

Device to detect breast cancer

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KUALA LUMPUR: A new device that can detect cancer cells at an early stage, in just five minutes, will spare women the agony of going through a mammogram.

It was developed by Dr M. Iqbal Saripan and his team at Universiti Putra Malaysia after seven years of research since 2002.

They have come up with a device, called the "Wire Mesh Collimator", which when installed in nuclear imaging machines is more sensitive to any changes in terms of activity in human cells.

It can detect breast cancer cells as small as 1mm.

Dr Iqbal filed for a patent in July last year and the device has won many awards, including the gold with special congratulations from the Jury of Geneva 2008; chairman award and gold by the Malaysian Nuclear Agency, and the silver award at the Malaysia Technology Expo.

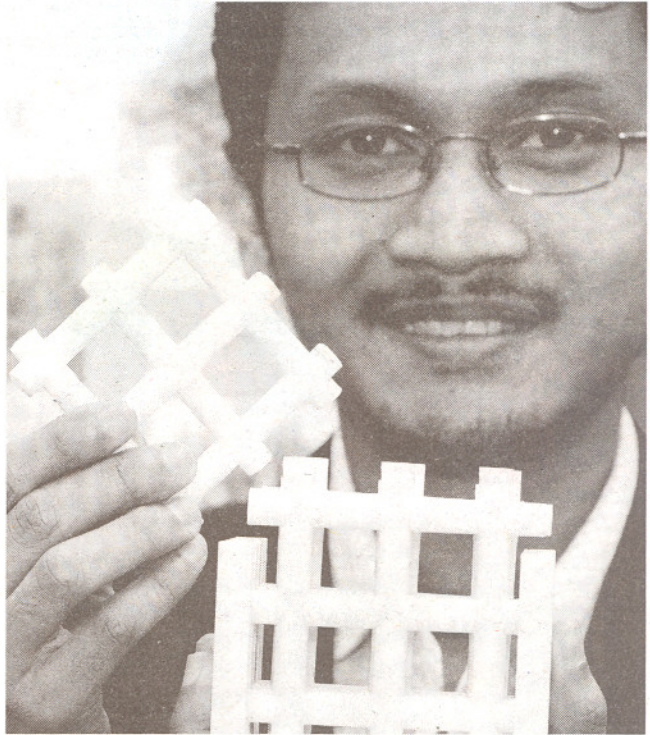
The findings by the team have been published in more than 20 research papers and presented at international conferences.

Part of the project's development cost was funded by an international grant given in August 2007.

Medical companies in Britain and China are ready to conduct clinical trials once the device has been patented.

"The device can detect cancer cells at an early stage, with minimal modification needing to be done on the current nuclear imaging machine.

"Hospitals need not buy the whole new machine, only upgrade the collimator," said Dr Iqbal at a press conference at



Dr M. Iqbal Saripan with his device which can detect breast cancer cells as small as 1mm.

UPM's Faculty of Engineering yesterday.

Only four public hospitals in the country — Kuala Lumpur Hospital, University of Malaya Medical Centre, Universiti Kebangsaan Malaysia Medical Centre and Sarawak Hospital — have nuclear imaging machines, costing about RM5.7 million each, to detect cancer cells.

These hospitals need only to modify the collimator in the machines to fit the new device.

Dr Iqbal, who is the head of embedded and artificial intelligence systems engineering research group at the faculty, said the idea came about when he was doing his PhD in biomedical engineering at the

University of Surrey in Britain in 2001.

He said a technician at the university spoke to him on the need for a lighter collimator as it was very difficult to handle the present 100kg collimator after every tests.

"I decided to invent a new structure to detect cancer cells at an early stage, that is, when still small or less active."

He worked on it with his team when he returned to UPM and came up with the new device last year which comes in two sizes — 39.5kg and 51.2kg.

It costs about RM30,000 each and women would be assured there would be no pain during the procedure.