

# GENES OF MYTH AND LEGENDS

NYONYA DAWN MARIE LEE CHATS WITH PROFESSOR ROGER FOO OF THE GENOME INSTITUTE OF SINGAPORE ABOUT A GROUND-BREAKING STUDY OF PERANAKAN GENES | PHOTOS COURTESY OF ROGER FOO

**A**s a child, I was a little confused about my race in multi-racial Singapore where everyone is categorised in a racial group on their birth certs and identity cards. My father told us we were Baba, but I didn't really know what that meant. Linguistically, I became aware from a young age (in Primary One to be exact) that I wasn't quite "fully Chinese", a feeling reinforced by my consistently dismal Mandarin exam results throughout my entire school career. No one at home spoke this alien tongue, not even my grandparents on both sides, nor any of my aunts or uncles. I distinctly remember my younger brother came home from school one day and asked my mother if we were "English". (And this was in the late 1980s!)

So what exactly is a Peranakan? This is a question most of us Babas might have been asked at some point in our lives, or wondered about in moments of reflection. There is no black and white answer, but a new genetic study, the Peranakan Genome Project, hopes to blow some myths out of the water.

In the last decade, genetic ancestry testing has received wide media coverage and become increasingly popular and accessible. What could be more irresistible than uncovering hidden secrets about yourself? Not some random Facebook quiz, but a DNA test backed up by science! Genetic ancestry testing has been used to identify biological relatives, validate genealogical records, and to fill in gaps in family histories. In addition,

some genetic tests have been used in medical risk calculation, forensic investigations, and the assessment of ancestry for sociopolitical purposes.

**Dawn Marie Lee:** Given that Singapore is a multi-racial society, what made your team want to study Peranakan DNA in particular?

**Roger Foo:** There are many myths and legends surrounding the Peranakans. We felt that a study on the co-occurrence of culture and genetic mixture makes for a really inspiring piece of academic work. The suspected diversity in genetic admixture in Peranakans is specifically intriguing.

**DML:** Please tell us what the objectives of the Peranakan Genome Project are.

**RF:** First, we aim to see whether there is genetic admixture. Then if so, we would like to use it to infer history of communities. If there is anything interesting for the individual, it would be a side benefit. Our study is aimed at a population level outcome, rather than produce individual ancestral genetics studies. We would therefore not like to think of ourselves as undertaking a genetic ancestry testing project.

**DML:** What are you testing for? And what outcomes do you hope for?

**RF:** We are performing a population ancestry study, and will compare demographics to genetic history. For example, when the Chinese came to this region, what were the other non-Chinese genetics in Peranakan admixture? There will not be medical studies at this time.

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Professor Roger Foo (extreme right) and his team of researchers.