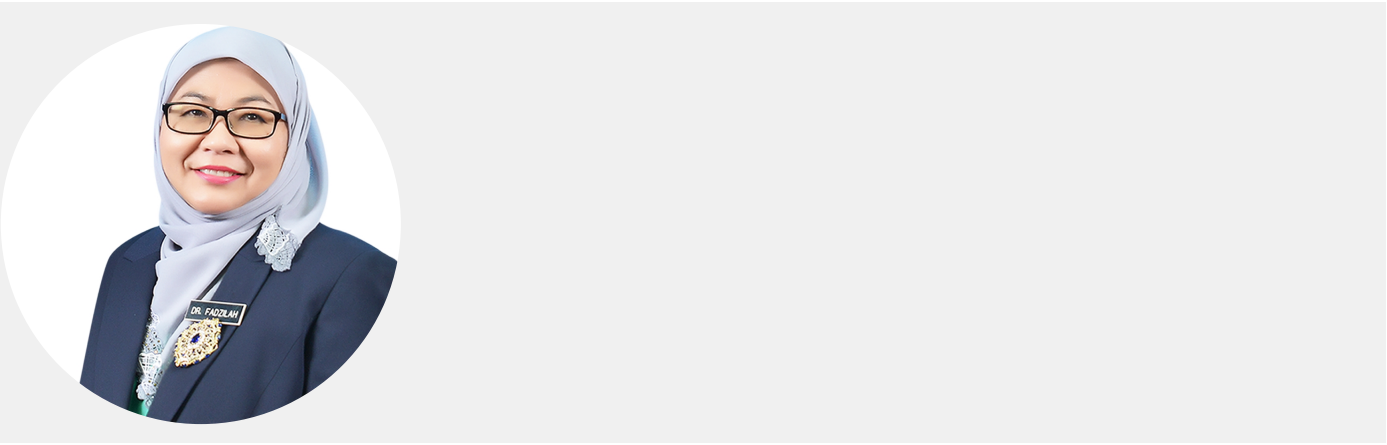
Fadzilah Binti Kamaludin – Director, IMR, Malaysia



02.11.2018

Tags: Malaysia, Research, IMR

Dr. Fadzilah Kamaludin, the director of the Institute for Medical Research (IMR) in Malaysia, highlights the important role of the IMR, as a public organization, to help the research in key therapeutic areas and its ambitions to help commercialize solutions that will benefit patients in Malaysia and around the world.

Can you give a brief introduction to the functions and scope of the Institute of Medical Research?

I am Dr. Fadzilah Kamaludin, the director of the Institute for Medical Research (IMR) since 2016. IMR has been created in 1900 with a focus on biomedical research. We started with a tropical diseases' specialty, but we have evolved to cater research for different areas for example centres that specialized in allergy and immunology, oncology, haematology, herbal medicines, cardiovascular diseases as well as diabetes and nutrition. We also have pathologists in the institute who oversee diagnostics services for our patients and develop diagnostic kits for the population. Of course, we can provide diagnostic test validation for external players if needed. We also have a specific environmental department to conduct environmental studies. Now, our focus is also on non-communicable diseases.

IMR can combine the expertise of these various centres to conduct specific needed research. For example, dengue fever is a main concern in the region, so we have developed a specific program

that requires the expertise from different centres within IMR. The program addresses many components of dengue infection from the control of the vector, for example, the Wolbachia project, targeted insecticide to detection of dengue in patients via rapid diagnostic kits. The virology and epidemiology units have been looking at non-symptomatic patients to determine if they can transmit dengue while the herbal research looks at traditional plants that could help cure or lessen the symptoms of dengue.

What have been the main achievements of the IMR since you arrived?

When I was given the task to manage IMR, the main goal set was to establish IMR in the country and in the region as a premier biomedical research institute. Then, we established in our strategic plan that we needed to look at impactful research that would eventually help the society in some capacity. That is why, apart from our Dengue programs, we have also conducted other researches that have been recognized regionally and internationally. One of our scientists was awarded the Lee Jung Wook Memorial Prize for Public Health from WHO for her work on Maggot Debridement Therapy for diabetic wounds and we have managed to save more than 6,000 patients' limbs from being amputated.

Malaysia has a lot of potential in conducting research but again, the issue is that at the moment, we have a big gap between our very senior researchers and the upcoming generation. Therefore, another focus of the centre is to bridge that gap by encouraging teams to be more diverse in terms of experience. In capacity building we need to continuously train our researchers and we need to obtain skilled researchers, for example, those with Masters and PhD. As for training, we have developed a few programs with Southeast Asia Ministers of Education Organization for Tropical Medicine (SEAMEO-TROPMed) and Inter Islamic Network for Tropical Medicine (INTROM) to develop hands-on skills specifically for tropical diseases research. These programs are designed mainly for ASEAN and Middle-East students who are looking to develop a specialty on the diseases.

What are the main challenges that you have identified in the research environment in Malaysia?

The main challenge in Malaysia is really the funding of biomedical research. Indeed, as IMR is under the Ministry of Health, most of our funding comes from public sources and in the case of biomedical research, which is our main research areas, the funding required is important. The way funding is

structured is really straining as a research can take years and requires constant funding. It is a challenge as we cannot plan our research in the same way as if we would have constant financial input.

There is also a challenge in the opportunity for us to be more recognized on the international stage. Indeed, we have innovative research being developed in the country and we have difficulty sending our researchers to international events to showcase their work and gain more reputation. In the same way, it is linked to the funding of each project that can be limiting as it is more important for us to use our budget for our project rather than use it to attend conferences.

What would be necessary in your opinion to further increase prevention in Malaysia?

According to the National Health and Mobility Study in 2015, Malaysia has an increasing number of obesity and cardiovascular disease cases as well as a number of citizens living with undiagnosed diabetes. Our Cardiovascular, Diabetes and Nutrition together with the Institute for Public Health has conducted the study named “My Body is Fit and Fabulous (MyBFF)”. The work focused on adolescents and housewives as they are the biggest groups exposed to the diseases. The school-based intervention program has a positive impact in decreasing obesity in children.

We have a very specific segment for rare diseases namely Inborn Errors of Metabolism and Primary Immunodeficiencies Diseases, establishing us as the only reference centre for Malaysia and the region in this field considering that the number of patients is very small, and the treatment is rather expensive. The diseases have debilitating outcomes if not diagnosed and treated early.

What have been your main collaborations and projects?

We are working with all stakeholders locally and internationally. For example, we are partnering with the industry when it comes to commercializing a solution that we researched at IMR but we also collaborate with international reference and national centres on targeted research. We are going to rebrand and restructure our organization so that we can put some resources to bring the solutions up to the commercialization for the patients and to emphasize our organization as a one-stop-shop for research. We already have put out our proposals to our Director General who seems pleased of this step forward. Indeed, we are able to provide all services up until the commercialization for the pre-clinical research to the design of clinical trials and the production of test kits.

Therefore, we would like to continue our research further by involving the industry more. Together, we can work in developing ideas and helping companies to participate in the research investment and realize their own ideas. Since we are in research, we can help healthcare businesses test their products in the country or develop their research if they sponsor such activities. We really want to work together more than just a simple exchange for research. Tropical diseases will remain our focus, but more resources will be put in NCDs in Malaysia as it is growing in the country. We are also moving to Setia Alam, a new research complex together with the other research institutes in the Ministry of Health to form the National Institute of Health.

What are the next steps for the IMR now?

I really want to make sure that we put out impactful research that will benefit patients now and in the future. I also want to aim for results that can be easily commercialized and to do so, I would like to develop more partnership with the industry. We are looking forward to collaboration with experts locally and internationally so that we can also increase our global reputation. We want to extend our training services, especially our internships as we have a very good response from the UK and the USA in the infectious diseases segment. IMR should be able to build its name on a national and international stage in order for people to be interested in partnering more with us on different projects.

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