SINGAPORE: Singapore researchers are working on a blood test kit that can predict the chance of a person having a heart attack in the future.

According to the Ministry of Health’s (MOH) 2009 statistics, heart diseases are one of the leading causes of death in Singapore.

An MOH spokesperson said in 2010, 1,400 Singaporeans died of a stroke.

Researchers from Nanyang Technological University (NTU) and the National University Hospital (NUH) said they hope the kit would produce more accurate readings, compared with the current tests based on weight, blood pressure and cholesterol level.

The team is building on the research from a five-year study conducted on Caucasian blood samples provided by a Dutch team from the Interuniversity Cardiology Institute of the Netherlands.

That study found 10 types of unique proteins which are commonly present in the blood of a person who had recently suffered a stroke or heart attack.

The local research team is now collecting blood and tissue samples to find the best predictive protein bio-markers for Singapore’s multi-racial population, the first of its kind in Asia.

It plans to have over 100 bio-markers within a year and then choose the best 10 predictors.

After the bio-markers in the Singapore population have been validated, the research team here is hoping this would result in the development of a key diagnostic tool that would help pinpoint the risk of heart disease in a person before it actually happens.

National University Health System’s University Surgical Cluster chair, Lee Chuen Neng, said: "Ideally, we have a machine... that you take a bit of blood, then you punch in your race, diabetes, smoking and parental history.

"The current predictive model is limited. The predictability is not that good. So with this project, we hope to know whether there is an additional way to tell us whether somebody is likely to have a heart problem in the future."

-CNA/wk