

**KERATAN AKHBAR-AKHBAR TEMPATAN  
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<b>Bil</b>	<b>Tajuk</b>	<b>Akhbar</b>
1.	Kelantanese breaks new ground in malaria study	New Straits Times

# Kelantanese breaks new ground in malaria study

**SUCCESS:** Breakthrough could contribute to finding vaccine for disease that kills 600,000 every year

**O**NE bite from an Anopheles mosquito can be fatal. Each year, 600,000 people succumb to malaria. Most victims are young children in Africa.

According to a World Health Organisation survey, half of all those who die from malaria are under 5 years old. Around a million people die every year from the effects of a disease that is spread by seemingly harmless mosquito bites.

An estimated half a billion people are currently infected with the disease. Over the years, there have been attempts to develop vaccines for malaria. But it has not been easy.

Unlike diseases caused by bacteria and viruses, for which vaccines are available, malaria is caused by a parasite. And parasites are more complex microbes. Developing an antiparasite vaccine has been exceedingly difficult.

There are several reasons why we still have not seen the decisive

breakthrough. At present, there are many different parasites responsible for spreading malaria, and each one of these undergoes different life cycle stages, all mutate incredibly fast, and many have already developed resistance to medications currently used to treat the disease.

Lately, some measure of early success has been reported for a newly developed malaria vaccine. Though it is still early days before the vaccine can be made available in the market, early stage clinical trials show promising results.

Researchers found the vaccine, which is being developed in the United States, effective for 12 out of the 15 patients when given in high doses. The method used is also rather unusual. It involves injecting live but weakened malaria-causing parasites directly into patients to trigger immunity.

The breakthrough came from a

US biotech company called Sanaria. What they did was to take lab-grown mosquitoes, irradiate them and extract the malaria-causing parasite under sterile conditions.

The living but weakened parasites are then counted and placed in vials, where they can then be injected directly into a patient's bloodstream.

In the early clinical trial, 57 volunteers took part. None of them had malaria before. Forty were given different doses of the vaccine, while 17 were not. All were then exposed to the malaria-carrying mosquitoes. It was found that those who were not vaccinated or were given low doses all were infected. For those given the highest dosage, only three out of 15 became infected.

Though promising, the vaccine has to be subjected to further trials. A few remaining questions have to



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A Sabah Health Ministry official checking children of Felda Sahabat 22 in Sabah for malaria. The disease affects more than a million people every year.

be answered.

One is whether the vaccine is durable over a long period of time. Two is whether the vaccine can protect against other malaria strains.

The interesting part about this new breakthrough is the contribution by a Malaysian scientist to a

significant part of the development.

She is Dr Betty KL Sim who was born and raised in Kota Baru, Kelantan. She had a first class honours degree from the University of Malaya and later a PhD from the same university.

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## Malaysians can break new frontiers in science

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She did her PhD research at the Institute for Medical Research, a renowned medical research centre in Kuala Lumpur. She did a postdoctoral fellowship in molecular biology at Harvard University. She was also a research assistant professor at Johns Hopkins University. Some at

tribute her brilliant academic career to the fact that as a Kelantanese, she had significant amount of *budu*, the famous fish sauce in her diet during her school days!

On the breakthrough, she had managed to demonstrate to fellow scientists that it is not impossible to manufacture such challenging kind of vaccine as she had done.

Through sheer passion and perseverance, she has proven her sceptics wrong. She has perfected the entire process and, in the end, emerged the inventor of many patents surrounding the process.

Such success goes to show that we do have full fledged Malaysian scientists who can break new frontiers in science. They only have to be sup-

ported with the right facilities and motivation, as well as a conducive environment for research.

Her achievement can truly count as another demonstration of *Malaysia boleh*. And her success fits very well in the new branding that Malaysia is going for which is "endless possibilities". The Academy of Sciences Malaysia salutes Dr Betty Sim.