Less painful test for diabetics

DIABETES patients’ daily testing of their blood glucose levels is set to become less painful, less costly and more accurate — thanks to an innovative product developed at Singapore’s Institute of Bioengineering and Nanotechnology (IBN).

Diabetic patients typically have to test their blood glucose level four times a day. This can be painful as two micrometres of blood have to be drawn from the fingertips.

A glucose biosensor developed by the IBN draws only 0.2 micrometre of blood and from anywhere on the body, not just from the finger.

“It’s less painful than a mosquito bite,” said Dr Gao Zhiqiang, who developed the device in less than six months.

Now in the prototype stage, the biosensor is being patented and should be commercialised in the next two years, said Professor Jackie Ying, IBN’s executive director.

The biosensor is likely to be cheaper than the current blood glucose test kit, which costs about $169 with a test strip costing between $1.20 and $1.50. IBN produces its biosensors strips at just six cents to seven cents each.

The institute, one of several under the purview of A*Star, or Agency of Science, Technology and Research, was showing off some of its R&D at an open house yesterday that saw students from Raffles Girls’ School and Raffles Institution getting hands-on experience.

— Tan Hui Leng

The biosensor only has to draw a tiny amount of blood to test the glucose level. — TODAY photo by Wong Khing Chong