from 17 to 18 July 2017
- Review of the Faculty of Development, from 5 to 6 October 2017

The PEAC held its annual meeting from 9 to 10 October 2017, and delegates discussed the following topics:

- Progress Report on the Review of the Implementation of Competency-Based Education, 2015
- Progress Report on the Review of Student Feedback, 2016
- Progress Report on the Review of the Bachelor of Science (Hons) Chinese Medicine Programme, 2015
- Progress Report on the Review of the Medical Biotechnology (Hons) Programme, 2016
- Progress Report on the Review of Master of Science in Public Health Programme, 2016
- Report on the Review of Master of Science in Molecular Medicine Programme, 2017

Delegates also focused on the following General Topic Exploration (GTE) papers:

- Seeking the Way Forward for the Mentor-Mentee System at IMU Marking Criteria
- Evaluating the Work Readiness of IMU Graduates
- Value of the Online Assessment System (OAS)

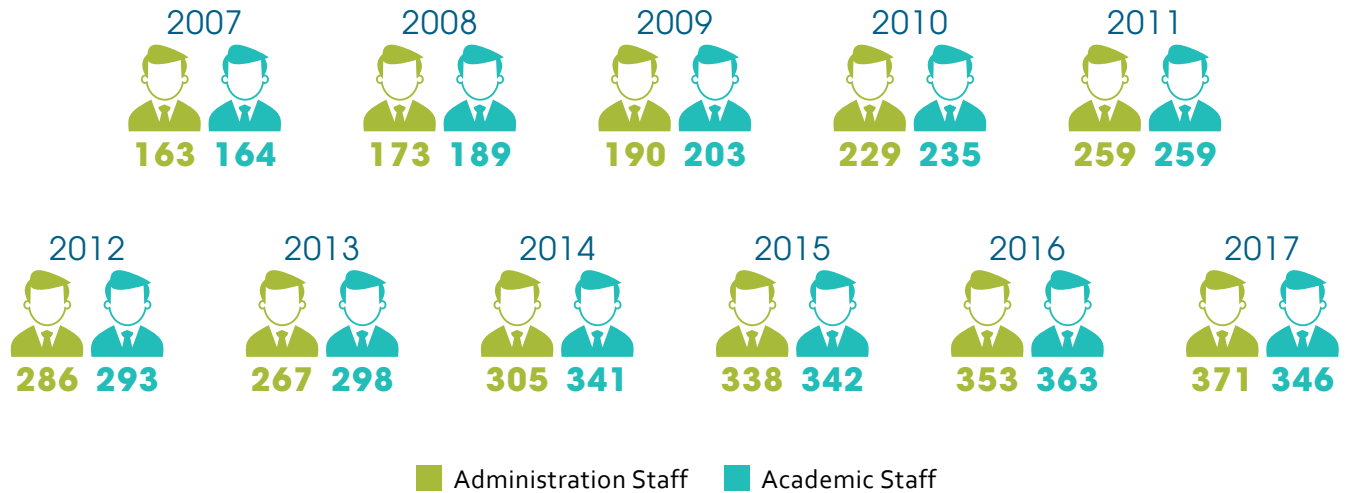
At this year's meeting we introduced a new feature to the agenda that our staff had requested, specifically clinic sessions where they could meet PEAC members to discuss issues of their choice. Staff members submitted these topics beforehand to the Secretariat, which then made a selection on a needs basis. The selected topics were:

- How to make remedial programmes effective
- Assessing student performance under Domain 5 in the medical programme
- Moving to student-centred active learning
- Developing mobile applications
- Collaborating with Partner Medical Schools in faculty development
- Providing support to disabled students
- Identifying the next steps in competency-based assessment
- Identifying and addressing challenges in postdoctoral training
- Identifying relevant contemporary pedagogical principles in the School of Dentistry curriculum

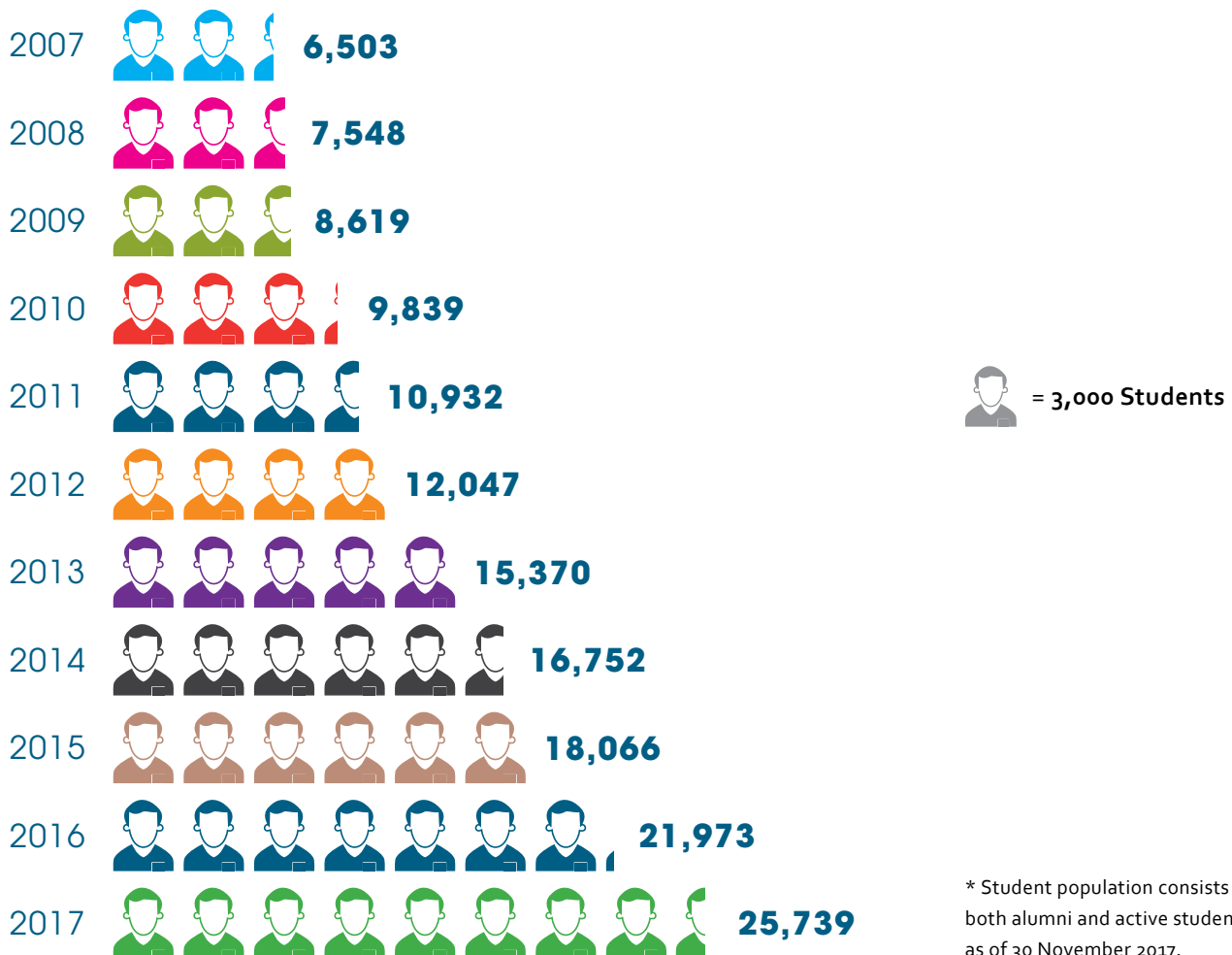
Following these clinic sessions, PEAC members submitted their feedback and recommendations to the relevant parties to take suitable next steps. These recommendations and their outcomes will be tabled for discussion at the 2018 PEAC Meeting.

We are committed to providing educational programmes of the highest calibre.

STAFF POPULATION



STUDENT POPULATION*



* Student population consists of both alumni and active students as of 30 November 2017.

THE IMU JOURNEY

The International Medical University (IMU) began as the International Medical College (IMC) 25 years ago, as an exciting educational experiment that was the vision of three Malaysian academicians to internationalise medical education.

At the time, Malaysia was facing a serious shortage of doctors. Dr Kamal Salih, a visionary, Dr Mei Ling Young, a social scientist with a strong interest in development, and the late Dr Saidi Hashim, a medical doctor, hit on a brilliant, simple idea—if young Malaysian students could not go out into the world to get the medical education they wanted and deserved, they would bring it to them.

Working with two eminent international medical educationists, Prof Ronald Harden and Prof Ian Hart, as well as Prof Ong Kok Hai, the school established an innovative, robust curriculum at the core of this unique model of collaborative education with five medical schools in the United Kingdom and Ireland, namely the University of Dundee, the Royal College of Surgeons of Ireland, the University of Liverpool, the University of Aberdeen and the University of Glasgow.

Over the last 25 years, the model has continually evolved, always informed by current thinking, sound evaluation, and the meeting of some of the best minds in health professions education.



Dr Kamal Salih



Dr Mei Ling Young



Dr Saidi Hashim



Prof Ron Harden



Prof Ian Hart



Prof Ong Kok Hai



1992

The setting up of the International Medical University was a huge adventure for all concerned, and it started with a momentous meeting thousands of miles away in Canberra, Australia.



April 13

Official launch of IMC by the then Minister of Education, YB Datuk Amar Dr Sulaiman Haji Daud.



The IMC curriculum was unique not just in its teaching and learning methods, but also in the fact that it is designed to be universally accepted as a foundation by some of the world's best medical schools.



April 14

The Academic Council (AC) held its inaugural annual meeting and was attended by Deans from the Partner Schools. The Council was established to oversee key aspects of educational quality, including the quality of students entering IMC and the standards they were to achieve for entry into Partner Schools.

July 1

Prof John Beck of the University of Dundee became the Foundation Dean of IMC.



1993

November 29

The pioneer cohort of 75 medical students enrolled in the Partner Medical School (PMS) programme.

1996

March 4

IMC introduced a collaborative programme with the University of Strathclyde in Glasgow, the BSc (Hons) in Pharmacy. The pioneer cohort of pharmacy students graduated from the University of Strathclyde in 1998.



February 4

IMC became the International Medical University (IMU), with the authority to award its own degrees, the first being the MBBS IMU.



June 23

IMU held its inaugural Senate Meeting in which the Senate was recognised as the highest academic body in the institution, the custodian of academic excellence and the pool of resources and ideas.

1998

1999



September 20

The IMU Clinical Campus in Seremban received its first cohort of 46 medical students.



April 20

IMC received an invitation from the then Minister of Education, YB Dato' Seri Mohd Najib bin Tun Haji Abdul Razak, to become a university.



2000

January 1

IMU moved to its current location in Bukit Jalil.



2002

October 12

IMU Cares, the University's programme for serving the community, was launched with an inaugural Charity Run, now known as Chariofare. To date, Chariofare has raised over RM1 million to support the various outreach programmes for the underserved communities.

2001

March 21

Opening of the Medical Museum, a learning resource for medicine. Today, the Medical Museum, Library and e-Learning provide learning resources for the whole University.



July 21

The pioneer cohort of students enrolled in the local four-year Bachelor of Pharmacy (Hons) programme. The BPharm (Hons) was IMU's second homegrown degree programme, using a groundbreaking integrated curriculum with emphases on skills development, clinical pharmacy and pharmaceutical care.



2003

2004

2005

September 19

The IMU Clinical Campus in Batu Pahat was officially launched.



September 7

The pioneer cohort of nine students enrolled in the local four-year Bachelor of Nursing programme.



February 25

The pioneer cohort of 50 students enrolled in the IMU Dentistry programme.

2008

2009



July 14

The pioneer cohort of students enrolled in the IMU Nutrition and Dietetics, Psychology, Medical Biotechnology, Biomedical Science and Pharmaceutical Chemistry programmes.

July 21

The pioneer cohort of students enrolled in the IMU Nursing Science programme.





January

IMU took a bold step in its plan to be an integrated healthcare provider. The IMU Oral Health Centre was the first of several clinics to provide healthcare services for the public. This was rapidly followed by the opening of the IMU Chiropractic Centre (May), IMU Medical Clinic (July), and the IMU Chinese Medicine Centre (November), forming the IMU Healthcare Centre within the same year.

The IMU Healthcare Centre is unique in bringing together allopathic medicine and traditional and complementary medicine under one roof. The Centre also integrates service with teaching.



September 18

The Institute of Research, Development and Innovation (IRDI) was officially launched by then Chancellor, YBhg Dato' Seri Dr T Devaraj.

2010

2011

2012



February 22

The pioneer cohort of 30 students enrolled in the IMU Chiropractic programme.



September 5

IMU introduced the first ever postgraduate taught programme in Public Health offered by a private university in Malaysia.



February 21

The pioneer cohort of 13 students enrolled in the IMU Chinese Medicine programme.

April 26

IMU Cares won first place in the MacJannet Prize for Global Citizenship.

August 25

IMU's School of Medicine received the ASPIRE Award for Student Engagement at the annual conference of the Association for Medical Education in Europe (AMEE).

September 30

The first intake of students enrolled in the Nutrition degree programme.

January 6

The pioneer cohort of more than 50 students enrolled in the Foundation in Science programme.

September 29

The Employees Provident Fund Wilayah Persekutuan presented IMU with the Best Employer Award for 2016.

2013

2014

2016

A core IMU dictum is that to be a good healthcare professional, you must also be a good human being. Moulding students into good humans includes developing their awareness of community needs, and enabling them to address these needs: Service Learning. The IMU Cares Programme thus enables students to work with their peers and university staff for sustained improvements in community welfare.



October 19

The pioneer cohort enrolled in the Postgraduate Diploma in Implant Dentistry programme. Designed for working dentists, this is Malaysia's first and only approved postgraduate programme in Implant Dentistry.



March 20

The Malaysian Qualifications Agency awarded IMU self-accreditation status. Prof Abdul Aziz Baba, Vice-Chancellor, received the award from YB Dato' Seri Idris bin Jusoh, Minister of Higher Education.

November 16

IMU became the first private homegrown university to be awarded the SETARA 2017 – Rank 6 (Outstanding) status by the Ministry of Higher Education.

2017

and beyond

14 December

IMU Hospital's groundbreaking ceremony. The hospital is targeted to be operational in 2021.

The current development of the IMU Hospital and a planned network of clinics is part of IMU's vision to be a leading private Asian health educator that creates value through integrating education, research and healthcare.

"Central to IMU's education philosophy are the guiding principles that motivated the founders —access, quality, innovation. My belief is that our core values and purpose must not change, but must inspire change."

– Tan Sri Dato' Dr Abu Bakar Suleiman, President, IMU Group

EDUCATION



CENTRE FOR PRE-UNIVERSITY STUDIES

At the **Centre for Pre-University Studies**, our Foundation in Science (FiS) equips students with the necessary knowledge and groundwork for admission into science-related undergraduate programmes. Accredited by the Malaysian Qualifications Agency, the FiS programme has intakes in April, July and September. FiS exposes students to various science-related subjects and fields that give them a better understanding of their interests, which in turn helps them choose their ideal educational and career pathways.

2017 Highlights

- Increased enrolment for the FiS programme
- 17 students were sponsored by four sponsoring bodies/foundations
- Six students received the IMU Scholarship to pursue undergraduate programmes
- New electives implemented in Semester 3 for 2017 intakes
- New module on Mobile Computer Apps

PROGRAMMES



Foundation in Science (FiS)

As one of the leading medical and health sciences universities in Malaysia, we are committed to providing FiS students with a diverse range of academic options and opportunities. We upgraded our programme and introduced new electives in Semester 3 to allow students to focus their FiS course towards their intended undergraduate programme. We also revised our first semester Computing Studies module to include Mobile Computer Apps, with the students' completed mobile app projects showcased at the IMU Learning Resource Festival 2017.

During the Academic Council meeting in April, we presented a paper to Partner Medical and Dental Schools that highlighted FiS students' favourable progress in our undergraduate programmes when

compared to students from other pre-university programmes.

For the first time, the Academic Council granted approval to allow IMU-FiS students to enter a Partner School Programme for Medicine and Dentistry.

Improved enrolment and conversion rate

We are happy to announce that the Centre recorded an increase in student enrolment for 2017, with the highest number of student enrolments registered in the April intake followed by the July and September intakes. A total of 231 students enrolled in 2017.

Also in 2017, many of our students who completed the FiS gained admission into undergraduate programmes at IMU such as



FiS Open Day.

FiS: Doorway to undergraduate programmes

85%

PERCENTAGE OF 2017 FIS GRADUATES (TOTAL 203) WHO SUCCESSFULLY ENROLLED IN IMU DEGREE PROGRAMMES

35

MBBS

57

PHARMACY

30

CHIROPRACTIC

17

DIETETICS WITH NUTRITION

1

DENTISTRY

11

BIOMEDICAL SCIENCE

2

MEDICAL BIOTECHNOLOGY

1

CHINESE MEDICINE

5

PSYCHOLOGY

11

PHARMACEUTICAL CHEMISTRY

As a testament to the quality of the FiS programme, our students have gained sponsorship from external organisations as well as won IMU scholarships.

Pharmacy, Medicine, Chiropractic, Dietetics with Nutrition, Pharmaceutical Chemistry, Biomedical Science, Medical Biotechnology, Psychology, Chinese Medicine and Dentistry.

Nurturing high achievers

We strongly believe that students will work hard to strive for distinction if they are provided the opportunity to further their studies. In 2017, 17 FiS students gained sponsorship from four organisations: the Public Service Department sponsored 10 students, Yayasan Khazanah sponsored four, Yayasan Peneraju sponsored two and Majlis Agama Islam Kelantan sponsored one student. Six high-achieving FiS students won IMU scholarships to pursue MBBS, BSc (Hons) Pharmaceutical Chemistry, BSc (Hons) Biomedical Science, BSc (Hons) Chiropractic, and BSc (Hons) Dietetics with Nutrition.

FiS students were also active in community work (see “Serving the Community”, page 108).

Moving forward

For 2018, we intend to increase the number of our students by about 20 percent with a balance of local and international students. This strategy will be achieved with the guidance of senior Pre-University staff as well as by enhancing our activities at open days, school visits and education fairs. We will also focus on extracurricular activities targeted at potential students, such as the Science Discovery and Hands On Minds On Challenges, the Mobile App writing competitions and Hackathons.

One of our objectives will be to increase Foundation to undergraduate programme progression and to achieve this, our staff have not only dedicated their time and energy to our students, but also towards their own development by furthering their education. We will also intensify and expand collaborative research and staff development output to integrate ourselves into the overall ethos of IMU. We hope that it will promote a holistic environment that enables our students to explore and familiarise themselves with the IMU ecosystem, easing their integration into IMU undergraduate programmes.

Some of our past FiS students have successfully enrolled in undergraduate programmes at universities in Malaysia and abroad on a case-by-case basis. Our ongoing discussions with foreign universities to allow direct entry to their undergraduate programmes for IMU-FiS in the future are still in the early stages, and we will continue to pursue this endeavour for the coming year.

Also in 2018, we plan to broaden the academic scope of the FiS programme to attract students from other disciplines who are interested in pursuing a degree course with IMU partner universities. Our partners recognise the academic quality of our programme, and we believe that progress in this area will be crucial for our growth.



SCHOOL OF MEDICINE

At the **School of Medicine**, we strive to produce doctors who are not only technically proficient but also mindful of their roles during the most traumatic or joyful events of their patients' lives. That twin emphasis on professionalism and empathy runs throughout our programmes, which also provide unique opportunities for our graduates to broaden their platforms for studying and training overseas.

2017 Highlights

- First medical school in the region to launch USMLE Step 1 Preparatory Course
- Curriculum review of MBBS programme to future-proof its contents
- Continuing growth of both international and overall student bodies
- Target-breaking value of external grants
- Target-breaking number of publications

PROGRAMMES



Bachelor of Medicine and
Bachelor of Surgery (MBBS)



Bachelor of Science (Hons)
Psychology

In August this year, the School of Medicine launched the United States Medical Licensing Examination (USMLE) Step 1 Preparatory Course, making IMU the first medical school in the region to do so. This opens the door for our students to pursue professional opportunities overseas, as completing the academically-challenging USMLE Steps qualifies them for the medical residency of their choice in the US and widens their postgraduate options.

We have partnered with US-based education and training provider Becker's Educational Foundation to provide this course, which is incorporated into our medical curriculum over five semesters. The comprehensive course materials include USMLE lectures, ebooks, question banks and live interactive sessions. Our students also have access to both the IMU faculty and programme experts for additional guidance.

Adding the course to the Medical Sciences programme better equips our students to face the academic rigours of IMU's curriculum, and it also enhances our curriculum's standing within the international medical education community.

Reviewing for the future

In line with this focus on academic value, the School of Medicine has begun a detailed review of our curriculum for the Bachelor of Medicine & Bachelor of Surgery (MBBS) programme. The review will assess both the overall structure of the MBBS curriculum, which stretches over 10 semesters, and the details of its contents.

Conducting such reviews is essential in ensuring the continued relevance of our programmes in the coming years, especially in the face of increasingly rapid medical advances. Our aim is to improve our programme's ability to produce medical graduates who are more

We believe that leadership, morality, ethics and adaptability are crucial skills for our medical graduates.



than just capable in the art of diagnosis and treatment. We believe that the doctors who pass through IMU's halls must also be prepared to negotiate the medical landscape of the future, where leadership, morality, ethics and adaptability will play crucial roles.

Adding an online component

The School of Medicine has also incorporated SARAS, an online assessment system (OAS), into the MBBS assessment scheme. This system securely delivers tests and assignments to our students through a dedicated server. By identifying every participant's weaknesses and addressing these gaps through remedial learning, SARAS is designed to provide a personalised online learning and assessment experience to our students.

A growing international student body

We have long recognised the value and perspectives that international students add to the IMU community, and have noted that they have constituted 24-27 percent of new students at the School of Medicine since 2015. We are happy to report that their numbers continued to increase in 2017, with international students in the MBBS programme growing to 34 percent. They also made up 45 percent of students who are on track for transferring to one of our Partner Medical Schools.

To ensure our international students take advantage of every opportunity during their time in Malaysia, we provide them with additional help, such as courses to improve their conversational Bahasa Malaysia



skills. This has been especially important to help them gain the best possible advantage during their clinical assignments.

Achieving student and research targets

The School of Medicine met several targets during the year in review, including the recruitment of new students. In 2017, 345 students enrolled in the MBBS programme while 35 enrolled in the Bachelor of Science (Hons) Psychology programme. This has meant an increase to 380 new students, up from 355 in 2016.

We were also able to obtain three external grants with a total value of RM360,356, which exceeded the target of RM100,000. In terms of ISI publications, we put out

43 publications for the year—surpassing our target of 30.

Moving forward

We are on track for meeting all remaining requirements to roll out a new postgraduate programme in Healthcare Management in 2018. This MBA programme has already passed muster with the Management Committee and gained the necessary feedback from the Board of Studies this year.

Both the Faculty Board and the Senate also endorsed the Open and Distance Learning (ODL) papers for our BSc (Hons) Psychology programme. Our psychology team and eLearning Department are now collaborating to develop preliminary materials for the ODL papers, particularly from the first five modules of the programme.

We will continue our work on shortening the Bachelor of Medical Sciences (Honours) programme from its current duration of three-and-a-half years to three years. This should encourage more BMedSc students to eventually transfer to one of our Partner Medical Schools (graduate entry), or help MBBS students who are contemplating pursuing a double degree with BMedSc.

Other initiatives that are in progress include our development of Massive Open Online Courses on patient safety and travel medicine, and a lecture series (crafted together with our Partner Medical Schools) that will be accessible to all our students.

School of Medicine: Surpassing targets

34%

PERCENTAGE OF MBBS
INTAKE WHO ARE
INT'L STUDENTS

45%

PERCENTAGE OF STUDENTS ON
TRACK TO TRANSFERRING TO
PMS WHO ARE INT'L STUDENTS

380

NEW STUDENTS
ENROLLED IN THE
SCHOOL OF MEDICINE

43

ISI
PUBLICATIONS

RM360,356

TOTAL VALUE OF EXTERNAL GRANTS

SCHOOL OF DENTISTRY

The **School of Dentistry** adds a significant clinical component to our undergraduate and postgraduate programmes so that students can learn in a holistic academic environment. Our dedicated faculty members bring the curriculum to life and equip students with the tools to deliver modern dental care that is ethical, professional and mindful of every patient's needs.

2017 Highlights

- Another postgraduate diploma received full MQA accreditation
- New "Quit Smoking" community initiative (see "Serving the Community", page 108)
- First IMU Dental and Education Conference
- First online conference on Oral Health Strategies for Asia
- Full accreditation for Postgraduate Diploma in Implant Dentistry (PGDID)

PROGRAMMES



Bachelor of
Dental Surgery



Postgraduate Diploma in
Implant Dentistry

The School of Dentistry kicked off its 10th Anniversary this year by welcoming Prof Allan Pau Kah Heng as our new dean and enrolling 75 new students into our Bachelor of Dental Surgery (BDS) programme.

We also marked this milestone with a series of celebratory events and programmes. While some were commemorative in nature—such as a book, oral health carnival and anniversary dinner—others highlighted the academic progress and standing that the School has achieved after our first decade of existence. These included the IMU

Dental and Education Conference and the online conference on Oral Health Strategies for Asia, both of which were held for the first time. Our students also contributed significantly to mark this occasion. In October, the inaugural issue of *Teeth Talk*, a dental health education magazine for the dentist's waiting room was published.

In December, the Care2Brush project was launched. For every toothbrush that is sold under this project, one is given free to members of our community service projects under IMU Cares.

We will remain relevant through collaborative relationships, both in Malaysia and abroad, that will broaden educational and training opportunities for our students.



Expanding programmes

We broadened the School's academic slate with the Postgraduate Diploma in Implant Dentistry programme, which we launched in 2016 with an initial cohort of 10 students, and which the Malaysian Qualifications Agency (MQA) has fully accredited this year for three years. The School is also negotiating with the Royal College of Surgeons of Edinburgh to hold the Postgraduate Diploma in Implant Dentistry Examination in 2018.

The IMU Management Committee also approved the Postgraduate Diploma in Endodontics and the Postgraduate Diploma in Prosthodontics, which the School plans to launch in 2018.

Refining professionalism

Our focus on the competencies of dental practitioners reached a new high this year when the School conducted a record number of Continuing Professional Development (CPD) courses. These included three CPD courses on Nitrous Oxide Sedation and Basic Life Support for members of the Indonesian Paediatric Dentists Collegium—and IMU has signed an MoU with the Collegium to conduct more CPD courses on a regular basis for Indonesian dentists.

We also held a course for dental practitioners preparing to sit for the Member of the Fellowship in Dental Surgery (MFDS Part 2) examination offered by the UK royal colleges, as well as a course for dental surgery assistants, one for dental

technicians, and three courses for dental practitioners and specialists.

Meanwhile, Dato' Dr Ng Jet Wei's generous donation of an Amann Girrbach Integrated CAD-CAM System and a 3Shape 3D Intraoral Scanner will mean that our students will soon be able to have a more enriching learning experience in their study of prosthodontics.

Seeking collaborations

We work hard to ensure that our focus on academic excellence does not inadvertently turn the School into an ivory tower. Maintaining our ties to the local and international community is therefore an important pillar of our daily operations. This year, for example, the School hosted a visit from the Hiroshima University Dental School. This visit was part of an MoU that IMU signed with Hiroshima University in 2015, setting the stage for a collaborative relationship between our two institutions.

Moving forward

Having reached the 10-year mark, we will continue our focus on creating an academic and clinical environment that will position us as a premier school of dentistry in Asia. We believe that it is vital to remain relevant, which we will strive to do by forging more collaborative relationships both in Malaysia and abroad to broaden educational and training opportunities for our students.



Care2Brush is a project that matches each toothbrush sold with one that is given free to the needy under our community service projects.



With two new postgraduate diploma programmes already in the pipeline, our academic offerings remain on track to expand to more dental specialties. This will not only benefit our students but also allow us to serve our community better, especially by providing them with special dentistry care services.

Research will also remain one of our top priorities, and we have set fresh targets for generating research articles and securing grants to fund our research activities in the coming years.

Dentistry: Our 10th year

75 FIRST-YEAR STUDENTS ENROLLED

2 NEW POSTGRADUATE DIPLOMAS IN THE PIPELINE

37 RESEARCH PUBLICATIONS

15 TIER 1 RESEARCH PUBLICATIONS

10 CPD COURSES

RM34,500

TOTAL VALUE OF RESEARCH GRANTS

SCHOOL OF PHARMACY

The **School of Pharmacy** aims to cultivate highly-skilled and knowledgeable pharmacists and pharmaceutical scientists who are important and valuable members of the healthcare profession. Our School has the largest number of faculty members, alumni and registered students among Malaysian private pharmacy schools, and we are dedicated to providing a stimulating environment that nurtures distinction in academic and extra-curricular activities.

2017 Highlights

- Continued to record the highest number of publications among the schools
- Launched the Master of Pharmacy Practice programme
- Approved as a training site for Provisionally Registered Pharmacists (PRP)
- Held first Stakeholder Meeting
- Signed MoUs with multiple pharmaceutical companies for student placements

PROGRAMMES



Bachelor of
Pharmacy (Hons)



Bachelor of Science (Hons)
Pharmaceutical Chemistry



The new Master of Pharmacy Practice programme was one of the School's key milestones in 2017. The programme offers three major study streams (clinical pharmacy, social and administrative pharmacy, and pharmacy management) that cater specifically to pharmacists seeking to improve their skill sets and enhance their professional opportunities. A great deal of care has gone into the development of this programme and we believe it is perfect for pharmacists planning to further their education while continuing to work. We are happy to report that 17 pharmacy graduates, including international students, have enrolled in the programme's first two cohorts.

We continued to emphasise industry relevance by revising our Pharmaceutical Chemistry curriculum. We extended the experiential learning component from six to 16 weeks and added new pharmaceutical industry placements for final-year students. In this regard, students in our BPharm (Hons), BSc (Hons)

Pharmaceutical Chemistry and Master of Pharmacy Practice programmes took part in industry-project based learning programmes with CCM Pharmaceuticals. As part of their business management studies, for example, each student team developed and presented marketing strategies for CCM products that were evaluated by School faculty and industry experts, with the best strategies receiving awards.

Achievements in research and development

In the course of the year, we identified three focus points for our research: drug discovery, drug delivery and precision medicine in the areas of cancer, diabetes, infectious diseases and neurosciences. With cluster leads heading each focus area, faculty researchers now receive enhanced support, which has helped increase the number of applications we have made for new research grants as well as contributions to research publications. In the latter respect, we maintained our record for the highest number of publications among IMU Schools: in 2017 we published 111 journal papers with a cumulative impact factor of 236. Of these papers, 80 appeared in ISI indexed journals and 57 in Tier 1 journals. Faculty members and students also gave more than 30 conference presentations, winning six presentation awards.

In the area of research funding, we secured RM146,916 from the Education Ministry's Fundamental Research Grant Scheme (FRGS) and RM20,000 from Toray Malaysia.

The Department of Pharmaceutical Technology also earned the School more than RM180,000 in revenue by providing consultancy services to pharmaceutical companies.

Engaging stakeholders

In August 2017, we held our first Stakeholders' Meeting with representatives from the Malaysian Pharmaceutical Society, the Federation of Asian Pharmaceutical Associations, the Pharmaceutical Association of Malaysia, the Malaysian Community Pharmacy Guild and other industry representatives, as well as regulatory pharmacists, the Pharmacy Board of Malaysia and participants from community and hospital pharmacies. The Stakeholders' Meeting was an important platform that helped us identify, clarify and understand stakeholders' expectations of our students' knowledge, skills and attitudes.

In our efforts to grow our industry partnership network, we signed Memoranda of Understanding with CCM Innovax, Zuellig Pharma, InQpharm, Oncogen/Novugen Pharma, Clinical Research Malaysia, Alpro Pharmacy and AM PM Pharmacy, and we also signed a Memorandum of Agreement with AEON Wellness Pharmacy. These initiatives will help the School provide more opportunities for student learning visits, placements, research and consultancy, while our agreements with retail pharmacy companies will provide opportunities for our Pharmacy students to fulfil their workplace learning commitments in their

final year. We also maintained the School's popular Continuing Professional Development (CPD) programme, which consists of talks for pharmacists, in collaboration with the Young Pharmacist Chapter of the Malaysian Pharmaceutical Society. Our CPD events continue to draw large crowds and are a useful source of additional income.

Nurturing excellence

The School of Pharmacy recorded the highest passing rate of all universities whose pharmacy students took the national Qualifying Examination for Registration as a Practicing Pharmacist in June 2017. A total of 116 IMU Bachelor of Pharmacy (BPharm) students passed this examination.

In 2017, the Pharmacy Board of Malaysia designated our School as a training site for Provisionally Registered Pharmacists (PRP) under the Research and Development Academia option. This will provide graduates with registration training, including research training. The R&D option includes 12 weeks of hospital-based clinical pharmacy training. The School's first PRP trainee, Geetha Maniam, an IMU-Strathclyde alumna, is working under the supervision of A/Prof Mohd Zulkefeli Mat Jusoh as PRP preceptor and Dr Mai Chun Wai as research supervisor. Currently, four faculty members have been approved as preceptors and we anticipate that more will undertake Board training in 2018.

As we continue to promote a strongly global outlook, we made

We continued to contribute steadily to research publications; in 2017 we maintained our record of highest number of publications among IMU Schools.

best use of the Student Mobility programme in 2017. This allowed 18 of our students to take electives and conduct research at institutions abroad through student exchange programmes. We envisage that future collaboration in this area will include more universities in Japan.

We also continued to pilot the IMU's Online Assessment System (OAS) throughout the year. The pilot began in 2016 and has provided programme directors with analytic metrics to increase assessment quality while simultaneously automating routine assessment data collection. The School will continue to operationalise and evaluate the system throughout 2018.

Raising our public profile

We took steps this year to increase our School's visibility on social media platforms such as LinkedIn and Facebook, and implemented several innovative marketing strategies to boost our educational programmes, particularly the new Master of Pharmacy Practice. We also continued to pursue traditional media outreach initiatives, including new editorial content for brochures, and we organised or participated in important national campaigns including World Pharmacists Day and *Kempen Celik Ubat* (the "Know Your Medicines" Campaign).

Moving forward

We are currently developing several postgraduate programmes in Healthcare Analytics, Drug Discovery and Quality Control & Assurance, and are planning to reconfigure our existing Master's programmes (Analytical and Pharmaceutical Chemistry, and Molecular Medicine) for Open and Distance Learning (ODL). Also, in the effort to enhance global perspectives for our students, we are exploring a double degree option with Queen Mary University of London through which candidates may undertake the IMU MSc Molecular Medicine and QMUL's MSc in Genomic Medicine.

We will also host the 6th International Postgraduate Conference on Pharmaceutical Sciences (iPOPS) in 2018. This is a major annual gathering of postgraduate research students that will examine and discuss important developments and innovations in the pharmaceutical sector. Above all, we will continue to strive for excellence in our research, diversify our educational offerings and increase educational opportunities such as by providing BPharm credit transfer options to include the University of Strathclyde in the UK, the Massachusetts College of Pharmacy and Health Sciences in the US, Dalhousie University in Canada, and Curtin University in Australia. For the coming year, we will continue to raise our visibility and engage with stakeholders for the overall purpose of enhancing the work-readiness of our graduands.

Pharmacy: Maintaining excellence

17 PHARMACY GRADUATES RECRUITED INTO MASTER OF PHARMACY PRACTICE PROGRAMME

80 PAPERS IN ISI INDEXED JOURNALS

57 PAPERS IN TIER 1 JOURNALS

RESEARCH FUNDING

RM146,916

(FUNDAMENTAL RESEARCH GRANT SCHEME)

RM20,000
(TORAY)

FROM INDUSTRY CONSULTANCIES

RM181,000

SCHOOL OF HEALTH SCIENCES

At the **School of Health Sciences**, we invest our slate of undergraduate degree programmes with the principles of collaboration, compassion and lifelong learning. We use the best practices of healthcare education so our students can take on a multitude of rewarding careers in allied health fields without ever losing sight of the patients who take centre stage in their care.

2017 Highlights

- Inauguration of the IMU Society of Biomedical Science
- CPD course on integrating acupuncture into medical practice
- MoU between the School's N&D Division and Rutgers State University
- MoU between the Nursing Division and Melorita Healthcare
- Renewal of our BSc (Hons) Medical Biotechnology programme for another five years

PROGRAMMES



Bachelor of Science
(Hons) Biomedical Science



Bachelor of Science
(Hons) Chinese Medicine



Bachelor of Science
(Hons) Chiropractic



Bachelor of Science
(Hons) Dietetics with
Nutrition



Bachelor of Science
(Hons) Medical
Biotechnology



Bachelor of Nursing
Science (Hons), Post
Registration



Bachelor of Science
(Hons) Nutrition

The year in review saw the School of Health Sciences forging new professional relationships with other medical institutions of learning, which in turn helped broaden our students' educational and professional options overseas.

Our Nutrition & Dietetics (N&D) Division, for example, signed a Memorandum of Understanding (MoU) with the Nutritional Sciences Division of the School of Health Professions, Rutgers State University, USA. The MoU ushers in a new period of collaboration between our two universities in the areas of exchanging students and faculty members, convening a range of Continuing Professional Development (CPD) courses, extending research activities and developing joint or dual-degree programmes.

The MoU has already yielded results: 14 members of our N&D faculty took an online Rutgers faculty course on Nutrition-Focused Physical Exams (NFPE), while 21 of our BSc (Hons) Dietetics students took a similar course on nutrition assessment.

Our N&D Division and Rutgers are also finalising an agreement to allow IMU's Dietetics graduates to enter Rutgers' MSc Clinical Nutrition degree programme, which will qualify our students to eventually register as dietitians in the US.

On another front, we inaugurated the IMU Society of Biomedical Science (ISBS), which is the first student affiliate society in Southeast Asia to join the prestigious Institute of Biomedical Science in the UK.

We launched the ISBS in conjunction with our first International Biomedical Laboratory Science Day, which we themed *Working Together to Combat Antimicrobial Resistance*.

The Malaysian Ministry of Higher Education also renewed our BSc (Hons) Medical Biotechnology programme for another five years, until 2022.

Extending professionalism

We renewed our commitment to lifelong learning by holding four CPD courses this year for our students as well as medical professionals from outside the University.

The Director-General of Health in the Malaysian Ministry of Health, Datuk Dr Noor Hisham Abdullah, launched and gave the keynote address at our course, "Integrating Acupuncture into Medical Practice—An Example of Acupuncture Anaesthesia", which drew 127 professionals and students.

In organising the course, our Chinese Medicine Division recruited IMU students and faculty to provide simultaneous Mandarin-to-English translation services for the first time. This was particularly useful during the segments by Shanghai Shuguang Hospital's Prof Wang Ke and Prof Zhou Jia, who shared their experiences in using acupuncture anaesthesia during open heart surgery. Other speakers included medical professionals from the Ipoh Hospital and the National Cancer Institute in Malaysia.

The rest of the CPD schedule included our Applied Biomedical

We hold CPD courses for our students as well as medical professionals from outside the University as part of our commitment to lifelong learning.



Establishing industry partnerships widens training opportunities in real-life settings and encourages students to engage in communal outreach.

Science and Medical Biotechnology (ABSB) Division's workshop on bio-entrepreneurship; our N&D Division's workshop on preparing work-ready graduates in lifelong learning, as well as a public talk on weight management; and our Nursing Division's workshop on preceptorship.

This year, students from the Chinese Medicine programme also organised a successful Chinese Medicine Week, which drew more than 300 visits over three days.

Reaching out to the industry

Establishing industry partnerships is a valuable way not only of widening training opportunities in real-life settings for our students and encouraging them to engage in communal outreach, it also reminds working professionals of ways in which they can upgrade their qualifications.

For example, the Nursing Division's MoU with healthcare recruitment company Melorita Healthcare Sdn Bhd will reach out to practising nurses with diplomas who may want to enrol in our Nursing Science undergraduate degree programme.

The N&D Division signed two MoUs: the first, with Ajinomoto Malaysia Bhd, will see both parties working together to extend a project for the elderly under the IMU Cares Programme. The second, with Nestlé (M) Bhd, involves jointly developing material on culinary skills and healthy recipes for modules in the BSc (Hons) Dietetics with Nutrition and BSc (Hons) Nutrition degree programmes.

We also added new centres for students from our Chinese Medicine Division to undergo hands-on learning through clinical attachments, namely the Chihui



Tang Traditional Chinese Herbal Centre and the Zhao Xi TCM Centre, both located in Kuala Lumpur.

The Medical Biotechnology Division arranged for its students to visit CryoCord Sdn Bhd, a stem cell bank in Cyberjaya, where they learned about the medical biotechnical dimensions of stem cell research and banking.

The Division also leveraged on its industry network to engage Jay Pasadian, who is Senior Vice President of the Malaysian Bioeconomy Development Corporation, and Viva Chan, who is Director of Strategic Marketing and Business Development at Thermo Fisher Scientific, as panel speakers at the Linking Universities with Industry Leaders Forum.

Our research output

Our faculty members and students continued to generate publications and deliver presentations at national and international conferences, signalling our continued emphasis on research activities.

The ABSB Division had an output of 20 publications, 12 of which appeared in ISI journals and eight of which were published in international peer-reviewed journals. The articles recorded a total impact factor of 33.094, which represented a 13 percent increase from the 14.331 recorded last year. Division faculty members and students also made presentations at 20 conferences, both regionally and overseas.

The N&D Division was responsible for 11 publications, three book

chapters and 56 conference presentations. Kotra Pharma, a pharmaceutical company, provided a research grant worth RM559,430. The Division also earned RM37,310 in research consultancy services.

The Chiropractic Division generated two publications, while the Nursing Division put out three publications and made 11 conference presentations. In the Chinese Medicine Division, two of our faculty members delivered research papers for publication, while a third was invited to speak at a local conference.

Hands-on experience

Our Student Mobility Scheme is an important component of our academic programme as it gives students a taste of real-life situations that bring medical theory to life. Pursuing this goal, students from two of our divisions spent several weeks attached to medical institutions overseas.

From our Nursing Division, Theresa Roselinne Tanaka, Brenda Law Lee Nah and Shivashankhari Sivagurunathan spent four weeks at the Tan Tock Seng Hospital in Singapore, while Siew Chui Teng, Leong Kar Yan and Matthew Liew Thye Yee were attached to the Tzu Chi Hospital in Taiwan for four weeks.

Students from the N&D Division also did their four-week external clinical dietetics placements in Taiwan's Taipei Veterans General Hospital, Sing Kong Wu-Ho Su Memorial Hospital and the National Yang-Ming University Hospital; in the Salmaniya

Medical Complex in Bahrain; and in the Apollo Hospital in India.

SOHS students also undertook numerous community projects (see "Serving the Community", page 108).

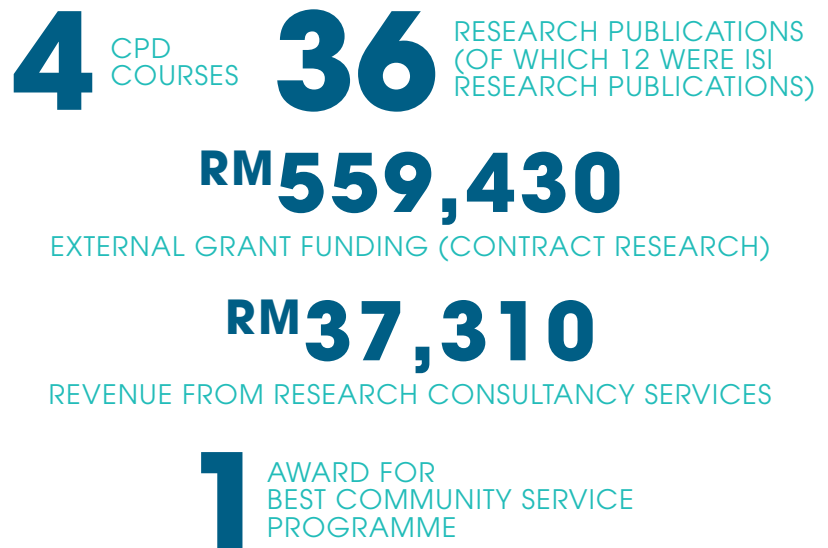
Moving forward

We will continue building on our academic strengths and have several specific targets in mind for the immediate future. These include obtaining international accreditation for our BSc (Hons) Dietetics with Nutrition programme and ensuring that the Council on Chiropractic Education Australasia (CCEA) re-accredits our BSc (Hons) Chiropractic programme. The CCEA is an independent body whose accreditation of chiropractic education is widely recognised.

We plan to expand our academic slate further with the addition of undergraduate degree programmes in areas such as public health and food service and safety, as well as postgraduate degree programmes such as a PGDip Diabetes Management and an MSc in Acupuncture. This expansion will go hand-in-hand with cultivating competency-based education across all our student cohorts, as well as with conducting surveys of our graduates and their current and prospective employers.

Even as we embark on establishing these new academic programmes, we will maintain our focus on building industry partnerships so that our students can have an ever-growing network of attachment opportunities to choose from.

Health Sciences: The year in numbers



We intend to build on the School of Health Sciences' other mainstays as well, including our research and consultancy services, research publications, CPDs and community outreach programmes.



SCHOOL OF POSTGRADUATE STUDIES

The **School of Postgraduate Studies** at IMU provides various master's and doctoral programmes in healthcare and health-related sciences to medical practitioners and healthcare professionals seeking to enhance their careers. Supervised by our experienced teaching staff and supported by the University's many facilities, our students have the essential tools to conduct their research and studies effectively.

2017 Highlights

- Launching of the Master of Pharmacy Practice and Master of Health Professions Education programmes
- 30 PhD and 67 MSc students in Medical and Health Sciences (by Research) programmes graduated to date
- Out of 70 postgraduate students in 2017, 12 were international students
- Provisional accreditation of three taught Master's programmes for the Open and Distance Learning (ODL) mode
- 12 indexed journal papers published by postgraduate (MSc and PhD) students

PROGRAMMES



Bachelor of Medical Sciences (Hons)



MSc in Analytical & Pharmaceutical Chemistry



MSc in Medical & Health Sciences (by Research)



MSc in Molecular Medicine



MSc in Public Health



Master of Health Professions Education



Master of Pharmacy Practice



PhD in Medical & Health Sciences (by Research)

We have been awarded external grants for many of our postgraduate research projects.

The School of Postgraduate Studies began the year with the successful launch of the Master of Pharmacy Practice (MPP) programme in January, as well as with the introduction of the Health Professions Education programmes at Postgraduate Certificate, Postgraduate Diploma and Master's levels, which had its inaugural intake in March. In December, we gained provisional accreditation for three taught Masters programmes—MSc in Public Health (MScPH), MSc in Analytical and Pharmaceutical Chemistry and MSc in Molecular Medicine (MScMM)—for the Open and Distance Learning (ODL) mode. We also continued with our MSc and PhD in Medical and Health Sciences (by Research) and our Bachelor of Medical Sciences (Honours) BMedSc programme.

Consistent growth in PhD and MSc numbers

Since 2004, our programmes have produced 30 PhD and 67 MSc graduates. As of December 2017, our postgraduate research programmes had an enrolment of 70 comprising 32 PhD candidates and 38 MSc students, 12 of whom were international students. In the course of the year, we had two PhD candidates and 10 MSc students graduate from the programme as well as 10 new enrolments. We received external grants for many of our postgraduate research projects, particularly from the Malaysian Ministry of Higher Education (MOHE), the Ministry of Science, Technology and Innovation (MOSTI) and the Malaysian Palm Oil Board (MPOB).



Postgraduate Studies: 2017 numbers

70 **32** PhD
STUDENTS ENROLLED **38** MSc

12 **2** PhD
GRADUATES **10** MSc

2017 PhD and MSc graduates and thesis titles

Student name	Thesis title
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PhD in Medical and Health Sciences (by Research)

Harvinder Kaur a/p Gilcharan Singh	The efficacy of structured lifestyle intervention based on transcultural diabetes nutrition algorithm with motivational interviewing in overweight and obese type 2 diabetes mellitus patients.
Haema a/p Thevanayagam	Photoprotective mechanism of carrageenans against UVB-induced structural and extracellular matrix (ECM) degradation in immortalised normal human keratinocyte (HaCaT) and their antiproliferative effect against epidermoid carcinoma (A431NS) cells.

MSc in Medical and Health Sciences (by Research)

Chong Yie Kie	Miktoarm star polymers as a nanocarrier for drug delivery: synthesis, characterisation, and in vitro drug release study.
Hii Ling Wei	Identification of effective drugs or drug combinations targeting non-stem breast cancer cells and breast cancer stem cells.
Jeya Seela a/p Anandha Rao	DNA methylation patterns induced by gamma-tocotrienol in the CD4+ T-lymphocytes and tumours isolated from a mouse model of breast cancer.
Wong Wei Seng	Palm oil-based polyesteramide as functional material for solid dispersion.
Chua Bing Wei	Cobalt-conjugated poly(glycerol adipate): synthesis, characterisation and evaluation of their potential as antimicrobial polyurethane coating materials.
Kaeshaelya Thiruchelvam	Residential aged care medication review to improve the quality of medication use among the older population in Klang Valley, Malaysia.
Lam Kit Ying	Neuroprotective mechanisms of orientin against hydrogen peroxide-induced oxidative damage in SH-SY5Y cells.
Ng Yen Teng	Chronic effects of natural palm margarine, interesterified palm margarine and modified vegetable oils blend margarine on surrogate markers of metabolic syndrome in human subjects.
Tan Yeh Fong	Deciphering of cellular receptor responsible for pteropine orthoreovirus gaining entry into host.
Voon Yit Nee	Expression and roles of interferon regulatory factor-5 (IRF5) in asthmatic and non-asthmatic patients.

Favourable feedback on Master's and Bachelor's programmes

In 2017, the MSc in Molecular Medicine (MScMM) programme had three graduates and 25 active students. As part of a quality improvement exercise, assessors Prof Dato' Mafauzy Mohamed of Universiti Sains Malaysia and Prof Chua Kek Heng of the University of Malaya reviewed the programme on 17-18 July. We also explored the prospect of a double degree involving our MScMM students registering for the MSc Genomic Medicine at Queen Mary University of London (QMUL).

In our efforts to increase the employability of our graduates, we made important changes to the curriculum of our MSc in Analytical and Pharmaceutical Chemistry (MAPC) programme in order to emphasise technical skills. The programme, which is accredited by the Malaysian Qualifications Agency, had three graduates for the year.

In the year under review, six students graduated from our taught MSc in Public Health, and our faculty team successfully established links with China's Ningxia University to collaborate in public health and health system research as well as student and faculty exchange.

The BMedSc programme had nine new students and produced five graduates, with three transferring to Partner Medical Schools (graduate entry). Students also published work in journals:

- 1 Chong YS, Mai CW, Leong CO, Wong LC. Lutein and zeaxanthin reduces cytotoxicity and Alu RNA accumulation in hydrogen peroxide challenged retinal pigment epithelial. *Cutaneous and Ocular Toxicology*, 2017.
- 2 Chung FFL, Tan P, Raja VJ, Tan BS, Lim KH, Kam TS, Hii LW, Tan SH, See SJ, Tan YF, Wong LZ, Yam WK, Mai CW, Bradshaw TD, Leong CO. Jerantinine A induces tumor-specific cell death through modulation of splicing factor 3b subunit 1 (SF3B1). *Scientific Reports*, 2017.
- 3 Gupta ES, Ng WR, Wong SF, Bhurhanudeen AK, Yeap SS. Correlation of serum cartilage oligomeric matrix protein (COMP) and interleukin-16 (IL-16) levels with disease severity in primary knee osteoarthritis: a pilot study in a Malaysian population. *PLoS One*, 2017; 12(9): e0184802.
- 4 Soo HC, Chung FFL, Lim KH, Yap VA, Bradshaw TD, Hii LW, Tan SH, See SJ, Tan YF, Leong CO, Mai CW. Cudraflavone C induces tumor-specific apoptosis in colorectal cancer cells through inhibition of the phosphoinositide 3-kinase (PI3K)-AKT pathway. *PLoS ONE*, 2017; 12(1): e0170551.
- 5 Teo CHJ, Lim PKC, Voon K. and Mak JW. Detection of dengue viruses and Wolbachia in *Aedes aegypti* and *Aedes albopictus* larvae from four urban localities in Kuala Lumpur, Malaysia. *Tropical Biomedicine*, 2017; 34(3): 1-15.
- 6 Wong TH, Gupta ED, Radhakrishnan A, Gun SC, Chembalingam G and Yeap SS. Effects of 25-hydroxyvitamin D and vitamin D-binding protein on bone mineral density and disease activity in Malaysian patients with rheumatoid arthritis. *International Journal of Rheumatic Disease*, 2017.



One of the year's highlights was when PhD candidate Dang Nguk Ling won the first prize for her poster paper presentation on the phylogenetic analysis of microalgae isolated from Antarctica, at the 7th Malaysian International Seminar on Antarctica (MISA).

Distinction in research and publications

We are pleased to announce that our MSc students and PhD candidates published 12 papers in indexed journals over the year and participated in 11 conferences where they presented work (seven oral and four poster papers) based on their research. An important highlight took place when PhD candidate Dang Nguk Ling won the first prize for her poster paper presentation ("Phylogenetic Analysis of Microalgae Isolated from Signy Island, Antarctica") at the 7th Malaysian International Seminar on Antarctica (MISA) held from 15-17 August in Kuala Terengganu, Terengganu.

The 12 papers by MSc and PhD students in 2017 were:

- 1 Chung PY, Khanum R. Antimicrobial peptides as potential anti-biofilm agents against multidrug-resistant bacteria. *Journal of Microbiology, Immunology, and Infection*, 2017; pii: S1684-1182(17)30080-4.
- 2 Lee EL, Wong PS, Tan MY, Sheridan J. What role could community pharmacists in Malaysia play in diabetes self-management education and support? The views of individuals with type 2 diabetes. *International Journal of Pharmacy Practice*, 2017.
- 3 Ong LC, Tan YF, Tan BS, Chung FF, Cheong SK, Leong CO. Single-walled carbon nanotubes (SWCNTs) inhibit heat shock protein 90 (HSP90) signaling in human lung fibroblasts and keratinocytes. *Toxicology and Applied Pharmacology*, 2017; 329: 347-357.
- 4 Ong TH, Chitra E, Ramamurthy S, Siddalingam RP, Yuen KH, Ambu SP, Davamani F. Chitosan-propolis nanoparticle formulation demonstrates anti-bacterial activity against *Enterococcus faecalis* biofilms. *PLoS ONE*, 2017; 12(3): e0174888.
- 5 Ooi SS, Mak JW, Chen DKF, Ambu S. The correlation of acanthamoeba from the ventilation system with other environmental parameters in commercial buildings as possible indicator for indoor air quality. *Industrial Health*, 2017; 55(1): 35-45.
- 6 Saw PS, Nissen L, Freeman C, Wong PS, Mak V. A qualitative study on pharmacists' perception on integrating pharmacists into private general practitioners' clinics in Malaysia. *Pharmacy Practice*, 2017; 15(3): 971.
- 7 Saw PS, Nissen L, Freeman CP, Wong PS, Mak V. Exploring the role of pharmacists in private primary healthcare clinics in Malaysia: the views of general practitioners. *Journal of Pharmacy Practice and Research*, 2017; 47: 27-33.
- 8 Tan YF, Teng CL, Chua KB, Kenny Voon K. *Pteropine* orthoreovirus: an important emerging virus causing infectious disease in the tropics? *Journal of Infection in Developing Countries*, 2017; 11(3): 215-219.

New taught postgraduate programmes, including ODL programmes, will be launched in the coming year. We will also continue to strengthen industry partnerships to create opportunities for our students to benefit from work-based learning.

- 9 Veettil SK, Ching SM, Lim KG, Saokaew S, Phisalprapa P, Chaiyakunapruk N. Effects of calcium on the incidence of recurrent colorectal adenomas: a systematic review with meta-analysis and trial sequential analysis of randomized controlled trials. *Medicine (Baltimore)*, 2017; 96(32): e7661.
- 10 Veettil SK, Lim KG, Ching SM, Saokaew S, Phisalprapa P, Chaiyakunapruk N. Effects of aspirin and non-aspirin nonsteroidal anti-inflammatory drugs on the incidence of recurrent colorectal adenomas: a systematic review with meta-analysis and trial sequential analysis of randomized clinical trials. *BMC Cancer*, 2017; 17: 763.
- 11 Veettil SK, Teerawattanapong N, Ching SM, Lim KG, Saokaew S, Phisalprapa P, Chaiyakunapruk N. Effects of chemopreventive agents on the incidence of recurrent colorectal adenomas: a systematic review with network meta-analysis of randomized controlled trials. *OncoTargets and Therapy*, 2017; 10: 2689-2700.
- 12 Wong WS, Lee CS, Er HM, Lim WH. Preparation and evaluation of palm oil-based polyesteramide solid dispersion for obtaining improved and targeted dissolution of mefenamic acid. *Journal of Pharmaceutical Innovation*, 2017; 1-14.

Moving ahead

For 2018, we will launch three ODL taught Master's programmes to provide additional flexibility, convenience and distance learning to students. We also plan to expand our postgraduate programmes with new taught programmes such as a Master's in Healthcare Management. As a top medical university, we endeavour to focus not only on knowledge-based learning but also technical skills and work experience. In this regard, we hope to strengthen our industry partnerships to create more opportunities for postgraduate students to gain from work-based learning.



ACADEMIC ACHIEVEMENTS AND AWARDS



SCHOOL OF MEDICINE

Faculty achievements

Several members of our staff at the School of Medicine won awards and appointments in Malaysia and abroad:

- Prof Dr Victor Lim was appointed a member of the Malaysian Medical Council by the Ministry of Health, Malaysia.
- Prof Dato' Dr P Kandasami was given the inaugural Balasegaram Trainer Award at the Annual Scientific Congress of the College of Surgeons, Academy of Medicine of Malaysia. Prof Dr Kandasami was also appointed a member of the Malaysian Medical Council by the Ministry of Health, Malaysia.
- Prof Rifdy Mohideen earned an Emeritus Professorship from the University of Ruhuna, Sri Lanka.
- Prof Dato' Dr N Sivalingam won the Reviewer Recognition Award with Distinction for 2016 from the *Singapore Medical Journal*.
- Prof Dr Zainur Rashid Zainuddin became a Fellow of the Royal College of Obstetricians & Gynaecologists, England.

Student achievements

They have only just begun walking the medical path, but several School of Medicine students distinguished themselves this year:

- Leonard Goh won the top prize at the Cochrane Malaysia Evidence-Based Medicine Blog Writing Contest.
- Alexis Wong, Leonard Goh, Han Chee Enn, Nadia Nadhirah Abdul Rashid and Rilwana Farveen Abdul Gafoor won second place (Category III) in the Ministry of Health's Adolescent Reproductive and Sexual Health Video Competition.
- Chew Xin Hui, Wan Nee Shue and Nicole Ashley Chia won third place in the Asian Medical Students' Conference in South Korea for their white paper and video titled *Ensuring Hand Washing Compliance*.
- Cheong Yih Jeng and Yuki Julius Ng, who are members of the IMU Surgical Society, attended the World Congress of Surgery in Basel, Switzerland.

SCHOOL OF DENTISTRY

Faculty achievements

In 2017, the School delivered 37 research publications, 15 of which were in Tier 1 journals, six in Tier 2 journals, two in Tier 3 and one in Tier 4. One of the highlights was Dr Ranjeet Bapat's article in the prestigious *New England Journal of Medicine* with an impact factor of 72.4 (Chaubal VT, Bapat RA. Squamous-cell carcinoma of the mouth, 2017; 1188).

Members of the School's faculty were also successful in securing grants to fund their research. Dr Sham Kishor Kanneppady secured an internal grant of RM19,500 for his study entitled "Micro-computed tomography assessment of canal centred ability, transportation and dentinal micro-crack formation after different instrumentation systems". Dr Umer Daood was awarded a grant of RM15,000 from the Qatar Foundation to continue his research into dental biomaterials.

Other faculty members also distinguished themselves:

- Prof Allan Pau was appointed by the Ministry of Health as a member of the Malaysian Dental Council (MDC).
- Prof Khoo Suan Phaik was a guest lecturer at both the Fiji Dental Association/Federation Dentaire Internationale Scientific Conference and the Malaysian Association of Oral and Maxillofacial Surgeons' Scientific Conference in Kuala Lumpur. She also served on the panel of MQA assessors for postgraduate specialist programmes.
- Dr Spoorthi Ravi Banavar spent two weeks at Hiroshima University, Japan, as part of his PhD research training.
- Dr Abhishek Parolia won the Best Poster Presentation award in the Dental Education category at the International Association for Dental Research (IADR) Conference in San Francisco.
- Dr Naresh Shetty earned his Member of the Fellowship in Dental Surgery (MFDS) from the Faculty of Dental Surgery of the Royal College of Physicians & Surgeons of Glasgow, UK.
- Dr Yeshaswini Thelekkat obtained her E-learning licence and completed her Advanced Cardiac Life Support (ACLS) Certification.
- Dr Naveen Jnanendrappa also completed the ACLS Certification.

Student achievements

The School's record of achievements for 2017 also extended to our students:

- Siew Kar Hui led a team of her fellow students to Cambodia to win a bid to host the Asia Pacific Dental Students Association (APDSA) Conference in Malaysia. She also won first prize for her poster presentation at the conference.
- Lee Shean-Woei, Tan Yue Yu, Seow Liang Lin and Hanan Omar bagged the top prize for their oral presentation at the APDSA Conference in Hong Kong. They were second runners-up for their poster presentation. First prize went to Siew Kar Hui and Ooi Ing Hong.
- Lee Yuan Wei and Mavis Wong May Ee were second runners-up for their oral presentation at the APDSA Conference in Hong Kong.
- Lim Xin Yan won second prize in the Open Category for her poster presentation at the Hong Kong IDEAS Conference 2017.
- Chiam Lee Cheng won the coveted Unilever Hatton Junior Travel Award at the International Association for Dental Research (IADR),





Southeast Asia Division, in Taiwan. The award includes an all-expenses-paid trip to London to represent Malaysia at the IADR conference in 2018.

- Tey Shwu Yee and Low Yi Ning won the top prize for their oral presentation at the Universitas Gadjah Mada (UGM) Annual Scientific Conference in Indonesia.
- Julia Pan Yen Yee and Chuah Siong Ren took third place at the 3rd UGM Dental Students Research Competition, Asean Regional Level.
- Jonathan Goh Chong Ming's poster presentations won second place (with Mabel Wu Huey Lu) at the 9th National Dental Students' Scientific Conference in Penang, and first place at the 64th International

Association of Dental Students Congress in Spain.

- Vivian Tan Jia Hui won third prize at the Dentsply Sirona 2017 University Endodontic Case Contest in Singapore after representing Malaysia in the regional category.

SCHOOL OF PHARMACY

Faculty achievements

Our faculty achievements in 2017 included the following:

- School faculty teams received several awards including e-learning innovation awards at the 2017 e-Learning Festival, research awards at the IMU University Day 2017, an IMU innovation grant, and the Best Presentation award at the Second IMU Cares Humanitarian Mission.
- Lee Choy Sin received the Silver Medal in the Materials category at the International Invention and Innovation Exhibition organised by the Ministry of Science, Technology & Innovation and the Malaysian Invention and Design Society.
- Low May Lee was chosen to represent Malaysia at the Science & Technology Leadership Institutes Programme, which is part of the American Chemical Society's efforts to formalise a Global Chemists' Code of Ethics. The programme will take place in Melbourne, Australia.
- Mai Chun Wai was elected as Chairperson of the Asian Young Pharmacist Group Leadership Summit 2017.

Student achievements

Notable achievements by students included the following:

- Pharmaceutical Chemistry student Wong Xi Khai won Brand's Smart Achiever award for excellence in both academic and extra-curricular activities.
- A pharmacy student team emerged as champion at the National Clinical Pharmacy Challenge 2017. Kow Chia Siang was named Best Presenter.
- Our pharmacy students clinched all three top prizes in the 2017 Young Entrepreneur Programme.
- Chin Yur Haur, Lee Chen Yuan and Lee Kar Yen won third prize at Cochrane Malaysia's Evidence- Based Medicine Blog Writing Contest.
- Vi Vien Choon, Chu Jianfeng, Yen Ling Lok and Chan Pheng Lim placed in the top 10 at the Higher Education Ministry's Innovation and Entrepreneur National Competition.
- Our pharmacy students won six awards at the Asian Young Pharmacist Group Leadership Summit organised by the Malaysian Pharmaceutical Society-Young Pharmacist Chapter.
- A review by Year 3 BPharm students (Aruna Ranjan, Chu Jian Feng, Foo Wei Lim, Chai Zhi Xin, Eileen Lau Yin Yien, Ye Heuy Mien, Theam Xi Jin and Lok Yen Ling) titled "Zika Virus: Current Concerns & Perspectives" was published in *Clinical Reviews in Allergy and Immunology*, a peer-reviewed indexed journal published by Springer Link.

SCHOOL OF HEALTH SCIENCES

Faculty achievements

Faculty members across several of our divisions won accolades for their work or saw their years of study and practice come to fruition:

- Dr Tamara Pook from our Chiropractic Division earned her PhD in Radiology from Universiti Putra Malaysia.
- The ABSB Division was runner-up in the Professional Education Advisory Committee's (PEAC) poster presentation on faculty development at IMU's Annual PEAC review.
- Dr Jeevathayaparan Sithamparappillai from the ABSB Division and his colleagues from the School of Medicine won the E-Learning group category for their virtual medical museum project.
- Dr Chye Soi Moi from the ABSB Division bagged the Travel Grant Award at the 2nd International Taiwanese Congress of Neurology in Taiwan.
- Dr Anna Ling Pick Kiong, also from the ABSB Division, won the Best Presenter Award at the 4th International Conference on Agriculture, Biotechnology, Science and Engineering in Vietnam.
- Dr Snigdha Misra from the N&D Division was one of the winners of the Nutrition Society of Malaysia's Publication Award.
- Prof Winnie Chee from the N&D Division won the Malaysian Dietitians' Association (MDA) Fellowship Award for her contribution to dietetics, both at the national and international levels.

- Ng Kar Foo from the N&D Division won the MDA Outstanding Clinical Instructor Award.
- Harvinder Kaur a/p Gilcharan Singh won the Postgraduate Thesis Award and the Best Poster Award at the Malaysian Dietitians' Association Conference.
- Chow Suh Hing from the Nursing Division won the second prize for her poster presentation at the Malaysian Diabetes Educators Society Scientific Conference.

Student achievements

A number of our students also distinguished themselves through their work:

- N&D student Ling Sheau Hui won the third prize at the Malaysian Dietitians' Association's (MDA's) Outstanding Undergraduate Dietetics Student Awards.
- Fellow N&D student Ang Hui Inn was the first runner-up at the same awards.
- N&D student Ng Yeng Yi won the Nutrition Society Malaysia's (NSM's) Undergraduate Prize.
- Wong Ting Xuan won the top prize at the Student Case Study Oral Presentation Competition at the MDA Conference.
- Phillip Lee Hung Lam won the top prize at the Student Case Study Poster Presentation Competition at the same conference.
- All of our nursing students from the NU1/13 cohort passed the Nursing Board Professional Licensure Examination, with



Priscilla Tan Shi Harn earning a distinction.

- Biomedical Science student Chong Ho Phin won the top prize for an oral presentation at the 8th Malaysian Symposium of Biomedical Science at the International Islamic University, Malaysia.
- At the same symposium, Biomedical Science student Lim Xue Zhen was the runner-up for a poster presentation.
- Medical Biotechnology student Andrew Octavian Sasmita won the Best Paper Presenter Award at the 17th International Conference on Healthcare and Life-Science Research in Thailand.
- Andrew and a fellow Medical Biotechnology student Joshua Kuruvilla also won first place

in the Scientific Research Competition (Systematic Literature Review category), which was held in conjunction with IMU Neuro Week.

SCHOOL OF POSTGRADUATE STUDIES

Student achievements

- PhD candidate Dang Nguk Ling won the first prize for her poster paper presentation ("Phylogenetic Analysis of Microalgae Isolated from Signy Island, Antarctica") at the 7th Malaysian International Seminar on Antarctica (MISA).

ENHANCING SERVICES & RESOURCES






LEARNING RESOURCES

Collectively, the three pillars that make up IMU's **Learning Resources Department**—the eLearning Unit, the Medical Library and the Medical Museum—are a formidable learning asset at the service of the University's students and faculty. We give equal emphasis to both content and delivery systems, with an ever-increasing investment in technology-enhanced platforms to complement the face-to-face learning experience.

2017 Highlights

- Virtual Medical Clinic launched
- New features added to eLearning Portal System and migration of eLearning Portal to cloud service
- Work started on our Open and Distancing Learning Project
- Implementation of Radio Frequency Identification (RFID) technology at the Medical Library
- Free mobile app developed to improve access

THE 3 PILLARS OF LEARNING RESOURCES

-  eLearning Unit
-  Medical Library
-  Medical Museum

Demonstrating how the Virtual Medical Clinic works.



Through our ODL modules, our educators will be able to engage with their students interactively online, allowing for learning to take place anytime, anywhere, at the students' convenience.

In the past year, the Learning Resources Department combined the review and consolidation of our existing databases with the addition of new content and technology-driven initiatives. These strategies allowed us not only to ensure the quality of our resources, but also to help IMU's students and faculty members keep pace with the latest advances in academic learning and teaching.

Our eLearning Unit, for example, successfully migrated the eLearning Portal system to a Cloud service so that the service provider could take over all backend activities, freeing up our team to focus on enhancing the Portal's layout, navigation and user interface. They also integrated the IMU ePortfolio system (Mahara), originality checker (TurnItIn) and web-conferencing application (WizIQ) into the Portal. We also began work on the Open and Distance Learning Project (ODL), which is set to be a significant expansion of the University's academic resources.

Our educators can create modules for the ODL and engage with their students interactively, allowing for learning to take place anytime, anywhere, at the students' convenience. The eLearning Unit provided the project's MOODLE platform and is holding regular workshops to help our academics design their content. These workshops also help acquaint our educators with the latest developments in online teaching technologies and design.

Another project that got off the ground was the Virtual Medical Clinic (VMC), with our eLearning Unit working with subject matter experts to create virtual simulations of medical cases our students will likely face. This exciting initiative will allow our students to practise using their knowledge in a range of medical scenarios, from the most simple to the most complex. Once completed, the VMC will be deployed through the eLearning Portal and a mobile application.

The Learning Resources Department's Medical Library, meanwhile, provided users access to the newly subscribed Scopus research database from the IMU Library Portal. Scopus is the latest addition to the existing databases which include (among others) the UpToDate, Science Direct, Nature, and OVID databases. Scopus is an abstract and citation database of peer-reviewed scientific journals, books, conference papers and trade publications, and it is the largest of its kind. Scopus includes user guides, title lists, and tracking and analysis tools that allow users to gain a global perspective on research output in their respective fields.

The Medical Library also replaced the electromagnetic system it used at its main campus facility with Radio Frequency Identification (RFID) technology, further establishing it as a Smart Library. Use of RFID allows the library to provide more efficient services, such as a faster inventory process and circulation service. The Library also ran a campaign to encourage users to use its book drop machine, which is linked to the library's management system and logs book returns instantly.

Our librarians took additional steps to reach out to users: they developed the IMU Services App—now available free at the Google Play Store—so users can quickly access the Library's online databases on their Android smartphones. They have also begun testing the open source Integrated Library System that they developed to replace the current library management system.

This system, which runs on Koha open source software, is expected to go live in 2018 and should help the Library lower its operating expenditure.

Training for engagement

A learning resource is only as successful as its ability to help users, and we understand that providing the latest facilities must go hand-in-hand with teaching our students and staff how to use them. During the year in review, all three arms of the Learning Resources Department held workshops and training sessions to accomplish just that.

Our eLearning unit regularly convened workshops to introduce the University's faculty and corporate staff to the new features of the Articulate Studio 360 and Storyline 2 publishing and content sharing software. The unit also worked on familiarising users with the additions to the eLearning Portal, particularly the features that allow faculty members to mark and annotate assignments, and the GoAnimate video creation platform for modules on the ODL Project.

The Medical Library conducted workshops that were designed to raise awareness among students and faculty about the research resources at their disposal. These workshops, which were aimed at encouraging a culture of lifelong learning, included sessions on the Basic Information Literary Licence and scholarly communication tools from the academic publishing company Springer Nature. The Library also continued its strategy of using gamification to reach out to users,

Our librarians took additional steps to reach out to users: they developed the IMU Services App—now available free at the Google Play Store—so users can quickly access the Library's online databases on their Android smartphones.

and held weekly online quizzes, crossword puzzle contests and other games to familiarise students and staff with the facilities.

With models and real specimens from its extensive inventory, the Medical Museum supported over 700 teaching and learning sessions in programmes such as Medicine, Dentistry, Pharmacy, Chiropractic and Chinese Medicine. Museum caretakers ensured that students could access the relevant study guides through the eLearning Portal and provided appropriate models for 15 Objective Structured Practical Examinations.

To help the University reach a wider audience beyond the campus, the Medical Museum provided a range of models, specimens and other physical resources to support marketing events such as Open Day, Info Day, Science Discovery Challenge, the Students Exploratory Workshop and the newly-inaugurated Malaysian Brain Bee Challenge Preparatory Workshop. The Museum also injected a sense of play into engagements with visitors by incorporating quizzes, crossword puzzles, and audio and visual elements into its presentations.

Engagement activities were extended to include eLearning vendors (such as Anatomage, Cyberanatomy and Virtual Microscopy) who were invited to the campus to present their online products. These events aimed to familiarise faculty members with the latest eLearning tools available in the market.

Expanding databases

Improving access to the University's learning resources with new tools and platforms took place alongside efforts to review and broaden existing databases. The Medical Library, for example, added 262 ebooks from reputable publishers such as Elsevier, IGI Global, Springer and Wiley to its collection. Also, our part-time student librarians carried out a review of the following 10 library databases to highlight their content to users: Access Pharmacy, BMJ Best Practice, Dentistry & Oral Sciences Source, Primal Picture, Science Direct, Scientific & Medical Art Imagebase, Scopus, Springerlink, UpToDate and USMLE Q-Bank.

The Library also staged themed book exhibitions to encourage students and staff to use its facilities, and employed QR Codes that visitors could scan for easy and immediate access to the digital collection. User preference for eBooks continued to climb, as the number of print books in circulation fell from 18,509 to 14,224 during the year in review.

At the Medical Museum, our staff expanded the physical display by showcasing our latest acquisitions in real plastinated specimens, which were purchased for use in teaching and learning activities. The Museum also bought a range of new models as part of its efforts to upgrade its existing model collection.

Work on the Virtual Medical Museum (VMM) continued with content updates, courtesy of anatomists Dr Htar Htar Aung and Dr Farida Hussan, who added online resources



The newly-installed RFID machine.

The three-day Learning Resources Festival in September successfully brought together learning and resource experts, vendors, students and faculty. Themed *Ubiquitous Learning*, the programme included panel discussions, workshops and other activities.

related to the reproductive system. Faculty members are encouraging students to incorporate eLearning into their studies by examining these online models before and after they study the physical models at the Museum.

A festival of learning

The Learning Resources Festival—an annual event that brings together learning and resource experts, vendors, students and faculty—was held from 18 to 20 September at the IMU Library Collaborative Area. Themed *Ubiquitous Learning*, the festival successfully served as a platform for all learning stakeholders to showcase their innovations through activities ranging from panel discussions and workshops to games and mobile apps. The 2017 festival drew experts from Universiti Sains Islam Malaysia, Universiti Kuala Lumpur, the University of Malaya and OpenLearning Malaysia, as well as industry representatives such as eLearning Minds and Wiley Online Library.

The eLearning Department worked with Dr James Walsh from the Foundation in Science (FiS) programme to hold a mobile app competition involving FiS students as well as participants from outside the University. The competition was part of the Department's support for the addition of mobile app development to the Computing Studies module, which has brought a new, non-traditional dimension to the learning experience for students.

Our VMM team members and a part-time student also showcased the latest updates to the Virtual Medical Museum to encourage visitor feedback. This feedback will be incorporated into the platform as we continue to upgrade its contents.



Visitors at the Medical Museum's Open Day.

Moving forward

In the period ahead, all arms of the Learning Resources Department will continue to focus their energies on evaluating and expanding the University's databases, making access even easier, and encouraging students and faculty to use the available resources.

The Medical Library, for example, plans to carry out focus group surveys and events to gauge users' responses to its facilities, and to utilise their comments for improvement initiatives. Our librarians will also be more involved in other aspects of university activity, such as faculty research, so they can become even more relevant and trusted as partners to both our students and educators. New tools

such as the Book Navigator Project and an iOS version of the IMU Library Services App are already in the pipeline to improve access to the Library's print and online collections, while the Central Digital Repository is scheduled for an upgrade.

The Medical Museum will focus on adding more content to the Virtual Medical Museum, and will look into new ways to ensure its resources remain relevant to the teaching and learning experience. The eLearning Unit, meanwhile, will identify new resources—such as massive open online courses, mixed reality technology, mobile learning and information and digital literacy—to complement its current range of tools.

We will focus our energies on evaluating and expanding the University's databases, making access even easier, and encouraging students and faculty to use the available resources.

Knowledge beyond the lecture halls

AT THE MEDICAL MUSEUM

>700 TEACHING AND LEARNING SESSIONS SUPPORTED

AT THE MEDICAL LIBRARY

262 NEW E-BOOKS ADDED

10 LIBRARY DATABASES REVIEWED

AT THE VIRTUAL MEDICAL CLINIC

NUMEROUS VIRTUAL SIMULATIONS OF MEDICAL CASES CREATED BY THE eLEARNING UNIT WITH SUBJECT MATTER EXPERTS

CENTRE FOR EDUCATION

The primary objective of the IMU **Centre for Education (ICE)** is to promote excellence in teaching and learning at IMU. Activities focus on faculty training; research and innovation in teaching methods and curriculum development; and data collection and assessment for academic quality assurance. Established in 1999, ICE today aspires to play an increasingly prominent role beyond IMU, notably in shaping the field of health professions education in Malaysia.



2017 Highlights

- 50 Faculty Development Activities (FDA) organised, with over 1,000 IMU faculty members taking part
- 38 external faculty members participated in the five FDA that were opened to external participants
- Development and implementation of module evaluation
- Coordination of the i-Barometer survey
- Launch of the Postgraduate Certificate in Health Professions Education (PGCHPE)

Our Faculty Development Activities (FDA) remained a key pillar in our efforts to help IMU faculty members continually build the professional skills they need in order to carry out their teaching, research or administrative activities. FDAs are also an opportunity for knowledge-sharing in matters concerning teaching and learning. In 2017, over 1,000 IMU faculty members took part in the 50 FDAs organised by ICE.

This year, with a view to building ICE's profile as a centre of excellence for education in Malaysia, we opened five FDAs to external faculty members.

Improved data collection

Accurate and relevant data collection is essential in our effort to ensure teaching and learning at IMU continue to be of the highest standards. In 2017 we developed and implemented a module evaluation form in order to standardise evaluation across the programmes and improve the quality of evaluation in terms of uniformity and comparability. We also coordinated the i-Barometer, an annual IMU internal survey to gauge student satisfaction, which involved the participation of 2,648 students with a 66 percent response rate.

Launch of the PGCHPE

The launching of the Postgraduate Certificate in Health Professions Education (PGCHPE) was a significant milestone for ICE in 2017. Seven students from IMU enrolled in the programme, which achieved full accreditation for three years.

Excelling in the industry

In 2017 ICE staff chalked up several notable achievements in oral presentations and poster presentations, including the following:

- Norul Hidayah, Best Oral Presentation at the 12th International Medical Education Conference, for "Pharmacy Student Evaluation: Lessons for Educators".
- Norul Hidayah, 2nd Runner-Up for poster presentation at the 1st ASEAN Medical Education Conference (AMEC), for "Student Barometer Survey as a Quality Indicator of the Educational Environment in Medical Schools".
- Norul Hidayah, Kasturi Ramaningal and Prof Shahid Hassan, 2nd Place in poster presentation at the Professional Education Advisory Council (PEAC), for "Role of Faculty Development Activities (FDA) in Improving Teaching & Learning".
- Prof Shahid Hassan, Merit Award for E-poster presentation entitled "Assessment of First-Year Students' Metacognitive Ability in Faculty of Medicine, UniSZA: Towards Curriculum Development" at the 14th Asia Pacific Medical Education Conference (APMEC).

Prof Shahid Hassan published the following articles in *Education in Medicine Journal* (EiMJ):

- "Assessment of First-Year Students' Metacognitive Ability in Faculty of Medicine, Universiti Sultan Zainal Abidin (UniSZA): Towards Curriculum Development".



Faculty training sessions.

- “Use of Item Analysis to Improve the Quality of Single Best Answer Multiple Choice Question in Summative Assessment of Undergraduate Medical Students in Malaysia”.
- “Students’ Perceptions About the Immediate Feedback Assessment Technique (IF-AT) in Team Based Learning Using Pre-test Versus Post-test Evaluation”.

Prof Shahid’s paper entitled “Metacognitive Awareness and its Relation to Students’ Academic Achievement: Time to Ponder Implication of Curriculum Delivery” was also sent for publication in 2017.

Moving forward

In 2018 we aim to expand our range of FDA offerings by providing new workshops and training sessions

for internal faculty. More FDAs and Continuing Professional Development (CPD) courses will also be offered to external faculty members.

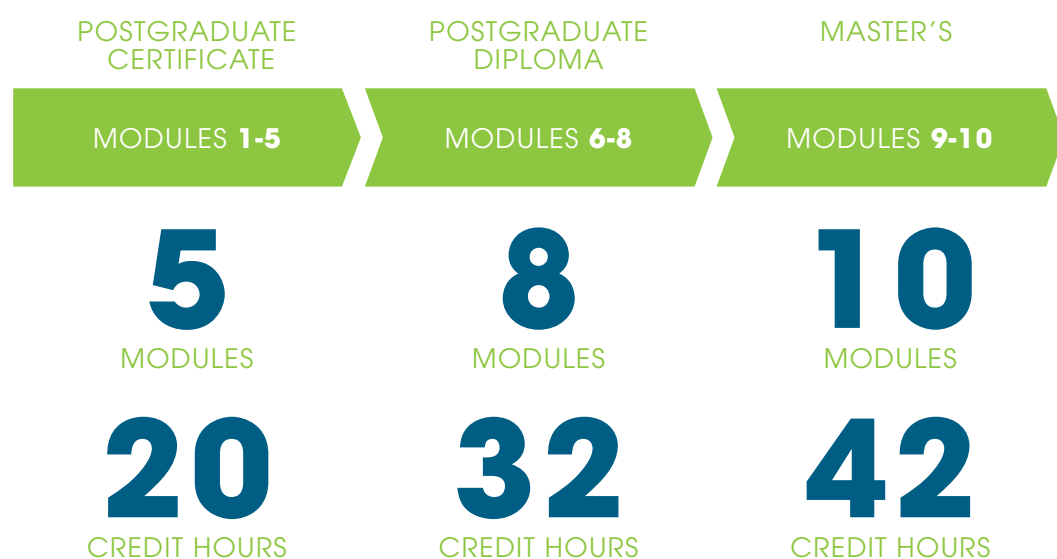
The launch of the Postgraduate Diploma in Health Professions Education along with mock and full accreditation is another target for 2018. We will also work towards targeting external students for the Certificate programme (PGCHPE) launched in 2017.

Meanwhile, in terms of assessment, we plan to follow this year’s new module evaluation form with the development of a new faculty evaluation form in 2018.

We will intensify efforts to involve students in the research aspects of teaching and learning. Initiatives to

achieve ICER status for ICE in the next five years include targeting faculty research for ICE, and working towards securing an increase in grants for innovation in teaching and learning research. At the same time, we will endeavour to begin collaboration with a Partner School for the Master of Health Professions Education (MHPE) twinning programme.

Postgraduate health professions education at IMU: An integrated programme structure



CENTRE FOR LIFELONG LEARNING

The IMU **Centre for Lifelong Learning (ICL)** is the continuing professional development (CPD) and training arm of IMU. For working professionals aiming to take their careers to the next level, ICL offers courses in research, medicine, dentistry, pharmacy and health sciences. Our goal is to empower healthcare communities with personal and career growth through diverse learning opportunities. We also offer courses designed for the general public.



2017 Highlights

- Organised our first CPD online conference on "Oral Health Improvement Strategies for Asia"
- Received repeat orders for tailor-made short courses catering to the needs of specific overseas groups
- Collaborated with professional bodies and industry partners, locally as well as abroad
- Organised IMEC 2017
- Organised 34 CPD training events

In 2017, ICL organised 34 CPD training events including the International Medical Education Conference (IMEC 2017). A total of 1,427 participants benefited from these events, representing a 36 percent increase from 2016. The number of internal participants increased 32 percent from 2016 to 2017, while the number of external clients increased 40 percent.

As a centre dedicated to the personal career growth of healthcare professionals, we are conscious of the importance of offering learning opportunities that match current learning styles. In 2017, we delivered CPD in a new format with our very first CPD online conference on “Oral Health Improvement Strategies for Asia”. The two-day conference in April comprised eight moderated symposia with Q&A sessions. All proceedings took place online through the WizIQ platform.

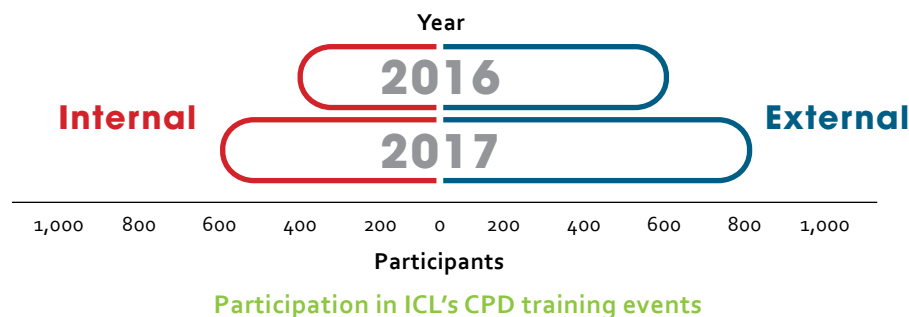
Meeting internal and external needs

ICL also received an increasing number of requests for tailor-made short courses catering to the needs of specific overseas groups. In 2017 we had a request from Kazakhstan for research management, and another from a group of paedodontists in Indonesia. Repeat orders are on the way.

Alongside the growing interest shown by international clients, the needs of the IMU community remained a top priority for ICL. To help ensure that IMU is able to meet constantly changing industry needs, ICL continued to centrally manage and coordinate staff development activities in human resources (HR); the Institute of Research, Development and Innovation (IRDI); and teaching and learning (T&L) in health sciences. In 2017 (as at November), we managed 108 workshops and conferences.

Moving forward

We remain committed to ensuring that healthcare professionals can easily avail themselves of opportunities for lifelong learning, and for staying at the top of their game. In this regard, ICL will continue to empower the IMU community as well as healthcare communities beyond IMU both locally and—increasingly—abroad. We aim to expand our offering of CPD courses, while adopting best practices in the design and delivery of learning opportunities. Our ultimate goal is to see IMU recognised not just as a university, but as a true learning organisation.



36%
INCREASE IN
NUMBER OF
PARTICIPANTS



The 12th International Medical Education Conference (IMEC 2017).



Ronald Harden, Emeritus Professor of Medical Education, the University of Dundee, delivering the keynote address at IMEC 2017.



At the IMU Dental Conference.

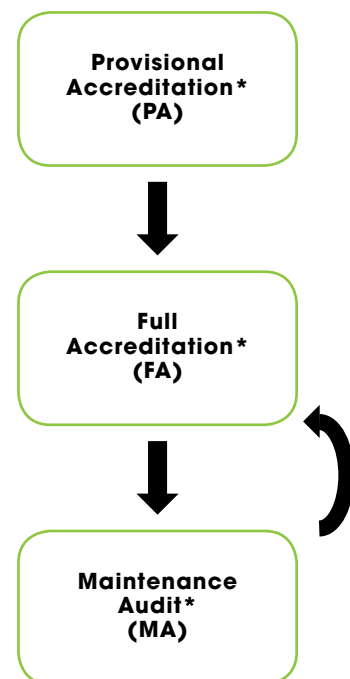
QUALITY IMPROVEMENT

Since IMU's establishment in 1992, we have aspired to deliver top-quality education to our students. In line with our goal of cultivating highly knowledgeable graduates, our programmes, curricula, research and other aspects are designed by highly experienced lecturers and constantly undergo stringent reviews and evaluation to ensure that we meet international as well as local standards of healthcare education.

2017 Highlights

- Self-accreditation processes of Provisional Accreditation, Full Accreditation and Maintenance Audit established and implemented
- Preparation for ISO 9001:2015 certification in 2018
- Successful ISO 17025:2008 re-certification
- Launched training programmes for the Code of Practice on Programme Accreditation
- Fully accredited two programmes and completed two maintenance audits

IMU Self-Accreditation Processes



* For programmes that do not require accreditation and recognition from the relevant Malaysian professional bodies

We are pleased to announce that IMU is the first and only private medical university in Malaysia to be awarded self-accreditation status by the Malaysian Qualifications Agency (MQA). This enables us to award Provisional Accreditation and Full Accreditation as well as to conduct maintenance audits for programmes that do not require accreditation and recognition by an external professional body. With autonomy comes trust, and we pledge to uphold this trust by continuing to enhance our research and education processes and outcomes.

In 2017, we also launched training programmes for the Code of Practice on Programme Accreditation. This has helped more than 20 senior faculty members gain knowledge and training as competent programme accreditors. IMU has fully accredited two pioneer programmes—the Postgraduate Diploma in Implant Dentistry and the Postgraduate Certificate in Health Professions Education—and we also completed two maintenance audits with short turnaround times.



Receiving the self-accreditation status from MQA.

We will continue to collaborate with all Departments to inculcate a culture of responsibility and accountability.

Favourable teaching and learning review

At IMU, we believe that the quality of the education we provide must never be compromised. In this respect, we frequently conduct internal reviews of all programmes with completed delivery cycles to ensure that the delivery methods, assessment, organisation and pedagogy of curriculum contents are relevant and meet the highest standards.

The Master of Science in Molecular Medicine programme received a favourable review, and the recommendations given focused mainly on programme structure, assessment tools and delivery methods. We also concentrated on increasing the programme's appeal to attract new students.

Consistent development of quality teaching and learning programmes

In 2017, we continued our annual review of specific areas of teaching and learning for all our programmes, emphasising the quality of faculty development. We aimed to examine our current faculty development programmes from the perspective of education or specialty training and to assess their strengths, challenges and impact on stakeholders, identifying best practices according to best evidence in medical education as well as recommending strategies to IMU for improvement.

Taking the results of the review into account, we plan to consolidate all the components of faculty development into a single extensive and unified body. In the area of staff development, we are looking to establish a Comprehensive Educator Profile—customised developmental activities based on an individual and his or her ambitions—for new staff. We will also re-examine our faculty sub-specialty training to fulfil the clinical service requirements of the future IMU Hospital and clinics.

Excellent results from external audits

IMU's teaching and learning delivery continued to comply with the ISO 9001:2008 standard and, since our certification in 2006, we have regularly undergone periodic surveillance audits coordinated by Lloyd's Register Quality Assurance Limited. In preparation for these external audits, IMU conducts rigorous internal audits by a trained team of staff.

In 2017, we continued to receive accreditation for ISO 9001 and ISO 17025. The re-certification audit for the latter by Standards Malaysia ended successfully in February with zero non-compliance. Also, we completed our transition from ISO 9001:2008 to ISO 9001:2015 with zero non-conformances in the gap analysis conducted by Lloyd's Register in June.

Moving forward

For the coming year, we aim to increase our efficiency by simplifying and streamlining our existing quality management system in order to decrease the workload for both our faculty and support staff while maintaining our stringent quality standards. In keeping with the maxim "Quality is Everybody's Business", we will continue to collaborate with all Schools and Departments and entrust them with more responsibility as well as accountability. We will also streamline the many quality indicators that determine the health and condition of our academic programmes, and we plan to combine these into a set of core indicators.

Quality improvement: Consistent progress




STUDENT SERVICES HUB

The aim of the **Student Services Hub** is to ensure a holistic educational experience at IMU by anticipating student needs beyond the lecture halls and beyond graduation. The Self Development Unit helps students cultivate the emotional strength and balance they require to succeed in their studies and in the healthcare industry. The new Career Guidance Unit helps bridge the gap between students' academic lives and their future working lives, while the Alumni Relations Office maintains connections with former students, drawing on them as a resource and supporting their career development at the same time.

2017 Highlights

- Career Guidance Unit established
- Inaugural Alumni Homecoming organised in conjunction with IMU's 25th Anniversary celebrations
- Workshop on Self-Compassion Mindfulness organised for faculty mentors and students
- Mental Health Day organised
- Numerous Student Ambassador events held

SERVICES

-  Self-development
-  Career guidance
-  Alumni relations

Throughout the year the Self Development Unit (SDU) continued to provide self-development programmes and counselling to students, with the aim of equipping them with the necessary personal skills to deal with the demands of the industry.

We introduced a new workshop, "Self-Compassion Mindfulness", to mentors (faculty members who mentor IMU students) as well as Semester 7 clinical campus students. This introductory workshop covered basic concepts and simple exercises designed to help participants respond to challenges in life with kindness and understanding. The eight-week course was based on the groundbreaking research of Kristin Neff and clinical expertise of Christopher Germer.

Supporting student mental health

In 2017, the SDU, Peer Support Club and Asian Medical Students' Association (AMSA) joined hands to co-organise Mental Health Day, with the theme *Depression: Let's Talk*.

The aim was to increase awareness of mental health and help end the stigmatisation of depression in the IMU community.

Highlights included an exhibition that focused on the causes, symptoms and treatment of depression as well as coping strategies; the design and dissemination of informational brochures on depression; and a forum which gave audiences a range of views on depression from the perspectives of a psychiatrist, a counsellor, a public health specialist and an individual who shared a personal story about living with



Making stress balls as part of Mental Health Day.



The Aflame Student Award

This annual award was created in 2012 to honour a graduating student who has best embodied humane principles and practices while at IMU. The recipient is an individual who is committed to peer support and is thus a caring,

compassionate and collaborative learner who provides positive reinforcement to peers. He or she will also have demonstrated a high level of community engagement and service. The recipient receives a cash prize of RM1,000 and the opportunity to nominate a beneficiary for a RM5,000 donation. This year's award went to Pharmacy student Michele Fernandez, who nominated the Dignity for Children Foundation as recipient of the donation. Throughout her time at IMU, Michele was able to juggle her studies and volunteer work which included street feeding, working with underprivileged children and helping to build solar-powered lighting for the indigenous people in Cameron Highlands. "Doing good for others is the strongest drug I know of," said Michele. "It is so addictive that once you start, you would want more, a stronger dose each time."

depression. The forum received strong response, attracting over 100 students, staff and members of the public.

Career Guidance Unit

An important highlight for us in 2017 was the establishment of the Career Guidance Unit, a development which is in line with our commitment to give our students the cutting edge in a competitive world. The Career Guidance Unit provides support in the form of Career Day and other events; career talks and workshops; and partnerships with industry.

Alumni Relations Office

The Alumni Relations Office was formally established in 2016 to maintain contact with alumni as well as to provide assistance to them in their career development. As of 2017, 72 percent of IMU's approximately 10,000 alumni were in the contactable list. Events organised in 2017 included a gathering in Kuching which saw close to 60 alumni attending, the second largest number to date.

The main event of the year was the inaugural Alumni Homecoming,



Young Alumnus Awards.

Young Alumnus Awards 2017

Four accomplished individuals received Young Alumnus Awards at the inaugural IMU Alumni Homecoming this year.

- **Dr Janet Ngu** (ME1/05) won the Young Alumnus Award for Academic Achievements. She is the Chief Resident of Cardiac Surgery in the Ottawa Heart Institute, and is also the second Canadian resident to reach the finals of a North American suturing competition.
- **Dr Sharminithevi Paramalingam** (ME2/98) won the Young Alumnus Award for Contributions to the Community. A former general surgeon and lecturer at the University of Malaya Medical Centre, Dr Sharminithevi also focuses on empowering marginalised communities. She is currently a medical doctor who provides medical care at an oil refinery construction site on the outskirts of Pengerang, Johor.
- **Dr Chan Jan Bond** (ME1/01) won the Special Jury Award for Excellence in Entrepreneurship and Innovation. An ophthalmologist, Dr Chan uses smartphone technology to create a range of new products in telemedicine. His slit lamp camera adaptor, which plugs in directly over the eyepiece of a slit lamp, won the Health Ministry's Best Innovation Award in 2012.
- **Georgen Thye** from the Nutrition and Dietetics Programme won the Young Alumnus Award for Professional Leadership in recognition of his contributions to his professional body as well as to community. Besides serving as a council member of the Malaysian Dietitians' Association (MDA), he has also produced videos and given public talks to advocate healthy eating.

organised in conjunction with IMU's 25th Anniversary celebrations. More than 400 alumni registered for the event, which had a 55.7 percent turnout rate from the RSVP list. More than 100 staff turned up to support the event and engage with alumni. Four deserving alumni received Young Alumnus Awards

in four categories: Academic Achievements, Professional Leadership, Contributions to the Community, and Excellence in Entrepreneurship and Innovation.

Achievements by alumni

Programme and Name	Achievement
Nutrition Ng Yeng Yi	Nutrition Society of Malaysia (NSM) Undergraduate Prize, 1 st South East Asia Public Health Nutrition (SEAPHN) Conference 2017. The Prize was for research by Ng (an alumna from our BSc (Hons) Nutrition inaugural intake) and IMU faculty Dr Sangeetha Shyam (another IMU alumna), Dr Snigdha Misra and Dr Valsala R.
Medicine Tan Poh Chai	Top in the graduating class, awarded the Captain WA Low Prize and Medal (presented to the most distinguished student among those graduating MBChB from the University of Dundee).
Medicine Wong Kit Yeng	Wong graduated with Commendation from the University of Dundee, and was awarded the Famuyiwa Prize for most deserving overseas student and the Margaret Fairlie Prize for the highest marks in O&G.
Pharmacy Geetha Maniam	Roger Wadsworth Prize for best final year project, the University of Strathclyde.
Nutrition and Dietetics Ng Kar Foo	Malaysian Dietitians' Association (MDA) Clinical Instructor Award.
Postgraduate Harvinder Kaur	First Prize, Malaysian Dietitians' Association (MDA) Best Research Poster Competition, and Second Prize, MDA Postgraduate Best Thesis Award.
Medicine Hor Yong Keem	Ogston Prize in Surgery (Final Year), the University of Aberdeen.
Medicine Beh Yuan Ye	School of Medicine Prize for Most Distinguished Graduate across MBChB Programme, Prof RAM Case Prize in Global Health, Munday & Venn Prize in Medicine, Anderson Medal and Prize in Clinical Medicine, the University of Aberdeen.
Medicine Krithivasan Raman	Brunton Medal for Most Distinguished Graduate of 2017, the University of Glasgow.
Medicine Dr Tee Shi Ting	First Prize, Advanced Trauma Life Support (ATLS) Asia Pacific (Region XV1), Manila.
Medicine Dr Sophia Rasheeqa Ismail	Merdeka Award Grant 2017 for International Attachment, for research on lipidomics profiling and risk of early-onset myocardial infarction.

Student awards from scientific conferences

Programme and Name	Achievement
Pharmacy Poh Yee Von	First Prize, Asian Young Pharmacist Group (AYPG) Leadership Summit 2017.
Pharmacy Tan Chee Liang	Second Prize, Asian Young Pharmacist Group (AYPG) Leadership Summit 2017.
Medicine Chew Xin Hui, Shue Wan Nee, Nicole Ashley	Second Runner-Up, 38 th Asian Medical Students' Conference (AMSC) 2017, Seoul.
Dentistry Lim Xin Yan	First Prize, Hong Kong International Dental Expo and Symposium (HKIDEAS) 2017.
Dentistry Tan Yue Yu	Third Prize, APDSA Annual Congress 2017, Hong Kong.
Dentistry Goh Chong Ming	First Runner-Up, 64 th IADS Meeting & 24 th ANEO Congress.

Student awards from extra-curricular activities

Programme and Name	Achievement
Biomedical Sciences Claire Chong Kai Li Pharmacy Wong Peng Peng Pharmaceutical Chemistry Soo Xiao Yii Masters in Molecular Medicine Amy Chong Siew Peng MSc in Medical & Health Sciences Chan Chee San Dentistry Yeo Hui Woon	<p>At the 2nd Nilai University Invitational Taekwondo Championships 2017 (National Level), these students did IMU proud.</p> <ul style="list-style-type: none"> Claire Chong Kai Li (Gold Medal, Female Junior Green Belt) Wong Peng Peng (Bronze Medal, Junior Medal Pair) Soo Xiao Yii (Bronze Medal, Junior Belt Pair; Gold Medal, Male Junior Green Belt; Bronze Medal, Senior Belt Pair) Amy Chong Siew Peng (Gold Medal, Female Junior Green Belt; Gold Medal, Female Junior Blue Belt; Bronze Medal, Senior Female Belt; Bronze Medal Senior Belt Pair) Chan Chee San (Silver Medal, Female Senior Belt; Bronze Medal, Senior Belt Pair) Yeo Hui Woon (Bronze Medal, Female Senior Belt) <p>Other medalists included Fu Mei Sim (Junior Pair and Junior Individual), Yuen Kit Yin (Senior Pair and Senior Individual), Tan Sing Min (Senior Pair and Senior Individual) and Lai Yen Theng (Senior Pair and Senior Individual).</p>
Pharmacy Tan Siow Jean Tan Kim Khyi Oon Lee Swan Joyce Archnaah a/p Rajan Tay Yuan Shen Jonathan Tiang Ming Nguong	<p>Pharmacy students excelled at the 10th National Pharmacy Sports Carnival, UiTM Shah Alam. Tan Siow Jean won gold for the women's 100m. Tan Kim Khyi and Oon Lee Swan Joyce won gold for women's badminton doubles. Archnaah a/p Rajan won gold for women's tennis singles. Tay Yuan Shen won bronze for men's badminton singles. Jonathan Tiang Ming Nguong won bronze for the men's 400m. Overall, IMU emerged 4th out of 19 universities.</p>

Programme and Name	Achievement
IMU Frisbee Team Medicine Farhan Aadiy	At the Northern Varsity Ultimate Crown organised by Universiti Sains Malaysia, the IMU Frisbee Team won the gold medal in Pool B. Overall, IMU placed 7 th out of 12, and Farhan Aadiy won Most Valuable Player (MVP) for the whole competition.
IMU Cheerleading Team	The IMU Cheerleading Team won gold in their division at the Asia Invitational Cheerleading Championship, Singapore.
IMU Frisbee Team	Out of five teams, the IMU Frisbee Team placed first (winning all their games) at the Segerak Ultimate Frisbee INTEC 2.0, Shah Alam.
IMU Debating Society Debaters: Paul Van Siang Lian Mang Nur Nabila binti Nasharuddin Jasvinder Singh a/l Amreek Singh Adjudicator: Naveena a/p Sivanesan	At this year's Intervarsity Medical Ethics Debate, the IMU Debating Society was the only team to win all the preliminary rounds. In the finals, IMU successfully opposed the motion "This House believes that the starting salary of health professionals should be based on CGPA from graduation". All three IMU debaters were in the overall Top 5 Speakers and one of them was also the final's best speaker.
Pharmacy Michele Fernandez Lee Chen Yuan Tan Mei Xian Tian Kar Yee Yong Ying Shuang Taasjir Kaur Wong Xin Yun Chai Yun Han Ling Ming	Our Pharmacy students emerged as Most Outstanding Participants at the Young Entrepreneur Programme (YEP), Malaysian Pharmacy Students Association (MyPSA). Michele Fernandez, Lee Chen Yuan and Tan Mei Xian were the champions; Tian Kar Yee, Yong Ying Shuang, Taasjir Kaur and Wong Xin Yun came in second place; and Chai Yun Han and Ling Ming took third place.
IMU Dodgeball Club Choo Xin Yi Chua Yi Zhi Yuki Chong Ian Lee Kelvin Umais Ovin Jin Yun	IMU took third place at the DodgeMall 2017 Grand Opening, DaMen Mall, Subang Jaya.
Pharmacy Nermesh Singh	Remarkable Award and Third Place Pangea Prize, Siena International Photo Awards (SIPA) 2017.
IMU Ngu Ping Hoe Aravinthan Kadravello Updesh Singh Joy Tneoh Kah Yan	Fifth Place, Ministry of Higher Education (MOHE)-Sunway Explorace.

Programme and Name	Achievement
Pharmacy Chu Jianfeng Choon Vi Vien Lim Chan Pheng Lok Yen Ling	Top 10 placing, Innovation and Entrepreneur National Competition 2017 hosted by the Ministry of Higher Education Malaysia.
Chiropractic Piong Shun Zhe	IMU student Piong Shun Zhe was a member of the Malaysian team that emerged as champions at the World Dodgeball Federation (WDBF) World Dodgeball Championships 2017 in Toronto, Canada.
Biomedical Science Hossein Jahedi	Hossein Jahedi participated in national and international ballroom dancing championships, winning awards in various International Latin Dance categories.
Dentistry	IMU sent three representative teams to the National Dental Intervarsity Sports Carnival (NDISC) Universiti Sains Malaysia, Kubang Kerian: badminton, volleyball and the 4x400m relay. Our track and field team brought home the gold medal for their event.

Student Ambassadors

IMU's 41 Student Ambassadors (SA) were instrumental in fostering ties in the community and creating an environment that nurtures well-balanced students. SA initiatives in 2017 included the SA Senior Appreciation Night, SA Chariofare Children Care and Games Booth, Student-Staff Interaction Activity and Orang Asli Community Outreach.

Extra-curricular activities

The Student Services Hub also assisted in organising events for 22 external companies at IMU. These events helped ensure student life on campus remained vibrant and fun-filled throughout the year.

Other events were very much student-driven. These included the following: Public Health Campaign 2.0 Antimicrobial Resistance, Anti-Nuclear Exhibition, "Kenali Ubat Anda" Workshop, Dental Undergraduate Survival Kit (DUSK) 2017, IMU Surgical Workshop, Aoharu Matsuri 2017, MyWHO Simulation, International Biomedical Laboratory Science Day, HEP-IPTS 2017 and Dental Carnival 2017.

Moving forward

In 2018 we will continue to look at new ways to reach out to students. Besides providing more e-resources, we also hope to set up a Career Placement Office to assist students in securing places for their industry

attachment, as well as support alumni in securing jobs. We aim to set up at least one alumni chapter per school or location, which can then serve as a catalyst for alumni-led community service projects in 2018.




EMPLOYEE ENGAGEMENT AND DEVELOPMENT

IMU exists at the intersection of two fields—healthcare and education—whose fundamental natures are defined in terms of human resources. The University's **Human Resources Department (HR)** strives to ensure that employee engagement and development are given top priority in all dimensions of the organisation. We believe that well-balanced employees are the key to the organisation's success, and we endeavour to create an environment in which employees are given the opportunity to grow in their professional lives, while also developing a sense of belonging within a close-knit community.

2017 Highlights

- Sponsorship introduced for staff to pursue IMU postgraduate programmes in Health Professions Education
- Faculty Competency Assessment Tool (Fac-CAT) developed
- Effective Managers Programme organised to build managers' competencies
- Launch of IMU Wellness Programme
- Multiple awards won attesting to IMU's commitment to health

OBJECTIVES OF EMPLOYEE ENGAGEMENT AND DEVELOPMENT PROGRAMMES

-  Build competencies
-  Increase productivity
-  Promote wellbeing of the IMU community

This year saw several important achievements in employee development. In early 2017, IMU launched a series of new postgraduate programmes in Health Professions Education (HPE). The Certificate, Diploma and Master's programmes are an important component of IMU's drive to be a premier centre of education in this field. To support the University's new HPE programmes as well as encourage staff professional development, HR will offer full sponsorship opportunities to all staff intending to pursue the HPE programmes at IMU.

It is hoped that staff who undergo the HPE programmes will subsequently apply in their work at IMU the acquired competencies in teaching and learning, curriculum development, and assessment and evaluation.

Also in 2017, the Faculty Competency Assessment Tool (Fac-CAT) was launched as part of the Faculty Development initiative. With this tool, which has been incorporated into the Faculty Individual Development Plan (IDP), faculty members come to understand their own strengths and weaknesses through a self-assessment based on the eight roles of a teacher. Faculty members can then enhance and strengthen their performance in these roles through discussions with mentors, who provide feedback and help set competency development targets related to the faculty members' IDP.

The Effective Managers Programme organised in 2017 aimed to equip our managers with the right leadership and management abilities. Participants were trained in different managerial areas to



Staff engaging in healthy activities.

enable them to successfully manage difficult situations and issues in the workplace while fulfilling their respective technical roles.

It is important for managers to continually build their competencies, but at IMU we believe that all employees, not just managers, should be given the opportunity to enhance their skills and upgrade their knowledge. As in previous years, we provided a variety of in-house workshops and training opportunities aimed at ensuring growth and development among our staff. A total of 243 people benefited from our in-house training programmes this year.

A rich and comprehensive development programme to enhance staff competencies not only enhances productivity, it also supports succession planning. Additionally, new tools such as the Fac-CAT can be used to select the right candidates for faculty positions based on competencies.

Employee engagement

At IMU, town hall meetings organised on a regular basis provide a platform for senior management to engage with staff. At the town hall held in November this year, IMU leaders highlighted achievements and provided updates of initiatives and projects. The strategic direction and focus for the coming year were also conveyed to employees, who were given the opportunity to communicate feedback and post questions.



Class A cafeteria stalls.

2017 saw the launch of the IMU Wellness Programme to promote overall wellness among staff and students. With preventive maintenance as its overarching theme, the Wellness Programme focuses on five categories: health risk assessments, lifestyle management, disease management, smoking cessation, and mental health and stress management. Ongoing activities include weekly zumba and tai chi sessions as well as mental wellbeing workshops.

The Programme was launched by the Deputy Minister of Health Malaysia, Dato' Seri Dr Hilmi bin Haji Yahaya, who also presented IMU's Pandan Serai Café with two awards, the "Kafeteria Sihat"



Celebrating major festivals at IMU.



Staff at a training workshop.

(Healthy Cafeteria) status and "BeSS" (*Bersih, Selamat dan Sihat*) status. Our cafeteria's stalls have all also been awarded "Class A" status by Dewan Bandaraya Kuala Lumpur (DBKL) for good hygiene and cleanliness.

To provide additional incentive to staff to lead healthy lifestyles, the University also subscribed to the AIA Vitality programme in 2017. According to a nationwide survey later conducted by AIA Vitality entitled "Malaysia's Healthiest Workplace", the lifestyle health and mental health of our employees were significantly better than the benchmark for the country. At the Malaysia's Healthiest Workplace Summit in November, IMU received two awards in the medium-sized organisation category: "Healthiest Employees" and "Healthiest Workplace".

Numerous social events were organised during the year; these included bowling nights and movie nights, as well as celebrations to mark major festivals. In July we organised a staff trip to Bangkok with a total of 193 staff and 14 spouses participating. Activities included sightseeing and a photo hunt contest in which participants worked with group members to accomplish tasks together.

Moving forward

In the coming year HR will continue to focus on leadership development for our staff at all levels. Particular attention will be given to those in corporate and academic administrative roles in order to build bench strength and enrich our talent pool.

Service excellence will be a key focus, as we aim to ensure all departments have a set of acceptable service standards to meet customers' needs. We also plan to introduce a new psychometric tool that will help ensure the right fit when hiring external candidates as well as allow us to re-evaluate existing staff for development purposes. In training, we will continue to collaborate with other internal training providers like the Centre for Lifelong Learning (ICL), the Centre for Education (ICE) and the Institute for Research, Development and Innovation (IRDI). We will also be automating training and development via a new HR Management System to increase operational efficiency and provide better services to staff.

With regard to staff engagement, we intend to continue building a culture where staff members go the extra mile in discharging their responsibilities. Besides ongoing relationship-building activities and the Wellness Programme, focus areas for 2018 will include moving towards developing a learning organisation, and addressing gaps identified from the dimensions of the learning organisation questionnaire (DLOQ) and Staff i-Barometer surveys.

HEALTHCARE



IMU HEALTHCARE

IMU Healthcare clinics provide a wide range of outpatient healthcare services including medical, dental and chiropractic services as well as Chinese medicine. We are committed to offering quality treatment to the community, whether in basic primary healthcare or in advanced specialties and sub-specialties. At the same time, our clinics play a key role in developing IMU students' clinical skills. We aim to introduce inpatient and surgical services in 2021 with the completion of the new IMU Hospital in Bukit Jalil.



2017 Highlights

- Double-digit growth in overall patient volume
- Double-digit growth in total revenue
- Groundbreaking ceremony of IMU Hospital in Bukit Jalil
- Appointment of Dr Chong Su-Lin as CEO
- Satellite service at Pantai Hospital

SERVICES



Medical



Dental



Chiropractic



Chinese Medicine

Dental services were the first health services offered when IMU began providing outpatient services under the initial phase of the IMU Academic Health Centre (IMU AHC). From this bold start, IMU Healthcare went on to develop outpatient services in general and specialist medicine, and in traditional and complementary medicine. Today our services are available at the Bukit Jalil campus as well as in community clinics in Sri Petaling and Puchong. There is also a satellite service at Pantai Hospital Kuala Lumpur. In 2017, IMU Healthcare recorded double-digit growth in both overall patient volume as well as total revenue.

IMU Oral Health Centre

This year the IMU Oral Health Centre (OHC) continued to deliver top-quality general and specialist dental care, with services ranging from dental screening to prosthodontics and implant dentistry. With niche strengths in services for paediatric and special-needs children, the OHC today is a 56-chair facility that is staffed by full-time Dental Officers as well as Specialists from the IMU Dental Faculty. It is equipped with dental radiology facilities including the Cone Beam CT, and dental records are maintained via the open-source application Open-Dent. The Centre, which can assist up to 150 patients a day, continued to see high demand in 2017.

IMU Medical Clinic, IMU Chiropractic Centre and IMU Chinese Medicine Centre

Medical services offered at IMU Medical Clinic include family medicine, paediatrics, adult and paediatric rheumatology, endocrinology and diabetes medicine, and clinical psychology. We offer supporting diagnostic services, with facilities that include radiology and a medical laboratory. IMU Healthcare's satellite service at Pantai Hospital Kuala Lumpur provides clinical haematology, gynaecology, rheumatology, gastroenterology and psychiatry.

2018 will see significant expansion of medical specialty services at the Bukit Jalil clinics in ENT, ophthalmology, childhood development, orthopaedics, dermatology and gynaecology.

Expansion plans are being implemented to increase the number of consultation and treatment rooms as well as bays for Chinese medicine and chiropractic treatment. Preliminary plans are also underway to explore collaboration between allopathic and complementary medicine in the areas of orthopaedics and fertility.

The Healthcare Steering Committee, chaired by the Vice-Chancellor, will play a vital role in spearheading the strategic recruitment of Specialist clinicians to enable the targeted implementation of these services.

IMU Hospital

The next phase of the IMU AHC is the development of inpatient and surgical services. The IMU Hospital

"The IMU Academic Health Centre (IMU AHC) is a term used to describe the ecosystem that combines health education with health services and medical research... The intended aim is to improve the health and wellbeing of patients by ensuring that clinicians and educators are well versed with the latest treatment options, technologies and innovations for treatment of patients as well as the training of future healthcare professionals."

– Prof Abdul Aziz Baba,
Vice-Chancellor, at the
groundbreaking ceremony of
IMU Hospital, 14 December 2017.



IMU Hospital: Phase 1

96

INPATIENT BEDS
(WITH GRADUAL
EXPANSION TO OVER
300 BEDS)

3

OPERATING
THEATRES

1

EMERGENCY
ROOM

22

SPECIALIST
CLINICS

2

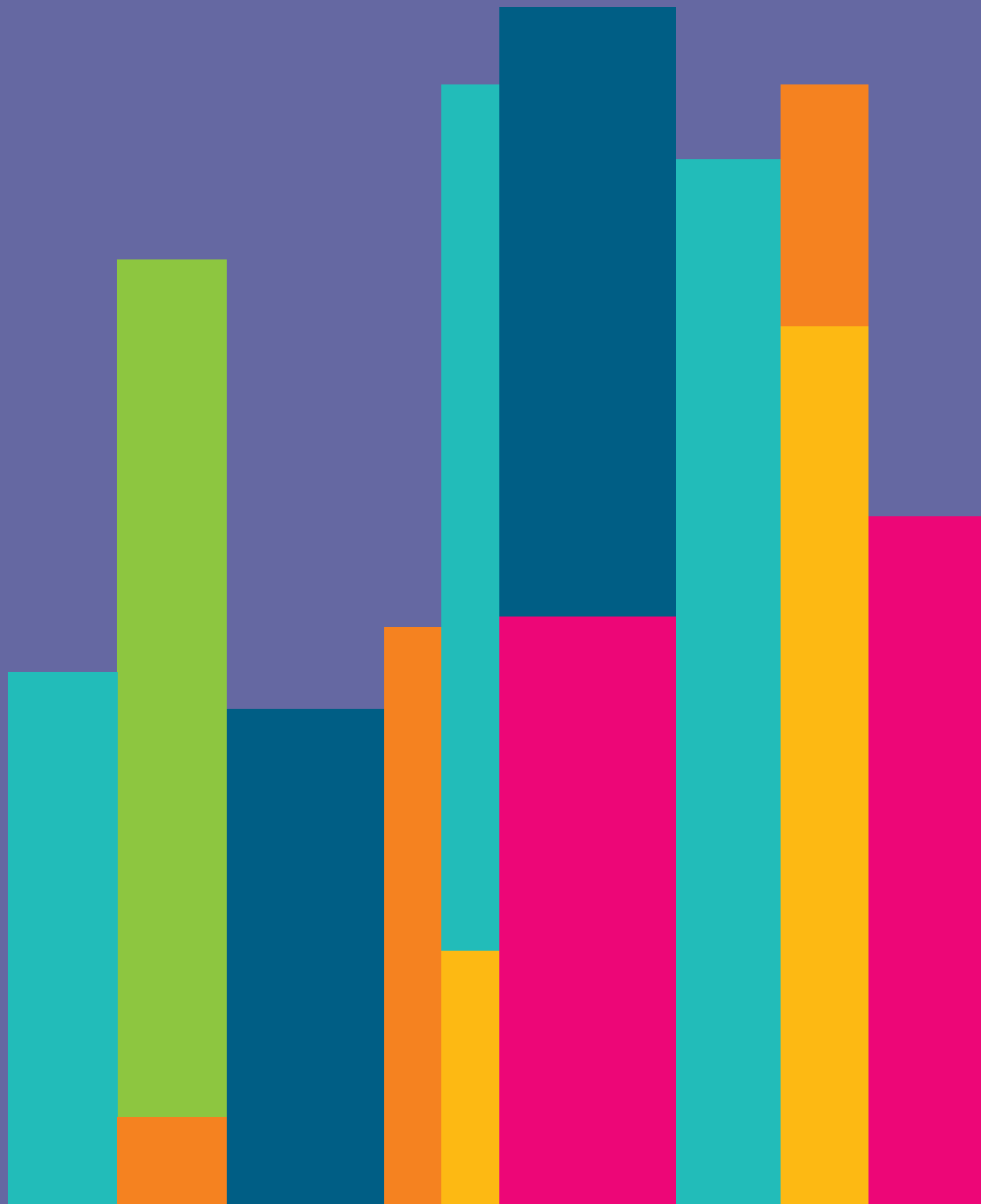
WELLNESS
CLINICS

project was launched in 2016, when architects and engineering consultants were appointed and detailed design of the Hospital commenced. Approvals were obtained from the city council for the Hospital to be built on the land adjacent to IMU's Bukit Jalil campus, and in December 2017 the first key milestone was achieved—the groundbreaking ceremony and the submission of the *Borang 1* application to the Ministry of Health for building approval. Construction will begin in late 2018, and the Hospital will be operational in 2021. Phase 1 comprises 96 inpatient beds with three operating theatres, an emergency room, 22 specialist clinics and two wellness clinics. The Masterplan estimates a total built-up capacity of over 300 beds.

Moving forward

We take this opportunity to reaffirm our commitment to serving the underprivileged in Malaysia, and we acknowledge the generous financial support of the Khazanah IHH Healthcare Fund, which will allow us to open an Oral Health Centre once a month in 2018 to serve the underprivileged. We hope to continue and intensify our efforts to help the community throughout 2018, and we remain committed to the belief that everyone has a right to healthcare, regardless of their financial situation or background (see “Serving the Community”, page 108).

RESEARCH



INSTITUTE FOR RESEARCH, DEVELOPMENT AND INNOVATION

Research at IMU is spearheaded by the University's **Institute for Research, Development and Innovation (IRDI)**. Under IRDI, there is a research centre focusing on each of the following five areas: bioactive molecules and drug delivery; cancer and stem cell research; environmental and population health; translational research; and health professions education research. IRDI promotes cross-disciplinary thematic research that leverages on the collective expertise of all the research centres.



2017 Highlights

- Growth in revenue from consultancy services
- 329 publications, with a total impact factor of 671.054
- IMU Research Lab's ISO 17025 accreditation renewed by the Department of Standards Malaysia for another three years
- A research project jointly undertaken by IMU and partners was the runner-up for the Newton Prize Award 2017
- IMU was selected to host and co-organise the Asian Medical Education Association Conference in 2020, as well as the 19th Ottawa Conference, also slated for 2020

IRDI'S 5 CENTRES OF EXCELLENCE

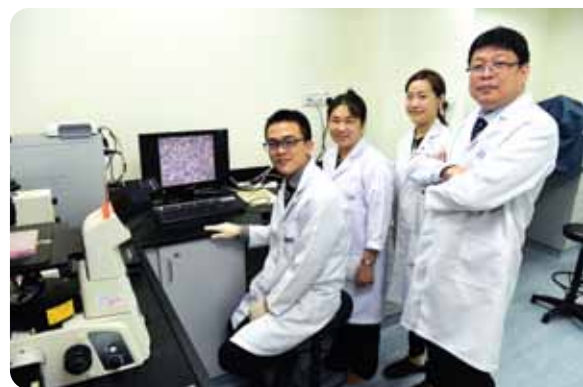
- Centre for Bioactive Molecules and Drug Delivery (CBMDD)
- Centre for Cancer and Stem Cell Research
- Centre for Environmental and Population Health
- Centre for Translational Research (CTR)
- Centre for Health Professions Education Research (CHPER)

The year in review saw IRDI's centres of excellence continuing to gain headway in promoting research in their respective areas.

Significant progress with regard to commercialisation activities was reflected in the increase in revenue from consultancy and services. Despite the decrease in external funding, there were more publications in indexed journals, compared with the previous year. We also continued to support our researchers with the provision of various Continuing Professional Development (CPD) courses.

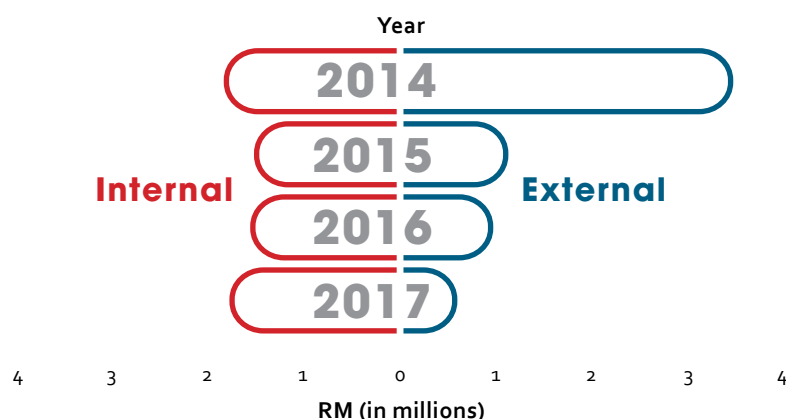
Funding

In 2017 the total amount of external funding obtained decreased to RM491,916 from RM870,180 in 2016, with a scheduled disbursement of RM285,927 in 2017 and RM205,989 in 2018. Four new projects were supported by external grants. These were from the Ministry of Higher Education (MOHE) under the Fundamental Research Grant Scheme (FRGS) for RM146,916; the World Health Organization (WHO) for RM75,000; the Wellcome Trust-MRC Newton Fund for RM250,000; and the Malaysia Toray Science Foundation (MTSF) for RM20,000.



Mai Chun Wai (far left), a lecturer from the School of Pharmacy, secured a grant under the FRGS.

Research funding, 2014-2017



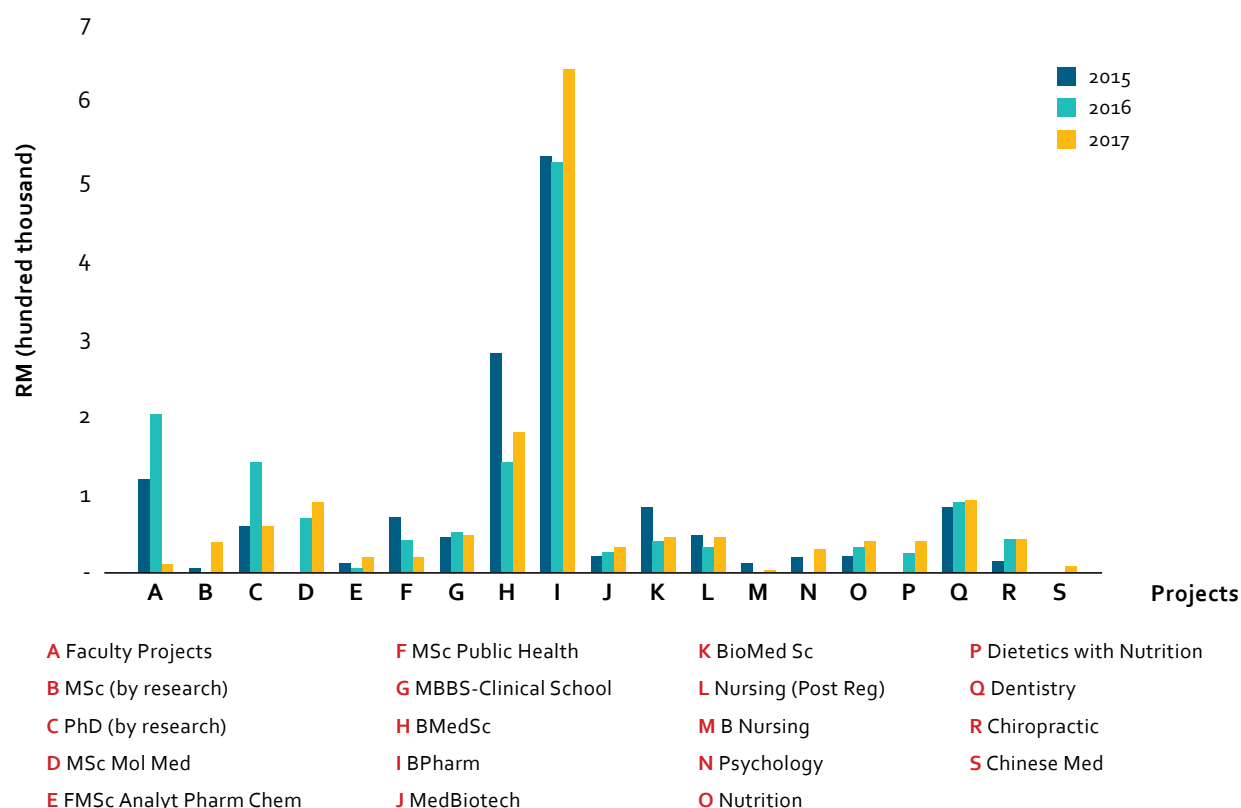
New projects supported by external grants

Grant	Amount
Wellcome Trust-MRC Newton Fund	RM250,000
Ministry of Higher Education (Fundamental Research Grant Scheme)	RM146,916
World Health Organization	RM75,000
Malaysia Toray Science Foundation	RM20,000

The University also continued to support research through internal funding amounting to RM1,689,580, which supported faculty, postgraduate (MSc and PhD) and undergraduate research. Undergraduate projects that received substantial amounts in

support included those under the Bachelor of Pharmacy (RM642,800) and the BMedSc (RM180,000) programmes. Postgraduate (MSc and PhD) research received RM233,350 while another RM202,282 was allocated for faculty research.

Distribution of internal funding, 2015-2017



Publications

The total number of publications grew from 232 in 2016 to 329 publications in 2017. Of the total, 266 publications (80.9 percent) were in indexed journals (ISI and Scopus), while 12 were book chapters. Of the indexed papers, 178 were in Tier 1 journals, 55 in Tier 2 journals, 51 in Tier 3 journals and 16 in Tier 4 journals. The total impact factor (IF) of the ISI papers was 671.054

while the total CiteScore for the Scopus papers was 540.38. The average IF per ISI paper in 2017 was 3.532 compared with 1.391 in 2016. In 2017, there were 201 scientific presentations, consisting of 99 oral and 102 poster papers.

Commercialisation and support

In 2017 IRDI's Commercialisation and Support arm provided various forms of technical support to IMU

Publications and presentations, 2013-2017

	Presentations			Publications *Including books and book chapters			Impact Factor	
	Oral	Poster	Total	Indexed Papers (ISI and Scopus)	Others*	Total	Total IF	IF/ Indexed Papers
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
2017	99	102	201	266	63	329	671.054	3.532

researchers. The Technical Support Unit provided statistical assistance to 18 researchers (16 staff and two students). For lab services, the Research Lab continued to provide a wide range of testing and analytical services, with the income generated in 2017 amounting to RM20,046.

Meanwhile, our researchers continued to be involved in contract research and providing consultancy services to industries in various disciplines, generating a total income of RM808,937 for the year. In terms of quality assurance (QA), an audit on the IMU Research Lab was conducted in February by the Department of Standards Malaysia for the renewal of the ISO 17025 accreditation. The outcome of the audit was highly commendable, and certification was renewed for another three years.

The Institute organised a range of CPD events in 2017 aimed at developing the research capabilities

of IMU's faculty. These included Best Practices in Supervisory Processes (10 June), Research Project Management (20 July), Ethics and Professionalism in Research and Publications (18 Nov) and Good Clinical Practice (GCP) Seminar (11-13 Dec).

A total of three issues of the *International e-Journal of Science, Medicine and Education (IeJSME)* were published in 2017.

Another significant ongoing editorial project has been the book to commemorate IMU's 25th Anniversary titled *Facing Tomorrow's Challenges: Continuing IMU's Journey*, to be launched on University Day 2018. Three seminars were held in 2017, during which reviewers gave their views on the upcoming book's chapters in addition to engaging in stimulating discussions on topics featured in the publication.



Medical students from Karaganda State Medical University, Kazakhstan attended a short course at IMU in May.

The three seminars were respectively titled “The Roles of the Professoriate and Scholarship in the Community”, “Will Health Professionals and Community Embrace Technology-Enabled Care?” and “Empathy and Values That Matter”.

Together with the IMU Scholars Committee, IRDI also organised a forum on “Advancements of Healthcare in 2050”. Speakers were scholarship holders from the Medicine, Pharmacy, Chinese Medicine and Psychology programmes who shared their views on futuristic medicine in the various healthcare professions.

As in the previous year, we also organised a short course on research management for a group of medical students from Karaganda State Medical University, Kazakhstan. The students were guided through the research process and management of a research project, from the generation of research questions, hypothesis testing, literature search and review of scientific literature, to scientific writing and writing a research proposal. There were also

lectures on Good Clinical Practice (GCP) guidelines, Good Laboratory Practice (GLP) guidelines, roles and functions of institutional review boards, research oversight and governance, as well as the use of systemic reviews and meta-analysis.

Moving forward

In 2018, in keeping with IRDI’s fundamental role at IMU, we will continue to strengthen cross-disciplinary thematic research, leveraging on the collective expertise of all the research centres. We will continue to bridge the gap between basic research and the application of research findings to improve health outcomes and policies. Enhancing research capacity and the capability of IMU’s faculty in areas such as data analytics will be another priority. We will also strengthen and expand the research linkages with Partner Schools, industry and government agencies. At the same time, we will continue to enhance health literacy and scientific awareness among the general public through our “Future of Medicine” series of public talks (see “Serving the Community”, page 108).

Continuing professional development (CPD) events in 2017

- Best Practices in Supervisory Processes (10 June)
- Research Project Management (20 July)
- Ethics and Professionalism in Research and Publications (18 Nov)
- Good Clinical Practice (GCP) Seminar (11-13 Dec)

HIGHLIGHTS FROM RESEARCH CENTRES

CENTRE FOR BIOACTIVE MOLECULES AND DRUG DELIVERY

In 2017, the Centre for Bioactive Molecules and Drug Delivery (CBMDD) successfully co-organised CPD courses and seminars with industry partners to encourage collaboration and discussion of current challenges associated with drug discovery and formulation. Research collaborations with industry and partner universities were initiated through the exchange of undergraduate and postgraduate students as well as joint grant applications. This year CBMDD successfully secured two industrial consultancy grants amounting to RM114,732.

CBMDD also secured funding for three projects from Malaysia Toray Science Foundation as well as contract research. The total funding from these amounted to RM134,732. As of October 2017, CBMDD had a total of 73 publications on bioactive molecules and drug delivery, with a total impact factor of 186.385. The corresponding figures for 2016 were 42 publications with a total impact factor of 71.935.

Selected papers related to this area are listed below.

- 1 Bhatt S, Mahesh R, Devadoss T, Jindal A. Neuropharmacological evaluation of a novel 5-HT₃ receptor antagonist

(4-benzylpiperazin-1-yl) (3-methoxyquinoxalin-2-yl) methanone (6g) on lipopolysaccharide-induced anxiety models in mice. *Journal of Basic and Clinical Physiology and Pharmacology*, 2017; 28(2): 101–106.

- 2 Chan EWL, Yee ZY, Raja I, Yap IKY. Synergistic effect of nonsteroidal anti-inflammatory drugs (NSAIDs) on antibacterial activity of cefuroxime and chloramphenicol against methicillin-resistant *Staphylococcus aureus*. *Journal of Global Antimicrobial Resistance*, 2017.

- 3 Ong TH, Chitra E, Ramamurthy S, Siddalingam RP, Yuen KH, Ambu SP, Davamani F. Chitosan-propolis nanoparticle formulation demonstrates anti-bacterial activity against

Enterococcus faecalis biofilms. *PLoS ONE*, 2017; 12(3): e0174888.

- 4 Shadab Md, Zeeshan F, Bhattmisra SK, Shahzad N, Mujtaba A, Meka VS, Radhakrishnan AK, Kesharwani P, Baboota S, Ali J. Nano-carrier enabled drug delivery systems for nose to brain targeting in the treatment of neurodegenerative disorder. *Journal of Drug Delivery Science and Technology*, 2017; 43: 295–310.
- 5 Wong WS, Lee CS, Er HM, Lim WH. Preparation and evaluation of palm oil-based polyesteramide solid dispersion for obtaining improved and targeted dissolution of mefenamic acid. *Journal of Pharmaceutical Innovation*, 2017; 1–14.



CENTRE FOR CANCER AND STEM CELL RESEARCH

At the Centre for Cancer and Stem Cell Research, researchers address the complex intricacies of cancer from every possible angle. Efforts in 2017 covered four key areas. First, the Centre continued to focus on harnessing the promise of immunotherapy. Researchers secured funding from the Wellcome Trust-MRC Newton Fund, UK, and the Ministry of Higher Education, Malaysia (through the Fundamental Research Grant Scheme or FRGS) to investigate tumour immune evasion mechanisms in the refractory nasopharyngeal carcinoma and pancreatic cancers. We are also developing a new generation of cancer vaccines in collaboration with our international industrial partners.

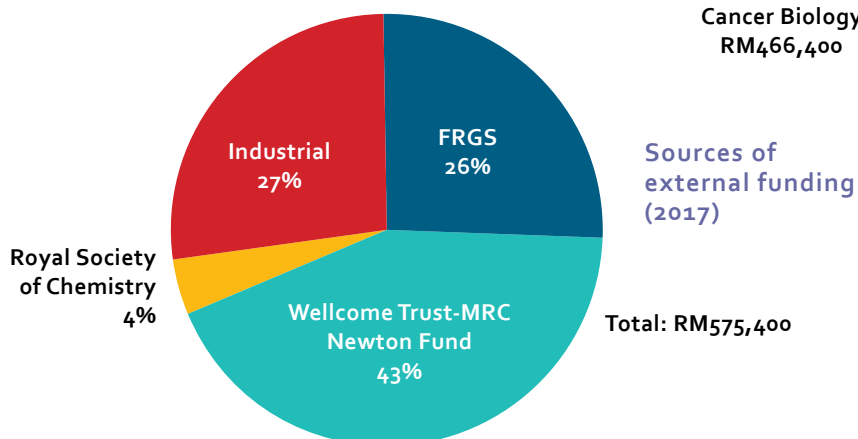
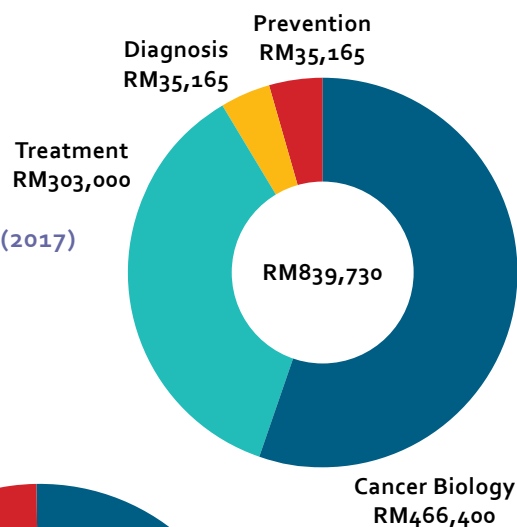
Second, recognising the need to decipher the genomes of many cancers in order to understand the extent of their complexity, we initiated five projects aimed at identifying and targeting the genetic abnormalities in breast, endometrial, kidney and pancreatic cancers using FDA-approved drugs or experimental drugs that are in clinical trials.

Third, we focused on advancing precision medicine through big data analytics. Precision medicine has the potential to reduce the risk of disease and optimise treatment for individuals based on an understanding of the specific causes as well as the

genomic profiles of cancer. The Centre collaborated with various institutions on research to harness genomic and clinical information through data analytics.

Fourth, we focused on making progress against pancreatic cancers. Pancreatic cancers make up only three percent of all new diagnoses, yet remain among the deadliest solid malignancies, with an overall five-year survival rate of less than five percent. The Centre has initiated an extensive research portfolio related to pancreatic cancers, with support ranging from the conduct of basic science to improving our understanding of the mechanisms of disease and the testing of new therapies, including those abandoned by industry.

Funding by priority areas (2017)



There were 24 indexed journal papers on cancer and stem cell research published in 2017. The cumulative impact factor of 96.36 was double the corresponding figure for 2016. Selected papers include:

- 1 Chung FFL, Tan P, Raja VJ, Tan BS, Lim KH, Kam TS, Hii LW, Tan SH, See SJ, Tan YF, Wong LZ, Yam WK, Mai CW, Bradshaw TD, Leong CO. Jerantinine A induces tumor-specific cell death through modulation of splicing factor 3b subunit 1 (SF3B1). *Scientific Reports*, 2017.
- 2 Mai CW, Chung FFL, Leong CO. Targeting legumain as a novel therapeutic strategy in cancers. *Current Drug Targets*, 2017; 18(11): 1259-1268.
- 3 Ng PY, Chye SM, Ng CH, Koh RY, Tiong YL, Pui LP, Tan YH, Lim CS, Ng KY. *Clinacanthus nutans* hexane extracts induce apoptosis through a caspase-dependent pathway in human cancer cell lines. *Asian Pacific Journal of Cancer Prevention*, 2017; 18(4): 917-926.
- 4 Soo HC, Chung FFL, Lim KH, Yap VA, Bradshaw TD, Hii LW, Tan SH, See SJ, Tan YF, Leong CO, Mai CW. Cudraflavone C induces tumor-specific apoptosis in colorectal cancer cells through inhibition of the phosphoinositide 3-kinase (PI3K)-AKT pathway. *PLoS ONE*, 2017; 12(1): e0170551.
- 5 Veettil SK, Teerawattana N, Ching SM, Lim KG, Saokaew S, Phisalprapa P, Chaiyakunapruk N. Effects of chemopreventive agents on the incidence of recurrent colorectal adenomas: a systematic review with network meta-analysis of randomized controlled trials. *OncoTargets and Therapy*, 2017; 10: 2689-2700.



CENTRE FOR ENVIRONMENTAL AND POPULATION HEALTH

The Centre for Environmental and Population Health (CEPH) focuses on three areas of research: the association of diabetes with environmental pollutants and food; dengue; and jasmonates as acute and chronic indicators of environmental pollution. CEPH successfully fostered collaboration with the Institute for Public Health through two joint projects based on the National Health and Morbidity Survey (NHMS) 2006, 2011 and 2015, and the Malaysian Adult Nutrition Survey (MANS) 2014. The projects aimed to assess interactions between air pollution and dietary intake in obesity prevalence, and analyse the trends of ambient air pollution and the impact on diabetes and cardiovascular diseases. There is also an ongoing project funded by FRGS on the influence of *Wolbachia* on the *Aedes* mosquito's susceptibility

to insecticides, and its underlying mechanism of action.

A total of 161 indexed papers in environmental and population health, with a cumulative impact factor of 385.939, were published by IMU researchers in 2017. Selected papers related to this thrust include:

- 1 Naing C, Mak JW. Salivary glucose in monitoring glycaemia in patients with type 1 diabetes mellitus: a systematic review. *Journal of Diabetes and Metabolic Disorders*, 2017; 16: 2.
- 2 Shrivastava AK, Kumar S, Smith WA, Sahu PS. Revisiting the global problem of cryptosporidiosis and recommendations. *Tropical Parasitology*, 2017; 7(1): 8-17.
- 3 Tan YF, Teng CL, Chua KB, Kenny Voon K. *Pteropine* orthoreovirus: an important emerging virus causing
- infectious disease in the tropics? *Journal of Infection in Developing Countries*, 2017; 11(3): 215-219.
- 4 Wong SF, Lim PKC, Mak JW, Ooi SS, Chen DKF. Molecular characterization of culturable bacteria in raw and commercial edible bird nests (EBNs). *International Food Research Journal*, 2017.
- 5 Yang WY, Burrows T, MacDonald-Wicks L, Williams LT, Collins CE, Chee WSS, Colyvas K. Body weight status and dietary intakes of urban Malay primary school children: evidence from the Family Diet Study. *Children*, 2017; 4(1): 5.



CENTRE FOR TRANSLATIONAL RESEARCH

The Centre for Translational Research (CTR) promotes the translation of scientific discovery to practice by fostering innovative research, cultivating multi-disciplinary research partnerships, and ensuring a pipeline of next-generation researchers through robust educational and career development programmes.

In 2017, CTR was awarded IRDI's Innovative Grant to conduct a research project ("Phenomapping Approach Towards Improved Understanding on Aetiology and Progression of Ischemic and Non-ischemic Heart Failure") that aims to improve the diagnosis, prognosis and theranostics of patients with ischemic and non-ischemic heart failure. The study involves clinicians and scientists from the Clinical Research Centre of Sarawak, Sarawak Heart Centre, and IMU. CTR was also involved in an industry-sponsored, nationwide survey of the extended spectrum beta-lactamase (ESBL)-producing bacteria *Escherichia coli* and *Klebsiella pneumoniae* isolated from surgical infections. The project is expected to improve infection control measurements and improve patient outcomes.

A joint research project in which we participated titled "Improving Infectious Disease Surveillance and Vaccination Policies" was the runner-up for the Newton Prize Award in 2017. The project was undertaken by IMU, the University of Southampton (UK), Universiti Sains Malaysia (USM) and Universiti Malaysia Sarawak (UNIMAS), and was funded by the Newton-Ungku Omar Fund.

A total of 15 research papers associated with translational research were published in 2017. Selected papers include:

- 1 Amin OSM, Mahmood MM. Simultaneous left-sided hypertensive putaminal and thalamic haemorrhages. *BMJ Case Reports*, 2017.
- 2 Hasan SS, Kow CS, Thiruchelvam K, Chong DWK, Ahmed SI. An evaluation of central nervous system (CNS) medication use and frailty among residents of aged care homes in Malaysia. *Neuroepidemiology*, 2017; 49(1-2): 82-90.
- 3 Khoo EJ, Schremmer RD, Diekema DS, Lantos JD. Ethics rounds: ethical concerns when minors act as standardised patients. *Pediatrics*, 2017; 139: e20162795.
- 4 Tricarico S, McNeil HC, Cleary DW, Head MG, Lim V, Yap IKS, CW Chong, CS Tan, Norazmi MN, Ismail A, Cheah ESG, Faust SN, Jefferies JMC, Roderick PJ, Moore M, Ho MY, Newell M-L, McGrath N, Doncaster CP, Kraaijeveld AR, Webb JS, Clarke SC. Pneumococcal conjugate vaccine implementation in middle-income countries. *Pneumonia*, 2017; 1-26.
- 5 Wickramatilake CM, Mohideen MR, Pathirana C. Association of testosterone, inflammation with the severity of first acute ST elevation myocardial infarction. *Indian Heart Journal*, 2017.

CENTRE FOR HEALTH PROFESSIONS EDUCATION RESEARCH

At IMU's Centre for Health Professions Education Research (CHPER), the number of HPE journal publications increased from 34 in 2016 to 40 in 2017. This is attributable to the growing number of HPE-related research projects being approved and conducted at IMU. There were also more HPE-related undergraduate research projects. CHPER also continued to develop inter-university research collaboration in HPE via the Malaysian Medical Educators Network (Med-Net).

Together with the IMU Centre for Education, CHPER in 2017 organised faculty training events that featured international experts on topics such as developing research proposals, quantitative and qualitative analysis of data, and tips for publishing in HPE. Meanwhile, CHPER experts were invited to conduct workshops and give presentations on research findings at international conferences such as the AMEE, APMEC, CME, AMEC, SEAADE and AMEA conferences. The 12th edition of IMU's own HPE conference, IMEC, attracted around 300 participants.

In 2017, IMU was selected to host and co-organise the Asian Medical Education Association Conference in 2020, as well as the 19th Ottawa Conference, also slated for 2020. The CHPER team will be deeply involved in the scientific and organising committees for both

conferences. At the national level, 2017 saw two senior IMU faculty elected as committee members of the Malaysian Association of Education for the Medical and Health Sciences (MAEMHS).

As part of IMU's 25th Anniversary celebrations, we launched the Medical Teacher Supplement project, coordinating it with input from researchers across various programmes. Profs Trudie Roberts and Victor Lim were consulted as advisors, and by end-2017 the first drafts of eight manuscripts were ready for external review. Topics addressed include graduate work readiness, humanities in HPE, tips for outcomes-based education, faculty development impact and evaluation of the education environment.

CHPER's activities for 2018 include completion of the Medical Teacher Supplement, and further engagement with national researchers through Med-Net and MAEMHS for collaborative research and developing writing retreats and research projects with the Asia Pacific Medical Education Research Network. Selected publications from CHPER include:

- 1 Maharajan MK, Rajiah K, Tam AM, Chaw SL, Ang MJ, Yong MW. Pharmacy students' anxiety towards research during their undergraduate degree: how to reduce it? *PLoS ONE*, 2017; 12(4): e0176095.
- 2 Banneheke H, Nadarajah VD, Ramamurthy S, Sumera A, Ravindranath S, Jeevaratnam K,

Efendie B, Chellamuthu L, Krishnappa P, Peterson R. Student preparedness characteristics important for clinical learning: perspectives of supervisors from medicine, pharmacy and nursing. *BMC Medical Education*, 2017; 17(1): 130. doi: 10.1186/s12909-017-0966-4.

- 3 Saw PS, Nissen L, Freeman C, Wong PS, Mak V. A qualitative study on pharmacists' perception on integrating pharmacists into private general practitioners' clinics in Malaysia. *Pharmacy Practice*, 2017; 15(3): 971.
- 4 Babar MG, Hasan SS, Yong WM, Mitha S, Al-Waeli HA. Patients' perceptions of dental students' empathic, person-centered care in a dental school clinic in Malaysia. *Journal of Dental Education*, 2017; 81(4): 404-412.
- 5 Ahmadi K, Hasan SS. Implementing professionalism by deprofessionalized strategies: a moral quandary. *Currents in Pharmacy Teaching and Learning*, 2017; 9(1): 9-11. doi: 10.1016/j.cptl.2016.08.032.

SERVING THE COMMUNITY



SERVING THE COMMUNITY

The **IMU Cares** initiative provides a platform for staff and students to engage meaningfully with the community while gaining valuable experience through real-life interaction and on-the-ground work. This helps our people develop empathy and an appreciation of diversity that will make them better medical and health service providers. Our programmes focus on four key areas: healthcare, education, environment and humanitarian aid.



Serving the Community

2017 Highlights

- Record funds raised at Chariofare, our annual charity event
- Chariofare awarded Special Award at APUCEN's inaugural Youth Volunteer Award
- Rolled out our six-month pilot programme to improve self-care among elderly diabetic patients in homes
- 2nd IMU Cares Humanitarian Conference successfully organised
- Nutrition and Dietetics Division's collaboration with Ajinomoto awarded Silver Award for Best Community Programme at the Annual Global CSR Summit & Awards and the Global Good Governance Awards



Raising funds for charity at the Chariofare 2017.

It is the passion to serve and contribute to society that drives IMU Cares to achieve more, year after year. In 2017, we took on some exciting pilot programmes—educating diabetic patients in homes for the elderly and embracing multimedia platforms to increase the reach of our health awareness initiatives. We also broke some records: at Chariofare, our flagship annual charity fundraising event, we raised more funds than in any previous year. Below are details on Chariofare and some of our other proud moments.

Breaking records with Chariofare 2017

Held annually since 2012, this charity run and carnival has engaged over 200 students and 600 staff who have

volunteered time and effort to the cause. To date, we have raised RM1 million, benefiting 18 IMU Cares partners. This year's record funds of RM277,691 have been channelled to the IMU Cares Humanitarian Aid Fund, which provides assistance to those affected by natural disasters and helps raise the standard of living for less-privileged communities.

We are proud that Chariofare has also been recognised for its innovative approach to fundraising—this year, it won a Special Award in the Entrepreneurship Category of the Asia-Pacific University-Community Engagement Network's (APUCEN) inaugural International Youth Volunteer Awards. The Malaysian Minister of Higher Education, Datuk Seri Idris Jusoh,

presented the IMU team with a trophy, certificate and a cash prize of USD2,000 at the 3rd Summit Conference of the APUCEN in Penang. The international panel of judges expressed hope that the Chariofare would serve as a fundraising model for other member institutions.

Empowering elderly diabetic patients

In a bid to improve self-care among diabetic patients in our partner homes for the elderly, we rolled out Phase 1 of our self-management educational programme. The six-month pilot included educating participants on the importance of self-monitoring blood sugar levels and the proper methods to do so. Dr Tan Ming Yeong, who is a nurse specialising in diabetic education, led the sessions and brought participants through three main stages: initial assessments, educational sessions and outcome evaluations. We hope to continue with Phase 2, which will see the programme extended to other homes.

Reaching out with multimedia

In 2017, we embarked on a multimedia journey to enhance the reach of our public health education.

Teaming up with Multimedia University (MMU), we produced a variety of educational materials ranging from videos and simple motion/animation graphics, to posters and brochures, websites and blogs. We also engaged a video production professional to train our students to develop their own multimedia content to ensure that this initiative remains sustainable. We hope that these approaches will raise the reach of our health education beyond local borders.

Serving the community, a shared responsibility

On 13 July, we successfully ran the 2nd IMU Cares Humanitarian Conference, themed *Serving the Community: A Shared Responsibility*. Held on campus and organised in collaboration with Mercy Malaysia, the conference brought together medical professionals involved in humanitarian missions to share their experiences and to encourage volunteerism in others. Speakers included Dato' Dr Ahmad Faizal Perdaus, who is President of Mercy Malaysia, and Dr S Madhusudan, who is co-founder of Teddy Mobile Clinic. Besides the lively speeches, participants also gave 35 poster and oral presentations that showcased community-based projects in

Chariofare: Record-breaking fundraising

Chariofare	2012	2013	2014	2015	2016	2017
Total amount raised (RM)	138,000	150,000	170,000	180,983	203,215	277,691
Number of runners	1,500	1,569	1,200	1,500	1,899	1,744
Number of sponsors	38	59	64	101	64	71
Number of beneficiaries	6	2	4	4	3	1*

* Funds for 2017 went to the IMU Cares Humanitarian Aid Fund, which channels assistance to multiple beneficiaries.

Malaysia. The conference drew a crowd of 87 participants, of whom 38 were from outside IMU. Kaeshaelya Thiruchelvam, who is an IMU lecturer in the Pharmacy Practice Department (School of Pharmacy), won the Best Oral Presentation Award for her work on "Care of the Elderly: Practical Solutions to the Obvious Challenges."

Department-based activities

In addition to supporting the programmes under IMU Cares, many of the University's departments initiated their own activities. There were also joint projects undertaken by multiple departments. Besides helping the target beneficiaries, these joint projects encouraged inter-professional learning among students from different disciplines.

The School of Dentistry partnered with the School of Pharmacy this year to launch the "IMU – Quit Smoking Service" at the Oral Health Centre. Dr Sobia Bilal is fronting the new initiative, which aims to help people stop smoking by providing supporting services such as screenings, counselling, nicotine replacement therapy and reading materials.

In another collaborative project, students from the Nutrition and Dietetics Division (N&D) of the School of Health Sciences (SOHS) joined forces with their Dentistry colleagues to carry out an IMU Cares project for kindergarten students at the Kuala Lumpur Chinese Taipei International School, where they focused on nutrition screening

Besides supporting the programmes under IMU Cares, the University's departments also initiated their own activities. Joint projects encouraged inter-professional learning among students from different disciplines.



Promoting healthy eating habits through murals painted by volunteers.

and education. N&D students also collaborated with students from the School of Medicine to plan and carry out projects for the Orang Asli community in Kampung Sebir in Negeri Sembilan.

Under SOHS, the N&D Division's collaboration with Ajinomoto, which both parties extended via an MoU this year, won the Silver Award for the Best Community Programme at the 9th Annual Global CSR Summit & Awards and the Global Good Governance Awards 2017 in Langkawi. The Division also kick-started an IMU Cares school outreach programme targeted at the primary school pupils of Sekolah Kebangsaan Brickfields (1).

In addition to this, N&D students either provided their services or helped to raise funds for IMU Cares programmes for the following homes, shelters and communities: Rumah Victory and Rumah Sejahtera for the elderly in Selangor, Rumah Titian Kasih for single mothers and orphans in Kuala Lumpur, the Ti-Ratana Welfare Society in Kuala Lumpur, Sekolah Menengah Brickfields and Kampung Sebir.

Faculty members and students from the Applied Biomedical Science and Biotechnology Division (ABSB) provided services to the Spastic Children's Association of Selangor & Federal Territory, Home of Peace, Sekolah Menengah Kebangsaan Bandar Baru Seri Petaling and Sekolah Jenis Kebangsaan Cina Salak South.

ABSB's counterparts from the Nursing Division also evaluated

the appropriate activities of daily living (ADLs) skills of caregivers in the Lovely Nursing Home and the Victory Home.

At the Centre for Pre-University Studies, the Foundation in Science (FiS) students continued working with Dignity for Children (DFC), an IMU Cares community service partner, to design a programme to help DFC secondary school students gain better insight into Biology and Chemistry. Consisting of five continuous projects that were implemented over two years, the programme benefited both parties: seven of the 15 participating DFC students scored A*s and As for the two subjects in their school semester exams, while FiS students learnt about project organisation and enhanced their problem-solving skills.

Following this success, FiS Programme Director Sharon Chan Min Hui presented a paper entitled "Bringing Theory into Practice for Underprivileged Students of Dignity for Children Foundation" at the 5th University-Community Conference in Kyoto, Japan.

Meanwhile, the staff at IMU Healthcare remain committed to the belief that healthcare is a fundamental right, regardless of a person's financial situation or background. In 2017, IMU Healthcare offered services to the local community, playing a vital role in delivering care to the needy via the IMU Cares programme. These services included medical and dental healthcare, diabetes monitoring, rehabilitation and chiropractic

treatment and free clinics at the IMU Community Centre in The SPARK Mall in Desa Petaling.

The Institute for Research, Development and Innovation (IRDI) continued to work closely with the children's home it adopted, the Rumah Victory Children and Youth Home, which provides care for underprivileged children and troubled youths. In 2017, three activities with the theme *Students Today, Scientists Tomorrow* were organised to teach the children about important scientific concepts by relating them to their everyday lives.

During the first visit, themed *The Science of Food*, the children were taught to read food labels and understand food types as well as the importance of a balanced diet. They conducted tests for food substances such as protein, glucose and starch in common food items. These experiments gave the children exposure to laboratory and food sciences, as well as hands-on experience in collecting and analysing data.

During the second visit, the children learned about genetics and mutations. By using N-Propylthiouracil (PROP) test strips to examine their responses towards bitterness, they explored the effects of heredity on taste.

For the final visit the children were invited to the IMU laboratory to learn about microorganisms. Besides observing bacteria and growing them in Petri dishes as well as using the GermGlo experiments,

children were taught effective hand-washing techniques for reducing bacteria.

Also in 2017, as part of its initiatives to enhance health literacy among the general public, IRDI organised a public talk titled "Obesity—The Malaysian Epidemic" under its "Future of Medicine" series. The primary aim was to increase public awareness of the obesity epidemic in Malaysia as well as the urgent need for measures to tackle the problem. The three speakers were A/ Prof Rokiah Don of IMU's Division of Nutrition and Dietetics, Prof Brian Furman, Emeritus Professor and Research Professor from the University of Strathclyde, and Dr Ivan Yap Kok Seng, former Head of the Department of Life Sciences, School of Pharmacy and Head of the Centre for Translational Research, IRDI.

Moving forward

It has been a fruitful year for IMU Cares and we hope to expand our activities to different target communities in the future. Our next step in 2018 will be to bring our oral health programmes to less-privileged children and to embark on an immunisation programme for refugee children. We are also working closely with the elderly to find ways to enhance their quality of life in a holistic way—i.e. in terms of medical care as well as overall wellbeing including emotional and mental health. We are also expanding our e-waste recycling project and we hope to motivate our staff and students to be more conscious of the environmental impact that we have on the Earth.

We would like to thank all those who have given their time and energy to making this year a success. We hope that we will continue to have the support that we need as we move forward into 2018.

IMU Cares would like to thank all those who have given their time and energy to making this year a success. We are driven by our passion to serve and contribute to society, and we look forward to continued support from like-minded partners.



Celebrating International Volunteer Day.

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 32 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.

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