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To succeed in your mission, you must have single-minded devotion to your goal.

- A.P.J. Abdul Kalam



EXPERT PANEL ON THE FUTURE OF MEDICINE

UNITED NATIONS HEADQUARTERS
SEPTEMBER, 2016



IMR Director's Message



Salam Sejahtera!

As we prepare for the end of another eventful year, we reflect back on the journey the IMR has taken thus far. From the mundane daily activities to the inspiring moments when our researchers step into the international arena, I can only say that we are poised to 'stand and deliver'. Perhaps in addition to having the abilities and looking for opportunities, many among us still need the courage to 'step up and stand out'.

We continue to host both local and international visitors as well as work with collaborators on our research. This rounding up issue for 2017 summarises some of our prized research accomplishments. It will serve as our institutional memory when the dust has settled and the

sweat has dried. These articles are documented as an aspiration to those who are meek but have the aptitude to persevere.

I shall continue to support each one in their endeavour to research into solutions to solve the health problems of the day. As a leader, it is my duty to support each one's journey in their quest for perfection.

Carpe Diem!

Dato' Dr Fadzilah Kamaludin

Director

Institute for Medical Research (IMR)

Kuala Lumpur

1 November 2017

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EDITORIAL TEAM

IMR Awards (2016-2017)

NO	YEAR	AWARD (medal/certificate/trophy)	UNIT	CENTRE	LOCATION	NAME OF OFFICER/ PRINCIPAL INVESTIGATOR (PI)
1	2017	Newton-Ungku Omar Fund Award for the project titled " <i>Genetic, Lipid and other risk factors in early-onset Acute Myocardial Infarction in Malaysia</i> " (July 2017)		CDNRC	Kuala Lumpur	Dr Mohd Fairulnizal Md Noh
2	2017	National Intellectual Property Award (<i>Anugerah Harta Intelek Negara-AHIN 2017</i>) for " <i>MyTB Detection Kit - Methods for Detection of tuberculosis and atypical mycobacterial infections</i> " (July 2017)	Bacteriology	IDRC	Kuala Lumpur	Dr Rahizan Issa
3	2017	SEAMEO Service Award 2017 at 49th SEAMEO Council Conference/Centre Director (CDM) Meeting (July 2017)	Parasitology	IDRC	Jakarta, Indonesia	Dr Raden Shamilah Raden Hisam
4	2017	ITEX 2017 – Salt Iodate Micro-Method Reagent (SIMR) Kit - Silver Medal (May 2017)	Nutrition	CDNRC	Kuala Lumpur	Ms Husniza Hussain
5	2017	ITEX 2017 – IodateCalc App - Silver Medal (May 2017)	Information Technology	MRRC	Kuala Lumpur	Mr Mohd Zainuldin Taib
6	2017	Top 10 Massachusetts Institute of Technology (MIT) Under 35 Young Innovator Award (March 2017)	IMR Director's Office		Singapore & USA	Dr Dhesi Baha Raja
7	2016	Top 10 Exceptional Scientists Award of United Nations Solution Summit, United Nations General Assembly (September 2016)	IMR Director's Office		New York, USA	Dr Dhesi Baha Raja
8	2016	Top 8 Harvard Young Innovators Award (July 2016)	IMR Director's Office		Boston, USA	Dr Dhesi Baha Raja
9	2016	Winner of King's College Pistoia Life Science Award (April 2016)	IMR Director's Office		London, UK	Dr Dhesi Baha Raja



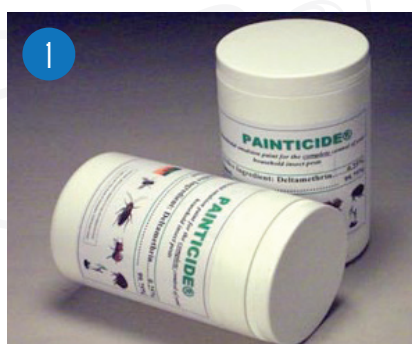
IMR Patents (2016-2017)

NO	YEAR	PATENT (product/service/ innovation)	DESCRIPTION	UNIT	CENTRE	LOCATION	NAME OF OFFICER
1	2016	A method and a system for packaging and delivering an insecticide or larvicide to target areas.	Encapsulated larvicide (New insecticide formulation to be used in inaccessible areas).	Medical Entomology	IDRC	Patent File No.: Malaysia: PI2016701311 (4 Aug 2016); Singapore: 10201607460W (7 September 2017)	Lee Han Lim; Nazni Wasi Ahmad
2	2016	Copper (II) – Mixed Ligand Complexes with Anticancer Properties.	The compound has been synthesized in the laboratory and has undergone several anti-tumour bioassays.	Molecular Pathology	CaRC	Patent File No.: Malaysia: PI2012700421 (28 Jun 2012); WIPO: PCT/ MY2013/000120 (28 June 2013)	Alan Khoo Soo Beng; Munirah Ahmad; Assoc Prof Ng Chew Hee (UTAR); Kong Siew Meing (UTAR)
3	2016	Forensic Entomology Kit.	Kit for standardisation of collection, preservation, processing and identification of forensically important flies.	Medical Entomology	IDRC	Patent File No.: PI2016702290 (20 June 2016)	Nazni Wasi Ahmad; Kee Han Lim; Chew Wai Kien; Khairul Aswad; Azahari Hadi
4	2016	Insecticidal coating composition.	Insecticide paint for control of mosquitoes: new formulation.	Medical Entomology	IDRC	Patent File No.: PI2016702290 (20 June 2016)	Nazni Wasi Ahmad; Lee Han Lim



Forensic Entomology Kit.

1. Insecticide paint.
2. Copper (II)-Mixed Ligand.
3. A dissolved Bti tablet after direct application into a water container.





12th MOHAMM Scientific Meeting incorporating the 20th NIH Scientific Seminar and the 5th International Clinical Conference in Emergency Medicine (ICCEM) at Putra World Trade Centre (PWTC) from 30 October to 1 November 2017





Artificial Intelligence (AI) in Epidemiology to aid in controlling Disease Outbreaks

Three years of research, pilot studies, validation in various countries to convince health personnel that the way forward is to embrace Artificial Intelligence and Data Science into the disease surveillance system in Malaysia has finally paid off. With the Minister of Health's approval in a meeting at MOH in Putrajaya on 1 November 2017, 'Artificial Intelligence in Epidemiology' will be installed throughout the MOH in stages. If everything goes well, we may well be the first nation to have an AI in the Operations Room in Putrajaya and in all State Health Departments to help in controlling outbreaks in Malaysia. It is timely that change is embraced to adopt to new technologies and interventions.

Majalah 3 programme on IMR Medical Entomology



The Majalah 3 programme on IMR Medical Entomology was filmed at the IMR on 10 October 2017 and aired over TV3 on 30 October 2017. It featured Dr Khadri Shahar's research on testing the trapping mechanism for cockroaches.

IMR Recognition

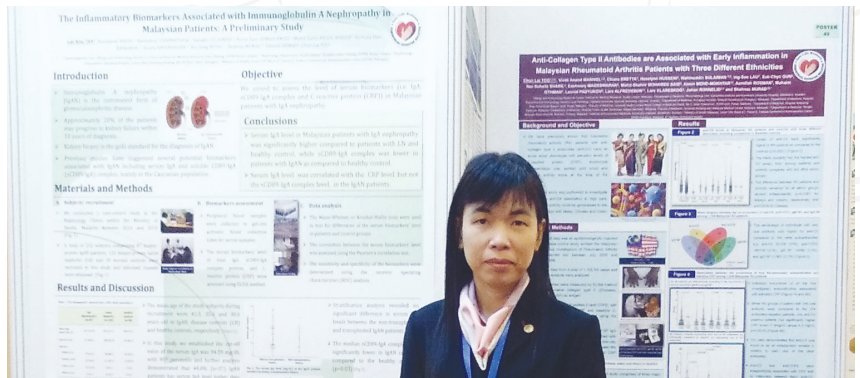
Dr Noormalin (Head of Allergy Unit, AIRC) and Dr Too Chun Lai (Head of Immunogenetic Unit, AIRC) were top 5 winners for best poster competition at the MOH-AMM Conference held at PWTC from 30 October – 1 November 2017.



IDENTIFICATION OF THE MOST COMMON ALLERGY REACTION AMONG MULTIPLE ANTI-TUBERCULOSIS DRUG USING IN-HOUSE IgE IMMUNOBLOT TEST
Noormalin, Brenda L, and Imma Suriani L S
Allergy Unit, Allergy & Immunology Research Centre, Institute For Medical Research, Kuala Lumpur

Anti-Collagen Type II Antibodies are Associated with Early Inflammation in Malaysian Rheumatoid Arthritis Patients with Three Different Ethnicities
Chun Lai TOO^{1,2,3}, Vivek Anand MANIVEL^{3,4}, Chiara BRETITA⁵, Heselynn HUSSEIN⁴, Wahinuddin SULAIMAN^{5,6}, Ing-Soo LAU⁷, Suk-Chyn GUN⁸, Nor-Suhaila SHARIL¹, Eashwary MAGESWARAN⁹, Mohd-Shahrir MOHAMED SAID⁹, Alnon MOHD-MOKHTAR¹⁰, Azmillah ROSMAN¹¹, Muhaini OTHMAN¹, Leonid PADIYUKOV¹², Lars ALFREDSSON¹¹, Lars KLARESKOG¹³, Johan RONNELID¹⁴ and Shahnaz MURAD¹²

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HARVARD SCHOOL OF PUBLIC HEALTH
TOP 3 YOUNG PUBLIC HEALTH INNOVATOR AWARD
MASSACHUSETTS, USA
JULY, 2016



Right: Dr Rahizan Issa from the Bacteriology Unit, IDRC received the National Intellectual Property Award (*Anugerah Harta Intelek Negara AHIN 2017*) for "MyTB Detection Kit methods for detection of tuberculosis and atypical mycobacterial infections" in KL (July 2017).

Left: Dr Raden Shamilah Raden Hisam from the Parasitology Unit, IDRC received the SEAMEO Service Award 2017 at 49th SEAMEO Council Conference/Centre Director (CDM) Meeting in Jakarta (July 2017).



IMR Centres of Excellence

The IMR has been designated and participates internationally, regionally and nationally as follows:

- WHO Western Pacific Region Index Medicus (WPRIM) Project collaborative effort of Western Pacific Regional Office (WPRO) with the Global Health Library (GHL) since 2007.
- WHO Regional Centre for Research and Training in Tropical Diseases and Nutrition, formally established on 8 August 1978.
- WHO Collaborating Centre for Taxonomy, Immunology and Chemotherapy of Brugian Filariasis at the Parasitology Unit, IDRC from 1985-2005.
- WHO Collaborating Centre for Ecology, Taxonomy and Control of Vectors of Malaria, Filariasis and Dengue at the Medical Entomology Unit, IDRC, established on 18 September 1985.
- SEAMEO-TROPMED Regional Centre for Microbiology, Parasitology and Entomology under the South-East Asia Ministers of Education / Tropical Medicine and Public Health Network, established in 1967.
- National Focal Point for the WHO Collaborative Surveillance Programme on Antibiotic Resistance in the Western Pacific Region at the Bacteriology Unit, IDRC since 1989.
- National Reference Laboratory for HIV/AIDS at the Virology Unit, IDRC since 1985.
- National Influenza Centre at the Virology Unit, IDRC since 1991.
- National Laboratory for potency testing of Viral Vaccines viz. Measles, Polio live viral vaccines at the Virology Unit, IDRC from 1993-2012.
- Reference Laboratory for Isolation and Identification at the Virology Unit, IDRC since 1998.
- Reference Laboratory for Outbreak Investigation at the Virology Unit, IDRC since 1999.
- National Reference Laboratory for SARS at the Virology Unit, IDRC since 2003.
- Reference Laboratory for Exotic Diseases at the Virology Unit, IDRC since 2011.
- Reference Laboratory for MERS-CoV at the Virology Unit, IDRC since 2012.
- Reference Laboratory for Zika virus at the Virology Unit, IDRC since 2015.
- Reference Laboratory for Molecular Diagnosis of Rabies virus at the Virology Unit, IDRC since 2016.
- Global Information Hub on Integrated Medicine (GlobinMed) at HMRC was launched on 17 July 2007.
- Prototype of Herbal InfoHub at HMRC started on 20 October 2003.
- Secretariat for the National Committee for Research and Development of Herbal Medicine (NRDHM) since 2002.
- Secretariat for the Inter-Islamic Network for Tropical Medicine (INTROM) was formed on 1 July 1988.

