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EXCLUSIVE

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Malaysian-made Covid-19 vaccines to cover new variants

IT'S a big task, but the two types of Covid-19 vaccines currently being developed by Malaysian experts are on track.

As the coronavirus has been mutating, both vaccines will also take into account the Omicron variant of concern (VOC), which looms over the situation here.

"We will also look into any new VOCs that may arise in future in our vaccine development," says Institute for Medical Research (IMR) director Dr Tahir Aris.

The first vaccine, which will be an inactivated vaccine, is expected to undergo pre-clinical trials involving animals in February.

"Such trials for the inactivated vaccine are expected to be completed within one year.

"This is before we can move onto clinical trials involving humans in the second half of 2023," he tells *Sunday Star*.

The proposed inactivated vaccine is an effort by the IMR, Universiti Putra Malaysia and the Veterinary Research Institute, which is under the Veterinary Services Department.

A second type of vaccine, using the mRNA (messenger RNA) method, is solely an IMR effort for now.

It will complete its proof of concept stage (evidence to show it is feasible) by the end of 2022, while animal trials will be conducted in 2023.

After that, the clinical trials involving humans for the mRNA vaccine are expected to be carried out in 2024.

"Both vaccines are currently being developed according to schedule," says Dr Tahir.

The clinical trials for both vaccines will be conducted by the Institute of Clinical Research (ICR) at National Institute of Health (NIH) and Clinical Research Malaysia (CRM).

"These organisations will abide by standard protocols in conducting clinical trials which involve different phases," he says.

As Covid-19 will be around for a while, Dr Tahir says the need for vaccination against the coronavirus is necessary.

"Whether the Covid-19 vaccine produced by IMR will be used as booster shots, it has yet to be determined by the policy makers based on scientific data.

"As to whether the vaccine is safe for children, it will be determined through clinical trials," he adds.

Such clinical trials will also prove if the proposed vaccines are

The Covid-19 vaccines currently being developed by local experts will also take into account other future variants of concern, says the Institute for Medical Research. For now, health experts urge for booster shots to be stepped up and for people to stick to SOPs to beat such strains.



Big achievement: The two types of Covid-19 vaccines currently being developed by Malaysian experts are on track. – Photos: SAMUEL ONG/The Star

safe to be mixed, or given to recipients of shots from Pfizer, AstraZeneca, Sinovac or other types of vaccines.

What we know after two years

So, what do we know for sure about Covid-19 after over two years it has been in our lives?

The IMR has confirmed some key facts, thanks to the research by its team of officers.

Its research among fully vacci-

nated health care workers shows that there is waning neutralising antibodies against the coronavirus after six months.

"Hence it is important to take a booster dose to increase the level of immune response.

"Whether there is a need for a fourth dose is dependent on the level of protective antibodies as well as infection rates among such frontliners after receiving their booster shots," he says.

IMR's researchers also found that many health care workers

were infected with the Delta variant.

"This also supports the findings of the ongoing genome surveillance that IMR and other consortium members conduct, which show the dominance of the Delta variant in Malaysia since July 2021.

"However, this may change soon as current data from the surveillance shows a spike in cases of Omicron, especially among international travellers," he adds.

The consortium is made up of the IMR and other bodies under

the Health Ministry, Science, Technology and Innovation Ministry and Higher Education Ministry.

It conducts tests on all suspected VOC cases including whole genome sequencing.

Stop the transmission

Due to how Covid-19 spreads, the public must continue to correctly wear face masks, as regularly reminded by the authorities.

Published data also shows that

DISEDIAKAN OLEH

1-NOR SURIANI BINTI MOHD ZIN (S44), BPM
2-CARLOS LINTON (S19), BPM
UNIT PERPUSTAKAAN, BPM